

**HEALTH AND ENVIRONMENTAL PROTECTION IN
INTERNATIONAL TRADE LAW - BRIDGING THE GAP**

Fiona G. McKenzie

Ph.D.

University of Edinburgh

2004



I hereby declare that I composed this thesis, that it is my own work and that it has not been submitted for any other degree or professional qualification.

30 June 2004

ACKNOWLEDGEMENTS

It has been a long journey of academic and personal challenges. During this journey I have had the good fortune of knowing and meeting many intelligent, creative, humorous and generous people. My thesis is dedicated to them.

I would like to thank my supervisor Alan Boyle for his invaluable support, guidance and friendship. I will fondly remember our challenging discussions in Paris, Frankfurt, London, Cambridge and Edinburgh. Adnan Amkhan for introducing me to international economic law and encouraging me to do a Ph.D. Lorand Bartels for his helpful and pertinent comments on an earlier draft of this thesis. Lorna Paterson for efficiently dealing with my endless paperwork. Nicholas Lockhart, Gabrielle Marceau, Joost Pauwelyn, Sabrina Shaw and Gretchen Stanton for providing me with a very useful insight of the World Trade Organisation. Peter Sands for facilitating my research work in Munich. The Luxembourg Ministry of Culture, Higher Education and Research for their financial support.

Finally, I would like to thank my mother Gilberte McKenzie-Even for her unconditional support, my father Stuart McKenzie, Karsten Bräuker, Caroline Boyle and all my other friends for their precious help.

ABSTRACT

Achieving a balance between free trade, protection of public health and environmental protection is essential to the goal of sustainable development. Trade policies adopted by the WTO are intended to promote an efficient allocation and use of resources that increases production and incomes. Economic growth driven by trade creates income that can be directed *inter alia* to environmental and health protection. Environmental and public health regulation, on the other hand, protect the ecological and labour resources needed to sustain economic growth and the expansion of trade.

The international trading system has a role to play in ensuring that its primary objective of trade liberalisation does not come at the expense of environmental and health concerns.

The goal of this thesis is to evaluate the efforts that have been made by the WTO to integrate environmental/health issues in the international trade system and to propose ways of achieving greater linkage between these areas by performing both a legal and economic analysis of the subject.

The various ways in which linkage occurs in the WTO are analysed, in particular, through the exceptions to the most-favoured-nation standard contained in Article XX of the General Agreement on Tariffs and Trade, the Sanitary and Phytosanitary Agreement and Technical Barriers to Trade Agreement, scientific assessments, the acceptance of eco-labelling initiatives, the interpretation of WTO rules in the light of rules of public international law, the incorporation of environmental principles and overarching norms, as well as the coherence between the WTO and multilateral environmental agreements.

The WTO's legislative arm and the Dispute Settlement Body (DSB) are both crucial in providing coherence between environmental/health and free trade goals. It is argued, however, that linkage through the legislative arm would enable WTO members to retain more control over the WTO agreements and achieve the highest degree of coherence between environmental/health protection and free trade goals despite the fact that due to the high transaction costs of clarifying existing rules or devising new ones, linkage through the interpretations given by the DSB is a less burdensome way of filling the gaps of an incomplete contract.

Although coherence between environmental/health and free trade goals can and should be increased, it is concluded that it would be unrealistic to expect that the international trading system achieve a degree of linkage that is acceptable to all WTO Members in all circumstances. In this respect, the question of whether Members should be able to maintain WTO inconsistent measures, if compensation is paid or if concessions are suspended or withdrawn is examined.

CONTENTS

CHAPTER 1: INTRODUCTION	1
CHAPTER 2: ENVIRONMENTAL/HEALTH DISPUTES INVOLVING ARTICLE XX OF THE GATT	7
A. INTRODUCTION	7
B. UNDERLYING PRINCIPLES OF THE GATT/WTO	10
I. Non-discrimination – the Rationale	10
II. Non-discrimination: Most-favoured nation and National Treatment Standard	11
III. Quantitative Restrictions	12
IV. The Interpretation of the “Like Product” Concept	13
1.) Like Product and Non-Product Related Productions and Process Standards	13
2.) Like Product and Product Related PPMs	17
C. ARTICLE XX OF THE GATT	21
I. Relation between Article XX and other Provisions of the GATT	21
II. The Exceptions under Article XX	23

1.)	Order of Findings	23
2.)	Article XX(b): "Necessary to Protect Human, Animal or Plant Life or Health"	24
a)	The policy goal of protecting "human, animal or plant life or health"	24
b)	The necessity requirement	25
c)	Economic analysis of the necessity requirement	32
3.)	Article XX(g): "Relating to the Conservation of Exhaustible Natural Resources if Such Measures are Made Effective in Conjunction with Restrictions on Domestic Production or Consumption"	39
a)	Policy goal of "conserving exhaustible natural resources"	39
b)	Measures requiring Justification under Article XX(g)	42
c)	"Relating to" and "in conjunction with restrictions on domestic production or consumption"	44
d)	Economic analysis of the "means and ends" test used under Article XX(g)	50
4.)	Analysis of the Chapeau of Article XX	53
a)	"Arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade"	53

b)	The balancing test – a variable trade-off device	75
D.	CONCLUSION	78
CHAPTER 3: WTO DISPUTES INVOLVING THE SANITARY AND PHYTOSANITARY AGREEMENT		83
A.	INTRODUCTION	83
B.	ORIGINS OF THE SPS AGREEMENT	83
C.	APPLICABILITY OF THE SPS AGREEMENT	85
I.	In General	85
II.	Application of the SPS Agreement to Measures Enacted Before 1995	91
III.	Relationship between the SPS, TBT Agreement and the GATT 1994	92
D.	OBLIGATIONS UNDER THE SPS AGREEMENT	100
I.	Harmonisation	100
1.)	Scope of Article 3 of the SPS Agreement	100
2.)	Determining the Existence of International Standards	100
3.)	Measures Conforming to International Standards	102
4.)	Measures Based on International Standards Analysis Under Article 3.1	103

5.)	Analysis of Article 3.3 of the SPS Agreement	110
II.	Obligations under Article 2.2	111
1.)	Measures Based on Scientific Principles and Not Maintained Without Sufficient Scientific Evidence	112
a)	Relationship between Articles 2.2, 5.1 and 5.2 of the SPS Agreement	112
b)	The relationship between risk assessment and risk management	114
c)	The interpretation of a measure “based on” a risk assessment	120
	(1) Establishing the existence of a risk assessment	120
	(2) Is there a “minimum procedural requirement” in Article 5.1?	129
	(3) The substantive requirement of Article 5.1 – rational relationship between the measure and the risk assessment	132
	(4) Does the precautionary principle override Article 5.1?	145
d)	Article 5.7 of the SPS Agreement as an exception to the requirement that measures must be based on scientific principles and sufficient scientific evidence	152
	(1) The requirements of Article 5.7	153

(a)	“relevant scientific information is insufficient”	153
(b)	“on the basis of available pertinent information”	155
(c)	“seek to obtain the additional information necessary for a more objective assessment of risk”	156
(d)	“review the [SPS] measure accordingly within a reasonable period of time”	157
(2)	How effectively does Article 5.7 deal with scientific uncertainties?	158
2.)	Measures Applied Only to the Extent Necessary	163
a)	Relationship between Article 2.2 and 5.6	163
b)	“Measures not more trade restrictive than required”	167
III.	Obligations under Article 2.3	178
1.)	Relationship between Article 2.3 and 5.5	179
2.)	Analysis under Article 5.5	181
a)	Different levels of protection in different situations	181
(1)	Different situations	181
(2)	Different levels of protection	184

b)	Arbitrary or unjustifiable differences in levels of protection	186
c)	Differences resulting in "discrimination or a disguised restriction on international trade"	195
IV.	Implications of the Substantive Issues	207
E.	PANEL'S SELECTION AND USE OF SCIENTIFIC EXPERTS	211
F.	CONCLUSION	215
CHAPTER 4: THE AGREEMENT ON TECHNICAL BARRIERS TO TRADE AND ENVIRONMENTAL/HEALTH REGULATIONS		220
A.	INTRODUCTION	220
B.	SCOPE OF APPLICATION OF THE TBT AGREEMENT	221
I.	Technical Product Requirements	221
II.	Temporal Application of the TBT Agreement	230
III.	Relationship with GATT 1994	231
C.	OBLIGATIONS UNDER THE TBT AGREEMENT	233
I.	Non-discrimination	233
II.	Necessity Test of the TBT Agreement	235
III.	Scientific Justification and Precautionary Action	237

IV.	The Use of International Standards	238
1.)	“Relevant international standards”	238
2.)	“Ineffective” or “inappropriate” International Standards	242
3.)	Presumption of Consistency of Measures with the TBT Agreement	244
D.	CONCLUSION	245
CHAPTER 5: THE RELATIONSHIP BETWEEN THE WTO AND MEAs: THE NEED FOR COHERENCE		250
A.	INTRODUCTION	250
B.	THE RELATIONSHIP BETWEEN THE WTO AND OTHER SUB-SYSTEMS OF INTERNATIONAL LAW, PRINCIPLES AND RULES OF GENERAL INTERNATIONAL LAW	253
I.	Trade Measures Taken Pursuant to an MEA	253
1.)	Situation Where Both Parties to a Dispute are Both Members of the WTO, but Only One is Party to the MEA	256
2.)	Situation Where Both Parties are Members of an MEA and the WTO	257
a)	<i>Lex posterior, lex specialis</i>	257
b)	<i>Inter se</i> modifications	258

3.)	Limitations of the Rules Concerning Conflicting Treaty Provisions	265
II.	To What Extent can the DSB Draw on Other Rules of International Law to Interpret WTO Obligations?	267
1.)	The WTO as Part of the Broader Corpus of Public International Law	267
2.)	Non-WTO Rules that are Incorporated in the WTO Agreements	269
3.)	Non-WTO Rules that are Not Incorporated in the WTO Agreements	273
a)	Rules on the Interpretation of Treaties - The 1969 Vienna Convention on the Law of the Treaties	273
b)	WTO obligations and obligations arising in MEAs	282
c)	Using Article 31(3)(c) to interpret WTO provisions	286
III.	The Appropriate Forum for the Settlement of Disputes	288
IV.	Compulsory versus Non-compulsory Adjudication	303
C.	SOLUTIONS AVAILABLE TO WTO MEMBERS IN FURTHER INTEGRATING MEA RULES IN THE WTO	311
I.	Amendment of Article XX of the GATT 1994	311
II.	Establishment of a New "Understanding" on MEAs	313
III.	Granting of Waivers for MEAs	315

IV.	Formal Interpretations by the General Council	317
V.	Encouraging Dispute Avoidance	319
VI.	DSU Consultation Obligations	320
VII.	CTE Involvement	322
VIII.	Reference to the ICJ	323
D.	CONCLUSION	326
	CHAPTER 6: CONCLUSION	332
	BIBLIOGRAPHY	348

CHAPTER 1

INTRODUCTION

Achieving a balance between free trade, protection of public health and environmental protection is essential to the goal of sustainable development.¹ Trade policies adopted by the WTO are intended to promote an efficient allocation and use of resources that increases production and income. Economic growth driven by trade² creates income that can be directed *inter alia* to environmental and health protection.³ Environmental and public health regulation, on the other hand, protect the ecological and human resources⁴ needed to sustain economic growth and the expansion of trade.⁵

-
- ¹ The Brundtland Report defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. WCED, *Our Common Future*, (1987), p43. See Agenda 21 of the 1992 UNCED UN Doc. A/CONF. 151/4 (1992); Report of the World Summit on Sustainable Development, Johannesburg, 26 August- 4 September (2002), UN Document, A. CONF.199/20; 1994 Marrakesh Agreement Establishing the World Trade Organisation, (in force 1 January 1995), Preamble (hereinafter WTO Agreement).
 - ² Trade and direct foreign investment are engines of growth as they confer large efficiency benefits by fostering the international division of labour and by disseminating the gains from technological progress. See J.Berdell, *International Trade and Economic Growth in Open Economics: The Classical Dynamics of Hume, Smith, Ricardo and Malthus* (2002) and K.Choi, *et al, Economic Growth and International Trade* (2000).
 - ³ For example, empirical evidence suggests that pollution increases at the early stages of development but decreases after a certain income level has been reached. This observation is known as the Environmental Kuznets Curve. Empirical evidence is nonetheless mixed as the EKC hypothesis seems to hold for local pollution problems such as urban air pollution, but not for global pollution such as carbon dioxide emissions. E. Barbier, “Introduction to the Environmental Kuznets Curve Special Issue”, 2 *Environment and Development Economics* 4 (1997), pp369-381. See H. Nordström and S. Vaughan, “Trade and Environment”, WTO Special Studies, www.wto.org, pp47-58.
 - ⁴ The demographical consequences of the AIDS epidemic in Africa impacts present economic growth and could cripple future economic growth.
 - ⁵ Agenda 21 adopted at the UN Conference on Environment and Development in 1992, UN Doc. A/CONF. 151/4 (1992), § 2.19.

The international trading system has a role to play in ensuring that its primary objective of liberalisation of world trade does not come at the expense of environmental and health concerns. Promoting co-ordination between these issues is an important objective of WTO law and policy.

The World Trade Organisation (WTO) Members have committed themselves to the goal of sustainable development. The Preamble to the WTO Agreement states that it aims at an optimal use of resources, while seeking to protect and preserve the environment in a manner consistent with the respective needs and concerns of countries at different levels of economic development. The Doha Ministerial Declaration reaffirms the commitment to the goal of sustainable development.⁶

However, international trade rules contained in the WTO covered agreements and/or interpretations of them have often been considered to show a bias in favour of economic concerns over environmental/health regulation. This point of view has been substantiated by the fact that in all but one dispute⁷ involving trade related environmental/health measures, WTO DSB has found these regulations to be inconsistent with the obligations contained in the covered agreements of the WTO.

However, the fact that a majority of WTO decisions have ruled against national environmental/health measures is not sufficient to conclude that economic concerns override environmental and health protection. Indeed, measures that are found to be inconsistent with WTO regulations might be attempts on the part of national governments to disguise protectionist behaviour, or to impose measures that lack scientific basis, or that are unnecessarily restrictive in achieving a desired environmental or health protection objective. In addition, although, the WTO has a role in balancing environmental/health issues, this does not mean that it should open

⁶ WTO, Ministerial Declaration, Adopted on 14 November 2001, WT/MIN(01)/DEC/1, §6: "We strongly reaffirm our commitment to the objective of sustainable development, as stated in the Preamble to the Marrakesh Agreement. We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive.

⁷ See *European Communities - Measures Affecting Asbestos and Asbestos-Containing Products*, Appellate Body Report, 12 March 2001, WT/DS135/AB/R discussed in Chapter 2.

the door for protectionist measures aimed at restricting trade rather than protecting the environment or health.

However, it is undeniable that the WTO is primarily focused on trade and not on the environment or health issues. This can be understood when considering the origins of the GATT, which was established after a long period of international conflict and economic crisis. The Bretton Woods system, which GATT was part of, was largely built on the neo-classical economic theory that did not afford much attention to environmental concerns. The theory assumes that the market maximises social welfare and generally produces socially desirable levels of consumption of natural resources.

Free trade is an optimal policy choice when the market is successful.⁸ Indeed, when market prices reflect “true” social costs, then Adam Smith's⁹ invisible hand can be trusted to guide us to an efficient allocation of resources and free trade is optimal way to choose trade (and associated domestic production).¹⁰ However, if the market fails,¹¹ then the invisible hand may point in the wrong direction: free trade cannot then be asserted to be the best policy,¹² as in this case free trade immiserises. Therefore, where externalities are present, government intervention is needed to correct these distortions.

⁸ A market is successful when a set of competitive markets generates an efficient allocation of resources between and within economies.

⁹ Adam Smith invented the case for free trade in *The Wealth of Nations*. A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (1776) E. Cannon (ed.), London (1904).

¹⁰ J. Bhagwati, “Free Trade: What Now?”, Keynote Address delivered at the University of St. Gallen, Switzerland, International Management Symposium, 25 May 1998.

¹¹ Market forces of supply and demand do not provide an optimal outcome for society as a whole. Market failures occur due to monopoly power, asymmetry of information, government distortions, barriers to public participation, barriers to collective organisation, incomplete markets due to lack of property rights, the free-rider problem with public goods, when producers and consumers do not have to bear the full cost of their actions. See N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In theory and practice*, (1997), pp22-57. R.W. Broadway and N. Bruce, *Welfare Economics*, (1984), pp103-129.

¹² See N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In Theory and Practice*, (1997), pp22-57. R.W. Broadway and N. Bruce, *Welfare Economics*, (1984), pp103-129.

Trade related environmental/health measures are considered only as second-best policies in protecting environmental/health concerns where trade itself is not the cause of environmental degradation or the health problem, as they can only partially correct market failures. Therefore, ideally, environmental/health problems should be corrected by proper environmental/health policies that correct the problem at the source. If market failures are corrected through suitable policy intervention, then free trade can again lead to the best gains from trade. If the environmental problem or health problem is caused or exacerbated by trade, such as is the case with trade in endangered species, transport of hazardous waste, or the spread of disease through trade then trade related environmental or health measures are considered as suitable from an economic perspective.

However, even if trade is not the cause of an environmental or health problem, there are political obstacles to sound environmental policy and there can be no doubt that trade related environmental/health measures are persuasive instruments in exerting power internationally in order to protect the environment and health where optimal environmental/health policies are not agreed upon. Game theory teaches that there are strong incentives for countries to free-ride on efforts to co-operate on environmental/health issues and that even where agreement is reached, agreement may not be stable.¹³ Indeed, when a good is “non-excludable” the free rider problem and the associated prisoner’s dilemma occur as market participants act to maximise their own interest. These actions usually do not result in a Pareto optimal outcome for society as a whole.¹⁴

In addition, economic efficiency is only an approximate measure of total utility and total utility is only a very partial description of what people value. This suggests that even if a policy is economically efficient, it does not necessarily follow that we should be in favour of it.

¹³ Prisoner’s Dilemma results in non-cooperative outcome. See H. Demsetz, “Toward a Theory of Property Rights”, *American Economic Review* (1967). See also S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfman and N.S. Dorfman (eds.), *Economics of the Environment*, 3rd ed., (1993), pp446-448. See Chapter 2.

As long as “optimal” policies are not in place, trade related environmental/health measures will remain a reality. Although, these measures are second-best policies where the environmental/health problem is not a direct consequence of trade, they can be welfare improving. Indeed, by imposing a second distortion, these measures to some extent correct the inefficiencies of the initial distortion that caused the market to fail.¹⁵ In other words, trade related environmental/health measures can lead to an outcome that is more efficient than if the market failure were not corrected at all.

The goal of this thesis is to evaluate the efforts that have been made by the WTO to promote co-ordination between free trade and environmental/health issues and to propose ways to increase co-ordination, over and above what the international trading system provides for. The treatment of these issues can be critical both to the economic prosperity and to the environment, health and life of populations of countries and it is, therefore, imperative that a predictable and balanced approach be promoted.

The numerous ways in which linkage can occur in the international trade system are examined. In particular, linkage occurring through the exceptions to the unconditional MFN standard, a standard that serves to prohibit the linking of trade to external issues.¹⁶ Both a legal analysis and an economic analysis of the rules contained in the GATT 1994, SPS Agreement and TBT Agreement as well as the interpretations given to these rules will be performed. Attention will also be given to linkage through the interpretation of WTO rules in the light of rules of public international law, the incorporation of environmental principles or norms into the trade agreement such as the precautionary principle as well as the incorporation of new overarching norms such as sustainable development, and through increased

¹⁴ R.W. Broadway and N. Bruce, *Welfare Economics*, (1984), p130. See Chapter 2.

¹⁵ On the theory of the “second best”, see J.E. Meade, “External Economies and Diseconomies in a Competitive Situation”, *Economic Journal* (1952), pp54-67, R.W. Broadway and N. Bruce, *Welfare Economics*, (1984), pp103-136. See also R.G. Harris, *The General Theory of the Second Best after Twenty-Five Years*, (1981).

¹⁶ D.W. Leebron, “Linkages”, 96 *AJIL* 5 (2002), p18.

coherence between WTO and multilateral environmental agreements. In addition, linkage through the WTO legislative arm, for example, through the amendment of rules or authoritative interpretations by WTO Members and through the WTO's secretariat and committees will also be examined.

CHAPTER 2

ENVIRONMENTAL/HEALTH DISPUTES INVOLVING

ARTICLE XX OF THE GATT

A. INTRODUCTION

Trade-related environmental/health measures usually decrease the economic benefits from international trade by causing trade diversion costs. WTO Members imposing these measures generally aim to maximise their *domestic* welfare not world welfare.¹ Since maximising domestic welfare does not always lead to world welfare maximisation, measures can be sub-optimal from a world welfare perspective. Indeed, countries calculating the efficiency of trade-related environmental/health measures from a domestic perspective do not usually take into account the effect of such measures on exporting countries.² Trade-related environmental/health measures tend to maximise *domestic* environmental benefits, minimise *domestic* trade diversion costs and administrative costs. Using domestic welfare maximisation criteria, it would theoretically be possible that most or all of the environmental/health benefits are enjoyed by the country imposing this kind of measure and that most or all of the trade diversion costs are borne by exporting countries.

It could be argued, however, as Coase suggests, that the incentive to externalise the costs of trade-related environmental/health measures to exporters does not necessarily mean that the use of these measures will be sub-optimal in terms of world

¹ K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

² *Ibidem*.

welfare maximisation, if the importing country and exporting country or countries bargain. If the net costs of a trade-related environmental/health measure incurred by the exporting countries are greater than the net benefits of this measure to the importing country, then the exporting countries have an incentive to pay the importing country to remove its measure, an amount that does not exceed the difference between the net costs to the exporting countries and the net benefit to the importing country.³

However, this type of bargaining would probably only be successful if the exporting countries co-operate with each other as the net costs of a trade-related environmental/health measure to *individual* exporting countries may be less than the net benefits of the importing country, especially where net costs are evenly spread over exporting countries.⁴ Therefore, the chances of bargaining decrease as the number of exporting countries incurring net costs increases.⁵

However, even if only one exporting country would be involved in the bargaining process, there may also be a problem in reaching a bargain due to asymmetric information over the net benefits that the importing country enjoys.⁶ Indeed, if an exporting country would agree to pay an amount that does not exceed the net benefits to importing country in order to have the trade-related environmental/health measure removed, but erroneously estimates the net benefits and makes an offer on this basis, then agreement may not be reached with the importing country. Indeed, an exporting country will have a tendency to underestimate the net benefits, since to

³ R. Coase, "The Problem of Social Cost", 3 *Journal of Law and Economics* 1 (1960). K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

⁴ See K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

⁵ *Ibidem*.

⁶ See R. Gibbons, *Game Theory for Applied Economists*, Princeton, (1992), pp218-24 on bargaining with finite horizon and asymmetric information. See also K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

overestimate them would imply that their welfare and possibly world welfare would be reduced even further. However, it is extremely unlikely that the importing country would accept less than the value of the domestic net benefits of the measure.

Finally, another obstacle to bargaining is that the exporting countries suffering net costs as a result of the trade-related environmental/health measure may doubt whether the measure is in fact consistent with WTO commitments and would, therefore, prefer to bring a case to the WTO Dispute Settlement Body (DSB), to determine the allocation of property rights.⁷

The fact that bargaining may not be successful implies that there is a need for a fair trade-off mechanism⁸ that will determine the appropriateness of trade-related environmental/health measures.

The purpose of this chapter is to examine the GATT as a trade-off device. The analysis examines the cornerstone principle of non-discrimination that is found in two forms in the GATT 1994, the most-favoured-nation standard and the national treatment standard, and also evaluates Article XX of the GATT 1994, which constitutes a conditional exception to most other substantive obligations of the GATT 1994 for the use of trade-related environmental/health measures. In order to evaluate these provisions as trade-off devices, it is essential to examine the WTO panel and Appellate Body decisions that have interpreted these provisions with respect to trade-related environmental/health measures. The analysis will determine how WTO practice has evolved and will consider whether and what changes should be made to the WTO system to increase linkage between trade and environmental/health issues.

⁷ K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org. See also J.P. Trachtman, "The Domain of the WTO Dispute Resolution", 40 *Harv. ILJ* 2 (1999), pp354-355.

⁸ See J.P. Trachtman, "The Domain of the WTO Dispute Resolution", 40 *Harv. ILJ* 2 (1999), pp354-355.

B. UNDERLYING PRINCIPLES OF THE GATT

I. Non-discrimination – The Rationale

GATT 1994 aims for the elimination of tariff and non-tariff barriers in order to liberalise trade. A major tool in liberalising trade is the principle of non-discrimination.

The normative economic analysis of trade discrimination is based on welfare economics and suggests that discriminatory policies produce greater deadweight losses⁹ than non-discriminatory policies.¹⁰

Indeed, trade discrimination produces "trade diversion" by preventing those nations that have a comparative advantage¹¹ over less efficient nations from trading their goods. This also implies that countries do not satisfy their import needs from the most efficient sources of supply.¹²

As WTO officials have stated, non-discrimination is the basis of secure and predictable market access and undistorted competition: it guarantees consumer choice and it gives producers access to the full range of market opportunities.¹³

In addition, non-discrimination rules spread security by guarding against protectionism and market fragmentation caused by unjustifiable distinctions between products and their source of origin.¹⁴ This promotes multilateral co-operation,

⁹ A deadweight loss is a reduction in net economic benefits resulting from an inefficient allocation of resources.

¹⁰ See A.O. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* (1998).

¹¹ See Chapter 1.

¹² J. Jackson, W. Davey, A. Sykes, Jr, *Legal Problems of International Economic Relations - Cases, Materials and Text*, 3rd ed., (1995), p436.

¹³ Doha WTO Ministerial 2001: Briefing Notes: Trade and the Environment Committee and Doha preparations. http://www.wto.org/english/thewto_e/minist_e/min01_e/brief_e/brief11_e.htm

¹⁴ OECD, COM/TD/ENV(92)92, Restricted 6 Nov. 1992.

achieves the sovereign equality of nations and prevents an undue use of economic power in international economic negotiations thereby reducing international tensions.

As mentioned above, the principle of non-discrimination is found in two forms in the GATT 1994: the most-favoured-nation standard and the national treatment standard, both of which will be analysed in the next section.

II. Non-discrimination: Most-favoured-nation and National Treatment Standard

Article I of the GATT 1994 includes a most-favoured-nation (MFN) clause which provides that whenever a nation extends a trade "advantage, favour, privilege or immunity" to another nation, in respect of "like products", it is to immediately and unconditionally extend that advantage to all other trading partners. This MFN obligation expressly applies to customs duties and charges related to imports and exports; the method of levying such duties and charges; all rules and formalities connected with importation and exportation; internal taxes and other charges, internal laws and regulations affecting the internal sale of imported goods, their offering for sale, purchase, transportation, distribution or use.¹⁵

Article III of the GATT 1994 includes a national treatment clause that requires that imports from any WTO Member should not be treated less favourably, with respect to internal taxes and other internal charges, laws, regulations and requirements, than domestically produced "like products" and that the measures covered by the article should not be applied either to domestic or imported products so as to "afford protection to domestic production".¹⁶

¹⁵ Article I:1, III:2,4.

¹⁶ Article III:1.

The measures covered by Article III:1 also apply even if they are enforced against imports at the time or point of importation of the importing country.¹⁷

Under Article III:2 which applies to taxes states that imported products "shall not be subject, directly or indirectly to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products".

Article III:4, which applies to regulations, requires that imported products receive treatment "no less favourable than that accorded to like products of national origin in respect of laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use". The article also prohibits domestic content requirements and provides that contracting parties may not otherwise apply internal quantitative regulations so as to protect domestic production.¹⁸

III. Quantitative Restrictions

The GATT 1994, apart from including provisions on non-discrimination, also guards against quantitative restrictions on imported and exported products, reflecting its underlying objective of maintaining the free flow of goods between parties.

Article XI provides that "no prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses 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 or on the

¹⁷ Article III, Note Ad: "Any internal tax or other internal charge, or any law, regulation or requirement of the kind referred to in [Article III:1] which applies to an imported product and the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in [Article III:1], and is accordingly subject to the provisions of Article III".

¹⁸ Article III:5.

exportation or sale for export of any product destined for the territory of any other contracting party".¹⁹

Unlike Article I and III, Article XI does not relate to "like products" but to *all* products. It should be noted, though, that trade-related environmental/health measures that are consistent with the non-discrimination requirements are not subject to the otherwise applicable obligation contained in Article XI.

In the next section, consideration will be given to the interpretation of "like product" as the GATT's non-discrimination rules are inextricably linked to the concept of "like product".

IV. The Interpretation of the "Like Product" Concept

1.) Like Product and Non-Product Related Production and Process Standards

Article I and III of the GATT depend on the meaning given to "like product". If products are deemed to be like, then taxing or regulating them differently is discrimination implying an inconsistency with Article I and/or III.

"Like product" is not a "technical phrase in economics" and has no independent meaning in economic theory.²⁰ As Berg notes: "in trade law, its meaning is linked to the imported product to which its likeness applies."²¹

¹⁹ Article XI:1. Under Article XI:2 deviations from this rule are allowed for the relief of critical shortages and surpluses, the application of classification, grading, or marketing standards to internationally marketed commodities

²⁰ G.C. Berg, "An Economic Interpretation of "Like Product"", 30 *JWT* 2 (1996), pp195-196.

²¹ *Ibidem*, p196.

"Like product" is a variable concept.²² Indeed, "like product" has been described as an accordion that "stretches and squeezes in different places as different provisions of the WTO agreement are applied".²³ "Like product" is not defined in either Article I or III. The drafters of the GATT did not explicitly exclude non-product-related production and process methods (PPMs), which suggests that these PPMs could differentiate between products under Article I and III.²⁴ Therefore, discrimination against imports that are physically similar to domestic products but that have different production processes, that is how products are produced, constructed, gathered, grown or caught, could be permitted.²⁵

In a 1970 Working Party Report it was stated that: "the end-uses in a given market; consumers' tastes and habits, which change from country to country; the product's properties, nature and quality"²⁶ all can be considered when determining whether two products are "like" for GATT purposes.²⁷ Criteria such as "consumers' tastes and habits", and the product's "nature", strongly suggest that the way in which a product is made can be important in determining whether the good is a "like product". If consumers have a preference for environmentally caught shrimps then shrimps caught with TEDs would be an unlike product. However, the factors contained in the 1970 *Border Tax Adjustments* Report can only "assist in the task of sorting and examining the relevant evidence. They are neither a treaty-mandated nor a closed list of criteria..."²⁸

²² S. Charnovitz, "Free Trade, Fair Trade, Green Trade: Defogging the Debate", 27 *Cornell ILJ*, (1994), p477.

²³ *Japan - Taxes on Alcoholic Beverages*, Appellate Body Report, 4 October 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p20.

²⁴ See R. Howse and D. Regan, "The Product/Process Distinction – An Illusory Basis for Disciplining "Unilateralism" in Trade Policy", 11 *EJIL* (2000), p249.

²⁵ D. Esty, *Greening the GATT*, (1994), p51.

²⁶ The *Asbestos* Appellate Body found that the Panel erred when it considered that products that have the same end-use also have equivalent properties. Appellate Body Report, §111.

²⁷ Report of the Working Party on Border Tax Adjustments, adopted on 2 December 1970, BISD 18S/97, 102.

²⁸ *Asbestos* Appellate Body Report, §101. The *Asbestos* Appellate Body found that the Panel had erred when it focused only on the first of the four factors.

This issue was unfortunately not clarified in the *United States - Import Prohibitions of Certain Shrimp and Shrimp Products*²⁹ (hereinafter *Shrimps*) case, where the US imposed an import ban upon importation of certain shrimp and shrimp products³⁰ aimed at reducing the incidental capture and drowning of sea turtles by shrimp trawlers. Indeed, the US did not argue that shrimps caught with sea turtles were unlike shrimps caught with environmentally friendly techniques and the Appellate Body did not deal with the issue of consistency of the measure with the non-discrimination standards as it made a finding under Article XI. The fact that the Appellate Body did not examine this issue implies that it cannot be excluded that future WTO panels and the Appellate Body could differentiate between products on the basis of their non-product related PPMs.

The question that arises is whether the regulation of non-product related PPMs *should* be authorised.

The regulation of non-product related PPMs enables parties to resort to import restrictions to compensate for any differences existing between their own environmental/health policies and those of third countries would have a detrimental impact on trade. Subjecting imports to non-product-related PPM standards or regulations could undermine the concept of comparative advantage as the way in which products are made have an influence on production costs. The exporting country would incur higher costs and would, therefore, be less competitive than before.³¹ In addition, environmental damage caused by non-product-related PPMs is not transmitted by the product itself and, therefore, it is far more likely that the production externalities are felt in the producing country rather than in the importing

²⁹ *United States - Import Prohibitions of Certain Shrimp and Shrimp Products*, Panel Report, 15 May 1998, WT/DS58/R and Appellate Body Report, 12 October 1998, WT/DS58/AB/R.

³⁰ The import ban was imposed pursuant to Section 609 of the US Public Law 101-162. See *Shrimps*, Panel Report, §7.3.

³¹ Nevertheless, there is at least one case under Article XX where GATT/WTO authorises trade restrictions for reasons relating to the manner in which goods are produced: the prison labour exception of Article XX(e).

country that consumes the product. Therefore, the externality occurs regardless of whether or not the goods are traded.

On the other hand, it can also be argued that the WTO enables a country to gain competitive advantage through low non-product-related PPM standards. This advantage could be treated as an industrial subsidy and subject to trade rules on countervailing measures. However, this would lead to a proliferation of disputes on the appropriateness of national environmental regulations that may not be desirable either for trade or the environment.

In addition, non-product-related PPMs tend to represent the different values and preferences of countries. Therefore, non-product PPMs are not necessarily politically feasible because they interfere with a country's sovereign right to develop its own policies within its jurisdiction. Imposing non-product-related PPM standards extra-jurisdictionally on trading partners could potentially undermine the balance of rights and obligations of countries under the WTO agreements.

Non-product-related PPMs also vary greatly from one country to another depending on differences in assimilative or absorptive capacities and in national endowments. In other words, what might be a suitable environmental regulation for one country may not be for another. However, this argument also has its limits. A country may have an environment that has greater assimilative capacities than another, however, this may not always be the case in the absence of environmental regulation. Therefore, relying on greater absorptive capacities may be short-sighted. In addition, nothing proves that, for example, pollution only affects the country with the greater assimilative capacities due to the often transboundary effects of pollutive activities.

Therefore, due to the ecological interdependence of the world it is necessary to regulate non-product-related PPMs as the environmental consequences of non-product-related PPMs encompass for example transboundary pollution, loss of migratory species, depletion of the ozone layer and climate change.

With the increased interest for the concept of sustainable development, environmentalists have argued that the way in which a product is produced is an essential part of its characteristics as it is very often the production as opposed to the finished product that is harmful to the environment. The artificial distinction between product-related PPMs and non-product-related PPMs does not take into account that the production of a product could be more environmentally damaging than the consumption of that product. An example of this is when chlorofluorocarbons (CFCs) are used during the production process. Although CFCs are being released into the atmosphere causing ozone layer depletion, no trace of CFCs can be detected in the product that is for sale. Equally, shrimps may be caught in such a way that turtles are killed but dead turtles are not part of the shrimps that are sold on the market.

In order to increase linkage between trade and environmental/health issues the position with respect to non-product related PPMs should be reviewed, although the *Shrimps* case has developed a limited way of including non-product related PPMs under Article XX.³² However, if the spectrum of like products under Article 2.1 of the TBT Agreement mirrors that of Article III:4 of the GATT 1994, and if the TBT Agreement regulates non-product related PPMs, these PPMs would have to be considered as a factor in distinguishing between products as the TBT Agreement does not contain an exemption from non-discrimination requirements as will be examined in more detail in Chapter 4.³³

2.) Like Product and Product Related PPMs

The WTO DSB has recognised that goods can be differentiated on the basis of product-related PPMs. This is not surprising as product-related PPMs are part of the product and are, therefore, likely to cause or threaten to cause environmental damage

³² S. Charnovitz, "The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality", 27 *Yale JIL* (2002), p63. See also M. Matsushita, T.J. Schoenbaum and P.C. Mavroidis, *The World Trade Organisation – Law, Practice, and Policy*, Oxford, (2003).

³³ See Chapter 4.

in the importing country where the product is consumed and disposed of. Therefore, importing countries could demand that, for example, goods be biodegradable, packaging be recycled or cars be equipped with catalytic converters.³⁴

In the *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products* case (hereinafter *Asbestos* case)³⁵, which concerned a French decree³⁶ that prohibited the manufacture, sale, export and import and use of asbestos fibres, in order to protect the public from health risks associated with asbestos and asbestos containing products, demonstrated that health factors could be taken into account in determining whether products are not "like".

The Appellate Body reversed the Panel's finding that the French decree violated Article III:4 since chrysotile asbestos and the other products³⁷ were like products. The Appellate Body held that health risks were relevant in evaluating whether products are like products and that the evidence showed that chrysotile asbestos was more toxic than the substitute products.

The Appellate Body found that the presence of asbestos in a product did imply that the physical properties of this product were different and that "evidence relating to the health risks associated with a product may be pertinent in an examination of 'likeness'".³⁸

The Appellate Body's decision is a welcome development from an environmental perspective. Although, the measure could be justified under Article XX, this finding is particularly significant in the context of the TBT Agreement because as was noted in section B.IV.2. there is no exception to the non-discrimination requirements.³⁹

³⁴ C. Stevens, "Trade and the Environment: The PPMs Debate", in *Sustainable Development and International Law*, (ed.) W. Lang, (1995) at p15.

³⁵ WT/DS135/AB/R, adopted 5 April 2001.

³⁶ No. 96-1133. Entered into force on 1 January 1997.

³⁷ Such as polyvinyl alcohol, cellulose and glass fibres.

³⁸ *Asbestos* Appellate Body Report, §113 and 114.

³⁹ See Chapter 4.

The interpretation of Article III:4 "implies a less frequent recourse to Article XX(b)" but "does not deprive the exception in Article XX(b) of *effet utile*."⁴⁰ Indeed, a measure that aims to protect health from risks that are not product-related, would possibly not be found consistent with the non-discrimination requirements and would, therefore, need to be justified under Article XX.

The *Asbestos* Appellate Body examined the term "like products" by looking at the term in the context of Article III as a whole⁴¹ and noted that the principle expressed in Article III:1 that protectionism should be avoided by ensuring the equality of competitive positions was relevant to both provisions.⁴² Therefore, the Appellate Body found that determining whether two products were "like products" under Article III:4 is, "fundamentally, a determination about the nature and extent of a competitive relationship between and among products."⁴³

As Trachtman points out, however, the focus on competitive relationships would normally suggest that regulation is not desirable "as regulation is necessarily an intervention into the ordinary competitive relations in the market; that is, the economic theory of regulation suggests that the reason to have regulation of products containing asbestos is because the market itself would not ordinarily differentiate sufficiently between products that contain asbestos and those that do not. That is, regulation is usually needed where consumers do not distinguish between safe and unsafe products, and therefore safety is not usually a marketplace factor in cases where there is a need for regulation."⁴⁴

⁴⁰ *Ibidem*, §115.

⁴¹ The Appellate Body considered that the meaning of "like product" is different in Article III:4 than in Article III:2 and that the scope of "like products" under Article III:4 was broader than in Article III:2. Appellate Body Report, §96.

⁴² See *Asbestos* Appellate Body Report, §97, quoting *Japan - Alcoholic Beverages*, Appellate Body Reports, 4 October 1996, WT/DS8, 10, 11/AB/R. See J. Trachtman, "Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products", <http://www.ejil.org/journal/surveys.html>, p3.

⁴³ *Asbestos* Appellate Body Report, §99.

⁴⁴ See J. Trachtman, "Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products" <http://www.ejil.org/journal/surveys.html>, p3.

The *Asbestos* Appellate Body possibly realised that this interpretation would impart an overly broad scope for Article III:4 and, therefore, also stated that under Article III:4:

*"A complaining Member must still establish that the measure accords to the group of 'like' imported products 'less favourable treatment' than it accords to the group of 'like' domestic products. The term 'less favourable treatment' expresses the general principle, in Article III:1, that internal regulations 'should not be applied . . . so as to afford protection to domestic production.'"*⁴⁵

In other words, like products must be treated differently and foreign like products as a group must be treated differently from, and less favourably than, domestic like products in order for there to be a violation of Article III:4. Therefore, the focus in determining whether there is a violation in Article III:4 is whether it is the fact that products are foreign that leads to different treatment.⁴⁶ The test would not require discriminatory intent but only a finding of differential outcomes in order to determine the inconsistency of a measure with the non-discrimination requirements.⁴⁷ From an environmental perspective, however, an examination of the discriminatory intent would be preferable, as this would increase the chances of compliance with the non-discrimination requirements.

The next section will focus on the exception to the non-discrimination and quantitative restrictions contained in Article XX of the GATT 1994.

⁴⁵ *Asbestos* Appellate Body Report, §100.

⁴⁶ See J. Trachtman, "Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products", <http://www.ejil.org/journal/surveys.html>, p3.

⁴⁷ In the *Japan - Taxes on Alcoholic Beverages* case, the Appellate Body stated that "the broad and fundamental purpose of Article III is to avoid protectionism in the application of international tax and regulatory measures" and that "it does not matter that there may not have been any desire to engage in protectionism in the minds of the legislators or the regulators who imposed the measure. It is irrelevant that protectionism was not an intended objective if the particular tax measure in question is nevertheless, to echo Article III:1, applied to imported or domestic products so as to afford protection to domestic production. This is an issue of how the measure in question is applied." WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, 1 November 1996, pp16 and 28.

C. ARTICLE XX OF THE GATT 1994

I. Relation between Article XX and other Provisions of GATT 1994⁴⁸

Article XX is a limited and conditional exception from most other obligations of the GATT 1994⁴⁹ including the non-discrimination standards and the prohibition on quantitative restrictions obligation discussed in the previous sections. As opposed to the positive obligations of the GATT, Article XX does not establish obligations in itself.⁵⁰ Therefore, Article XX is only examined by the panels if it has expressly been invoked by a party to the dispute.⁵¹

Article XX provides that "[s]ubject 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"⁵² that are "necessary" for the protection of "human, animal or plant life or health"⁵³ or that relate "to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption".⁵⁴

⁴⁸ For discussion on the relationship between Article XX and the SPS Agreement refer to Chapter 3, section C.III. For discussion on the relationship between Article XX and the TBT Agreement refer to Chapter 4, section B.III.

⁴⁹ See for example *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, Appellate Body Report, 12 October 1998, WT/DS58/AB/R, §165.

⁵⁰ *United States - Section 337 of the Tariff Act of 1930*, adopted on 7 November 1989, BISD 36S/345, §5.9 and *Tuna-Dolphin I*, §5.22.

⁵¹ *United States - Imports of Sugar from Nicaragua*, adopted on 13 March 1984, BISD 31S/67, §4.4 states that: "the United States had not invoked any of the exceptions provided for in the General Agreement permitting discriminatory quantitative restrictions contrary to Article XIII. The Panel therefore did not examine whether the reduction in Nicaragua's quota could be justified under any such provision". See also *EEC - Regulation on Imports of Parts and Components*, adopted on 16 May 1990, BISD 37S/132, §5.11.

⁵² Article XX, Preamble.

⁵³ Article XX(b).

⁵⁴ Article XX(g).

In the *United States - Standards for Reformulated and Conventional Gasoline*⁵⁵ Appellate Body Report (hereinafter *Gasoline Appellate Body*) it was stated that:

*"the exceptions listed in Article XX ... relate to all of the obligations under the General Agreement: the national treatment obligation and the most-favoured-nation obligation, of course, but others as well. Effect is more easily given to the words "nothing in this Agreement", and Article XX as a whole including its chapeau more easily integrated into the remainder of the General Agreement, if the chapeau is taken to mean that the standards it sets forth are applicable to all of the situations in which an allegation of a violation of a substantive obligation has been made and one of the exceptions contained in Article XX has in turn been claimed".*⁵⁶

However, in the *Asbestos* case, both the Panel and Appellate Body found that Article XXIII:1(b) which refers to nullification or impairment does not only apply to measures that do not otherwise fall under the provisions of GATT 1994.⁵⁷ The Appellate Body held that a claim under Article XXIII:1(b) could under exceptional circumstances succeed despite the fact that a measure does not otherwise conflict with other GATT obligations.⁵⁸ Therefore, the value of Article XX is considerably reduced.⁵⁹

⁵⁵ *United States - Standards for Reformulated and Conventional Gasoline*, Appellate Body Report, adopted 29 April 1996, WT/DS2/AB/R.

⁵⁶ *Gasoline*, Appellate Body Report, p24.

⁵⁷ *Asbestos* Panel Report, §8.255 and *Asbestos* Appellate Body Report, §185.

⁵⁸ *Asbestos* Appellate Body Report, §187. "Members negotiate the rules that they agree to follow and only exceptionally would expect to be challenged for actions not in contravention of those rules." Quoting *Japan - Measures Affecting Consumer Photographic Film and Paper*, Panel Report, 22 April 1998, WT/DS44/R, §10.36. See J. Trachtman, "Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products", <http://www.ejil.org/journal/surveys.html>, p5.

⁵⁹ See J. Trachtman, "Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products", <http://www.ejil.org/journal/surveys.html>, p6.

II. The Exceptions under Article XX

1.) Order of Findings

The first WTO panel to address an environmental issue under Article XX of the GATT 1994, the *Gasoline* Panel, made findings under the particular exception contained in Article XX(g) before considering whether the measure was compatible with the preamble of Article XX. However, in the *Shrimps* case, the Panel first examined whether the measures complied with the *chapeau* of Article XX.

The Appellate Body in the *Shrimps* case⁶⁰, unlike the Panel, felt that it was essential to first consider under which particular exception the measure would have to be justified and if it did comply with the requirements of the particular exception. The reason was that the Appellate Body believed that the standards set by the *chapeau* of Article XX vary with the type of measures under examination. The Appellate Body stated that the standard applied to protect public morals may be different from the standard relating to the products of prison labour.⁶¹

The interpretation of the Appellate Body is not convincing especially if one considers that no explanation was given for the fact that a different standard should apply to different exceptions contained in Article XX.⁶² Although, different factors will be taken into account in determining the compatibility of different measures with the *chapeau* of Article XX, this does not mean that the standard of, for example, arbitrary or unjustifiable discrimination should vary with the type of measure under consideration. Although, it could be argued that different public policy goals are not all equally important, the task of the DSB is to base its interpretation on the text of the agreement, as will be discussed in more detail in Chapter 5.⁶³ The fact that the

⁶⁰ *United States - Import Prohibitions of Certain Shrimp and Shrimp Products*, Appellate Body Report, 12 October 1998, WT/DS58/AB/R.

⁶¹ *Shrimps*, Appellate Body Report, §127.

⁶² *Ibidem*.

⁶³ 1969 Vienna Convention on the Law of Treaties, Article 31(1). See Chapter 5, section B.II.3.

Appellate Body second-guesses what the WTO Members consider to be an important public policy objective does not seem appropriate.

However, the *Shrimps* Appellate Body correctly recognised that it was appropriate to first determine whether an exception is available before determining whether the measure is consistent with the exception. On the basis of this decision, the Article XX(b) and (g) will be examined first.

2.) *Article XX(b): "Necessary to Protect Human, Animal or Plant Life or Health"*

- a) The policy goal of protecting "human, animal or plant life or health"

In order for a measure to meet the requirements contained in paragraph (b), a WTO Member imposing a trade-related environmental/health measure must demonstrate that the policy in respect of the measures for which the provision was invoked falls within the range of policies designed to protect human, animal or plant life or health; that the inconsistent measures for which the exception was being invoked were necessary to fulfil the policy objective; and that the measures were applied in conformity with the requirements of the *chapeau* of Article XX.

In the *Gasoline* and *Asbestos* cases, the measures were recognised as falling within the scope of the policy objectives of Article XX(b). The *Gasoline* Panel considered that "the policy to reduce air pollution resulting from the consumption of gasoline was a policy within the range of those concerning the protection of human, animal and plant life or health",⁶⁴ and the *Asbestos* Panel and Appellate Body found that the Decree banning asbestos and asbestos containing products, protects human life or health within the meaning of Article XX(b) of GATT 1994.

⁶⁴ *Gasoline*, Panel Report, §6.22.

Once it has been determined that a measure is included in the language of Article XX(b), the necessity of the measure must be ascertained. In the next section, the concept of necessity in international law will be examined as well as the interpretation of necessity given by the WTO DSB.

b) The necessity requirement

The concept of necessity is a universal concept in law that "provides a very exceptional excuse to avoid the ensuing of legal consequences normally following certain acts".⁶⁵

The concept of necessity is crystallised in the state of necessity that has been included by the ILC in Article 33 of the Draft Articles as follows:

"1. A state of necessity may not be invoked by a State as a ground for precluding the wrongfulness of an act of that State not in conformity with an international obligation of the State unless: (a) the act was the only means of safeguarding an essential interest of the State against a grave and imminent peril; and (b) the act did not seriously impair an essential interest of the State towards which the obligation existed.

*2. In any case, a state of necessity may not be invoked by a State as a ground for precluding wrongfulness: (a) if the international obligation with which the act of the State is not in conformity arises out of a peremptory norm of general international law; or (b) if the international obligation with which the act of the State is not in conformity is laid down by a treaty which, explicitly or implicitly, excludes the possibility of invoking the state of necessity with respect to that obligation; or (c) if the State in question has contributed to the occurrence of the state of necessity"*⁶⁶

The ILC in its Commentary to Article 33 defined the state of necessity as "the situation of a State whose sole means of safeguarding an essential interest threatened by grave and imminent peril is to adopt conduct not in conformity with what is

⁶⁵ J. Barboza, "Necessity Revisited in International Law", in *Essays in International Law in Honour of Judge Manfred Lachs* (1984), p27. See M. Montini, "The Necessity Principle as an Instrument of Balance", in F. Francioni (ed.), *Environment, Human Rights & International Trade*, (2001).

⁶⁶ *Yearbook of the International Law Commission, II, Part 2*, (1980), p34.

required by an international obligation to another State".⁶⁷ This decision considered the protection of the environment as 'essential interests of the State' as provided for in Article 33.

The formulation of the ILC was endorsed in the *Gabcikovo-Nagymaros Dam* case:

*"In the present case, the following basic conditions set forth in Draft Article 33 are relevant: it must have been occasioned by an 'essential interest' of the State which is the author of the act conflicting with one of its international obligations; that interest must have been threatened by a 'grave and imminent peril; the act being challenged must have been the 'only means' of safeguarding that interest; that act must not have 'seriously impair[ed] an essential interest' of the State towards which the obligation existed; and the state which is the author of that act must not have 'contributed to the occurrence of the state of necessity'. Those conditions reflect customary international law".*⁶⁸

Therefore, a state of necessity can only be invoked if a measure that does not conform to an obligation under international law is the *only* means available to avoid grave and imminent peril. Presumably, this measure should only be imposed for as long as necessary to achieve the prevention of grave and imminent peril.

The interpretation of necessity in the WTO context differs as the measure must not be indispensable and a grave and imminent peril must not be demonstrated. This is appropriate as the WTO does not deal with sinking oil tankers or use of force.

Article XX(b) of GATT 1994 was examined in the *Gasoline* case.⁶⁹ The dispute involved the "Regulation of Fuels and Fuels Additives: Standards for Reformulated and Conventional Gasoline"⁷⁰ whereby US refiners, blenders and importers of gasoline could only sell reformulated gasoline in the most polluted parts of the US.

⁶⁷ *Yearbook of the International Law Commission, II, Part 2, (1980), p34, §1.*

⁶⁸ *Gabcikovo-Nagymaros Dam Case, ICJ Rep. (1997), p7.*

⁶⁹ *United States - Standards for Reformulated and Conventional Gasoline, 20 May 1996, WT/DS2/R.*

⁷⁰ Adopted by the US Environmental Protection Agency (EPA) on the 15 December 1993, pursuant to the 1990 Congressional amendment to the Clean Air Act.

In the rest of the US, only gasoline that was no dirtier than that sold in the base year of 1990 could be sold. US refiners were to establish an individual refinery baseline determined by their gasoline's composition in 1990. The 1993 Environmental Protection Agency (EPA) regulations permitted US refiners to establish their baseline using actual data or several other methodologies for reconstructing their fuel consumption. The EPA also established a statutory baseline, intended to reflect the average US 1990 gasoline quality, which importers of gasoline were to use.

Venezuela and Brazil protested as they felt that the new regulations accorded less favourable treatment to importers, since importers were subject to the statutory baseline while domestic refiners were granted an individual baseline, implying that the measure was inconsistent with Article III of the GATT.

The US argued that the differences in the baselines applying to domestic refiners and to importers was due to the EPA's anticipation that concerns over the availability of foreign data and difficulty in legal enforcement prevented importers from using individual baselines.

The Panel stated that in this case:

"it was not its task to examine generally the desirability or necessity of the environmental objective of the Clean Air Act or the Gasoline Rule. Its examination was confined to those aspects of the Gasoline Rule that had been raised by the complainants under specific provisions of the General Agreement. Under the General Agreement, WTO Members were free to set their own environmental objectives, but they were bound to implement these objectives through measures consistent with its provisions, notably those on the relative treatment of domestic and imported products".⁷¹

The Panel highlighted the fact that WTO Members are free to set their own environmental objectives, but that the objectives had to be achieved in a way that does not unfairly discriminate against an exporting country. The Panel's

⁷¹ *Gasoline*, Panel Report, §7.1.

interpretation, therefore, leaves WTO Members a certain degree of autonomy in pursuing environmental protection objectives.

The Panel noted "that it was not the necessity of the policy goal that was to be examined, but whether or not it was necessary that imported gasoline be effectively prevented from benefiting from favourable sales conditions that were afforded by an individual baseline tied to the producer of the product. It was the task of the Panel to address whether these inconsistent measures were necessary to achieve the policy goal under Article XX(b)".⁷²

The Panel examined whether there were consistent or less inconsistent measures reasonably available to the US to pursue its policy objectives, whereby imported gasoline would be afforded as favourable sales conditions as domestic gasoline:

"the Panel did not consider that the manner in which imported gasoline was effectively prevented from benefiting from favourable sales conditions as were afforded to domestic gasoline by an individual baseline tied to the producer of a product was necessary to achieve the stated goals of the Gasoline Rule. In the view of the Panel, baseline establishment methods could be applied to entities dealing in imported gasoline in a way that granted treatment to imported gasoline that was consistent or less inconsistent with the General Agreement".⁷³

The Panel concluded that the US "had failed to demonstrate the necessity of the Gasoline Rule's inconsistency with Article III:4" in this case.

The *Gasoline* Panel considered whether the precise aspects of the Gasoline Rule that it found to violate Article III, namely the less favourable baseline establishment methods that put importers at a disadvantage were "necessary".

However, there is a flaw in the argument of the Panel as it considered that the "less favourable treatment" of imported gasoline had to be "necessary" rather than the

⁷² *Gasoline*, Panel Report, §6.22.

⁷³ *Ibidem*, §6.25.

measure i.e. the baseline establishment rules. The Panel was wrong in referring to its legal conclusion on Article III:4 instead of the measure at issue. The Panel, obviously had to find that the measure provided "less favourable treatment" under Article III:4 before the Panel examined Article XX. The *chapeau* of Article XX makes it clear that it is the measures which should be looked at under Article XX(b) and not the legal finding of "less favourable treatment".

In the *Gasoline* case, a measure was considered to be necessary if there were no alternative measures consistent with the GATT or less consistent with it, and which could reasonably be expected to be used, in order to achieve its health policy objectives.⁷⁴ In other words, in order to be considered necessary, a measure would have to be the least trade restrictive alternative.

However, it is unclear from the *Gasoline* case whether measures that are to be considered are those that are equally effective from an environmental perspective, or whether account would be taken of the circumstances of the country imposing the measure such as whether the alternative measure is feasible, for example, with respect to implementation costs of alternative measures.

To the extent that the WTO allows an environmental goal to be reached in full, the interpretation of the WTO DSB does not seem to be too restrictive. If, for example, two measures that are reasonably available both achieve the Member's environmental goal, then it would be rational to require that the measure that has the least negative impact on trade be chosen. The achievement of environmental goals with a minimum of interference with the trading system is desirable.⁷⁵

⁷⁴ *Gasoline* Panel Report, §6.25-6.28. See J. Neumann and E. Türk, "Necessity Revisited: Proportionality in World Trade Organisation Law After *Korea-Beef*, *EC-Asbestos* and *EC-Sardines*", 37 *JWT* 1(2003), pp207-209.

⁷⁵ The SPS Agreement discussed in Chapter 3 contains a more lenient standard with respect to the necessity of an SPS measure, as only alternatives that are significantly less trade restrictive should be used. Article 5.6.

In the *Asbestos* case, Canada argued that banning asbestos was unnecessary as the 'controlled' use of asbestos could reduce the health risks to acceptable levels.

However, the alternative proposed by Canada was not considered a reasonable alternative since controlled use would leave a significant residual risk to the workers and would not, therefore, achieve France's chosen level of health protection – an end to health risks induced by asbestos. The Appellate Body noted that WTO Members have the right to determine the level of health protection they deem appropriate. In addition, although there is no requirement in Article XX to perform a risk assessment, the DSB in the *Asbestos* case⁷⁶ relied on its interpretation of the SPS Agreement in determining the consistency of the French measure with GATT 1994. Indeed, the fact that risk could be evaluated both quantitatively and qualitatively⁷⁷, that WTO Members could base their health or environmental measures on qualified and respected scientific opinions held by only a minority of scientists,⁷⁸ demonstrates that the DSB is increasingly merging the interpretation of GATT 1994 with the SPS Agreement examined in the next chapter.⁷⁹

In addition, the Appellate Body considered that the Decree was "clearly designed and apt" to achieve that level of protection.⁸⁰

The *Asbestos* case marks a departure from previous Article XX(b) analysis as the Appellate Body⁸¹ considered that the determination of whether a measure is "necessary" involves a process of weighing and balancing a series of factors. The Appellate Body stated:

"We indicated in Korea – Beef that one aspect of the "weighing and balancing process ...comprehended in the determination of whether a WTO-consistent alternative measure" is reasonably available is the extent to which the

⁷⁶ See Chapter 3, section D.II.

⁷⁷ *Asbestos*, Appellate Body Report, §167.

⁷⁸ *Ibidem*, §167 and 172.

⁷⁹ Future interpretation of Article XX will also take into account the precautionary principle, as formulated in Article 5.7 of the SPS Agreement. See Chapter 3, section D.III.d.

⁸⁰ *Asbestos*, Appellate Body Report, §168.

⁸¹ *Ibidem*, §172.

alternative measure "contributes to the realization of the end pursued". In addition, we observed, in that case, that "[t]he more vital or important [the] common interests or values" pursued, the easier it would be to accept as "necessary" measures designed to achieve those ends. In this case, the objective pursued by the measure is the preservation of human life and health through the elimination, or reduction, of the well-known, and life-threatening, health risks posed by asbestos fibers. The value pursued is both vital and important in the highest degree. The remaining question, then, is whether there is an alternative measure that would achieve the same end and that is less restrictive of trade than a prohibition."⁸²

It is not clear what weight is given to these considerations in determining whether a measure is consistent with Article XX(b) and what the exact relationship of the new balancing test with the least trade restrictive alternative test is.

In addition, it is unclear which other factors may be considered in the balancing test. Indeed, the factors such as the degree to which the measure contributes to a Member's regulatory goal, the importance of the goal, the degree of conflict with free trade are not exhaustive. Presumably, factors such as whether an international environmental agreement dealing with this problem exists and the measure is explicitly required by the MEA, may also be a relevant factor in performing a balancing test.⁸³

The *Asbestos* Appellate Body considered that the balancing test is part of the determination of whether a WTO-compatible or less trade restrictive alternative exists to achieve the objective pursued.⁸⁴

The examination of the extent to which the alternative contributes to the goal that is set implies that WTO Members are not entitled to use the least-trade-restrictive measure that achieves the result that is desired and reflected in the original measure

⁸² *Asbestos*, Appellate Body Report, §172. *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef* (hereinafter “*Korea – Beef*”), Appellate Body Report, 10 January 2001, WT/DS161/AB/R, WT/DS169/AB/R, §162, 166 and 163.

⁸³ See J. Trachtman, “Decisions of the Appellate Body of the World Trade Organization - European Communities-Measures Affecting Asbestos and Asbestos-Containing Products”, <http://www.ejil.org/journal/surveys.html>, p6.

⁸⁴ *Asbestos* Appellate Body Report, §172. G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agree on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p827.

if an alternative measure is less-trade-restrictive and which after having been subjected to a balancing test by the DSB is found to achieve to a sufficient extent the result sought for in the original measure.⁸⁵ Therefore, national regulatory ends must not necessarily be met in full. This is, however, is not desirable from an environmental point of view, as the environmental benefits of a measure will potentially be reduced.

c) Economic analysis of the necessity requirement

From an economic welfare point of view, the most efficient measure is usually preferred as it increases the net monetary wealth of society.⁸⁶ Monetary wealth of society usually increases human happiness, in other words, societal wealth is a good estimate of societal utility.⁸⁷

Pareto efficiency is usually employed as the standard for efficiency in economics and is achieved when "goods cannot be reallocated to make someone better off without making someone else worse off."⁸⁸ However, the standard of Pareto efficiency tends to be unhelpful because public policies typically have both winners and losers.⁸⁹

Therefore, in the field of law and economic analysis, the Kaldor-Hicks efficiency criterion is most often used. The Kaldor-Hicks efficiency has the advantage that it ignores whether a gainer from an action actually compensates a loser from the action. Under Kaldor-Hicks efficiency, a more efficient outcome can leave some people worse off. It is otherwise called the "*potential* Pareto efficiency" as those that are

⁸⁵ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

⁸⁶ A.O. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* (1998), p58.

⁸⁷ In some cases efficient policies can be undesirable because on their effects on income distribution. A.O. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* (1998), p57.

⁸⁸ See R. Coase, "The Problem of Social Cost", 3 *Journal of Law and Economics* 1 (1960).

⁸⁹ See A.O. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* (1998) and R.A. Posner, *Economic Analysis of Law*, 5th ed. (1998).

made better off could *in theory* compensate those that are worse-off, thereby leading to a Pareto optimal outcome.⁹⁰

Potential Pareto efficiency is achieved by choosing a measure that maximises the net benefits of a trade-related environmental/health measure. In other words, a cost-benefit analysis would determine which measure is most efficient and would invalidate national environmental/health regulation where the costs exceed the benefits.⁹¹

In other words, in order for a trade-related environmental/health measure to be considered efficient in terms of potential Pareto efficiency, the environmental/health benefits of the measure must outweigh the costs associated with a restriction on trade and the administration of such a measure.

However, as was discussed in the previous section, panels and the Appellate Body have not resorted to a strict cost-benefit analysis but to a least trade restrictive alternative (LTRA) test in determining the necessity of trade-related environmental/health measures under Article XX(b).

The LTRA test does not necessarily maximise world welfare in terms PPE.⁹² As Trachtman notes:

“As a tool to maximize net gains of trade and regulation, necessity testing is overbroad and underinclusive. First, it seems to elevate trade values to a preeminent status, by insisting that any non-trade measure be designed to meet its goal using the means that is least trade restrictive, no matter what the domestic regulatory cost. Least trade restrictive alternative analysis, when

⁹⁰ See J.R. Hicks, “The Foundations of Welfare Analysis”, 49 *Econ. J.* 696 (1939); N. Kaldor, “Welfare Propositions in Economics”, 49 *Econ. J.* 549 (1939).

⁹¹ J.P. Trachtman, “Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity”, 9 *EJIL* (1998), p72. See also P.S. Menell and R.B. Stewart, *Environmental law and Policy* (1994), pp81-160.

⁹² J.P. Trachtman, “Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity”, 9 *EJIL* (1998), p72. See K. Saito, “Yardsticks for “Trade and Environment”: Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures”, (2001), Part 3, www.jeanmonnetprogram.org.

*subject to the 'reasonably available' qualification, seems to address this problem by placing an indeterminate cap on the domestic regulatory cost. Second, there may be circumstances where even the least trade restrictive alternative is not worthwhile - where the non-trade measure is worth far less than the trade costs it imposes. Necessity testing engages in truncated maximization, or truncated comparative cost-benefit analysis, by keeping the regulatory benefit relatively constant and working on the trade detriment side. It thus evaluates a much more limited range of options, ignoring other groups of options that may be superior."*⁹³

The LTRA test centres on the magnitude of trade diversion costs not the size of environmental/health benefits. Indeed, environmental/health benefits are not considered in deciding between alternative measures and administrative costs are only considered to the extent of determining whether alternatives are economically feasible and reasonably available.⁹⁴ Therefore, the LTRA test neither performs a comparison or aggregation of the values administrative costs, environmental/health benefits, and trade diversion costs, which implies that a least trade restrictive alternative could be one where environmental/health benefits are very small and trade diversion costs are very large.⁹⁵

The LTRA test also excludes policy options by taking "appropriate levels of protection" as given, which implies that there could be measures available that could increase net benefits more than options that can attain the "appropriate levels of protection".⁹⁶

⁹³ J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998), p72. See also J. Dunoff, "Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?" 49 *Wash. and Lee L. Rev.* (1992), pp1449-50.

⁹⁴ See K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

⁹⁵ *Ibidem*.

⁹⁶ *Ibidem*. J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998), p72.

However, the potential Pareto efficiency approach also has limitations such as the lack of attention to distributional problems among countries, the incommensurability of values, and problems with interstate comparison of the utility.⁹⁷

The potential Pareto efficiency approach assumes that there are no transaction costs in redistributing benefits regardless of whether winners actually compensate losers and focuses on whether net benefits increase as a result of the invocation of a measure without regard to re-distributional results of the measure.⁹⁸ A measure could benefit developed countries more than the cost to developing countries and if the redistribution of the benefits and costs are impossible because of high transaction costs, then the measure is efficient in terms of potential Pareto efficiency but not necessarily morally desirable.⁹⁹ The problem is accentuated when countries invoke trade-related environmental/health measures in order to protect the domestic environment as only the country imposing the measure may enjoy environmental benefits.¹⁰⁰

The LTRA test achieves a balance between the right of a country to impose measures to protect the domestic environment and the right of other countries to enjoy the benefits of free trade.¹⁰¹ The LTRA test enables WTO Members to choose their appropriate levels of environmental protection, while requiring them to minimise trade diversion costs.

⁹⁷ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

⁹⁸ See K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

⁹⁹ See A.O. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* (1998) and J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998), p53.

¹⁰⁰ See K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

¹⁰¹ *Ibidem*.

Under the LTRA test, distributional problems remain unsolved to some extent as exporting countries incur trade harms, even though they are minimised.¹⁰² However, as Trachtman points out, compensation for redistribution could be indirect; the application of the LTRA test for all trade-related environmental/health measures aimed at preserving the domestic environment implies that all WTO Members would receive roughly equivalent payoffs.¹⁰³ All WTO Members are guaranteed the right to decide their appropriate levels of protection whereas they simultaneously have the right not to have trade diversion costs minimised.¹⁰⁴

Another problem with the potential Pareto efficiency approach is that the environmental/health benefits that are linked with a trade-related environmental/health measure need to be quantified in monetary terms so that a comparison can be made with trade diversion costs and administrative costs.¹⁰⁵ However, not all values are easily quantifiable in monetary terms,¹⁰⁶ despite the fact that as Dorfman notes “the ingenuity and effort devoted to establishing monetary equivalents to the social values of nonmarket benefits and costs are impressive”.¹⁰⁷ In

¹⁰² J.P. Trachtman, “Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity”, 9 *EJIL* (1998) and K. Saito, “Yardsticks for “Trade and Environment”: Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures”, (2001), Part 3, www.jeanmonnetprogram.org.

¹⁰³ See J.P. Trachtman, “Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity”, 9 *EJIL* (1998).

¹⁰⁴ *Ibidem*, p73.

¹⁰⁵ See K. Saito, “Yardsticks for “Trade and Environment”: Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures”, (2001), Part 3, www.jeanmonnetprogram.org.

¹⁰⁶ S. Kelman, “Cost-Benefit Analysis - An Ethical Critique”, *Regulation*, January 1981, p33; M. Sagoff, “Economic Theory and Environmental Law”, 79 *Mich. L. Rev.* (1981), p1393. See N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In Theory and Practice*, (1997), pp383-424. See also “Methodologies for Environmental Valuation: A Selected Bibliography”, WTO Committee on Trade and Environment, WT/CTE/W/72, 26 November 1997.

¹⁰⁷ R. Dorfmann, “An Introduction to Benefit-Cost Analysis”, in R. Dorfmann and N.S. Dorfmann, (eds.), *Economics of the Environment*, 3rd ed, (1993), p308. For example, revealed preference methods and contingent valuation techniques. See also D.S. Brookshire, M. Thayer, R. Schukze and R. d’Arge, “Valuation of Public Goods”, 72 *Amer. Econ. Rev.* (1982), pp165-177. See also N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In Theory and Practice*, (1997), pp383-424.

addition, it is even questionable whether quantifying in monetary terms is desirable.¹⁰⁸

Although, some environmental regulations are primarily based on use value that is created by the current use of environmental resources either directly or indirectly¹⁰⁹, others refer to non-use values that are created by the desire to ensure that an environmental resource will continue to be provided in the future.¹¹⁰

With regard to the problem of the incommensurability of values, the LTRA test has the advantage, as noted above, that it does not compare or quantify any values.¹¹¹

Moreover, the use of a potential Pareto efficiency approach also has disadvantages with respect to the interpersonal comparison of utilities.¹¹² As Dorfmann explains, the role of an economy is to produce the combination of goods and services that maximises the welfare of individual members of a community, otherwise called the individual's utility.¹¹³ If the individual utilities of a community can be determined, then a social welfare function could be derived to reflect these utilities. However, an *accurate* social welfare function is extremely difficult to build.¹¹⁴ In addition, there is no single way of going about its construction.¹¹⁵ However, the method enables an approximate comparison of the desirability of alternative operations of the economy,

¹⁰⁸ J.L. Dunoff, "Rethinking International Trade", *U. Pa. J. Int'l Econ. L.* (1998), p366. C.R. Sunstein, "Incommensurability and Valuation in Law", *92 Mich. L. Rev.* (1994), p854.

¹⁰⁹ For example, the protection of human health.

¹¹⁰ For example, the protection of endangered species, biodiversity.

¹¹¹ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", *9 EJIL* (1998) and K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

¹¹² See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", *9 EJIL* (1998) and K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

¹¹³ R. Dorfmann, "Some Concepts from Welfare Economics", in R. Dorfmann and N.S. Dorfmann, (eds.), *Economics of the Environment*, 3rd ed, (1993), p87-90.

¹¹⁴ *Ibidem*, p90.

¹¹⁵ *Ibidem*, p90. See also D. Pearce, A. Markandya, E.B. Barbier, *Blueprint for a Green Economy*, (1994), pp51-55.

essentially by comparing the benefits obtained by one person with costs suffered by another.

In the evaluation of alternative trade-related environmental/health measures in an international context, by contrast, it is not the individual utilities of citizens of a country that are examined rather an interstate comparison of utility is performed. In other words, the social welfare functions of different countries would need to be compared. However, as was mentioned above, the construction of such welfare functions is problematic, which naturally also impacts the value of comparing them.

However, the Appellate Body has in performing an LTRA test avoided comparing utilities among countries as it does not distinguish between trade diversion costs incurred by the exporting countries and those incurred by the importing country.¹¹⁶

In conclusion, the LTRA test is a good method for avoiding the distributional and philosophical of the potential Pareto efficiency approach.¹¹⁷ In particular, regarding distributional problems, which are significant in the context of trade-related environmental/health measures for protecting the domestic environment, the LTRA test significantly improves the distributional disadvantages of these domestic measures, while guaranteeing the sovereign rights of countries to decide their appropriate levels of health or environmental protection.¹¹⁸

In the *Asbestos* case, the DSB also applied a means-end test in determining whether the means chosen are a rational way of achieving a purported end. An economic

¹¹⁶ See K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

¹¹⁷ See J. Dunoff and J Trachtman, "Economic Analysis of International Law", 24 *Yale JIL* 1 (1999), pp44-45.

¹¹⁸ See J. Dunoff and J Trachtman, "Economic Analysis of International Law", 24 *Yale JIL* 1 (1999), pp44-45. See also K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

analysis of the means-end test will be performed in section C.III.3.d, as this test has initially only been used in the determination of consistency with Article XX(g).

In the following section the second environmental exception aimed at measures relating to conservation will be examined.

3.) *Article XX(g): "Relating to the Conservation of Exhaustible Natural Resources if Such Measures are Made Effective in Conjunction with Restrictions on Domestic Production or Consumption."*

a) Policy goal of "conserving exhaustible natural resources"

In the *Gasoline* case, the Panel held that clean air was an exhaustible natural resource since it could be exhausted by pollutants such as those emitted by the consumption of gasoline. The Panel, therefore, rejected Venezuela's argument that clean air was the state of the air that was renewable rather than a resource that was exhaustible. Therefore, the fact that a resource or its quality is renewable did not deter the Panel from finding that the resource was exhaustible.¹¹⁹

"In the view of the Panel, clean air was a resource (it had value) and it was natural. It could be depleted. The fact that the depleted resource was defined with respect to its qualities was not, for the Panel, decisive. Likewise, the fact that a resource was renewable could not be an objection. A past panel had accepted that renewable stocks of salmon could constitute an exhaustible natural resource. Accordingly, the Panel found that a policy to reduce the depletion of clean air was a policy to conserve a natural resource within the meaning of Article XX(g)".¹²⁰

In the *Shrimps* case, the Appellate Body found that sea turtles were an exhaustible natural resource¹²¹ as they believed that Article XX(g) is not limited to the conservation of mineral or non-living resources.¹²² In addition, the Appellate Body

¹¹⁹ *Gasoline*, Panel Report, §6.37.

¹²⁰ *Ibidem*, §6.37.

¹²¹ *Shrimps*, Appellate Body Report, §142.

¹²² *Ibidem*, §135.

stated that exhaustible and renewable natural resources are not mutually exhaustive as renewable resources in certain circumstances can be depleted, exhausted or extinguished.¹²³

The interpretation of the panels demonstrates that although the "environment" is not mentioned in Article XX, the provision covers all natural resources that can be depleted whether or not they are renewable from a qualitative or quantitative point of view.

This is a broad interpretation of Article XX that is responsive to environmental concerns as it demonstrates a cautious approach to the exploitation of resources. Indeed, it could be argued that if renewable resources are also considered to be exhaustible then there is no resource that is "inexhaustible",¹²⁴ suggesting that "exhaustible" is a superfluous term and that it would be sufficient to refer to "natural resources" in Article XX(g).

Unfortunately, the historical background of Article XX(g) provides no definite answer as to whether exhaustible natural resources include renewable resources. Indeed, unlike Article XX(b), Article XX(g) was not contained in any previous trade agreement. It emerged as a proposal from the US Suggested Charter for an International Trade Organization¹²⁵ but unfortunately there was no official statement of purpose.¹²⁶

The preparatory meetings indicate that the exception was discussed in the context of export rather than import restrictions and that the natural resources to be conserved

¹²³ *Shrimps*, Appellate Body Report, §135.

¹²⁴ S. Charnovitz, "Exploring the Environmental Exception in GATT Article XX", 25 *JWT* 5 (1991), p45.

¹²⁵ US Department of State, September 1946, p24.

¹²⁶ US Department of State Bulletin Vol. XIII, No. 337, Point V 9, 1945, p926.

were usually described as a "raw materials" or "minerals" such as manganese¹²⁷ but not as living resources such as fisheries.

There is evidence, though, that in the drafting of the chapter on Intergovernmental Commodity Arrangements, which in the end was not included in GATT, renewable natural resources were considered as exhaustible.¹²⁸

In the New York Draft of the chapter on Intergovernmental Commodity Arrangements, a complete exception was added for "international fisheries or wildlife conservation agreements with the sole objective of conserving and developing these resources".¹²⁹ This exception was modified at several occasions in Geneva, one version applying to agreements relating "solely to the conservation of exhaustible natural resources such as fisheries or wildlife". This version was not upheld on the understanding that "fisheries and wild life" were covered by the language "conservation of exhaustible natural resources".¹³⁰

Although, the historical background of Article XX(g) does not conclusively support either interpretation, it can be argued that if one considers renewable resources to be inexhaustible then the distinction between non-renewable, renewable and continuing resources has been overlooked.

Non-renewable resources are those resources that cannot be regenerated by natural processes within a human time-scale but only over a period of billions of years such as oil, gas, coal and minerals. Renewable resources, by contrast, are those resources that through natural regeneration processes can be reconstituted despite being used by mankind such as animals, plants, clean air and fresh water. However, the fact that a resource is renewable does not mean that it cannot be depleted and ultimately be

¹²⁷ UN Docs. E/PC/T/C.II/QR/PV/5, pp79-80, E/PC/T/A/PV/25, pp30-32 and E/PC/T/A/SR/30, p5.

¹²⁸ S. Charnovitz, "Exploring the Environmental Exception in GATT Article XX", 25 *JWT* 5 (1991), p45.

¹²⁹ UN Doc. E/PC/T/34, pp43-44.

¹³⁰ UN Doc. E/PC/T/B/SR/27, p14. See also S. Charnovitz, "Exploring the Environmental Exceptions in GATT Article XX" 25 *JWT* 5 (1991), pp45-46

exhausted by human activity or evolutionary changes in the ecosystem. Renewable resources are exhaustible when they are unsustainably exploited.

As opposed to non-renewable and renewable resources, continuing resources such as solar radiation and geothermal energy are inexhaustible. The reason that these resources are inexhaustible is that they are unaffected by human activity or evolutionary changes in the ecosystem.¹³¹ Therefore, if one distinguishes between renewable, non-renewable and continuing resources there is a justification for the fact that the WTO considers renewable resources as exhaustible.

The *Shrimps* Appellate Body favoured a dynamic interpretation of Article XX(g)¹³² recognising, as did the ICJ in *Gabcikovo-Nagymaros Case*, that a "treaty is not static, and is open to adapt to emerging norms of international law".¹³³

Once the policy objective is found to fall within the ambit of Article XX(g), the measure taken by the importing country must be considered. The next sub-section will consider which aspects of a measure should be taken into account when examining Article XX(g).

b) Measures requiring Justification under Article XX(g)

In the *Gasoline* case, the Panel considered whether the precise aspects of the Gasoline Rule that it found to violate Article III, namely the less favourable baseline

¹³¹ See M. Jacobs, *The Green Economy - Environment, Sustainable Development and the Politics of the Future*, London, (1991), pp3-5.

¹³² The Appellate Body quoted Jennings and Watts (eds.), *Oppenheim's International Law*, 9th ed., Vol. I (1992), p1282.

¹³³ *Shrimps* Appellate Body, §130. *Case Concerning the Gabcikovo-Nagymaros Dam Case*, ICJ Rep., (1997). See also *Namibia Advisory Opinion*, ICJ Rep., (1971), p31. In the *Aegan Sea Continental Shelf Case* ICJ Rep. (1978), p4, the ICJ stated:

"It follows that in interpreting and applying reservation (b) with respect to the present dispute the Court has to take into account the evolution which has occurred in the rules of international law concerning a coastal State's rights of exploration and exploitation over the continental shelf".

establishments methods that put importers at a disadvantage were "primarily aimed at" the conservation of natural resources.¹³⁴

However, the Appellate Body, correctly, disagreed and found that:

*"one problem ... is that the Panel asked itself whether the "less favourable treatment" of imported gasoline was "primarily aimed at" the conservation of natural resources, rather than whether the "measure"; i.e. the baseline establishment rules, were "primarily aimed at" the conservation of clean air. In our view, the Panel here was in error in referring to its legal conclusion on Article III:4 instead of the measure in issue. The result of this analysis is to turn Article XX on its head. Obviously, there had to be a finding that the measure provided "less favourable treatment" under Article III:4 before the Panel examined the "General Exception" contained in Article XX. That, however, is a conclusion of law. The chapeau of Article XX makes it clear that it is the "measures" which are to be examined under Article XX(g), and not the legal finding of "less favourable treatment".*¹³⁵

The interpretation of the *Gasoline* Appellate Body was supported in the *Shrimps* Appellate Body as it was stated in relation to Article XX(g) that "we must examine ... the general structure and design of the measure".¹³⁶

Therefore, as more recent panels have shown, in order to determine whether a measure is aimed at the conservation of exhaustible natural resources it is not the way in which the measure is applied or the consequence of the measure but the measure itself, this conclusion was also reached when the term "necessary" was interpreted. This is a more logical interpretation as otherwise the *chapeau* of Article XX would be redundant.

Having clarified this point, it is now necessary to consider whether the measure relates to the goal of conserving an exhaustible natural resource and whether the measure is taken in conjunction with restrictions on domestic production or consumption as required by Article XX(g).

¹³⁴ *Gasoline*, Panel Report, §6.40.

¹³⁵ *Gasoline*, Appellate Body Report, p16.

¹³⁶ *Shrimps*, Appellate Body Report, §145.

c) "Relating to" and "in conjunction with restrictions on domestic production or consumption"

Under Article XX(g) of GATT 1994, trade-related environmental measures do not have to be "necessary" or essential for the conservation of exhaustive natural resources, but have to be "related to" conservation. This implies that the conservation of exhaustible resources is more important than the protection of human life or health. This is a rather unusual proposition as there seems to be no reasonable explanation to consider exhaustible resources more highly than human health.

In the *Gasoline* case, the Panel equated the term "related to" with "primarily aimed at" conservation. The *Gasoline* Panel concluded that the "less favourable baseline establishments ... were not primarily aimed at the conservation of natural resources", because there was "no direct connection between less favourable treatment of imported gasoline that was chemically identical to domestic gasoline, and the US objective of improving air quality in the United States".¹³⁷

The Appellate Body considered that Article XX(g) had to be read in the context and light of the object and purpose of the General Agreement: the context of Article XX(g) includes in particular Articles I, III, and XI, equally the context of Articles I, III and XI includes Article XX. Therefore, the phrase "relating to the conservation of exhaustible natural resources" cannot be interpreted in such a way that the object and purpose of Article III:4 is subverted. Similarly, Article III:4 should not have a reach that renders Article XX(g) redundant.¹³⁸

Therefore, the relationship has to be examined on a case-by-case basis by scrutinising the factual and legal context of a dispute as well as the words used by the WTO Members to express their intent and purpose.¹³⁹

¹³⁷ *Gasoline*, Panel Report, §6.40.

¹³⁸ *Gasoline*, Appellate Body Report, p18.

¹³⁹ *Ibidem*, p18.

The Appellate Body found it difficult to follow the Panel's reasoning leading to the conclusion "that the less favourable baseline establishment methods at issue in this case were not primarily aimed at the conservation of natural resources."¹⁴⁰

The Appellate Body, as opposed to the Panel, found that the baseline establishment rules were related to the conservation of natural resources as the baseline establishment rules could not be divorced from other parts of the Gasoline Rule but should be considered in the global context of the Gasoline Rule to which they were related.¹⁴¹

The Appellate Body stated that "in the present appeal, the baseline establishment rules affect both domestic gasoline and imported gasoline, providing for individual baselines for domestic refiners and blenders and statutory baselines for importers",¹⁴² it also agreed that the measures were "made effective in conjunction with restrictions on domestic production or consumption."¹⁴³ The Appellate Body thereby found the measures to fall within the ambit of Article XX(g).

In interpreting the phrase "made effective in conjunction with restrictions on domestic production or consumption", the Appellate Body considered that the phrase is a requirement that measures restrict both imported and domestic gasoline, a requirement of "even-handedness" in the imposition of restrictions.¹⁴⁴

However, the Appellate Body did not believe that the restrictions applying to domestic and foreign products had to be identical. This makes sense as if the restrictions were identical the measure would have been consistent with Article III:4 in the first place.

¹⁴⁰ *Gasoline*, Appellate Body Report, p21.

¹⁴¹ *Gasoline*, Appellate Body Report, p19.

¹⁴² *Ibidem*, p21.

¹⁴³ *Gasoline*, Appellate Body Report, p20.

¹⁴⁴ *Ibidem*, p20.

Nevertheless, the Appellate Body stated that if there were no domestic restrictions and all the limitations were placed on the exporting country then the measure could not be "related to" conservation.

The Appellate Body also stated that the phrase "made effective in conjunction with restrictions on domestic production or consumption" was not intended to establish an empirical "effects test" for the availability of the Article XX(g) exception".¹⁴⁵ The rationale being that establishing causation is difficult and the effects of a measure may only be observable after a substantial period of time.

Of course, the Appellate Body recognised that if from the outset it was clear that a measure would not have any positive effect on the conservation of natural resources, it would not be a measure that was related to the conservation of natural resources.¹⁴⁶

Therefore, the Appellate Body examined whether "the means are, in principle, reasonably related to the ends" and found that the "phrase primarily aimed at is not itself treaty language and was not designed as a simple litmus test for inclusion or exclusion from Article XX"¹⁴⁷. In addition, although a measure must at least have the potential to be successful in achieving the desired environmental goal and be transparent and predictable for the importing country, it is not necessary that the measure should have an identical impact on the importing and exporting country.

In the *Shrimps* Appellate Body case, the relationship between the measure and policy goal of conserving sea turtles was also considered. The measure was an import ban on certain shrimp and shrimp products¹⁴⁸ where certification had not been given to exporters, allegedly to reduce the incidental killing of sea turtles by shrimp trawlers.

¹⁴⁵ *Gasoline*, Appellate Body Report, p21.

¹⁴⁶ *Ibidem*, pp20-22.

¹⁴⁷ *Ibidem*, pp21-22. See G. Marceau and J. Trachtman, "The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agree on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods", 36 *JWT* 5 (2002), p828.

¹⁴⁸ The import ban was imposed pursuant to Section 609 of the US Public Law 101-162. See *Shrimps*, Panel Report, §7.3.

In 1987, regulations were issued under the US Endangered Species Act of 1973 (ESA), which considers all sea turtles that occur in US waters as endangered or threatened species, requiring fishermen to use turtle excluder devices (TEDs) in areas where there was significant mortality of sea turtles in shrimp trawls.¹⁴⁹

In 1989, the US enacted Section 609 which calls upon the US Secretary of State to initiate negotiations for bilateral and multilateral agreements for the protection and conservation of turtles. In addition, it provides that shrimp harvested with technology that may adversely affect sea turtles may not be imported into the US unless the President certifies on an annual basis to Congress that the exporter has a regulatory programme for the harvesting of sea turtles that is similar to the US, that the average rate of incidental killings in the course of harvesting by the exporter is comparable to the one of the US or that the fishing environment of the exporter does not threaten sea turtles.¹⁵⁰

Initially, Section 609 only applied to countries of the Caribbean/Western Atlantic.¹⁵¹ However, in December 1995, the US Court of International Trade (CIT) directed the Department of State to prohibit the importation of shrimp and shrimp products regardless of its origin harvested with commercial fishing technology which may adversely affect sea turtles.¹⁵² In April 1996, revised guidelines were published that complied with the CIT order.¹⁵³

In addition, all shipments of shrimp and shrimp products into the US had to be accompanied by a declaration attesting that the goods had been harvested "either under conditions that do not adversely affect sea turtles ... or in waters subject to the jurisdiction of a nation currently certified pursuant to Section 609".¹⁵⁴

¹⁴⁹ *Shrimps*, Panel Report, §7.2.

¹⁵⁰ *Ibidem*, §7.3.

¹⁵¹ *Shrimps*, Panel Report, §7.4.

¹⁵² *Ibidem*, §7.4.

¹⁵³ *Shrimps*, Panel Report, §7.5.

¹⁵⁴ *Ibidem*, §7.5.

Shrimp or shrimp products harvested in conditions that do not involve the incidental killing of sea turtles are those where shrimps are harvested in an aquaculture facility or by a commercial shrimp trawl vessel using TEDs comparable in effectiveness to those required in the US or by means that do not require the retrieval of fishing nets by mechanical devices or where no sea turtles occur.¹⁵⁵

Certification under Section 609 would not be granted to countries where sea turtles do not occur or that exclusively use means that do not pose a threat to sea turtles as this would be unnecessary.¹⁵⁶

Certification would be granted only where a government would show evidence of the adoption of a regulatory programme that is comparable to that of the US including the use of TEDs and if the average rate of incidental killings in the course of harvesting by the harvesting country is comparable to the one of the US.¹⁵⁷

All those countries that had to be certified but were not granted certification would not be able to export shrimp and shrimp products to the US.¹⁵⁸

The Appellate Body concluded that the measure was "related to" the conservation of exhaustible natural resources because the measure with respect to the implementing guidelines was "not disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species. The means are, in principle, reasonably related to the ends. The means and ends relationship between Section 609 and the legitimate policy of conserving as exhaustible ... is observably a close and real one..."¹⁵⁹

Unfortunately, the Appellate Body in applying the means-ends test did not give an indication of what it meant by the terms "disproportionately wide" or "reasonably

¹⁵⁵ *Shrimps*, Panel Report, §7.5.

¹⁵⁶ *Ibidem*, §7.5.

¹⁵⁷ *Shrimps*, Panel Report, §7.5.

¹⁵⁸ *Ibidem*, §7.6.

related". It is not really clear from the statement of the Appellate Body, whether a measure is reasonably related to the policy goal only when the relationship is a "close and real one". However, considering the restrictive interpretation panels have given to the term "related to", it would not be surprising if this were the case.

Unlike the Appellate Body in the *Gasoline* case, which found that in order for a measure to be "related to", that the measures should also restrict domestic production, the *Shrimps* Appellate Body separated the fact that a measure was related to the policy objective from the fact that the measures were "made effective in conjunction with restrictions on domestic production or consumption". In other words, adherence to the requirement of the measures being "made effective in conjunction with restrictions on domestic production or consumption" was not a determining factor in deciding whether the measure was related to the policy objective.

The Appellate Body did, however, rely on the test provided for in the *Gasoline* Appellate Body report for determining compliance with the requirement that the measures should be "made effective in conjunction with restrictions on domestic production or consumption". Indeed, the Appellate Body in the *Shrimps* case considered whether the measure was an even-handed one.¹⁶⁰

In conclusion, the term "related to" conservation was initially interpreted restrictively as the measure had to be "primarily aimed at" addressing a conservation goal or be closely and genuinely related to the policy goal. The Appellate Body in the *Gasoline* and *Shrimps* case focused on whether the measure was reasonably related to the ends.

In determining whether a measure is "made effective in conjunction with restrictions on domestic production or consumption" it is not necessary to find that the restrictions apply to importers and exporters in an identical way, however, domestic

¹⁵⁹ *Shrimps*, Appellate Body Report, §149.

restrictions would have to be present. Unfortunately, this analysis, although in appearance sound, overlooks the case where there is no domestic production to restrict. This would occur, for example, when a country regulates imports of gasoline although it does not domestically produce gasoline.

d) Economic analysis of the "means and ends" test used under Article XX(g)

In examining the consistency of trade-related environmental measures under Article XX(g), the panels and the Appellate Body have applied a means-end test. The Appellate Body in the *Asbestos* case also applied a means-end test in addition to the LTRA test in determining the consistency of the health measures under Article XX(b). The means-end test focuses on whether the measure is a rational means to a purported end.¹⁶¹ As Trachtman notes, this form of testing is included in most tests such as the LTRA test, proportionality test, balancing test and cost-benefit analysis.¹⁶²

However, means-end test bears most resemblance to a proportionality test that examines whether the means are proportionate to the ends in the sense that the costs are not excessive to the ends, in this case environmental or health benefits.¹⁶³

In other words, the environmental/health benefits and trade diversion costs are compared. However, the determination of what is disproportionate is a value-laden judgement similarly to the determination of what is reasonably available under the LTRA test. In other words, the DSB is left with considerable discretion in determining the consistency of a measure.

¹⁶⁰ *Shrimps*, Appellate Body Report, §152.

¹⁶¹ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

¹⁶² *Ibidem*.

¹⁶³ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

The means-end test does not necessarily lead to the maximisation of world welfare in the potential Pareto efficiency sense.¹⁶⁴ Indeed, although environmental/health benefits and trade diversion costs are compared, there is no requirement that the measure that maximises net benefits be chosen. In other words, the means-end test is a more flexible form of cost-benefit analysis. The availability of alternative measures is irrelevant, which means that it ignores whether an alternative measure could improve world welfare more than the measure under consideration.¹⁶⁵

However, the "means and ends" test avoids some shortfalls of the potential Pareto efficiency approach as it overcomes most distributional and moral problems relating to trade-related environmental measures aimed at protecting the global environment.¹⁶⁶

Distributional concerns over trade-related environmental measures that are aimed at protecting the global environment are not as significant as those aimed at protecting the domestic environment, since all countries obtain benefits from the measure,¹⁶⁷ and are, therefore, not necessarily worse off. This suggests that the importance of minimising trade diversion costs of other countries is lesser.

In the context of global environmental protection, the LTRA test does not have the philosophical, moral, or ethical weight it has in the context of domestic environment protection.¹⁶⁸ As Dunoff explains, applying the LTRA test to measures aimed at protecting the global environment may imply that trade values are elevated to a pre-eminent status in comparison with environmental values: trade diversion costs have

¹⁶⁴ See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

¹⁶⁵ K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org. See J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

¹⁶⁶ *Ibidem*.

¹⁶⁷ *Ibidem*.

¹⁶⁸ K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.



to be minimised, however, environmental harms do not have to be minimised.¹⁶⁹ Therefore, means-end tests are arguably, more appropriate in the context of global environmental protection,¹⁷⁰ than an LTRA test.

In addition, although, by comparing trade diversion costs and environmental benefits, the "means and ends" test shares problems of incommensurability of values and interstate comparison of utilities with the potential Pareto efficiency approach, the problems associated with the "means and ends" test are not as severe.¹⁷¹ Indeed, the "means-end test" is a balancing test that does not require the same level of accuracy in quantification as the potential Pareto efficiency approach. Therefore, the balancing test enables non-monetary and non-commensurable values to be included.¹⁷²

In order to complete the analysis of Article XX it is essential to examine how the WTO panels and the Appellate Body have interpreted the *chapeau* of Article XX. The next sections will examine the requirement that a measure should not be applied in a way that would result in "arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade".

¹⁶⁹ See J.L. Dunoff, "Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?", 49 *Wash. & Lee L. Rev.* (1992), pp1449-50.

¹⁷⁰ K. Saito, "Yardsticks for "Trade and Environment": Economic Analysis of the WTO Panel and the Appellate Body Reports Regarding Environment-Orientated Trade Measures", (2001), Part 3, www.jeanmonnetprogram.org.

¹⁷¹ *Ibidem*.

4.) Analysis of the Chapeau of Article XX

- a) "Arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade"

The requirements in the *chapeau* of Article XX do not overlap with the national treatment or most-favoured-nation requirement as it allows for discrimination provided that it is not "arbitrary" or "unjustifiable".

The *Gasoline* Appellate Body stated that it was "clear that concealed or unannounced restriction or discrimination in international trade does not exhaust the meaning of "disguised restriction".¹⁷³

The *Gasoline* Appellate Body did not define arbitrary or unjustifiable discrimination or disguised restriction but considered them in the light of their "purpose and object of avoiding abuse or illegitimate use of exception to substantive rules available in Article XX".¹⁷⁴

The Appellate Body was of the view that "'arbitrary discrimination", "unjustifiable discrimination" and "disguised restriction" ... may ... "be read side-by-side; they impart meaning to one another" therefore, "[w]e consider that "disguised restriction", ... may be properly read as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade taken under the guise of a measure formally within the terms of an exception listed in Article XX".¹⁷⁵

Therefore, the Appellate Body was of the opinion that the pertinent considerations in assessing whether a measure is applied in such a way that it amounts to "arbitrary or

¹⁷² J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998), p80.

¹⁷³ *Gasoline*, Appellate Body Report, p25.

¹⁷⁴ *Ibidem*.

unjustifiable discrimination" can also be used to determine whether the measure is a "disguised restriction" on international trade.¹⁷⁶

This interpretation implies that the term "disguised restriction" is somewhat redundant as a measure that is applied in a manner that constitutes arbitrary or unjustifiable discrimination will also be considered a disguised restriction on international trade. Therefore, there is no need to examine whether the measure is a disguised restriction on international trade. However, in the *chapeau* it is stated that the measure should not be "arbitrary or unjustifiable discrimination" *or* a "disguised restriction on international trade" suggesting that different factors are to be taken into account in determining whether the conditions are satisfied.

Nevertheless, it could also be argued that the phrases "arbitrary or unjustifiable discrimination" and "disguised restriction on international trade" are equivalent and that the reason they are both included in the *chapeau* of Article XX is to ensure that a measure which does not apply "between countries where the same conditions prevail" and, therefore, theoretically which cannot be regarded as an "arbitrary or unjustifiable discrimination" can nevertheless be found to be a "disguised restriction on international trade". However, in this case it would be preferable for the phrases "where the same conditions prevail" and "disguised restriction on international trade" to be removed from Article XX.

The Appellate Body in the *Gasoline* case found that the less favourable treatment of foreign producers was unjustifiable discrimination.¹⁷⁷ The Appellate Body noted that the US could have avoided this finding had they imposed statutory baselines for both domestic and foreign producers, or by allowing both domestic and foreign producers to establish individual baselines. The US argued that the reason for the different

¹⁷⁵ *Gasoline*, Appellate Body Report, p25.

¹⁷⁶ *Ibidem*.

¹⁷⁷ *Gasoline*, Appellate Body Report, p29.

baselines was due to administrative difficulties and problems of verification and enforcement.¹⁷⁸

However, the Appellate Body did not accept these arguments as the US had omitted to "explore adequately means, including in particular co-operation with the governments of Venezuela and Brazil, of mitigating the administrative problems relied on as a justification by the US for rejecting individual baselines for foreign refiners; and to count the costs for foreign refiners that would result from the imposition of statutory baselines".¹⁷⁹

An interesting point made by the Appellate Body was that these omissions "went well beyond what was necessary for the Panel to determine that a violation of Article III:4 had occurred in the first place and that "discrimination must have been foreseen" by the US and was "not merely inadvertent or unavoidable".¹⁸⁰ This suggests that unjustifiable discrimination is discrimination that must have been intentional. However, the problem with this interpretation is that even if discrimination is inadvertent, it does not necessarily mean that it is not unjustifiable.¹⁸¹

The fact that the Appellate Body stated that the omissions "went well beyond what was necessary" to determine inconsistency with Article III:4 reasserts the fact that the discrimination referred to in the non-discrimination rules is different from that of the *chapeau* of Article XX. This point was also made when the Appellate Body stated "the enterprise of applying Article XX would clearly be unprofitable one if it involved no more than applying the standard used in finding that the baseline establishment were inconsistent with Article III:4".¹⁸²

¹⁷⁸ *Gasoline*, Appellate Body Report, p25.

¹⁷⁹ *Ibidem*, p29.

¹⁸⁰ *Ibidem*.

¹⁸¹ See also Chapter 3, section III.2.c.

¹⁸² *Gasoline*, Appellate Body Report, p23.

The Appellate Body did not conclude that the measure was applied in an "arbitrary" way, which could mean that since it found the measure to be unjustifiable there was no need to consider whether it was arbitrary. However, in the light of the interpretation of the Appellate Body that "arbitrary" and "unjustifiable" impart meaning to each other it is more likely that the Appellate Body equated those two terms. In other words, the Appellate Body has also rendered the term "arbitrary" redundant.

The fact that the Appellate Body probably considered the two terms to be equivalent does not necessarily comply with the fact that the International Convention for the Abolition of Import and Export Prohibitions and Restrictions, which provided the basis for Article XX, only covered "arbitrary discrimination"¹⁸³ and not "unjustifiable discrimination" suggesting that GATT drafters by adding the term "unjustifiable" may have intended it to have another meaning than "arbitrary".

The *Shrimps* Panel also dealt with the *chapeau* of Article XX but took a different approach.

After, the *Shrimps* Panel had found that the US import ban was inconsistent with Article XI because the US banned imports even if a country used TEDs to catch shrimps but had not been certified,¹⁸⁴ the Panel examined India, Pakistan and Thailand's claim that the US embargo was implemented in a manner that constituted "arbitrary or unjustifiable discrimination between countries where the same conditions prevail" as they were given less notice to comply with TED requirements than some other countries.

¹⁸³ 97 L.N.T.S. 403, 405.

¹⁸⁴ In other words, the US banned imports of shrimp and shrimp products from any country that did not meet their policy conditions even though one or more of those countries may have used environmentally friendly techniques that conformed to US standards.

In addition, the exporting countries argued that there was not only discrimination between exporting countries but there was also discrimination between the US and exporting states.¹⁸⁵

The US according to the complainants failed to consider that before requiring TEDs application from them, the US should have demonstrated that the same conditions do not prevail between India, Pakistan or Thailand and the countries with no TEDs requirement. They also added that the US in the legislative history of Section 609 included discussions of this section in terms of the competitive position of the shrimp industry.¹⁸⁶

The US, on the other hand, argued that the measures related to the import of shrimps were carefully and justifiably tied to the particular conditions of each country exporting shrimp to the US and that all exporting countries with the same shrimp harvesting conditions are treated equally with no discrimination.

The US argued that the measures were not intended to protect the US fishing industry as there was a strong and growing international consensus regarding sea turtle conservation and the mandatory use of TEDs.¹⁸⁷ (Indeed, presently, all species of sea turtles have been included in Appendix I of the 1973 Convention on International Trade in Endangered Species (CITES) as species threatened with extinction).

The international consensus belied any claim that the US measures were some sort of "disguised restriction" on trade¹⁸⁸. In addition, the wider application of Section 609 to other countries than the US and Caribbean/Western Atlantic area did not lead to a decrease in the quantities imported nor to an increase in prices.¹⁸⁹

185 *Shrimps*, Panel Report, §7.31.

186 *Ibidem*, §7.31.

187 *Shrimps*, Panel Report, §7.32.

188 *Ibidem*.

189 *Shrimps*, Panel Report, §7.32.

The Panel considered whether the *chapeau* of Article XX addressed whether Article XX limits a Member's use of measures conditioning market access on the adoption of certain conservation policies by the exporting Member and noted that the *chapeau* of Article XX prohibits such application of a measure if it constitutes "arbitrary or unjustifiable discrimination between countries where the same conditions prevail".

The Panel first considered whether the US measures applied between countries where the same conditions prevailed.

The *Shrimps* Panel was the first one to consider in more detail the phrase "countries where the same conditions prevail". The Panel stated that the US measure applied to all Members wanting to export wild shrimp retrieved mechanically from waters where sea turtles and shrimp occur concurrently and that these Members were, therefore, considered to be countries where the same conditions prevail.¹⁹⁰

The Panel in the *Shrimps* case considered that "countries where the same conditions prevail" does not recognise the fact that conditions between countries where the same conditions prevail could not only include conditions between exporting countries but also conditions between an exporting and an importing nation.

The International Convention for the Abolition of Import and Export Prohibitions and Restrictions that provided the basis for Article XX considered that import and export restrictions could be used to protect "vital interests" such as the protection of "public health, the protection of animals or plants against disease, insects and harmful parasites"¹⁹¹ if the measures were "not applied in such a manner as to constitute a means of arbitrary discrimination between *foreign countries* where the same conditions prevail, or a disguised restriction on international trade."¹⁹²

¹⁹⁰ *Shrimps*, Panel Report, §7.33.

¹⁹¹ 97 L.N.T.S. 405.

¹⁹² 97 L.N.T.S. 403, 405.

The fact that the Convention used the term *foreign countries* implies that in order for a measure to constitute arbitrary discrimination, there had to be some form of discrimination between exporting countries.

There seems to be no valid reason to exclude the importing country from being one of the countries where the same conditions prevail. If the importing country were excluded, the phrase may become redundant in a case where there is only one other country apart from the importing country that harvests wild shrimps by retrieving them mechanically from waters where sea turtles and shrimp occur concurrently. If this were the case, the importing country would not have to justify its measure as being arbitrary or unjustifiable discrimination as there would not be a country where the same condition prevails.

This opinion was supported implicitly in the *Gasoline Appellate Body* case as it was found that the difference in treatment between the exporting country and the importing country was unjustifiable discrimination.

It could be argued that "countries where the same conditions prevail" could refer to countries that have the same level of economic development.

However, if this interpretation were correct, this would imply that there would be no need to justify a measure as not constituting arbitrary and unjustifiable discrimination between an importing country such as the US and exporters from developing countries which are at a different level of economic development than the US. If the developing country exporters were treated differently between them by the US and if the exporting countries would be considered at the same level of economic development than this would imply that the US would have to justify that the measure did not constitute arbitrary or unjustifiable discrimination.

On the other hand, if a developed country exporter would be considered to be at the same level of economic development as the US then the measure could constitute arbitrary and unjustifiable discrimination between the US and a developed country

exporter but not between the developed country exporter and the developing country exporters.

Although, this interpretation recognises that the importing country is to be taken into consideration when determining whether a measure is applied to countries where the same conditions prevail, it is far too broad as it would be very easy for importing countries imposing measures to by-pass the discrimination requirement contained in the *chapeau* where a dispute involves a developed country imposing measures on a developing country.

The Panel then considered whether the US measure which conditioned market access on the adoption of certain conservation policies by the exporting country was "unjustifiable discrimination".

As stated in the *Gasoline Appellate Body Report*, "the text of the *chapeau* is not without ambiguity".¹⁹³ The Panel noted that the word "unjustifiable" had never been subject to any precise interpretation.¹⁹⁴

The ordinary meaning of unjustifiable does not address explicitly whether Article XX should be interpreted to contain any limitation on a Member's use of measures conditioning market access on the adoption of certain conservation policies by the exporting Member.¹⁹⁵

Therefore, the Panel examined the term within its context and in the light of the object and purpose of the agreement which it is part of, that is Article XX and its *chapeau*, the relevant provisions of GATT 1994 together with its preamble and annexes and the WTO Agreement, including its preamble and its other annexes.

¹⁹³ *Gasoline*, Appellate Body Report, p23.

¹⁹⁴ *Shrimps*, Panel Report, §7.34.

¹⁹⁵ *Ibidem*.

The Panel referred to other panels that had addressed the context and the object and purpose of Article XX which had concluded that it should be interpreted narrowly as the preamble was meant to prevent abuse of the exceptions of Article XX.

In the *Gasoline* Appellate Body case, it was noted that although Members have rights under Article XX there are limits to the scope of Article XX. A Member can invoke the right to certain specific substantive provisions of GATT 1994 but in doing so should not frustrate or defeat the purposes and objectives of the General Agreement and the WTO Agreement or its legal obligations under substantive rules of GATT by abusing the exception contained in Article XX. This is in line with the Vienna Convention which states that "[a] State is obliged to refrain from acts which would defeat the object and purpose of a treaty."¹⁹⁶

The Preamble of the WTO Agreement was also considered by the Panel in order to determine Article XX's object and purpose. They noted that the first paragraph of the Preamble acknowledges that the optimal use of the world's resources must be pursued "in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means of doing so in a manner consistent with Member's respective needs and concerns at different levels of economic development". On the other hand, the Panel noted that the second paragraph of the GATT 1994 and the third paragraph of the Preamble of the WTO Agreement refer to "entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment" in international trade relations. Therefore, the Panel considered that the WTO Preamble confirms that environmental considerations are important for the interpretation of the WTO Agreement. However, "the central focus of the agreement remains the promotion of economic development through trade; and the provisions of GATT are essentially turned toward trade liberalisation of access to markets on a non-discriminatory basis".¹⁹⁷

¹⁹⁶ 1969 Vienna Convention on the Law of the Treaties, Article 18.

¹⁹⁷ *Shrimps*, Panel Report, §7.42.

In order to increase the linkage between trade and environmental issues, it could be argued that the goal of sustainable development should find its way into the WTO agreement as an obligation rather than merely being part of the context of treaty provisions.¹⁹⁸ The WTO Preamble does not in itself amount to a rule of law but constitutes the moral and political basis for specific legal provisions.¹⁹⁹

However, as Birnie and Boyle note "sustainable development is best viewed as an objective ... rather than as substantive standard appropriate for judicial review and determination".²⁰⁰ Indeed, the criteria for measuring this standard remain unclear.²⁰¹

The *Shrimps* Panel noted that the WTO Agreement favours a multilateral over a unilateral approach to trade issues. The Preamble provides that Members are "resolved ... to develop an integrated, more viable and durable multilateral trading system [and] ... determined to preserve the basic principles and to further the objectives underlying this multilateral trading system".²⁰²

Therefore, the *chapeau* of Article XX only allows Members to derogate from GATT provisions so long as, in doing so, they do not undermine the WTO multilateral trading system, so that the exceptions contained in Article XX are not abused.²⁰³

Abuse or undermining would occur if a Member jeopardises the operation of the WTO Agreement in such a way that guaranteed market access and non-discriminatory treatment within a multilateral framework would no longer be possible. In other words, WTO rules not only to protect current trade but also create predictability to plan future trade.

¹⁹⁸ 1969 Vienna Convention on the Law of the Treaties, Article 31.2.

¹⁹⁹ *South West Africa Cases*, ICJ Rep. (1966), p34, §50.

²⁰⁰ P.W. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p316.

²⁰¹ *Ibidem*, p85.

²⁰² *Shrimps*, Panel Report, §7.43.

²⁰³ *Ibidem*, §7.44.

The Panel found that even if a given measure may not have a great impact on the multilateral system, it is the accumulation of such measures that affect the security and predictability of the multilateral trading system. Therefore, according to the Panel, in considering whether the measure qualifies under Article XX it is important to determine not whether a single measure undermines the WTO multilateral trading system, but whether this type of measure if adopted by other Members, would threaten the multilateral trading system.²⁰⁴

The rationale seems to be that other Members could also impose similar policies but with differing and conflicting requirements. Therefore, exporting Members would be unable to comply with multiple conflicting policy requirements.²⁰⁵

The Panel also found that Section 609 is a measure conditioning access to the market for a given product on the adoption by exporting Members of conservation policies that the US considers to be comparable to its own in terms of regulatory programmes and incidental taking. In the light of the context of the term "unjustifiable" and the object and purpose of the WTO Agreement, the US measure was found to constitute "unjustifiable discrimination".²⁰⁶

The US argued that many international agreements show that parties may take actions to protect animals, whether they are located within or outside their jurisdiction. However, the argument, according to the Panel, is not based on jurisdictional application:

"We are of the view that these treaties show that environmental protection through- international agreement - as opposed to unilateral measures - have for a long time been a recognised course of action for environmental protection. We note that this US argument addresses the issue of a potential jurisdictional scope of Article XX. However, we consider that this argument bears no direct relation to our finding, which rather addresses the inclusion

²⁰⁴ *Shrimps*, Panel Report, §7.44

²⁰⁵ *Ibidem*, §7.45.

²⁰⁶ *Shrimps*, Panel Report, §7.49.

of certain unilateral measures within the scope ratione materiae of Article XX".²⁰⁷

The Panel went on to state that it based its findings on the fact that the measure affects other countries' policies in a way that threatens the multilateral trading system, that is by adopting a policy pursuant to which only countries that adopt measures restricting all of their production to products considered safe by a particular country may export to the market of the importing country.²⁰⁸

This seems fair on the part of the Panel as individual countries should not dictate how other countries should produce products that are intended to third markets. However, the Panel's examination of whether not only the measure under consideration undermines the multilateral trading system but also whether an aggregate of such measures undermine the system appears excessive.

The US also argued that the right of the WTO Members to take measures under Article XX to conserve and protect natural resources is reaffirmed and reinforced by the Preamble to the WTO Agreement. Although the Panel did not disagree with this statement, it stated that the Preamble endorses the fact that environmental policies must be designed taking into account the situation of each Member, both in terms of its actual needs and in terms of its economic means. In addition, Principle 2 and 11 of the 1992 UNCED Rio Declaration recognise the right of states to design their own environmental policies on the basis of their particular environmental and developmental situations and responsibilities. Principle 12 of the Rio Declaration also stresses the need for international co-operation and for avoiding unilateral measures. The Preamble also implies that attempts to generalise standards of environmental protection would require multilateral discussion, especially when, developing countries are involved.²⁰⁹

²⁰⁷ *Shrimps*, Panel Report, §7.50.

²⁰⁸ *Ibidem*.

²⁰⁹ *Shrimps*, Panel Report, §7.52.

Therefore, the Panel did not feel that the Preamble justified interpreting Article XX to allow the measure.

The fact that the US claimed sea turtles are a shared resource especially due to their migratory nature led the Panel to the conclusion that if a resource is considered as shared there must be a common interest. If such a common interest exists then it would be better to address the matter through the negotiation of international agreements.²¹⁰ In addition, international standards would be a possible way to avoid threatening the multilateral trading system.²¹¹

The US argued that there was no requirement in Article XX requiring a Member to seek negotiation of an international agreement instead of, or before adopting unilateral measures. In any case, the US claimed that it had offered to negotiate but the complainants did not reply.

However, the Panel found that the efforts made by the US to seek international agreement were not serious as there was no evidence that the US actually undertook negotiations on an agreement on sea turtle conservation techniques which would have included the complainants before the imposition of the import ban.²¹²

As the measure was of the type that required negotiation of an international cooperative agreement and that the US had not made any serious efforts for negotiation, the Panel concluded that the US was not entitled to adopt unilateral measures.²¹³

Finally, the US argued that the use of TEDs has become a recognised multilateral environmental standard.²¹⁴

²¹⁰ *Shrimps*, Panel Report, §7.53.

²¹¹ *Ibidem*, §7.55.

²¹² *Ibidem*, §7.54.

²¹³ *Shrimps*, Panel Report, §7.56.

²¹⁴ *Ibidem*, §7.57.

Both the US and the complainants are parties to the CITES which covers sea turtles. Therefore, none of the parties to the dispute contests the need to protect sea turtles. However, CITES only covers trade in endangered species and not shrimps to which the import ban was imposed. Therefore, the CITES does not require parties to use specific methods of conservation such as TEDs.²¹⁵ TEDs are a result of regional agreements or voluntary individual initiatives and therefore do not constitute a recognised international standard. Moreover, the provisions of the multilateral agreements such as the 1982 UN Convention on the Law of the Seas²¹⁶ effectively address the objective of limiting by-catches of non-target species in trawling operations, they do not require the application of specific methods such as TEDs.²¹⁷

The Panel concluded that these arguments did not justify a different finding that the measures adopted by the US were a threat to the multilateral trading system.

From this conclusion one can deduce that WTO panels would not permit the use of a measure taken by a country which is a party to a MEA against another party to the MEA, that is more restrictive than measures explicitly required by the agreement.

The Appellate Body in the *Shrimps* case²¹⁸, correctly, rejected the interpretation of the term "unjustifiable discrimination" of the *Shrimps* Panel as it did not approve of the fact that the Panel did not examine the ordinary meaning of the words contained in Article XX, the object and purpose of the *chapeau* of Article XX or the immediate context of the *chapeau* of Article XX but immediately relied on the object and purpose of the whole of GATT 1994 and WTO Agreement.²¹⁹

In addition, the Appellate Body was of the view that the Panel did not consider the fact that in order for a measure to be justified under the *chapeau* of Article XX

²¹⁵ *Shrimps*, Panel Report, §7.58.

²¹⁶ UN Doc. A/CONF.62/122.

²¹⁷ *Shrimps*, Panel Report, §7.59.

²¹⁸ *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, Appellate Body Report, 12 October 1998, WT/DS58/AB/R.

²¹⁹ *Shrimps*, Appellate Body Report, §121.

regard should be had to the manner in which the measures were applied.²²⁰ Indeed, the Panel focused on the design of the measure as it emphasised the fact that it was considering "a particular situation where a Member has taken unilateral actions which, *by their nature*, could put the multilateral trading system at risk."²²¹

The Appellate Body went on to state that the Panel "formulated a broad standard and a test for appraising measures sought to be justified under the *chapeau*" and that this standard or test finds no basis in the text of the *chapeau* and that therefore, in effect, the Panel "constructed an *a priori* test that purports to define a category of measures which, *ratione materiae*, fall outside the justifying protection of Article XX's *chapeau*".²²² Indeed, the *Shrimps* Panel found that countries were free to set their own environmental objectives but they could not impose unilateral measures that force an exporting country to change its environmental policies in order to be able to retain access to the importer's market even though the importing country may disagree with the structure of the exporting country's internal policies.

The Appellate Body, on the other hand, correctly pointed out, that unilateral measures that condition access to the market of the importer were to some extent a common aspect of measures falling within the scope of the exceptions contained in Article XX.²²³ The *Shrimps* Appellate Body, therefore, reversed the interpretative analysis of the Panel.

The *Shrimps* Appellate Body, unlike the *Shrimps* Panel, examined the ordinary meaning of the words of the *chapeau*.

The Appellate Body started with a balancing test in determining whether the measures were applied in a manner that constituted unjustifiable discrimination.

²²⁰ *Shrimps*, Appellate Body Report, §122. See also *Gasoline*, Appellate Body Report, p22.

²²¹ *Shrimps*, Panel Report, §7.60.

²²² *Shrimps*, Appellate Body Report, §128.

²²³ *Ibidem*.

First, the Appellate Body stated that "it is not acceptable, in international trade relations, for one WTO Member to use an economic embargo to require other Members to adopt essentially the same comprehensive regulatory program, to achieve a certain policy goal, as that in force within that Member's territory, without taking into consideration different conditions which may occur in the territories of those other Members".²²⁴

This interpretation differs from the one of the *Shrimps* Panel as the Appellate Body seems to accept the fact that if the programme had been allowed to be comparable in reality and that the circumstances of the exporting countries had been taken into account, the measures would possibly have complied with the requirements contained in the *chapeau* of Article XX.

The Appellate Body stated that although Section 609 provided for programmes that were comparable to the US programme, in effect, these programmes had to be essentially the same: "the 1996 Guidelines specify the *only* way that a harvesting country's regulatory program can be deemed "comparable" to the United States' program, and, therefore, they define the *only* way that a harvesting nation can be certified under Section 609..."²²⁵ The Appellate Body also stated that "although the 1996 Guidelines state that, in making a comparability determination, the Department of State "shall also take into account other measures the harvesting nation undertakes to protect sea turtles", in practice, the competent government officials only look to see whether there is a regulatory program requiring the use of TEDs..."²²⁶

In addition, the Appellate Body stated that although the US applied a uniform standard throughout its territory it was not justified in requiring the same standard from exporting countries.

²²⁴ *Shrimps*, Appellate Body Report, §172.

²²⁵ *Ibidem*, §170.

²²⁶ *Ibidem*.

The Appellate Body, therefore, concluded that the effect of the application of Section 609 was to "establish a rigid and unbending standard by which the United States officials determine whether or not countries will be certified, thus granting or refusing other countries the right to export shrimp to the United States" and was therefore a standard that did not take into account the different circumstances of exporting countries.

It is apparent that the Appellate Body promotes the idea that if exporting countries are required to follow the importing country's programme there should be a minimum amount of flexibility in the application of a measure which reflects the situation of different countries failing which the application of the measure would be unjustifiable. However, this argument overlooks the situation where there is no comparable means of protecting sea turtles than using TEDs.

The Appellate Body, then considered the fact that the US did not permit imports of shrimp harvested by commercial shrimp trawl vessels using TEDs comparable in effectiveness to those required in the US if those shrimps originated in waters of countries not certified under Section 609. The Appellate Body stated that this type of requirement was difficult to reconcile with the policy objective of protecting and conserving sea turtles.²²⁷ Indeed, although the US may wish to impose such conditions to encourage and ensure that all shrimp caught in a country that wishes to export shrimps to the US is caught using TEDs, it is unfair that the US requires the exporting country to comply with US regulations if shrimps are destined to third markets.

The Appellate Body noted, as did the *Shrimps* Panel, a failure on the part of the US to engage in serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements for the protection and conservation of sea turtles before enforcing the import prohibitions.²²⁸ This opinion seems to be consistent with

²²⁷ *Shrimps*, Appellate Body Report, §173.

²²⁸ *Ibidem*, §174.

that of the ICJ: "the obligation [to negotiate] constitutes a special application of a principle which underlies all international relations, and which is moreover recognised in Article 33 of the Charter of the United Nations".²²⁹

The Appellate Body believed that the protection and conservation of highly migratory species of sea turtles demands concerted and co-operative efforts on the part of the many countries whose waters are traversed in the course of recurrent sea turtle migrations. Again, as in the Panel Report, Principle 12 of Rio Declaration was quoted²³⁰ to emphasise the fact that unilateral actions should be avoided and that measures addressing transboundary or global environmental problems should be based on international consensus. The Appellate Body also quoted the Convention on Biological Diversity²³¹, CITES²³², Agenda 21²³³ of the UNCED and the 1996 Report of the Committee on Trade and Environment²³⁴, which all call for the avoidance of unilateral measures.

The fact that the US did negotiate and conclude an agreement with five countries, the Inter-American Convention, for the protection and conservation of sea turtles led the Appellate Body to conclude that this provided evidence that an alternative course of action was reasonably available to the US for securing the legitimate policy goal of its measures. The Appellate Body found that the effect of the US negotiating seriously with some, but not with other Members (including the appellees) that export shrimps to the US was discriminatory and unjustifiable.²³⁵

²²⁹ *Continental Shelf Case*, ICJ Rep., (1968), §86. See G. Marceau, "Conflicts of Norms and Conflicts of Jurisdictions – The Relationship between the WTO Agreement and MEAs and other Treaties, 35 *JWT* 6 (2001), p1125.

²³⁰ *Shrimps*, Appellate Body Report, §175.

²³¹ Article 5.

²³² Annex I.

²³³ §2.22(i).

²³⁴ WT/CTE/1, 12 November 1996, §171.

²³⁵ *Shrimps*, Appellate Body Report, §177-180.

The existence of the Inter-American Convention demonstrates that a less restrictive device was available. The Appellate Body, therefore, in performing its balancing test under the *chapeau* also used an LTRA test.

The Appellate Body concluded that the unilateral character of the application of Section 609 heightened the disruptive and discriminatory influence of the import prohibition and underscored its unjustifiable character.²³⁶

The Appellate Body then found that the application of Section 609, through the implementing guidelines also resulted in differential treatment among various countries desiring certification as some exporting countries had longer "phase-in" periods during which their respective shrimp trawling sectors could adjust to the US requirements.²³⁷ In addition, the fact that the US made varying efforts to transfer the required TED technology to exporting countries led the Appellate Body to the conclusion that the different treatment may not have been acceptable.²³⁸

The Appellate Body, therefore, concluded that the measures, in their cumulative effect, constituted "unjustifiable discrimination" between exporting countries within the meaning of the *chapeau* of Article XX.

The Appellate Body stated "that the differences in the means of application of Section 609 to various shrimp exporting countries are considered in their cumulative effect" and "that those differences in treatment constitute "unjustifiable discrimination" between exporting countries desiring certification in order to gain access to the United States' shrimp market within the meaning of the *chapeau* of Article XX".²³⁹

²³⁶ *Shrimps*, Appellate Body Report, §180.

²³⁷ *Ibidem*, §181-182.

²³⁸ *Ibidem*, §183.

²³⁹ *Shrimps*, Appellate Body Report, §184.

It is interesting to point out that it was the cumulative effect of the application of the measure that was considered to be unjustifiable discrimination suggesting that the individual aspects of the application of the measure did not by themselves constitute unjustifiable discrimination. However, it is very unlikely, considering the restrictive approach panels have taken in interpreting Article XX and the nature of a balancing test, that future panels would find that if not all these elements were present that the application of the measure would not constitute unjustifiable discrimination.

The Appellate Body then considered whether the measures constituted arbitrary discrimination. This suggests that unlike the Appellate Body in the *Gasoline* case, the Appellate Body in the *Shrimps* case did not equate the terms "arbitrary" and "unjustifiable" discrimination.

The Appellate Body relied on the fact that Section 609, in its application, imposed a rigid and unbending requirement that countries requiring certification adopt a comprehensive regulatory programme that was essentially the same as the US programme, without inquiring into the appropriateness of the regulatory programme for conditions prevailing in exporting countries²⁴⁰ to find that the measures not only constituted unjustifiable discrimination but also arbitrary discrimination. In addition, the Appellate Body found that there was little flexibility in how officials made the determination for certification pursuant to these provisions and that this inflexibility also constituted arbitrary discrimination.

The Appellate Body also relied on other factors in finding that the application of the measures constituted arbitrary discrimination such as the fact that the administrative procedures for acquiring certification were not transparent or predictable, that there were no procedures for review or appeal for those applications that had been rejected²⁴¹ and that there was no way for exporting Members to be certain that the measures were being applied in a fair and just manner by the US and that therefore

²⁴⁰ *Shrimps*, Appellate Body Report, §173.

²⁴¹ *Ibidem*, §188.

the exporting Members applying for certification whose applications were rejected were denied basic fairness and due process, and were discriminated against, *vis-à-vis* those Members that were granted certification.²⁴²

The Appellate Body in distinguishing between arbitrary and unjustifiable discrimination certainly did not clarify the difference between these two forms of discrimination. In certain instances, the measures were found to be applied in a way that constituted both arbitrary and unjustifiable discrimination and in other circumstances only one form of discrimination was found to be present. The Appellate Body failed to give the reasoning behind its differentiation and did not set any criteria for establishing the nature of the discrimination. In other words, it is not clear from the findings why one form of discrimination is identified as opposed to another.

It is clear from the more recent panels that meeting the requirements contained in the *chapeau* of Article XX is a very difficult hurdle for the importing country to overcome. One of the main difficulties is that panels themselves do not precisely and definitely know what actually constitutes arbitrary or unjustifiable discrimination and whether these two forms of discrimination are in fact different. So far panels have treated this phrase in a rather superficial and vague manner making it difficult to determine the way future panels will decide.

Ambiguity will remain unless these terms are clearly defined and differentiated so that panels are able to approach the interpretation of Article XX in a systematic and consistent fashion.

The *Shrimps* Appellate Body, in appearance at least, widened the scope of the *chapeau* of Article XX by recognising that unilateral measures that limit the exporting countries' access to the importing country's market could under certain circumstances be permitted. However, in practice, the result is to a large extent the

²⁴² *Shrimps*, Appellate Body Report, §189.

same as in the *Shrimps* Panel Report as there is extremely little room for unilateral actions to be accepted, especially where the resource to be conserved is located in an area of common property like the high seas.

Therefore, although, the Panel and Appellate Body decisions approach the interpretation of Article XX in different ways, it is a common feature that unilateral trade measures will only have an extremely small chance of being justified under Article XX especially where multilateral solutions are reasonably available. The reason is that the WTO views unilateral attempts to impose standards on other nations as depriving those nations of the freedom to balance environmental policies with economic needs. These attempts create resentment especially on the part of developing countries as they often fail to take into account their environmental priorities and economic needs. Costly environmental measures inhibit the freedom to develop economically and may not necessarily be the most efficient in a given country. In addition, it is probably fair to say that a national government involved in making policy is better able to express its own economic and environmental needs than a foreign government enforcing its views unilaterally. Unilateral trade bans undermine this principle by imposing standards upon other countries that reflect the cost-benefit analysis of conditions and values of the importing country.

The *Shrimps* Appellate Body, however, did not consider whether unilateral measures could be permitted, if it was not possible to address the issue through the negotiation of an international agreement, for example, because there was no common interest due to differences in the environmental priorities of countries, or if serious attempts had been made to negotiate an international agreement but had not succeeded.

This issue was resolved in the *Shrimps II* case, where Malaysia made recourse to Article 21.5 of the DSU concerning the Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in

Shrimp Trawl Fishing Operations (the "Revised Guidelines").²⁴³ The certification requirements were more lenient as certification would not only be granted if countries used TEDs but also if substitutes for TEDs were used or if a country could demonstrate that its shrimp fishing did not threaten sea turtles.

The *Shrimps II* Panel found that the Revised Guidelines were justified under Article XX as long as "ongoing serious, good faith efforts to reach a multilateral agreement, remain satisfied."²⁴⁴ In the *Shrimps II* Appellate Body case, Malaysia argued that the *Shrimps* Appellate Body decision imposed an obligation to *conclude* a multilateral agreement in order to comply with the *chapeau*.²⁴⁵ The *Shrimps II* Appellate Body found, however, that the US could not be required to conclude an agreement.²⁴⁶ The Appellate Body's conclusion appears to be justified as an obligation to conclude an agreement would provide too much power to a country that did not wish to negotiate an agreement.

This is a welcome development from an environmental/health perspective as it implies that if a recalcitrant state does not wish to negotiate, trade-related environmental/health measures may nevertheless be imposed under certain conditions.

b) The balancing test – a variable trade-off device

The *chapeau* analysis in the *Gasoline* case was very close to the LTRA test, and the *Shrimps* Appellate Body used a balancing approach combined with a LTRA test in determining the consistency of the measure with the *chapeau*.

²⁴³ *United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of DSU by Malaysia*, 21 November 2001, Appellate Body Report, WT/DS58/AB/RW.

²⁴⁴ *United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of DSU by Malaysia*, Panel Report, 15 June 2001, WT/DS58/RW, §6.1.

²⁴⁵ *Shrimps II*, Appellate Body Report, §16.

²⁴⁶ *Ibidem*, §124.

The necessity test in the analysis of the *chapeau* when Article XX(g) is invoked supplements the broader balancing of rights and obligations, that are explicitly required in the *chapeau*. The *Shrimps* Appellate Body stated that:

*"The task of interpreting and applying the chapeau is ... essentially the delicate one of locating and marking out a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions (e.g. Article XI) of the GATT 1994, so that neither of the competing rights will cancel out the other and thereby distort and nullify or impair the balance of rights and obligations constructed by the Members themselves in that Agreement. The location of the line of equilibrium, as expressed in the chapeau, is not fixed and unchanging; the line moves as the kind and shape of the measures at stake vary and as the facts making up specific cases differ."*²⁴⁷

Therefore, as an LTRA test is not performed under Article XX(g), a form of LTRA test is part of the overall balancing test of the *chapeau*.

Presumably, where a measure is examined for consistency under Article XX(b), the *chapeau* analysis also performs a balancing test but would pay less attention to the LTRA test since this is already part of the necessity test under Article XX(b). In the *Asbestos* case, the Appellate Body did not examine the *chapeau* of Article XX even though the Panel had considered the *chapeau* and that the application of the *chapeau* was appealed. The reason the Appellate Body did not make any findings with respect to the *chapeau*, is that its analysis under Article XX(b) included in addition to the LTRA test, a means-end test and a balancing test. This seems to indicate that the *Asbestos* case possibly went too far in its analysis of Article XX(b), leaving the *chapeau* analysis superfluous.

The analysis under the *chapeau* appears to depend, in part, on the subparagraph of Article XX that is under consideration. The effect of this interpretation by the DSB is that human health or life is given the same importance as the conservation of exhaustible natural resources, thereby rectifying the rather unreasonable distinction between Article XX(b) and (g).

In general a balancing test weighs all factors and is less precise in its determination of whether a measure is appropriate than a cost-benefit analysis or comparative cost-benefit analysis and does not restrict the validation of a measure to whether it is proportionate to the goal that it is supposed to achieve, as is the case with a proportionality test, or whether more efficient alternatives would be preferable.²⁴⁸

In using a balancing test, the DSB has a huge discretion in determining the compatibility of measures with the requirements of Article XX. The balancing test is one of the least predictable of the trade-off mechanisms examined.²⁴⁹ In addition, it does not pay much attention to distributive concerns and the problem of interpersonal comparison of utility is also present although to a lesser extent than the cost-benefit analysis.²⁵⁰ However, the advantage of a balancing test is that non-commensurable values can be taken into consideration,²⁵¹ and that it complements the analyses of the subparagraphs of Article XX.

The analysis of the trade-off devices used by the DSB has demonstrated that none of them is ideal, whether used individually or cumulatively. However, the cumulative use of the trade-off devices ensures that the deficiencies of one type of trade-off device can to some extent be compensated by the advantages of another trade-off mechanism. However, a major problem that is common to all devices is that the DSB has the discretion to decide on the standards applied in these tests. In other words, the application of the trade-off devices can be variable and unpredictable. Therefore, the DSB should be encouraged to approach the standards applied when using these trade-off devices in a consistent fashion and in a manner that promotes the objective of increasing linkage between issue areas.

²⁴⁷ *Shrimps* Appellate Body Report, §167.

²⁴⁸ J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

²⁴⁹ *Ibidem*.

²⁵⁰ *Ibidem*.

²⁵¹ J.P. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* (1998).

D. CONCLUSION

The analysis of the panel and Appellate Body decisions demonstrated that the use of unilateral trade-related environmental/health measures without serious across the board negotiations has been the most important element and decisive factor for the DSB in determining the consistency of these measures when applied extrajurisdictionally.

However, some countries view environmental and health protection more highly than others and try to force these values on trading partners. Unilateral trade measures are effective and inexpensive as a government can set its policies without any requirement of negotiation or assessment of any other country's opinion. A country imposing unilateral measures receives full advantage of the environmental protection, along with continued trade. On the other hand, the country targeted by the unilateral measures must accept policies that interfere with its own development strategy. This may have a negative impact on the exporting country's economy but also possibly on the long-term development of its environmental law. However, it could also be argued that if the importing country is not permitted to use unilateral measures, its development strategy and the development of its environmental law could also be jeopardised.

Nevertheless, a multilateral approach to environmental protection would prove legitimate and most effective in the long-run for both the importing and exporting country. It is clear that the WTO favours multilateral to unilateral linkage of issue areas, although as the *Asbestos* case demonstrates, unilateral measures aimed at protecting the domestic environment can be GATT 1994 consistent.²⁵² The promotion of multilateral co-operation is not unique to the international trading system. For example, in the *Lac Lanoux* arbitration, the obligation to consult and

²⁵² See *Asbestos* Appellate Body Report.

negotiate in good faith was considered as customary law.²⁵³ In the *Mox Plant* case, the ITLOS tribunal held that Ireland and the UK should cooperate and enter into consultations.²⁵⁴

The WTO promotes the idea that countries should negotiate international cooperative agreements to deal with environmental problems. However, even if trade measures are taken pursuant to MEAs this does not mean that measures would be justified in the WTO. Indeed, measures taken pursuant to a MEA raise interesting questions as to their compatibility with the GATT²⁵⁵ although assurance was given by WTO officials that the WTO would not "stand in the way" of MEAs.²⁵⁶ In addition, there are many obstacles to participation in multilateral agreements. Indeed, there may be disagreement on how best to tackle problems, means-end relationships, the costs of participation may deter potential participants, the fact that the costs are known but the benefits uncertain, problems of cost allocation of responsibility for dealing with a given problem, differences in priorities, preferences, per capita income within a country and between countries, environmental endowments, the degree of concern for future generations and socio-cultural traditions.²⁵⁷ The interpretation of scientific evidence may also differ and there may be disagreement over the existence of a problem and diverging expectations about the pace of future technological innovations.²⁵⁸

In addition, Demsetz argues that users of a communal resource will not be able to agree on the management of the resource even though it would be advantageous for

²⁵³ The Tribunal held that France had complied with its obligations under a treaty and customary law to consult and negotiate in good faith before diverting a watercourse shared with Spain. *Lac Lanoux Arbitration*, (France v. Spain) (1957) 24 ILR 101.

²⁵⁴ *The Mox Plant Case (Ireland v. United Kingdom)*, Request for Provisional Measures, Order, 3 December 2001, International Tribunal for the Law of the Sea, www.un.org, the Tribunal, §1.

²⁵⁵ Chapter 5 deals more fully with this issue.

²⁵⁶ Address by former WTO Director-General Renato Ruggiero given on 17 March in Geneva at the WTO's Symposium on "Strengthening Complementarities: Trade, Environment and Sustainable Development", WTO Focus, April 1998, No.29, p7.

²⁵⁷ R. Blackhurst and A. Subramanian, "Promoting Multilateral Cooperation on the Environment" in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p257.

²⁵⁸ *Ibidem.*, p250.

all users of the resource to co-operate and decrease their usage of the resource.²⁵⁹ As Barrett notes “the reason is that if this improved situation is attained, every user will earn even higher returns by free-riding on the virtuous behaviour of the remaining co-operators”.²⁶⁰ In game theory, this situation is represented by the "prisoners' dilemma game", where countries “in the pursuit of their own private gains actors impose costs on each other independently of each other's action; that is, in the pursuit of its national interest State A makes State B worse off regardless of what the latter does, and vice versa”.²⁶¹

Therefore, united action on the part of users can be expected to be unstable, co-operative agreements if they are reached will not persist.²⁶²

This point of view is overly pessimistic as in reality many MEAs exist and some have been effective in achieving their goal.²⁶³ However, Demsetz's point of view highlights the problem of free-riding on efforts to reduce an environmental problem. Free-riding occurs because public goods are non-excludable in the sense that it is “impossible or very costly to deny access to an environmental asset”.²⁶⁴ Since the public can benefit from the public good no matter who pays for it, there is naturally little incentive to voluntarily contribute to the cost of the good.²⁶⁵

²⁵⁹ H. Demsetz, “The Exchange and Enforcement of property Rights”, 3 *Journal of Law and Economics* (1964), pp11-26. S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p446.

²⁶⁰ S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p446.

²⁶¹ D. Snidal, “Coordination versus Prisoner's Dilemma: Implication for International Cooperation and Regimes”, 79 *The American Political Science Review* (1985), pp926-7.

²⁶² S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p446.

²⁶³ See for example 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.

²⁶⁴ N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In Theory and Practice*, (1997), pp37-42.

²⁶⁵ M. Jacobs, *The Green Economy - Environment, Sustainable Development and the Politics of the Future*, London, (1991), p214. See also R. Blackhurst and A. Subramanian, “Promoting Multilateral Cooperation on the Environment”, in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p258.

Intervention by “the state, the courts or the leaders of the community” in order to develop private property rights to a resource is necessary to overcome the common property dilemma.²⁶⁶ However, even an international institution such UNEP that has the mandate to co-ordinate international environmental protection requires the consent of the parties involved.²⁶⁷ In other words, co-operation among sovereign nations remains voluntary.²⁶⁸

Free-riding problems also occur where an externality is unidirectional, for example, the destruction of the rainforest “the country causing the externality will, without a negotiated settlement, ignore the damages its activities impose on other countries. This is the full non-co-operative outcome.”²⁶⁹ In this case, all countries that are affected by the externality would have the incentive to pay the polluting nation to cease its activities.²⁷⁰ However, a contribution by any one country would confer benefits on all others and, therefore, these other countries would be better off free-riding.²⁷¹

Where the externalities are reciprocal, such as is the case in fisheries management or climate change, on the other hand, all countries have an incentive to take environmental measures even in the absence of a binding agreement.²⁷² However,

²⁶⁶ H. Demsetz, “The Exchange and Enforcement of property Rights”, 3 *Journal of Law and Economics* (1964), pp11-26. S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p446.

²⁶⁷ S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p446.

²⁶⁸ R. Blackhurst and A. Subramanian, “Promoting Multilateral Cooperation on the Environment”, in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p258.

²⁶⁹ S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p448.

²⁷⁰ *Ibidem*, p447.

²⁷¹ S. Barrett, “The Economics of International Agreements for the Protection of Environmental and Agricultural Resources”, Report prepared for the Policy Analysis Division FAO Economic and Social Department, <http://www.fao.org/docrep/T4900E/T4900E00.htm>. See also S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p447. H. Demsetz, “Toward a Theory of Property Rights”, 57 *American Economic Review* (1967), pp349-57.

²⁷² S. Barrett, “International Cooperation for Environmental Protection”, in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p449.

this incentive is dependent on the actions of all other countries. Reciprocal externalities imply that a country that reduces a certain activity that is harmful to the environment will enjoy improved environmental quality provided other countries do not increase detrimental activities so as to offset the efforts of the country reducing environmental harmful activities.²⁷³ On the other hand, other countries will have an incentive to not raise their environmental standards as they enjoy increased environmental benefits without changing their policies.²⁷⁴

Finally, it should be noted that even where agreements are reached, these could come too late or be insufficient to deal with the environmental or health problem. However, the WTO seems to have recognised the difficulties entailed in reaching a co-operative agreement, as only the party wishing to promote environmental/health protection in a given field is required to negotiate in good faith but is under no obligation to conclude a co-operative agreement.

This is a welcome development that increases the linkage between trade and environmental/health issues.

²⁷³ S. Barrett, "International Cooperation for Environmental Protection", in R. Dorfmann and N.S. Dorfmann (eds.), *Economics of the Environment*, 3rd ed., (1993), p449.

²⁷⁴ *Ibidem*.

CHAPTER 3

WTO DISPUTES INVOLVING THE SANITARY AND PHYTOSANITARY AGREEMENT

A. INTRODUCTION

In the previous chapter, an in-depth analysis of Article XX of the GATT 1994 was performed in order to evaluate its potential in defending environmental and health interests within the dominant free trade framework of the WTO. However, measures aimed at protecting human, animal and plant life or health are also subject to the disciplines of the Agreement on the Application of Sanitary and Phytosanitary Measures¹ (hereinafter “SPS Agreement”), which entered into force on 1 January 1995.

This chapter will evaluate the SPS Agreement as a means of integrating trade and the protection of human, animal and plant life or health. An in-depth analysis of the case law relating to the SPS Agreement will be performed and the analysis will also consider whether and what changes should be made to the SPS Agreement or to the interpretation of the SPS Agreement in order to achieve a fair balance between health and trade concerns.

B. ORIGINS OF THE SPS AGREEMENT

The SPS Agreement was created following concerns during the Uruguay Round that efforts in eliminating agricultural specific non-tariff barriers would be frustrated by the use and proliferation of disguised protectionist sanitary and phytosanitary

¹ The Uruguay Round Final Act, Annex 1A.

(hereinafter “SPS”) measures. It was believed that the GATT 1947 did not provide an adequate framework for the regulation of SPS measures. Both Article XX of the GATT 1947, where an SPS measure could be exempt from other GATT provisions if it was “necessary to protect human, animal or plant life or health”² and did not constitute “arbitrary or unjustifiable discrimination or a disguised restriction on international trade”³, as well as the plurilateral 1979 Agreement on Technical Barriers to Trade (hereinafter “Standards Code”), which regulated technical requirements for food safety and animal and plant health measures such as labelling, inspection requirements and pesticide residue limits, were not considered to provide enough clear, specific and in-depth coverage of the subject matter. Neither Article XX nor the Standards Code solely focused on SPS regulations but on all product standards and technical regulations. In addition, the Standards Code was not binding on all GATT Contracting Parties.⁴ Even in a situation where two countries were bound by the Standards Code and were involved in a dispute over the Standards Code, either country could block a request to convene a panel or block the adoption of a panel report, as the dispute settlement process prior to the WTO dispute settlement mechanism (DSM) was consensus-based.

The SPS Agreement, therefore, elaborated rules that are binding on all WTO Members, that specifically deal with SPS measures and that expand on Article XX by providing a specific framework of rules and guidelines for assessing SPS measures.⁵

The TBT Agreement, analysed in Chapter 4, replaced and improved the Standards Code, which now covers technical regulations, standards and conformity assessment procedures to the extent that these are not SPS measures.

² Article XX(b).

³ Article XX, Preamble.

⁴ G. Marceau and J. P. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p813-814.

⁵ SPS Agreement, Preamble.

C. APPLICABILITY OF THE SPS AGREEMENT

The following sections will examine under which circumstances the SPS Agreement is applicable as this has in certain cases proved to be a subject of dispute.

I. In General

SPS measures are defined in the SPS Agreement as measures taken:

(a) *“to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease causing organisms”;*

(b) *“to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms, in foods, beverages or feedstuffs”;*

(c) *“to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests”;* and

(d) *“to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests”.*⁶

The definition further clarifies that the term “SPS measure” covers:

*“all relevant laws, decrees, regulations, requirements and procedures that seek to regulate product criteria; process and production methods; testing, inspection, certification and approval procedures; quarantine treatment; provisions on relevant statistical methods, sampling procedures and risk-assessment methods; and packaging and labelling requirements related to food safety”.*⁷

⁶ SPS Agreement, Annex A, §1.

⁷ *Ibidem.*

The *EC Measures Concerning Meat and Meat Products (Hormones)*⁸ (hereinafter “*Hormones*”) case was the first to deal with the interpretation of the SPS Agreement. The dispute between the US and the EC and between Canada and the EC concerned an EC ban on cattle meat and meat products treated with hormones for growth promotion purposes.⁹

The US and Canada brought a claim under, *inter alia*, Articles 2, 3 and 5 of the SPS Agreement and Articles III, XI and XX of the GATT 1994.

All parties to the *Hormones* dispute agreed that the measures at issue were sanitary measures as they were applied to protect human life or health from risks arising from contaminants in food¹⁰, which includes veterinary drug residues.¹¹ The SPS measures were also considered to fall within the scope of Article 1.1 of the SPS Agreement, which provides that the Agreement applies to SPS measures, which may, directly or indirectly affect international trade since the measures at issue resulted in an import ban on meat and meat products from treated animals, they clearly affected international trade.

⁸ Complaint by the United States, 18 August 1997, WT/DS26/R/USA, Complaint by Canada, 18 August 1997, WT/DS48/R/CAN. Report of the Appellate Body, 16 January 1998, WT/DS26/AB/R, WT/DS48/AB/R.

⁹ The measure did not concern live animals and animals other than cattle to which growth promotion hormones had been administered. *Hormones*, US Panel Report, §8.18-8.19; Canada Panel Report, §8.21-8.22. The hormones at issue were melengestrol acetate (hereinafter “MGA”), zeranol and trenbolone, which are synthetic hormones that mimic the action of natural hormones and oestradiol-17, testosterone, progesterone which are natural hormones. The EC Council adopted Directive 81/602/EEC in 1986, requiring the EC Member States to prohibit the administration to farm animals of substances having a thyrostatic, oestrogenic, androgenic or gestagenic action. MGA fell within the general prohibition of this Directive.

In 1988, the EC Council adopted Directive 88/146/EEC which brought the administration to farm animals for growth promotion purposes of these five hormones within the general prohibition imposed by Directive 81/602/EEC. Directive 88/146/EEC maintains the permission to administer natural hormones to animals for therapeutic and zoo-technical purposes. Directive 88/299/EEC lays down the conditions for applying the derogations contained in Directive 88/146/EEC. On 1 July 1997, these directives were repealed and replaced by Council Directive 96/22/EC, of 29 April 1996 that confirmed and extended the above-mentioned prohibitions. Indeed, the role of veterinarians and the provisions on control and testing were reinforced thereby restricting the use of the natural hormones for therapeutic or zoo-technical purposes.

¹⁰ SPS Agreement, Annex A, §1(b).

¹¹ Footnote 5 to Annex A clarifies that “contaminants” include “veterinary drug residues”.

In the *Australia – Measures Affecting Importation of Salmon*¹² (hereinafter “*Salmon*”) case, the second case to deal with the SPS Agreement, Canada claimed that certain Australian quarantine measures effectively banned the importation of fresh, chilled or frozen ocean-caught Pacific salmon¹³ and freshwater and cultured salmon¹⁴ and were, therefore, inconsistent with, *inter alia*, Articles 2, 3 and 5 of the SPS Agreement and Article XI and XX of the GATT 1994.

The “Quarantine Proclamation 86A of 1975” (“QP86A”)¹⁵ and published requirements pursuant to QP86A: the “Conditions for the Importation of Salmonid Meat and Roe into Australia”¹⁶ (“1988 Conditions”), the “Requirements for the Importation of Individual Consignments of Smoked Salmon Meat” (“1996 Requirements”)¹⁷, required salmonid product to be heat treated for certain prescribed durations and temperatures prior to importation into Australia.

Australia performed a risk analysis with respect to fresh wild salmon the results of which were set forth in a “Salmon Import Risk Analysis”¹⁸ (“1996 Final Report”)¹⁹.

The measure according to the Panel, was the QP86A as implemented and confirmed by the 1988 Conditions, the 1996 Requirements and the 1996 Final Report in so far as it prohibits the importation into Australia of fresh, chilled or frozen salmon.²⁰ The Appellate Body, on the other hand, found that the measure at issue was the import prohibition on fresh, chilled or frozen salmon set forth in the QP86A and confirmed by the 1996 Final Report and not the 1988 Conditions and 1996 Requirements which

¹² Panel Report, 12 June 1998, WT/DS18/R. Appellate Body Report, 20 October 1998, WT/DS18/AB/R.

¹³ Fresh, chilled and frozen: adult, wild, ocean-caught Pacific salmon.

¹⁴ Adult, wild, freshwater-caught Pacific salmon, adult Pacific salmon cultured in seawater on the Pacific coast, adult Atlantic salmon cultured in seawater on the Atlantic and Pacific coast.

¹⁵ Australian Government Gazette, No. S33, 21 February 1975.

¹⁶ Chief Quarantine Officer (Animals) Circular Memorandum 166/88, 9 June 1988.

¹⁷ AQIS Quarantine Operational Notice 1996/022, 24 January 1996.

¹⁸ Australian Salmon Import Risk Analysis of December 1996.

¹⁹ The 1996 Report was preceded by a 1995 Draft Report.

²⁰ *Salmon*, Panel Report, §8.19.

lay out a separate measure that permits heat treated salmon²¹ to be imported. It is not a consequence of the heat treatment of smoked salmon that the imports of fresh, chilled and frozen salmon are prohibited. Therefore, the Appellate Body reversed the Panel's finding,²² which had treated these separate measures as “two sides of the same coin”²³ as the Appellate Body correctly noticed that smoked salmon is a different product than fresh, chilled or frozen salmon.

Nevertheless, it was clear that the SPS Agreement applied to the measure in dispute as it dealt with the protection of animal life and health from risks arising from “the entry, establishment or spread of pests, diseases ... or disease-causing organisms” in general and because it affected international trade.²⁴

In the *Japan – Measures Affecting Agricultural Products*²⁵ (hereinafter “*Agricultural Products*”) case, the US complained about Japan's import prohibition on agricultural products²⁶, that may carry codling moth.

Japan required testing and demonstration of quarantine efficacy of treatment with methyl bromide (fumigation with MB) or a combination of fumigation with MB and cold storage for each variety of a product that may carry this pest. Only once this was done would the import ban be lifted and this only for the particular variety or varieties tested (“varietal testing requirement”). The US contested the fact the import prohibition would only be lifted variety-by-variety even if the treatment had proved to be effective for other varieties of the same product.

21 Such as smoked salmon.

22 *Salmon*, Appellate Body Report, §105.

23 *Ibidem*, §109.

24 Annex A, §1(a). See *Salmon*, Panel Report, §8.34.

25 Panel Report, 27 October 1998, WT/DS76/R. Appellate Body Report, 22 February 1999, WT/DS76/AB/R.

26 Products such as apricots, cherries, plums, pears, quinces, peaches, nectarines, apples and walnuts. See Plant Protection Law, Article 7 §1, item 1, 4 May 1950 and Plant Protection Law Enforcement Regulations, Ministerial Ordinance of 30 June 1950.

The US claimed, *inter alia*, violations of Article 2, 5, 7 and 8 of the SPS Agreement and Article XI of the GATT 1994.

The question whether the varietal testing requirement could be considered a phytosanitary measure was addressed by the Panel when examining the consistency of the measure with transparency requirements in Article 7. Article 7 contains requirements to notify and provide information in accordance with Annex B which applies when the measure has been adopted, the measure is an SPS regulation and the measure is applicable generally. Japan argued that since the varietal testing requirement was not mandatory as exporting countries could demonstrate quarantine efficiency by other means, that the measure was not a “phytosanitary regulation”. The Panel, however, stated that nowhere did the wording of the paragraph require such measures to be mandatory or legally enforceable. The Panel also referred to Annex A §1 that states, “phytosanitary measures include all relevant laws, decrees, regulations, requirements and procedures”. In addition, Annex B, §1 indicates that the list is not exhaustive in nature as the words “such as” are used. The scope of application is not limited to “laws, decrees or ordinances”, but also includes other instruments that are applicable generally and are similar in character to the instruments explicitly referred to in Annex B §1. This is consistent with the object and purpose of Annex B §1 that enables interested Members to become acquainted with SPS regulations adopted or maintained by other Members in order to enhance transparency regarding these measures.²⁷ Since it was undisputed that the varietal testing requirement was applicable generally and that the varietal testing requirement had an actual impact on exporting countries, the Panel considered that the measure was of a similar character to laws, decrees and ordinances, the instruments explicitly referred to in the footnote to Annex B §1.²⁸

In addition, it was clear that the purpose of the measure was to protect plant life or health from the establishment and spread of pests and was therefore, considered to be

²⁷ *Agricultural Products*, Appellate Body Report, §109.

²⁸ *Ibidem*, §110.

a phytosanitary measure and that since the import prohibition clearly restricted international trade, the SPS Agreement was applicable.

In the *Japan – Measures Affecting the Importation of Apples* case²⁹ (hereinafter “*Apples*” case), the US complained that multiple requirements and prohibitions on the importation of apples imposed by Japan to prevent the introduction of fire blight disease-causing organism (*Erwinia Amylovora*) in Japan were inconsistent with Articles 2.2, 5.1, 5.2, 5.6, 5.7, 7 and Annex B of the SPS Agreement.

The *Apples* Panel decided to consider the multiple requirements³⁰ imposed on imported apples from the US as a single measure³¹ and identified the “phytosanitary question at issue” as the risk of transmission of fire blight through apples.³² The objective of the measure was the protection of plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of disease-causing organisms. The regulations affected international trade as the import of apples was restricted.

²⁹ WT/DS245/R, 15 July 2003.

³⁰ “(a) The prohibition of imported apples from US states other than apples produced in designated areas in the states of Oregon or Washington; (b) the prohibition of imported apples from orchards in which any fire blight is detected on plants or in which host plants of fire blight (other than apple trees) are found, whether or not infected; (c) the prohibition of imported apples from any orchard (whether or not it is free of fire blight) should fire blight be detected within a 500-meter buffer zone surrounding such orchard; (d) the requirement that export orchards be inspected three times yearly (at blossom, fruitlet, and harvest stages) for the presence of fire blight for purposes of applying the above-mentioned prohibitions; (e) a post-harvest surface treatment of apples for export with chlorine; (f) production requirements, such as chlorine treatment of containers for harvesting and chlorine treatment of the packing facility; (g) post-harvest separation of apples for export to Japan from fruits destined to other markets; (h) certification by US plant protection officials that fruits are free of fire blight and have been treated post harvest with chlorine; and (i) confirmation by Japanese officials of the US officials’ certification and inspection by Japanese officials of disinfection and packaging facilities.” *Apples* Panel Report, §8.25.

Japan maintains these restrictions and requirements through the Plant Protection Law (Law No. 151; enacted 4 May 1950), the Plant Protection Regulations (Ministry of Agriculture, Forestry, and Fisheries Ordinance No. 73, 30 June 1950, the Ministry of Agriculture, Forestry and Fisheries Notification No. 354, 10 March 1997) and related detailed rules and regulations, including Ministry of Agriculture, Forestry, and Fisheries Circular 8103. *Apples* Panel Report, 8.7.

³¹ *Apples* Panel Report, §8.17.

³² *Ibidem*, §8.218.

It is clear from the above that the applicability of the SPS Agreement depends on the purpose ascribed to the measure by the defending party and on whether it affects international trade regardless of whether the measure is voluntary or mandatory.

In determining whether a measure qualifies as an SPS measure, it is important to determine whether the purpose of the measure is to protect human, animal or plant life from risks arising from hazards such as diseases, contaminants, additives, toxins and pests. Therefore, in order for a measure to be considered as an SPS measure, two elements must be present. First, the legitimate objective must be the protection of human, animal or plant life and health and second, the risks must originate from one of the identified hazards in the SPS Agreement.³³

II. Application of the SPS Agreement to Measures Enacted Before 1995

The question was raised in the *Hormones* case whether the provisions of the SPS Agreement apply to measures enacted before the date of entry into force of the WTO Agreement. Although the majority of the EC directives in dispute were enacted prior to January 1, 1995,³⁴ the date of entry into force of the WTO Agreement, both the Panel and the Appellate Body held that the SPS Agreement was applicable to the dispute.³⁵ Both the Panel and Appellate Body supported this position by referring to Article 28 of the Vienna Convention on the Law of Treaties which states that “unless a different intention appears from the treaty or is otherwise established, its provisions do not bind a party in relation to ... any *situation which ceased to exist* before the date of the entry into force of the treaty”. Therefore, since the measure did not cease to exist when the SPS Agreement entered into force and since the Agreement did not reveal an intention not to cover such measures, it is clear that the measure was

³³ Annex A, §1.

³⁴ EC Directives 81/602/EEC, 88/146/EEC and 88/299/EEC were enacted prior to 1 January 1995. Directive 96/22/EC that replaced these earlier directives became effective on 1 July 1997.

³⁵ *Hormones*, US Panel Report, §8.28 and Canada Panel Report, §8.31. Appellate Body Report, §253(d).

subject to the requirements of the Agreement. The Appellate Body added that several articles of the SPS Agreement indicated that the Agreement is intended to cover pre-existing measures, since they refer to “maintaining” SPS measures as opposed to introducing or adopting such measures.³⁶ In addition, Article XVI.4 of the WTO Agreement which states that each Member “shall ensure the conformity of its laws, regulations and administrative procedures with its obligations as provided in the annexed Agreements”, removes all doubt that the SPS Agreement does apply to the previously enacted measures that remain in place once the Agreement enters into force.³⁷ Indeed, the issue was not raised again in the disputes that followed the *Hormones* case.

In the next section, the relationship between the SPS Agreement, TBT Agreement and GATT 1994 will be considered in order to further clarify the applicability of the SPS Agreement.

III. Relationship between the SPS, TBT Agreement and the GATT 1994

According to the text of both the SPS Agreement and TBT Agreement, these agreements are mutually exclusive. The TBT Agreement covers all technical product standards (voluntary or mandatory) except SPS measures.³⁸ The TBT Agreement enables Members to impose measures, which are technical regulations and standards that lay down specifications regarding characteristics of a product, such as quality, performance, safety or dimensions as well as requirements on how it should be packaged or labelled, to the extent that these characteristics are not SPS issues³⁹ and that they aim to fulfil a legitimate objective such as the protection of human health or safety, animal or plant life or health or the environment⁴⁰; the prevention of

³⁶ SPS Agreement, Articles 2.2, 3.3, 5.6 and 5.8.

³⁷ *Hormones*, US Panel Report, §8.27 and Canada Panel Report, §8.30.

³⁸ TBT Agreement, Article 1.5. See Chapter 4.

³⁹ See Chapter 4.

⁴⁰ TBT Agreement, Preamble and Article 2.2. See Chapter 4.

deceptive practices; or national security requirements.⁴¹ The SPS Agreement states that: “nothing in this Agreement shall affect the rights of Members under the TBT Agreement with respect to measures not within the scope of this Agreement”.⁴²

If a measure is clearly considered to be an SPS measure there is no doubt that the SPS Agreement applies. Therefore, the *Hormones* Panel correctly considered the applicability of the TBT Agreement when it found that since the measures at issue were clearly sanitary measures, since the EC’s initial legislation on the use of hormones was undeniably motivated by health concerns, that the TBT Agreement was not applicable to the dispute.⁴³

Therefore, the objective of the measure is critical to the determination of whether a measure is subject to the disciplines of the TBT or SPS Agreement.

However, there may be instances where the application of the SPS and TBT Agreement overlap.

Indeed, a defending party’s measure could have multiple goals, some of which would qualify the measure as an SPS measure and others of which would qualify the measure as a technical regulation or standard. For example, a measure that prohibits the use of an additive might be adopted to safeguard human health (an SPS measure) and to ensure the compositional integrity of a product (a TBT measure). Although this case has not arisen so far in any dispute relating to the SPS Agreement, it could be argued that the measure would be subject to both agreements. If it were possible to distinguish between the TBT and SPS aspects of the measure under consideration, then it could be argued that the SPS Agreement would apply to the particular aspect of the measure that makes the measure an SPS measure and the TBT Agreement would apply where the particular aspect of the measure is a product standard or technical regulation.

⁴¹ TBT Agreement, Article 2.2. See Chapter 4.

⁴² SPS Agreement, Article 1.4.

This reasoning is consistent with the findings of the Appellate Body in the *European Communities - Regime for the Importation, Sale and Distribution of Bananas* (hereinafter “*Bananas*”) case, where the scope of application of the GATT 1994 and the GATS was examined:⁴⁴

“Certain measures could be found to fall exclusively within the scope of the GATT 1994, when they affect trade in goods as goods. Certain measures could fall exclusively within the scope of the GATS, when they affect the supply of services as services. There is yet a third category of measures that could be found to fall within the scope of both the GATT 1994 and the GATS. These are measures that involve a service relating to a particular good or a service supplied in conjunction with a particular good... Under the GATT 1994, the focus is on how the measure affects the goods involved. Under the GATS, the focus is on how the measure affects the supply of the service or the service suppliers involved.”

The relationship between the GATT 1994 and the SPS Agreement is also worth investigating, as the obligations under these two agreements are also different.

The *Hormones* Panel considered the relationship between the SPS Agreement and the GATT 1994, since the EC invoked Article XX(b) of the GATT 1994. The parties to the dispute did not believe that there was a conflict between the two agreements⁴⁵ but considered which of the two agreements should be examined first. The EC was of the opinion that the substantive provisions of the SPS Agreement only interpret Article XX(b) of the GATT 1994⁴⁶ without adding new obligations whereas the procedural provisions contained in the SPS Agreement contain requirements additional to the GATT 1994. Therefore, the EC concluded that the substantive provisions of the SPS Agreement can only be addressed if recourse is made to Article XX(b) of the GATT 1994, i.e., if and only if, a violation of another provision of the GATT 1994 is first established. The additional procedural provisions, on the

⁴³ *Hormones*, US Panel Report, §8.29 and Canada Panel Report, §8.32.

⁴⁴ WT/DS27/AB/R, adopted 25 September 1997, §221-222.

⁴⁵ *Hormones*, US Panel Report, §8.32; Canada Panel Report, §8.35.

⁴⁶ This is limited of course to SPS measures, since it was argued in Chapter 2, that Article XX(b) does not exclusively refer to sanitary measures.

other hand, can be examined directly and independently of prior GATT 1994 violation.

The implication of this interpretation is that if a measure complies with the national treatment and MFN clauses contained in Article I and III of the GATT 1994 there would be no reason to examine the measure under Article XX as the latter only operates as an exception to these non-discrimination principles. The appeal of this reasoning for the EC is that if the measures do not have to be examined under Article XX, neither would they have to comply with the substantive requirements of the SPS Agreement.

The US and Canada, on the other hand, argued that the SPS Agreement is the *lex specialis* for a review of SPS measures and should, therefore, be addressed first. The US claimed that the SPS Agreement is a freestanding agreement, which applies to all SPS measures and imposes requirements additional to those contained in the non-discrimination clauses of the GATT 1994 or to those contained in Article XX of the GATT 1994. Therefore, there was no basis for applying the SPS Agreement only after the GATT 1994 had been violated.

The *Hormones* Panel examined the relationship by considering the ordinary meaning to be given to the terms in their context and in the light of the object and purpose of the Agreement.⁴⁷ The Panel, therefore, considered Article 1.1 of the SPS Agreement, which requires that the disputed measure is an SPS measure that affects international trade but does not require there to be a prior violation of the GATT 1994.

In addition, the Panel noted that the SPS Agreement imposes substantive obligations in addition to those contained in the GATT 1994⁴⁸, in particular Article XX(b), such as the objectives to further the use of harmonised SPS measures and to “improve

⁴⁷ 1969 Vienna Convention on the Law of the Treaties, Article 31.

⁴⁸ The *Salmon* Panel also affirmed this. *Salmon*, Panel Report, §8.39.

human health, animal health and phytosanitary situation in all Member States”.⁴⁹ However, it should be noted that these are objectives and not obligations.

The Panel also justified its view that the SPS Agreement contains additional obligations that are not contained in the GATT 1994 by referring to Article 2.4 of the SPS Agreement which provides that SPS measures “which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of the GATT 1994 which relate to the use of [SPS] measures, in particular the provisions of Article XX(b)” and Article 3.2 which provides that SPS measures “which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of this Agreement and of GATT 1994”.⁵⁰

However, it should be noted that the EC never considered that Article XX(b) would not have to be interpreted in the light of the substantive requirements provided in the SPS Agreement and that the procedural requirements of the SPS Agreement would not have to be followed, but only that it would only have to comply with the substantive obligations once Article XX(b) was examined. Therefore, the most valuable finding made by the Panel is that there is no textual basis that supports the proposal that the SPS Agreement only applies once there is a prior GATT 1994 violation.

The negotiating history of the SPS Agreement supports this finding as although, in the early stages of the Uruguay Round the agreement was drafted as a Decision interpreting the GATT 1947⁵¹, it later evolved into a self-standing agreement in Annex 1A of the WTO Agreement.⁵² If the negotiators had intended the substantive

⁴⁹ SPS Agreement, Preamble.

⁵⁰ See *Hormones*, US Panel Report, §8.40 and Canada Panel Report, §8.43.

⁵¹ Decision of the Contracting Parties on the Application of Sanitary and Phytosanitary Measures, MTN.GNG/NG5/WGSP/7, 20 November 1990, p1.

⁵² In April 1992, negotiators had agreed to change the form of the text into a freestanding Agreement in the MTO Agreement, which later became the WTO Agreement. “Review of

requirements of the SPS Agreement to merely interpret Article XX(b), then it would have been more appropriate to incorporate them into the GATT 1994 as an “Understanding” on the Interpretation of Article XX(b).

In addition, as the Panel correctly noted, the EC’s argument that substantive and procedural requirements should be treated differently does not have any textual basis and would be difficult to perform as some provisions impose both substantive and procedural requirements that cannot simply be dissociated.⁵³

The Panel chose the most efficient manner to conduct its investigation by beginning its analysis with the SPS Agreement since SPS measures must be consistent with the SPS Agreement. If the measure had violated the GATT 1994 non-discrimination rules, it would have been necessary to determine whether the measures were consistent with Article XX(b) and, therefore, also the SPS Agreement.⁵⁴ If the GATT 1994 non-discrimination rules had not been violated⁵⁵, then it would have been necessary to consider the SPS Agreement since consistency with the GATT 1994 does not imply consistency with the SPS Agreement. Indeed, only measures conforming to the SPS Agreement are presumed consistent with the GATT 1994.⁵⁶

Another provision that supports the findings of the *Hormones* and *Salmon* Panels that was not mentioned by either Panel is contained in a general interpretative note to Annex 1A of the WTO Agreement that governs the relation between the GATT 1994 and other agreements of the Final Act of the Uruguay Round in case of conflict. This provision provides that:

Individual Texts in the Draft Final Act, (Informal Note by the Secretariat), Document 707, 15 April 1992, p21 and Document 963, 10 June 1992, p19.

⁵³ *Hormones*, US Panel Report, §8.37; Canada Panel Report, §8.40.

⁵⁴ I disagree with the example given by the Panel that Article 5.1 contains both a procedural and a substantive obligation, as will be discussed in section D.II.1.c.2. However, for example, Article 5.5 does contain both a procedural and a substantive obligation. *Hormones*, US Panel Report, §8.42; Canada Panel Report, §8.45.

⁵⁵ Article XI on quantitative restrictions would not be considered, as it is mutually exclusive from Article III.

⁵⁶ SPS Agreement, Article 2.4.

“In event of conflict between a provision of the General Agreement on Tariffs and Trade 1994 and a provision of another Agreement in Annex 1A ... the provision of the other Agreement shall prevail to the extent of the conflict.”

This interpretative note only refers to cases of conflict between two opposing provisions where the “other Agreement” only takes precedence to the extent of the conflict. Imposing supplementary obligations could be seen as a conflict with the provisions provided in Article XX of the GATT 1994, if one favours a broad definition of conflict,⁵⁷ and, therefore, implies that the SPS Agreement takes precedence to the extent of these supplementary provisions. In the case of the non-discrimination principles contained in the GATT 1994, these could be considered to be in conflict with the fact that the discrimination principle provided for in the SPS Agreement is one relating to arbitrary or unjustified discrimination as opposed to national treatment or MFN. Steinberg who stated that the SPS Agreement requires measures to be applied on a national treatment or MFN basis seems to have misinterpreted this point.⁵⁸ The reason why the SPS Agreement does not impose such a standard is probably due to the fact that since there are differences in climate, pests or diseases and food safety conditions, it is not always appropriate to impose the same SPS requirements on food, animal or plant products originating from different countries.

Therefore, from the above it can be concluded that the SPS Agreement would take precedence over Article I and III and by implication Article XX of the GATT 1994 and that Article XX(b) has become redundant as far as SPS measures taken to protect the territory of the importing state are concerned.

It should be emphasised that the application of the GATT 1994 is only excluded in cases in which another agreement explicitly regulates rights or obligations with regard to a certain trade measure that is similar in scope to one regulated by the GATT 1994. The Appellate Body in the *Bananas* case also took this position in

⁵⁷ See Chapter 5, section B.I.

⁵⁸ R. Steinberg, “Trade-Environment Negotiations in the EU, NAFTA, and WTO: Regional Trajectories of Rule Development”, 91 *AJIL* (1997), p237 and footnotes 30, 31.

finding that the Agreement on Agriculture is *lex specialis* in relation to Article XIII of the GATT 1994.⁵⁹ The GATT 1994, therefore, only applies to the extent that the former does not contain a specific provision.

The SPS Agreement has created an alternative to the GATT approach of moving from Article I, III and IX to Article XX. Under the SPS Agreements even non-discriminatory regulations permissible under the GATT 1994, Article I and III might be challenged under the SPS Agreement as illegitimate. Therefore, in adopting the SPS Agreement, WTO Members recognised that a discrimination-based test is insufficient in distinguishing between legitimate SPS measures and those implemented for protectionist purposes as even non-discriminatory measures have the potential to hamper international trade.

This is similar to the far-reaching *Cassis de Dijon* jurisprudence of the ECJ, where it was held that it is not sufficient that a measure is non-discriminatory, it must also be consistent with the “proportionality principle” or “rule of reason”, which requires that measures be necessary, reasonable and proportional.⁶⁰

In this next section, the obligations of the SPS Agreement will be considered, as this is, of course, an essential process in assessing the SPS Agreement. However, the focus of this chapter will be on the provisions that have been subject to scrutiny by the panels and the Appellate Body, beginning with the rules on harmonisation, which have a substantial impact on the operation of the SPS Agreement.

⁵⁹ *Bananas*, Appellate Body Report, pp94-95, §221-222.

⁶⁰ *Rewe Zentralverwaltung AG v Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)*, Case 120/78, ECR 649, (1979). Proportionality implies that the trade impact and cost of a measure should bear a reasonable relationship to the importance of the social objective it is designed to achieve. In other words, a balance should be struck between different values and interests involved. *EC Commission v. Denmark*, Case 302/86, 1 CMLR (1989), 619, p632. The proportionality test is also used in other contexts. For example, in *Canadian Fisheries Jurisdiction (Spain v. Canada) Judgement*, §74-85, it was recognised that under the rules codified in the UNCLOS (Articles 225 and 298(1)(b)) and the UN Fish Stocks Agreement (Article 22(1)(f)), enforcement of fishery conservation and management measures entails minimal use of force, subject to principles of necessity and proportion. This was subsequently reaffirmed in the 1999 *M/V Saiga* Judgment, §137-138.

D. OBLIGATIONS UNDER THE SPS AGREEMENT

I. Harmonisation

1.) *Scope of Article 3 of the SPS Agreement*

In order to prevent barriers to trade arising through the proliferation of national laws, the SPS Agreement requires that wherever possible, internationally harmonised standards be used.⁶¹

Article 3 of the SPS Agreement contains the rules on harmonisation and it was designed “to harmonise [SPS] measures on as wide a basis as possible”.⁶² In order to reach this objective, Article 3.1 provides that “Members shall base their [SPS] measures on international standards, guidelines or recommendations, where they exist, except as otherwise provided for in this Agreement, and in particular in paragraph 3.” Therefore, Article 3 of the SPS Agreement is not applicable if no international standards exist for the SPS measure in question.⁶³

2.) *Determining the Existence of International Standards*

The first step in determining whether a measure is consistent with Article 3 is to establish the existence of an international standard.

The SPS Agreement uses the levels of protection specified in international standards, guidelines, and recommendations as a baseline for examining the levels of protection provided by measures implemented by parties to the Agreement. Annex A to the SPS Agreement lists the applicable international standards for food safety, animal health and zoonoses, and plant health. With respect to food safety, the applicable standards

⁶¹ SPS Agreement, Article 3.

⁶² *Ibidem*, Article 3.1.

are those established by the Codex Alimentarius Commission (hereinafter “Codex”), an international body of which most WTO Members are member. Codex establishes, *inter alia*, Acceptable Daily Intakes (hereinafter “ADIs”) and Maximum Residue Limits (hereinafter “MRLs”) for various veterinary drugs.⁶⁴

Codex found that, with respect to the natural hormones at issue, when used for growth-promotion purposes in accordance with good animal husbandry practice, ADIs and MRLs were “unnecessary” because the use of the hormones was unlikely to pose a health hazard.⁶⁵ The Codex, therefore, effectively established an “unlimited” residue standard for natural hormones. With respect to the synthetic hormones at issue, Codex established ADIs and MRLs for trenbolone and zeranol but not for MGA.

The Panel, therefore, found that international standards exist in the sense of Article 3.1 for five of the six hormones at issue.⁶⁶ MGA, for which no international standard exists, is, therefore, not subject to the requirements of Article 3. The Panel’s finding was not appealed.

Once it has been determined that a measure is subject to the requirements of Article 3, measures must either fulfil the conditions of Article 3.1, Article 3.2 or Article 3.3.

⁶³ In a case where no international standard is applicable, the measure must still comply with the other provisions of the SPS Agreement. *Hormones*, US Panel Report, §8.251 and Canada Panel Report, §8.254.

⁶⁴ An ADI for a particular veterinary drug provides an estimate of the amount of that drug which may be ingested over a lifetime without appreciable health risk. The corresponding MRL sets a limit on the amount of drug residue permitted in food in order that the ADI not be exceeded.

⁶⁵ See 32nd JECFA Report of 1988. The residue levels of these natural hormones found in meat from treated animals were extremely low relative to the amounts produced daily in human beings, or occurring naturally in other foods and the total residue levels found in meat from treated animals fell within the normal range of levels found in meat from untreated animals.

⁶⁶ *Hormones*, US Panel Report, §8.70; Canada Panel Report, §8.73.

3.) Measures Conforming to International Standards

The most unambiguous provision is Article 3.2, which covers measures that “conform to” an international standard. This means that the measure must be identical to the international standard.⁶⁷

Article 3.2 provides that measures that “conform to” international standards are “deemed to be necessary”. Therefore, measures that are consistent with Article 3.2 will be deemed to be consistent with the necessity requirements contained in Article 2.2 and Article 5.6.⁶⁸ In other words, the measures will be deemed to be “not more trade restrictive than required” and not to have been applied for a longer period than necessary.⁶⁹

However, there are good reasons to believe that it is not appropriate to deem that measures that conform to an international standard are necessary and only applied to the extent necessary. First, an international standard may not be the best option as there may be an alternative that is significantly less trade restrictive⁷⁰ as the standards may have become obsolete and, therefore, not necessary. Second, an international standard is not able to prescribe the duration of the measures since these will often have to be determined on a case-by-case basis suggesting that the measure that conforms to an international standard is not necessarily only applied for a period of time that is necessary.

Although the drafters should not have provided that measures that conform to an international standard are deemed to be necessary, the drafters recognise that measures conforming to international standards could be inconsistent with other provisions of the SPS Agreement. For example, an importing country may restrict

⁶⁷ *Hormones* Appellate Body Report, §170.

⁶⁸ Although Article 3.2 only refers explicitly to Article 5.6, consistency with Article 5.6 implies consistency with Article 2.2. See Section D.II.2.

⁶⁹ See Section D.II.2. for analysis of necessity requirements.

⁷⁰ Necessary in terms of Article 5.6 is not necessarily the least-trade-restrictive option. See section D.II.2.b.

trade with respect to a particular industry that it does not have within its territory. This would mean that the measure is applied extra-territorially and, therefore, not within the scope of application of the SPS Agreement.⁷¹ Another example is where a Member imposes an SPS measure restricting imports of diseased meat, when its own production is already affected and would, therefore, be inconsistent with Article 2.3 which provides that measures should not result in arbitrary or unjustifiable discrimination.

Therefore, an importing country is advised to observe international standards where they exist as this would increase the chances of the measure being found consistent with the SPS Agreement. However, it should be noted that there is only a *presumption* of consistency with the SPS Agreement.

4.) *Measures Based on International Standards Analysis Under Article 3.1*

Article 3.1 requires that the SPS measures be “based on” international standards.

The *Hormones* Panel found that although the SPS Agreement does not explicitly define the words “based on” used in Article 3.1, “Article 3.2 ... equates measures based on international standards with measures which conform to such standards.”⁷² Although, there is no textual basis in the SPS Agreement to support this finding, the Panel equated the meaning of “based on” and “conform to” in Article 3.1. The Panel also found that for an SPS measure to be “based on” an international standard the measure must reflect the same level of SPS protection as the international standard.⁷³

The Panel supported this finding by referring to Article 3.3, which provides that:

“Members may introduce or maintain [SPS] measures which result in a higher level of [SPS] protection than would be achieved by measures based on relevant international standards, if there is a scientific justification, or as a

⁷¹ SPS Agreement, Annex A §1.

⁷² *Hormones*, US Panel Report, §8.72 and Canada Panel Report, §8.75.

⁷³ *Hormones*, US Panel Report, §8.72-8.73 and Canada Panel Report, §8.75-8.76.

consequence of the level of [SPS] protection a Member determines to be appropriate in accordance with the relevant provisions of paragraphs 1 through 8 of Article 5.”

The Panel concluded that since Article 3.3 “explicitly relates the definition of sanitary measures based on international standards to the level of sanitary protection achieved by these measures”,⁷⁴ that in order to determine whether a measure was based on an international standard it was necessary to consider the level of protection achieved.

In other words, the Panel concluded that measures “based on” international standards could be equated with measures that “conform to” such standards as used in Article 3.2 in interpreting both Article 3.1 and 3.3.

On the basis of these findings, the Panel found that since the SPS measures at issue banned residues of the hormones when administered for growth-promotion purposes, thereby establishing a “no residue” level and the Codex standards allowed quantifiable residues for the five hormones, that the measures were not “based on” international standards as mandated by Article 3.1.

In the appeal, the question was raised whether the Panel correctly interpreted Articles 3.1 and 3.3 of the SPS Agreement. The Appellate Body reversed the Panel's conclusion that the term “based on” used in Articles 3.1 and 3.3 has the same meaning as the term “conform to” used in Article 3.2 of the SPS Agreement.

The Appellate Body stated: “a thing is commonly said to be “based on” another thing when the former “stands” or is “founded” or “built” upon or “is supported by” the latter.⁷⁵ In other words, a measure may be said to be “based on” an international standard when “only some, not all, of the elements of the standard are incorporated into the measure.”⁷⁶ In order to establish that a measure is “based on” an

⁷⁴ *Hormones*, US Panel Report, §8.72-8.73 and Canada Panel Report, §8.75-8.76.

⁷⁵ *Hormones* Appellate Body Report, §163.

⁷⁶ *Ibidem*, §163 and 171.

international standard only some connection between measure and standard is required. The Appellate Body found that the ordinary meanings of the terms were different; “conform to” is narrower in scope than “based on”, so that it would be possible for a measure to be “based on” a standard, while not conforming to the standard. The Appellate Body took the view that in order to “conform to” something expresses a sense of compliance that went beyond the meaning of “based on”.⁷⁷

Although the Appellate Body made it clear that the term “based on” does not require identity between the measure and the international standard, the Appellate Body did not describe in either quantitative or qualitative terms how much of a link between the measure and the international standard must be present in order for a measure to be considered as “based on”. When international standards are framed in terms of numerical limits, e.g., ADIs and MRLs, it is difficult to translate the Appellate Body’s general statement that less than equivalence is required between a measure and a standard to find that the measure is “based on” the standard into numbers.

The Appellate Body also supported its finding by citing the interpretative principle of *in dubio mitius* for the proposition that given multiple possible interpretations, the meaning that is less onerous to the party assuming an obligation is preferred. Here, it could not be assumed that the parties to the Agreement intended “based on” to be read “conformed to”, because such an interpretation would increase the burden of compliance relative to that imposed by interpreting “based on” less restrictively.⁷⁸

The Appellate Body, further, supported its argument by stating that since “based on” and “conform to” are phrases that are both used in the SPS Agreement suggests that the phrases were intended to have different meanings.⁷⁹

The Appellate Body also made the point that the Panel's interpretation did not comply with the object and purpose of Article 3 as the aim of the SPS Agreement

⁷⁷ *Hormones* Appellate Body Report, §163.

⁷⁸ *Ibidem*, §165.

was to “harmonise SPS measures on as wide a basis as possible...” and because the desire was expressed in the Preamble “to further the use of harmonised SPS measures between Members on the basis of international standards, guidelines and recommendations developed by the relevant international organisations”.⁸⁰ These phrases suggested that harmonisation is a *future* goal of Article 3, and that, therefore, it was not appropriate to read Article 3.1 as requiring Members to harmonise their SPS measures by ensuring that their measures conformed to international standards in the present thereby giving them an obligatory character.⁸¹ In other words, the Panel, by requiring compliance with international standards, was forcing harmonisation in the present.

The Appellate Body correctly recognised that the SPS Agreement does not require harmonisation of standards in the present. Indeed, if this were not the case it would not have been necessary to include a provision on the acceptance of equivalent standards which is a novelty that has been included in the SPS⁸² and TBT Agreement⁸³ inspired by the ECJ in the *Cassis de Dijon* case⁸⁴, which introduced the concept to compensate for the lack of harmonisation in standards in the EEC.⁸⁵

However, the Appellate Body's argument is not very convincing since even if “based on” and “conform to” were equated in Article 3.1 and Article 3.3, there would

⁷⁹ *Hormones* Appellate Body Report, §164.

⁸⁰ *Ibidem*, §165.

⁸¹ *Ibidem*.

⁸² Article 4.

⁸³ Article 2.7. The TBT Agreement's concept of equivalence is weaker than that of the SPS Agreement as the TBT Agreement only requires Members to give “positive consideration” to accepting equivalent measures of other Members.

⁸⁴ Where the exporting country objectively demonstrates that its measures achieve the importing Member's appropriate level of SPS protection and gives reasonable access to the importing Member for inspection, testing and other relevant procedures, different standards would be considered equivalent.

⁸⁵ So far, no dispute settlement panel or Appellate Body has had to make findings on this issue. This is certainly not because all standards are harmonised. The reason is that disputes between countries do not arise because an exporting country is faced with import restrictions because they have put in place measures that although reach the same level of SPS protection are different in appearance but because countries do not share the same view on SPS protection priorities.

nevertheless be a possibility for a Member to impose measures that achieve a higher level of SPS protection than the international standard. This suggests that the use of harmonised standards, according to the Panel, is not obligatory.

McNeil criticised the Appellate Body's interpretation as opposed to the Panel's interpretation for reiterating the objective of harmonising SPS measures on as wide a basis as possible, thereby leaving the use of Codex standards voluntary, rather than focusing on the mandatory language contained in Article 3.1 that Members "shall" base measures on existing international standards.⁸⁶ However, as was mentioned above the Panel did not render the use of Codex standards obligatory. Therefore, both the Panel and Appellate Body did, correctly, recognise that the use of harmonised standards was voluntary.

McNeil's concern with respect to the voluntary use of Codex standards was that the requirement contained in Article 3.1 had been "converted into an idealistic but wholly unenforceable objective".⁸⁷ This is not the case because, as will be discussed further on, exceptions to Article 3.1 will have to pass a rigorous test of scientific justification, which creates an incentive for Members to base their measures on international standards and, therefore, promote harmonisation.

What can be said is that the Panel's interpretation with regard to harmonisation is more rigid than the Appellate Body's interpretation as a measure must conform to the international standard except as provided in Article 3.3 as opposed to only being based on the international standard.

The reason the Panel equated "based on" and "conform to" could be explained by considering Article 3.3, which provides that a Member may introduce a measure which achieves a higher level of protection than would be achieved by measures that are "based on" an international standard. If the requirement of the measures being

⁸⁶ D. McNeil, "The First Case Under the WTO's Sanitary and Phytosanitary Agreement: The European Union's Hormone Ban", 39 *Virginia JIL* 1 (1998), p123.

⁸⁷ *Ibidem*.

“based on” an international standard is interpreted to mean that these measures do not achieve the level of protection of the international standard, then two problems could arise. First, this interpretation would imply that in order for a Member to determine whether it has put in place a measure that achieves a higher level of protection in terms of Article 3.3, it would have to determine that all measures that could be considered as “based on” the international standard would result in a lower level of protection than its measure. Therefore, there is a problem to quantify the level of protection of measures “based on” an international standard because there may be more than one measure that is “based on” a given international standard and it is very unlikely that all these measures achieve the same level of protection. In other words, it is difficult if not impossible to compare levels of measures “based on” an international standard with those achieved by a measure that is not. Only a requirement that measures which achieve a higher level of protection than measures that “conform to” an international standard would make sense as it would be clear which level of protection the measure conforming to the international standards achieves.

However, it is clear that “based on” cannot be equated with “conform to” as they do not have the same meaning. Therefore, it would have been more logical for the drafters of the SPS Agreement to provide in Article 3.3 an exception for measures that achieve a higher level of protection than those that “conform to” international standards. This would imply that Members should apply measures that “conform to” international standards and that those measures that are merely “based on” international standards or those standards that have no real relationship to the international standard and achieve a higher level of protection than those measures that “conform to” the international standard can be applied providing that they are scientifically justified and applied in accordance with Article 5.

This interpretation would preserve the meaning of Article 3.1 as measures “based on” international standards, although not benefiting from a presumption of compliance with the SPS Agreement or with the GATT 1994 or being deemed necessary, would have an advantage over those that are not “based on” an international standard, in that they would have a greater chance of complying with

Article 5.1, which requires that a measure be “based on” a risk assessment. Indeed, international standards are usually developed on the basis of risk assessments, which tends to suggest that if a measure is based on an international standard that it is also “based on” a risk assessment.⁸⁸ Unfortunately, no panel or Appellate Body decision has been confronted with a situation where the measure was found to be consistent with Article 3.1 and had to make a subsequent finding under Article 5.1.

The above analysis demonstrates that using measures that are “based on” international standards can be advantageous in ensuring the consistency of a measure with the SPS Agreement. However, establishing whether measures are based on international standards is problematic and, therefore, introduces a relatively high degree of uncertainty in the determination of whether or not a measure is consistent with Article 3.1. In addition, the techniques provided for in Article 3.1 and Article 3.2 are arguably not very effective from an SPS protection point of view as international standards generally provide for a fairly low level of protection, since they are the products of consensus. Article 3.1 also has the disadvantage of enabling WTO Members to choose a level of protection that is even lower than that the one provided for in the international standard. Nevertheless, the SPS Agreement does permit Members to impose measures that reflect a higher level of protection than the level protection of an international standard, and, therefore, at least, does not thwart efforts by some Members to impose high levels of SPS protection. This option will be analysed in the following section.

⁸⁸ A Member is not obliged to perform its own risk assessment. *Hormones* Appellate Body Report, §190. See G. Goh and A.R. Ziegler, “A Real World Where People Live and Work and Die – Australian SPS Measures After the WTO Appellate Body’s Decision in the *Hormones* Case”, 32 *JWT* 5 (1998), p282.

5.) *Analysis of Article 3.3 of the SPS Agreement*

In order for a measure to be consistent with Article 3.3, a Member must demonstrate that the measure adopted achieves a level of protection that is higher than that achieved by a measure based on an international standard.⁸⁹

The right to adopt more stringent measures is, of course, not unqualified, as there are two alternative and independently sufficient conditions included in Article 3.3. First, there must be a “scientific justification” for the adoption of more stringent measures or it must be established that as a consequence of the level of SPS protection a Member determines to be appropriate,⁹⁰ the measure is consistent with Article 5.

Walker has argued that the reason both conditions were included could be that the adoption of particular science policies used to complete risk assessments should be viewed as an aspect of selecting an appropriate level of protection.⁹¹ Therefore, a more protective measure that a Member justifies by its adopted science policies should be evaluated under the second condition of Article 3.3. On the other hand, a more protective measure that is justified by appeal to purely scientific reasoning should be evaluated on its merits as a scientific justification under the first condition of Article 3.3.

However, in practice, the distinction between these two conditions is in fact more apparent than real.⁹² Indeed, both exceptions have the same effect since both refer to a situation where the basis for departing from the relevant international standard is that the international standard is not sufficient to achieve the Member's appropriate

⁸⁹ Therefore, although Article 3.3 enables Members to impose a higher level of protection than reflected by a measure that is based on an international standard, the level of protection could still theoretically be lower than the level of protection reflected in the international standard.

⁹⁰ Annex A, §5 defines the appropriate level of protection as the level of protection deemed appropriate by the Member establishing an SPS measure to protect human, animal or plant life or health within its territory.

⁹¹ V. Walker, “Keeping the WTO from Becoming the “World Trans-science Organisation”: Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute”, 31 *CILJ* 2 (1998), p276-277.

level of protection.⁹³ In addition, although the requirement that there be a “scientific justification” does not refer to Article 5, the last sentence of Article 3.3 clearly states that all measures falling within its purview “shall not be inconsistent with any other provision of this Agreement”. Textually, “other provisions” include both Article 5 and Article 2. Second, the definition of “scientific justification” contained in the footnote to Article 3.3 provides for an examination and evaluation of available scientific information, which could be viewed as a risk assessment as provided for in Article 5 and defined in Annex A.⁹⁴

Both the *Hormones* Panel and Appellate concluded that, despite the fact that “Article 3.3 is evidently not a model of clarity in drafting and communication”⁹⁵ and despite the disjunctive nature of Article 3.3, compliance with Article 3.3 requires compliance with Article 5 and Article 2. For example, the *Agricultural Products* Appellate Body stated that there is a scientific justification for a measure, within the meaning of Article 3.3, if there is finding of sufficient scientific evidence according to Article 2.2, in other words a rational relationship between the SPS measure at issue and the available scientific information.⁹⁶ Therefore, although Article 3.3 allows for measures that achieve a higher level of SPS protection, drawing the line between a genuine SPS measure and a protectionist measure is left to other disciplines of the Agreement.

It is these disciplines that will be considered in the following sections.

II. Obligations under Article 2.2

Article 2.2, one of the basic obligations of the SPS Agreement, imposes three cumulative requirements on Members imposing SPS measures. SPS measures shall

⁹² *Hormones*, Appellate Body Report, §177.

⁹³ *Hormones*, US Panel Report, §8.81 and Canada Panel Report, §8.84.

⁹⁴ *Hormones*, US Panel Report, §8.81 and Canada Panel Report, §8.84. See also *Agricultural Products*, Appellate Body Report, §82.

⁹⁵ *Hormones*, Appellate Body Report, §175.

be “applied only to the extent necessary to protect human, animal or plant life or health”, be “based on scientific principles” and “not maintained without sufficient scientific evidence, except as provided for in paragraph 7 of Article 5”.

Each of these requirements will be examined beginning with the requirement that the measures be “based on scientific principles” and “not be maintained without sufficient scientific evidence”. These requirements will be considered together since compliance with them will depend on whether the measure is based on a risk assessment.

1.) Measures Based on Scientific Principles and Not Maintained Without Sufficient Scientific Evidence

a) Relationship between Articles 2.2, 5.1 and 5.2 of the SPS Agreement

The *Hormones* Panel considered that Article 2.2 of the SPS Agreement contains basic obligations, which should be analysed in the light of Article 5.1 that contains more specific requirements.⁹⁷ Article 5.1 requires that SPS measures be “based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations”. The Appellate Body agreed with the Panel and “stress[ed] that Articles 2.2 and 5.1 should constantly be read together. Article 2.2 informs Article 5.1: the elements that define the basic obligation set out in Article 2.2 impart meaning to Article 5.1”.⁹⁸ Both the Panel and Appellate Body in the *Salmon and Agricultural Products*⁹⁹ agreed but also included Article 5.2 in the specific

⁹⁶ *Hormones*, Appellate Body Report, §82.

⁹⁷ *Hormones*, US Panel Report, §8.93; Canada Panel Report, §8.96.

⁹⁸ *Hormones*, Appellate Body Report, §180.

⁹⁹ *Agricultural Products*, Panel Report, §9.450 and Appellate Body Report, §78.

obligations interpreting Article 2.2, which provides for factors to be taken into account when performing a risk assessment.¹⁰⁰

The *Salmon* Panel stated that:

*“Articles 5.1 and 5.2 ... may be seen to be marking out and elaborating a particular route leading to the same destination set out in” Article 2.2. Indeed, in the event a [SPS] measure is not based on a risk assessment as required in Articles 5.1 and 5.2, this measure can be presumed, more generally, not to be based on scientific principles or to be maintained without sufficient scientific evidence. We conclude, therefore, that if we find a violation of the more specific Article 5.1 or 5.2 such finding can be presumed to imply a violation of the more general provisions of Article 2.2. We do recognise, at the same time, that given the more general character of Article 2.2 not all violations of Article 2.2 are covered by Articles 5.1 and 5.2”.*¹⁰¹

Indeed, there are three requirements to be fulfilled in Article 2.2. Article 5.6 interprets more specifically the requirement of applying measures only to the extent necessary, and therefore also determines consistency with Article 2.2. In addition, Article 5.7 permits the application of temporary measures that are otherwise inconsistent with the requirements of providing scientific evidence in Article 2.2.

Therefore, determining whether the measure is “based on” a risk assessment is only one factor which may lead to a finding of inconsistency with the requirements in Article 2.2, but it will lead to a finding of whether the measure is based on scientific principles and not maintained without sufficient scientific evidence.

In this next section, therefore, the requirements of a risk assessment will be considered in detail to determine when a measure is justified on scientific grounds.

¹⁰⁰ *Salmon*, Appellate Body Report, §146.

¹⁰¹ *Salmon*, Panel Report, §8.52.

b) The relationship between risk assessment and risk management

Risk assessment is a means of interpreting and characterising scientific evidence that involves making scientific determinations in four subcategories: hazard identification, dose-response assessment or hazard characterisation, exposure assessment and risk characterisation.¹⁰² Hazard identification aims to determine the hazardous properties of a substance¹⁰³ and identify the types of adverse health effects these properties can cause. Dose-response assessment or hazard characterisation evaluates the quantitative and qualitative aspects of the casual relationship between a given dose or level of exposure of a dangerous substance and the occurrence or severity of adverse effects. Exposure assessment evaluates the probability, magnitude, duration, and timing of the doses that population is exposed to as a result of different ways of exposure to a dangerous substance. Finally, risk characterisation is a quantitative or qualitative estimate that is based on the three elements considered above and establishes the total risk of adverse health effects to a given population. It is this final determination that serves as a basis for decision-making by risk managers.

In the *Hormones* case, the Panel stated that: “an assessment of risks is, at least for risks to human life or health, a *scientific* examination of data and factual studies”¹⁰⁴ and that “a risk assessment ... is a *scientific* process aimed at establishing the *scientific* basis for the sanitary measure”¹⁰⁵ and that therefore, only the first three factors of Article 5.2 which provides an indication of the factors that should be taken into account in the assessment of risk such as “available scientific evidence”, “relevant processes and production methods”, “relevant inspection, sampling and testing methods”, “prevalence of specific diseases or pests”, “existence of pest- or

¹⁰² See for example the Report of the Joint FAO/WHO Expert Consultation on the Application of Risk Analysis to Food Standards Issues convened at the request of Codex in March 1995.

¹⁰³ Such as establishing carcinogenicity.

¹⁰⁴ *Hormones*, US Panel Report, §8.94; Canada Panel Report, §8.97.

¹⁰⁵ *Hormones*, US Panel Report, §8.107; Canada Panel Report, §8.110.

disease-free areas”, “relevant ecological and environmental conditions” and “quarantine or other treatment”; should be considered.

The Panel found that the factors provided in Article 5.2,

*“do not seem to cover the general problem of control (such as the problem of ensuring the good observance of good practice) which can exist for any substance. The risks related to the general problem of control do not seem to be specific to the substance at issue but to economic or social incidence related to a substance or its particular use (such as economic incentives for abuse). These non-scientific factors should, therefore not be taken into account in a risk assessment but in risk management.”*¹⁰⁶

However, the Panel was probably not convinced of its differentiation when it stated that even if these factors could be taken into account in a risk assessment none had been made of such a risk.

The Panel differentiated between risk assessment and risk management, viewing risk assessment as a purely scientific exercise, which would provide Members with a basis on which to decide, on the basis of its own value judgements, whether it can accept the risks that have been identified and in doing so a Member sets its “appropriate level of [SPS] protection”. The determination and application of the appropriate level of protection by a Member was considered to be part of risk management.¹⁰⁷

The Appellate Body rejected the Panel's categorical distinction between scientific and non-scientific factors and found that the risks identified by the EC such as risks arising from a failure to observe the requirements of good veterinary practice, in combination with multiple problems relating to detection and control of such abusive failure, in the administration of hormones to cattle for growth promotion were relevant to the present case.¹⁰⁸ Indeed, Annex C of the SPS Agreement states:

¹⁰⁶ *Hormones*, US Panel Report, §8.146 and Canada Panel Report, §8.149.

¹⁰⁷ *Hormones*, US Panel Report, §8.160; Canada Panel Report, §8.163.

¹⁰⁸ *Hormones*, Appellate Body Report, §205.

“control, inspection and approval procedures include, *inter alia*, procedures for sampling, testing and certification”.

The Appellate Body found these factors to be consistent with the object and purpose of the SPS Agreement to examine and evaluate all risks for potential for adverse effects on human health arising from the presence of contaminants and toxins in food, although it stated that potential abuse in the administration of controlled substances need not be, or should be evaluated in each and every case.¹⁰⁹

The Appellate Body stated that it was an error to exclude all matters not susceptible of quantitative analysis by the empirical or experimental laboratory methods commonly associated with the physical sciences from the scope of a risk assessment in the sense of Article 5.1.¹¹⁰

Some of the other factors considered in Article 5.2 such as “relevant processes and production methods” and “relevant inspection, sampling and testing methods” are not necessarily or wholly susceptible of investigation according to laboratory methods of, for example, biochemistry or pharmacology. In addition, the Appellate Body noted that this might not have been intended to be an exhaustive list of factors.¹¹¹ Therefore, the Appellate Body concluded, somewhat theatrically, that the risk to be evaluated in a risk assessment under Article 5.1 “is not only the risk ascertainable in a science laboratory operating under strictly controlled conditions, but also risk in human societies as they actually exist, in other words, the actual potential for adverse effects on human health in the real world where people live and work and die”.¹¹²

The Appellate Body correctly recognised that the Panel's strict distinction between scientific factors and non-scientific factors is not realistic. Indeed, all risk assessments involve scientific uncertainty, due to a lack of knowledge, which creates

¹⁰⁹ *Hormones*, Appellate Body Report, §206.

¹¹⁰ *Ibidem*, §187.

¹¹¹ *Hormones*, Appellate Body Report, §187.

¹¹² *Ibidem*.

an inherent potential for error in scientific information. These errors can occur from the validity or reliability of the available data such as data gaps, uncertainties on the particular variables used to gather data, the measurements taken, the samples drawn or from the accuracy of models used and model inputs.

Scientific uncertainty suggests that there may more than one scientifically plausible outcome¹¹³, for example, because there may be more than one scientifically plausible model implying that there may be different conclusions that can be drawn from the data that are equally valid and reasonable.

When science does not provide a definitive answer on the data, models and assumptions to be used, risk assessors usually evaluate the scientific plausibility of alternative models and model inputs and choose between alternative models or model inputs by following science policies rules, that specify how to deal with uncertainties. Science policies, however, are not solely scientific in nature, as they may stipulate that a conservative approach to human health should be taken or prescribe the use of default assumptions. Therefore, the scientific process of risk assessment necessarily requires inferences, choices and assumptions that reflect policy preferences.¹¹⁴ Since science policies are a function of risk management policies, it is clear that risk assessment and risk management interact, as elements of risk management based on non-scientific factors are also present in risk assessments.

In addition, scientific experts carrying out risk assessments routinely make a range of judgements on matters such as which risks are within the scope of their assessment and which are not; how much depth of scientific analysis is justified on a particular question or risk; where adequate scientific data do or do not exist to support an assessment; which evidence is most central or most credible on a particular point. In deciding these matters, experts are guided to some extent by their own subjective

¹¹³ In the sense of a scientifically plausible outcome that is supported by empirical data not mere speculation and by a line of reasoning that results in a rational basis for drawing a conclusion.

¹¹⁴ D. Wirth, "The Role of Science in the Uruguay Round and NAFTA Trade Disciplines", 27 *CILJ* (1994), p834.

beliefs on what is important, relevant and reasonable. For example, a scientist may have to decide on whether the dose-response relationships should be extrapolated according to best estimates or according to upper confidence limits. Another example is whether a scientist should take a conservative approach to the interpretation of results or should introduce in the weighting given to various variables in the assessment a mixture of fact, experience and personal values. This is further evidence that non-scientific factors are also contained in risk assessments.

It has been argued that risk assessment and risk management can be distinguished as risk assessment is limited to drawing inferences supported by science combined with explicit science policies¹¹⁵, but does not include risk management decisions based on cost-benefit or feasibility analysis or how scientific analysis may influence the regulatory process, or decide on the risk appetite, that is, the acceptability of a risk level.

In other words, risk assessments normally evaluate a single target exposure, which involves a mixture of scientific analysis, scientific opinion and value judgements rather than evaluate a number of risk management alternatives that provide an array of different benefits and costs for national authorities to consider.

However, since risk management goals are incorporated in the science policies it is probably quite difficult to draw a clear line between risk assessment and risk management. Indeed, it could be argued that a conservative approach to risks is a decision that has been taken on the basis of a determination on the acceptability of a risk. Therefore, science policies reflect risk management policies on what is safe and acceptable. It is also true that risk assessments are an integral component of risk management as these are normally taken into account in determining the policy to be implemented.

¹¹⁵ In order to preserve risk assessments from an overwhelming intrusion of values, it may be best for Members to use explicit science policies that allow risk assessments to remain more objective as transparency and consistency in demonstrated in the face of scientific uncertainty.

Although, the Appellate Body recognised that the Panel's strict distinction between scientific factors and non-scientific factors was unrealistic, the Appellate Body criticised the Panel for distinguishing between "risk assessment" and "risk management" as the latter has no textual basis in the Agreement. The Appellate Body went on to state that the rules of treaty interpretation require an interpretation of the words actually used.¹¹⁶ However, the fact that the Panel stated that "Article 5.4 to 5.6 are particularly relevant to the risk management decision"¹¹⁷ is in fact correct. Risk management "is the process of identifying, evaluating, selecting and implementing actions to reduce risk"¹¹⁸, which includes determining the appropriate level of protection, establishing measures to achieve that level of protection and accepting measures established by other Members as being equivalent to its own. Factors that are taken into account in risk management include goals of health and environmental policy, relevant legislation, legal precedent, and application of social¹¹⁹, economic and political values.¹²⁰

The aim of these provisions, unlike Article 5.1 to 5.3¹²¹, is not to assess risks but to enable Members within a trade conscious framework to implement strategies for

¹¹⁶ *Hormones*, Appellate Body Report, §181.

¹¹⁷ *Hormones*, US Panel Report, §8.96 and Canada Panel Report, §8.99. Article 5.4 establishes the objective of minimising negative trade effects in the determination by a Member of its appropriate level of protection. Article 5.5 aims at achieving consistency in the application of the concept of appropriate level of protection. Article 5.6 provides that the sanitary measure, which is finally adopted, shall not be more trade-restrictive than required to achieve the appropriate level of protection of the Member concerned.

¹¹⁸ The Presidential/Congressional Commission on Risk Assessment and Risk Management 1 (1997), 1.

¹¹⁹ The occurrence of low probability, high consequence event can cause the public's evaluation of the re-occurrence of an event to be biased upward, thereby increasing the pressure for stricter regulations. This was the case with the hormones ban for growth promotion as the ban to some extent was imposed to deal with public anxieties that emerged in the 1980's following the "oestrogen scandal" in Italy when residues of hormone Diethylstilbestrol (DES) were found in baby food and had caused young children to grow breasts. The public's perception of risk is also influenced by non-scientific factors such as whether the risk is natural or man-made, whether the risk is taken voluntarily or involuntarily, the distribution of the risk and the distribution of risk over time.

¹²⁰ W. Ruckelshaus, "Risk, Science, and Democracy", *Issues Sci. & Tech.*, (1985), p28.

¹²¹ Article 5.3 sums up relevant economic factors to be taken into account in assessing risks to animal or plant life or health such as potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease, the costs of control or eradication in the territory of the importing Member; and the relative cost-effectiveness of

accepting or mitigating identified risks. Therefore, the Appellate Body by rejecting the term risk management obviously did not attempt to investigate its meaning.

In conclusion, a risk assessment is not purely scientific and risk management is not purely value based. To consider a risk assessment as purely scientific is to reject the role of science policy in risk assessments and to consider risk management as purely value-based is to ignore the role of science, for example, in cost-benefit analysis, in risk management decisions.

Therefore, a clean separation between science and economic and social welfare policy is unrealistic and illusory.

With these considerations in mind, the meaning of the requirement in Article 5.1 that a measure should be “based on” a risk assessment will be examined.

c) The interpretation of a measure “based on” a risk assessment

In order to determine whether a measure is “based on” a risk assessment it is first necessary to determine whether a risk assessment exists in the sense of the SPS Agreement.

(1) *Establishing the existence of a risk assessment*

The SPS Agreement defines a “risk assessment” of SPS measures as:

“the evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the [SPS] measures which might be applied, and of the associated potential biological and economic consequences”¹²²

or

alternative approaches to limiting risks. Article 5.3 is limited to animal and plant life or health but not human life or health.

¹²² SPS Agreement, Annex A, §4.

*“the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs.”*¹²³

In the *Hormones* case the second definition is applicable as it is closely related to the definition of an SPS measure aimed at protecting human life from risks arising from additives. In the *Salmon* case the first definition is applicable as it is closely related to the definition of an SPS measure aimed at protecting animal life or health from risks arising from the entry, establishment or spread of diseases.¹²⁴ In the *Agricultural Products* case, the first definition is applicable as the measure was aimed at protecting plant life or health from risks arising from the entry, establishment or spread of pests. In the *Apples* case, the first definition is applicable as the measure aims to protect plant life or health from risks associated with the entry, establishment or spread of a disease-causing organism.

In interpreting the requirement to evaluate the potential for adverse effects on human health arising from contaminants, the *Hormones* Panel elaborated a risk assessment as a two step process that should first, identify the adverse effects on human health arising from the use of the hormones at issue when used as growth promoters in meat and meat products and second, where adverse effects exist, evaluate the potential or probability of occurrence of such effects”.¹²⁵

The *Hormones* Panel, based on the findings of the scientific experts advising it, found that with respect to all hormones except MGA, several of the scientific reports invoked by the EC¹²⁶ appeared to meet the requirements of a risk assessment.¹²⁷ With respect to MGA, the Panel found that since the EC had not submitted any scientific evidence in which the potential for adverse effects on human health of MGA residues was evaluated, that the EC had not met its burden of demonstrating the existence of a

¹²³ SPS Agreement, Annex A, §4.

¹²⁴ *Salmon*, Panel Report, §8.68.

¹²⁵ *Hormones*, US Panel Report, §8.98 and Canada Panel Report, §8.101.

¹²⁶ In particular the Lamming Report and 1988 and 1989 JECFA Reports.

¹²⁷ *Hormones*, US Panel Report, §8.111; Canada Panel Report, §8.114.

risk assessment and therefore the EC measures had not been based on a risk assessment.¹²⁸

The Appellate Body noted that the Panel used the term “probability” as an alternative for “potential”. The Appellate Body believed this to be incorrect as the ordinary meaning of “potential” relates to “possibility” and is different to “probability” which relates to “likelihood”. Although, the Appellate Body's interpretation is satisfactory to the extent that “probability” should not be considered as synonymous with “potential”, it stated that “probability” implies a higher degree or a threshold of “possibility”. This is the case if probability is equated with the fact that an event is probable and possibility is equated with the fact that there is a moderate chance (which is less than probable) that an event occurs. However, probability is a term that can also simply refer to the chance of an event occurring without necessarily being probable. In this case, both possibility and probability would have a similar meaning, which is the likelihood of an event occurring. This interpretation of possibility, however, does not really grasp the meaning of potential as it has an element of likelihood. “Possibility” should, therefore, be interpreted to relate to the ability not to the likelihood of an event occurring.

If the latter interpretation were to be considered then the requirements to assess the potential of a risk to human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs would be less restrictive than under the Appellate Body's test and evaluating the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the SPS measures which might be applied would also be less restrictive while still being narrower than the requirement to evaluate potential.

According to the Appellate Body, the implication of the Panel's interpretation was that the Panel introduced a quantitative dimension to the notion of risk by requiring a

¹²⁸ *Hormones*, US Panel Report, §8.258; Canada Panel Report, §8.261.

Member to quantify the potential for adverse effects on human health.¹²⁹ However, the Appellate Body's interpretation of potential also required the risk assessment to quantify or at least qualify the potential. The only difference is that the Appellate Body found probability to imply a higher degree of possibility. The *Salmon* Panel and Appellate Body found, unlike the *Hormones* Appellate Body's interpretation, that the evaluation of likelihood or probability could not only be expressed quantitatively but also qualitatively.¹³⁰ Indeed, a probability can be expressed, for example, as a percentage and therefore be quantitative or it can be expressed as, for example, "low", "medium" or "high" and therefore be qualitative. However, in order to determine the qualitative expression of a probability a quantitative estimation is still necessary. It should be noted that no method of expressing risk should be considered as right in an absolute sense. A full understanding of risk often implies expressing it in as many ways as possible.¹³¹

In the *Salmon* case, the risk assessment was required to contain an evaluation of the likelihood not of the potential of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the SPS measures that might be applied and of the associated potential biological and economic consequences. Both the Panel and the Appellate Body equated "likelihood" and "probability" on the basis of the *Hormones* Appellate Body's findings and on the basis of the definition of risk and risk assessment developed by Office International des Epizooties ("OIE").¹³²

¹²⁹ EC's appellant's submission, §392-397.

¹³⁰ *Salmon*, Appellate Body Report, §130.

¹³¹ R. Wilson and E. Crouch, "Risk Assessment and Comparisons: An Introduction", *Economics of the Environment*, R. Dorfman and N. Dorfman (eds.), 3rd ed., (1993), p409.

¹³² OIE "Guidelines on Risk Assessment", OIE Code, Chapter 1.4.2, p33 and 34.

"Risk - means the probability of an adverse event of aquatic animal health, public health or economic importance, such as a disease outbreak, and the magnitude of that event. Risk assessment - means the processes of identifying and estimating the risks associated with the importation of a commodity and evaluating the consequences of taking those risks". In these guidelines factors that should be identified for the estimation of the likelihood of some risk are loosely grouped into four categories: country factors, commodity factors, exposure factors and risk reduction factors. Depending on the commodity and disease agent, any number of these factors may be used to estimate the probability of an adverse event for the importing country.

The Appellate Body stated that in this case:

*“it is not sufficient that a risk assessment conclude that there is a possibility of entry, establishment or spread of diseases and associated biological and economic consequences. A proper risk assessment of this type must evaluate the “likelihood”, i.e., the “probability”, of entry, establishment or spread of diseases and associated biological and economic consequences as well as the “likelihood”, i.e., “probability”, of entry, establishment or spread of diseases according to the SPS measures which might be applied”.*¹³³

Therefore, in considering whether the 1996 Final Report was a risk assessment within the meaning of Article 5.1, the Panel and Appellate Body considered that the three elements contained in the definition of risk assessment required: identification of the diseases whose entry, establishment or spread a Member wants to prevent within its territory, as well as the associated potential biological and economic consequences; evaluation the likelihood of entry, establishment or spread of these diseases, as well as the associated potential biological and economic consequences; and evaluation the likelihood of entry, establishment or spread of these diseases according to the SPS measures which might be applied.¹³⁴

Both the Panel and Appellate Body found that the 1996 Final Report identified the diseases whose entry, establishment or spread Australia wanted to prevent as well as the potential biological and economic consequences associated with the entry, establishment or spread of such diseases.¹³⁵ The Panel was hesitant in applying the last two requirements, by stating or suggesting that some evaluation of the likelihood would be sufficient. The Panel stated that to some extent the 1996 Final Report addressed some elements of probability of occurrence of the identified risk,¹³⁶ although it:

Point estimates or probability distributions are employed to represent the values associated with each factor....”.

¹³³ *Salmon*, Appellate Body Report, §123.

¹³⁴ *Ibidem*, §121.

¹³⁵ *Salmon*, Panel Report, §8.73 and Appellate Body Report, §132.

¹³⁶ *Salmon*, Panel Report, §8.82.

*“... lends more weight to the unknown and uncertain elements of the assessment than the 1995 Draft Report (on which the 1996 Final Report is based). This on occasions, results in general and vague statements of mere possibility of adverse effects occurring; statement which constitute neither a quantitative nor a qualitative assessment of probability”.*¹³⁷

With respect to the third requirement, the Panel found that “for most of risk reduction factors, the 1996 Final Report provides some evaluation of the extent to which these factors could reduce risk”.¹³⁸ The Panel added that the SPS measures that might be applied are those, which reduce the risks of concern, and are referred to in the 1996 Final Report as risk reduction factors.

The Panel's finding with regard to the quarantine policy options considered to reduce the total risk associated with all diseases of concern stated that:

*“... the 1996 Final Report does not substantively evaluate the relative risks associated with these different options. Even though the definition of risk assessment requires 'an evaluation ... according to the sanitary ... measures which might be applied', the 1996 Final Report identifies such measures but does not, in any substantial way, evaluate or assess their relative effectiveness in reducing the overall disease risk.”*¹³⁹

The Panel concluded that since the 1996 Final Report addresses and to some extent evaluates a series of risk reduction factors that, “for the purpose of further examination we shall, therefore, assume - without making a finding on this issue - that the 1996 Final report meets the requirements of a risk assessment set out in Articles 5.1 and 5.2”¹⁴⁰ with respect to ocean-caught Pacific salmon. Therefore, the Panel assumed that since the “1996 Final Report addresses some elements of both probability and possibility” implied that it met the other two requirements.¹⁴¹ The Panel also examined whether the heat-treatment requirement with respect to freshwater and cultured salmon was based on a risk assessment. The Panel found that

¹³⁷ *Salmon*, Panel Report, §8.83.

¹³⁸ *Ibidem*, §8.89.

¹³⁹ *Salmon*, Panel Report, §8.90.

¹⁴⁰ *Ibidem*, §8.92.

¹⁴¹ *Ibidem*, §8.83.

since no risk assessment was submitted by Australia, the measure could not have been based on a risk assessment.

The Appellate Body limited its examination to the question whether the 1996 Final Report constituted a risk assessment for ocean-caught Pacific salmon. The Appellate Body considered whether the Panel assumption that there was a risk assessment for ocean-caught Pacific salmon was warranted.¹⁴²

The Appellate Body disagreed with the Panel, holding that the risk assessment requires a *full* evaluation of the likelihood of entry, establishment or spread of diseases and associated biological and economic consequences as well as the entry, establishment or spread of diseases according to the SPS measures which might be applied, rather than either a statement of the possibility of such events occurring or a finding of *some* likelihood of such events occurring.¹⁴³

The Appellate Body's interpretation seems to be correct, as there is no textual basis in Annex A, §4 of the SPS Agreement that a risk assessment only requires *some* evaluation of these events occurring. The Panel's lack of scrutiny in determining whether a proper risk assessment had been performed could have arisen from the fact that the *Hormones* Appellate Body Report had introduced a less restrictive interpretation of the requirements concerning risk assessment. However, the Appellate Body in the *Salmon* case clearly showed that such a broad interpretation was not appropriate.

The Appellate Body, therefore, correctly, found that the requirements for a risk assessment had not been fulfilled and that therefore, the measure could not be based on a risk assessment. The Appellate Body, therefore, held that Article 5.1 was violated with respect to ocean-caught Pacific salmon.¹⁴⁴

¹⁴² SPS Agreement, Annex A, §4.

¹⁴³ *Salmon*, Appellate Body Report, §124.

¹⁴⁴ *Ibidem*.

In the *Agricultural Products* case, the Appellate Body found that since the 1996 Pest Risk Assessment of Codling Moth (hereinafter “1996 Risk Assessment”) did not discuss or even refer to the varietal testing requirement or to any other phytosanitary measure that might be taken to reduce the risk. The 1996 Risk Assessment, therefore, did not “evaluate the likelihood of the entry, establishment or spread” of codling moth “according to the SPS measures which might be applied”. Therefore, the Appellate Body found that the varietal testing requirement as it applies to apricots, pears, plums and quince was inconsistent with Article 5.1.

In the *Apples* case, the Panel found that 1999 Pest Risk Analysis (hereinafter “1999 PRA”) did not evaluate the likelihood of entry, establishment or spread of fire blight, and was not performed “according to the SPS measures which might be applied”.¹⁴⁵ In making this finding, the *Apples* Panel, consistent with previous practice, considered the specificity of the risk assessment. The Panel found that although the 1999 PRA identified apples as a possible host of fire blight, the risk assessment was not “sufficiently specific” and that although “some” evaluation of the likelihood of entry of the disease and possible mitigation through the existing measure had been performed that this type of evaluation was insufficient.¹⁴⁶

The Panel supported this point of view by stating that “the conclusion of the [1999] PRA [did] not purport to relate exclusively to the introduction of the disease through apple fruit, but rather more generally, apparently, through any susceptible host/vector”,¹⁴⁷ that the risk assessment “intertwined” the risk of entry through apples with that of other possible vectors, and that these other vectors were more likely to lead to contamination than apples.¹⁴⁸ The Panel also found that the analysis of apples in the 1999 PRA related only to the possibility not the probability of entry, establishment or spread of fire blight through this vector.¹⁴⁹ In addition, the Panel

¹⁴⁵ *Apples* Panel Report, §8.253.

¹⁴⁶ *Ibidem*, 8.287.

¹⁴⁷ *Apples* Panel Report, §8.271.

¹⁴⁸ *Ibidem*, §8.278.

¹⁴⁹ *Apples* Panel Report, §8.275.

noted that experts had found that certain stages in the evaluation of the probability of entry had been omitted in the 1999 PRA.¹⁵⁰

The Appellate Body upheld the Panel's finding stating that the "obligation to conduct an assessment of "risk" is not satisfied merely by a general discussion of the disease sought to be avoided by the imposition of a phytosanitary measure."¹⁵¹ The Appellate Body added that "Members are free to consider in their risk analysis multiple agents in relation to one disease, provided that the risk assessment attribute a likelihood of entry, establishment or spread of the disease to each agent specifically".¹⁵²

With respect to the issue whether the 1999 PRA was consistent with the requirement contained in Annex A to the SPS Agreement, that a risk assessment must contain an evaluation of the entry, establishment or spread of a disease be conducted "according to the sanitary or phytosanitary measures which might be applied", the *Apples* Panel found that the 1999 PRA did not consider, in addition to the particular measure in place, a "potential range of relevant measures".¹⁵³ The Appellate Body agreed with the Panel that "measures *which might* be applied were not those that were *being* applied"¹⁵⁴ and that, therefore, a "risk assessment should not be limited to an examination of the measure already in place or favoured by the importing Member".¹⁵⁵

The *Hormones*, *Salmon*, *Agricultural Products* and *Apples* cases clearly demonstrate that the SPS Agreement differentiates between risk assessments that cover the entry, establishment or spread of a pest or disease on the one hand, and those that cover the presence of additives, contaminants, toxins or disease-causing organisms on the

¹⁵⁰ *Apples* Panel Report, §8.279.

¹⁵¹ *Apples* Appellate Body Report, §202.

¹⁵² *Ibidem*, §204.

¹⁵³ *Apples* Panel Report, §8.283 and 8.285.

¹⁵⁴ *Ibidem*, §8.283.

¹⁵⁵ *Apples* Appellate Body Report, §208.

other. However, the rationale behind this differentiation is questionable as both situations may have equally serious consequences.¹⁵⁶

Where it has been determined that a risk assessment exists, it is necessary to determine whether the measure is “based on” the risk assessment.

(2) *Is there a “minimum procedural requirement” in Article 5.1?*

The *Hormones* Panel determined that a risk assessment with respect to the five hormones at issue except MGA existed and therefore considered the issue of whether the measure with respect to five hormones was based on a risk assessment. The Panel determined that Article 5.1’s requirement that an SPS measure be “based on” a risk assessment has both a *procedural* and a *substantive* aspect. These will be considered in turn.

The *Hormones* Panel after considering the ordinary meaning of the words “based on”, read in the light of the object and purpose of Article 5, stated that “there is a minimum procedural requirement contained in Article 5.1” that: “the Member imposing a sanitary measure needs to submit evidence that at least it took into account a risk assessment when it enacted or maintained its sanitary measure in order for that measure to be considered as based on a risk assessment”.¹⁵⁷ This procedural requirement implies that a Member, imposing an SPS measure enacted prior to the date of entry into force of the SPS Agreement, is obliged to take into consideration a risk assessment in the continued maintenance of SPS measures and in the case of an SPS measure enacted since the entry into force of the SPS Agreement, a Member must take into consideration a risk assessment prior to the implementation of the measure.

¹⁵⁶ A similar issue arose with regard to Article XX where the conservation of natural resources was considered to be more important than human, animal or plant life or health. See Chapter 2, section C.IV.3.

¹⁵⁷ *Hormones*, US Panel Report, §8.115 and Canada Panel Report, §8.118.

Therefore, any new evidence gathered during the dispute settlement process would not be considered, from a procedural point of view, to be part of a risk assessment upon which the measures could be based¹⁵⁸ if the Member had not previously taken a risk assessment into account.

The Panel found that the EC did not provide any evidence that a risk assessment was considered in advance as the preambles to the EC measures never mentioned the scientific studies invoked by the EC in the Panel proceedings or that the studies it referred to or the scientific conclusions derived from these studies had been taken into account by the competent EC institutions.¹⁵⁹ Therefore, the Panel found that the EC had not met its burden of proving that it had satisfied the “minimum procedural requirement” it had found in Article 5.1 and that therefore, the measures were inconsistent with the requirements of Article 5.1.

The Panel's finding is surprising as there is no textual basis for a procedural requirement in Article 5.1 and because the Panel itself found that there was no specific procedural requirement for a Member to base its SPS measures on a risk assessment in Article 5.1.¹⁶⁰

In addition, preambles of the kind identified by the Panel are not required by the SPS Agreement and are not normally used to demonstrate that a Member has complied with its obligations under international agreements. The Appellate Body noted that the content of preambles of legislative acts is driven by considerations of WTO Members' internal legal orders.¹⁶¹ In other words, a measure's preamble cannot be taken as objective evidence of the process behind its implementation.

The Appellate Body found that the Panel's “minimum procedural requirement” was unwarranted. The Appellate Body was of the view that “based on” refers “to a certain

¹⁵⁸ *Hormones*, US Panel Report, §8.115 and Canada Panel Report, §8.118.

¹⁵⁹ *Hormones*, US Panel Report, §8.114 and Canada Panel Report, §8.117.

¹⁶⁰ *Hormones*, US Panel Report, §8.113 and Canada Panel Report, §8.116.

¹⁶¹ *Hormones*, Appellate Body Report, §191.

objective relationship between two elements, an objective situation that persists and is observable between an SPS measure and a risk assessment”.¹⁶² The fact that a risk assessment has to be “taken into account” does not imply that the measure will be “based on” this risk assessment.¹⁶³

The Appellate Body, therefore, reversed the Panel's finding that the term “based on” as used in Article 5.1 of the SPS Agreement entails a “minimum procedural requirement”.

The Panel, possibly, introduced a procedural requirement in order to promote the SPS Agreement’s ultimate goal of harmonisation of SPS measures. When Members are forced to consider the available scientific evidence before implementing measures they may when implementing measures dealing with the same subject matter work on the basis of the same scientific evidence. Although exposure to the same scientific evidence does not guarantee harmonisation, such exposure, combined with Members' realisation that their measures must withstand scrutiny under the SPS Agreement, may promote harmonisation. This argument is mainly applicable to those measures that are yet to be implemented. However, the argument does not take into account that the fact that the main obstacle of harmonisation are the differences in SPS standards due to differences in values and priorities of Members rather than divergent scientific evidence.

Another reason the Panel may have included a procedural requirement is due to the fact that a Member’s responsibility to ensure that its SPS measures are based on a risk assessment only arises when a measure is litigated and that since the majority of SPS measures are not the subject of litigation, there may be a higher incentive without a procedural requirement to impose protectionist measures, as they would not have to show in case of dispute that a risk assessment was taken into account prior to the implementation of the measure.

¹⁶² *Hormones*, Appellate Body Report, §191.

¹⁶³ For a detailed analysis of the phrase “take into account” in treaty language, see Chapter 5.

The Panel may also have included a procedural requirement because it drew parallels with Article 3.1 which calls on Members to base their SPS measures on an international standard and, therefore, implies that there is a high chance that the international standard was examined prior to implementation of the SPS measure.

However, the fact remains that this procedural requirement has the unwarranted and unwise effect of possibly disregarding new scientific information that could be crucial for the protection of human, animal or plant life or health. Indeed, all scientific work is incomplete whether it be observational or empirical and is therefore liable to be upset or modified by advancing knowledge.¹⁶⁴

Walker argued that although the Appellate Body did not require historical evidence that the EC had relied on risk assessments, it did require though that risk assessments exist and be produced in a dispute settlement proceeding, thereby also establishing a procedural requirement which it believed was not required by Article 5.1.¹⁶⁵ However, if the Appellate Body did not require a risk assessment to be presented at the time of the proceeding, it would have been difficult to determine whether the measure was in fact based on a risk assessment. Therefore, although this could be considered a procedural requirement, it does not impose any obligation that is more restrictive than provided by the SPS Agreement, unlike the Panel's interpretation.

(3) The substantive requirement of Article 5.1 – rational relationship between the measure and the risk assessment

The *Hormones* Panel after having considered the procedural requirements turned to the “substantive requirements” of Article 5.1. The Panel identified two kinds of operations, in order to determine whether the measure is “based on” a risk assessment, that were not present in the procedural requirement. First, identifying the

¹⁶⁴ Bradford Hill, cited in J. Mausner and S. Kramer, *Mausner and Baum Epidemiology – an Introductory Text*, 1985, Philadelphia, p191.

¹⁶⁵ V. Walker, “Keeping the WTO from Becoming the “World Trans-science Organisation”: Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute”, 31 *CILJ* 2 (1998), p299.

scientific conclusions reached in the studies referred to by the EC as well as the scientific conclusions reflected in the measure. Second, examining whether the scientific conclusions reflected in the EC measures conform to those reached in the studies referred to by the EC.¹⁶⁶

The Panel noted that the conclusion of the scientific studies and reports invoked by the EC, which qualified as a risk assessment, concluded that the use of the hormones at issue (except MGA) for growth promotion purposes did not indicate an identifiable risk for human health providing that good veterinary practice was followed and were, therefore, safe.¹⁶⁷ The EC measures, on the other hand, concluded the opposite. The Panel found that the scientific conclusions implicit in the EC measures did not conform to any of the scientific conclusions reached in the scientific studies the EC had submitted as evidence and, therefore, concluded that the EC measures were not based on a risk assessment.¹⁶⁸

The *Hormones* Panel's requirement of conformity of measure with the conclusions of a risk assessment, suggests that the scientists performing the risk assessment are *de facto* fact-finders for the Panel. Indeed, a Member would simply need to put together a team of sympathetic scientists¹⁶⁹ that would produce a risk assessment that fully complies with the SPS measure.

The Panel, nevertheless, did turn to its experts for advice in order to decide on the meaning and the merits of the risk assessment before it.¹⁷⁰ Therefore, while stating that it was not for a panel to do its own risk assessment, the Panel agreed with the

¹⁶⁶ *Hormones*, US Panel Report, §8.117 and Canada Panel Report, §8.120.

¹⁶⁷ *Hormones*, US Panel Report, §8.124 and Canada Panel Report, §8.127.

¹⁶⁸ *Hormones*, US Panel Report, §8.137 and Canada Panel Report, §8.140.

¹⁶⁹ V. Walker, "Keeping the WTO from Becoming the "World Trans-science Organisation": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute", 31 *CILJ* 2 (1998), p301.

¹⁷⁰ *Hormones*, US Panel Report, §8.127 and Canada Panel Report, §8.130.

conclusions of the risk assessments that the use of hormones for growth promotion purposes was safe.¹⁷¹

The reason for this contradiction is that the Panel must understand the meaning of the assertions made by scientists and not merely perform a matching exercise between the conclusions and the measures and determine whether a risk assessment exists.¹⁷²

The *Hormones* Appellate Body stated that the relationship between those two sets of conclusions was “certainly relevant” but that they could not “be assigned relevance to the exclusion of everything else”.¹⁷³ The Appellate Body was of the view that in order for a measure to be “based on” a risk assessment, the measure had to be rationally related to a risk assessment and not that it had to “conform to” the risk assessment. The Appellate Body stated that Article 5.1 requires that the results of the risk assessment must sufficiently warrant, that is, reasonably support the SPS measure at stake.¹⁷⁴ Therefore, the Appellate Body was consistent with its interpretation of the term “based on” in Article 3.1. It seems appropriate that the language appearing in both Articles should be given an analogous meaning since Articles 3.1 and 5.1 perform similar functions.¹⁷⁵ The Appellate Body adopted a less stringent test than the Panel that again, wrongly equated “based on” with “conform to”.

¹⁷¹ *Hormones*, US Panel Report, §8.127 and Canada Panel Report, §8.130.

¹⁷² V. Walker, “Keeping the WTO from Becoming the “World Trans-science Organisation”: Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute”, 31 *CILJ* 2 (1998), p302.

¹⁷³ *Hormones*, Appellate Body Report, §193.

¹⁷⁴ *Ibidem*.

¹⁷⁵ Articles 3.1 and 5.1 both evaluate a measure for a basis in some objective standard. In the case of Article 3.1, that objective standard is an international standard, guideline, or recommendation; in the case of Article 5.1, that objective standard is a scientifically based risk assessment. Both provisions can be read as specific applications of Article 2.2’s mandate that measures be based on scientific principles, and not be maintained without sufficient scientific evidence.

The *Hormones* Appellate Body nevertheless found “that the scientific reports submitted by the EC did not *rationaly support* the EC import prohibition.”¹⁷⁶

The Appellate Body concluded that the measures were inconsistent with Article 5.1 and 5.2 and that since for an SPS measure to be consistent with Article 3.3, it had to comply with Article 5.1, the measures could not be justified under Article 3.3 of the SPS Agreement. If the Appellate Body had reversed the Panel's conclusion in respect of the inconsistency of the EC measures with Article 5.1, it would have been logically necessary to inquire whether Article 2.2 might nevertheless have been violated. McNeil argued that the failure of the Panel and Appellate Body to reach a conclusion on the issue of “whether the hormone ban was maintained without sufficient scientific evidence, undermines the credibility of the WTO system to handle such controversial disputes”.¹⁷⁷ However, the fact that the Panel made a finding of inconsistency with Article 5.1 implies that the measures were not maintained with sufficient scientific evidence and were therefore, inconsistent with Article 2.2.

It is unfortunate that because none of the evidence which qualified as a risk assessment supported the EC's position and, therefore, could not be considered to be “based on” a risk assessment, the Appellate Body was not forced to describe the requirements of the rational relationship test with precision. The Appellate Body described the test in terms of “reasonable relationship”,¹⁷⁸ sufficiently or reasonably supported,¹⁷⁹ and sufficiently or reasonably warranted.¹⁸⁰ However, the Appellate Body's analysis of the evidence found by the Panel not to constitute a risk assessment provides significant insight into the “rational relationship” test.

¹⁷⁶ *Hormones*, Appellate Body Report, §197.

¹⁷⁷ D. McNeil, “The First Case Under the WTO's Sanitary and Phytosanitary Agreement: The European Union's Hormone Ban”, 39 *Virginia JIL* 1 (1998), p120.

¹⁷⁸ *Hormones*, Appellate Body Report, §194.

¹⁷⁹ *Ibidem*, §186 and 193.

¹⁸⁰ *Ibidem*.

First, the requirements for establishing a valid risk assessment complement the test by limiting the evidence to be evaluated under the test.¹⁸¹ This means that a less stringent test is required to determine the correlation between a measure and a risk assessment because the evidence subject to evaluation has already been established as pertinent.

Second, the *Hormones* Appellate Body stated that measures taken that are based on the opinion of a minority of the scientific community “does not necessarily signal the absence of a reasonable relationship between the SPS measure and the risk assessment”.¹⁸²

The *Hormones* Appellate Body considered that a risk assessment did not have to come to a conclusion that coincided with the scientific conclusion or view implicit in the SPS measure.¹⁸³ Indeed, “Article 5.1 does not require that the risk assessment must necessarily embody only the view of a majority of the relevant scientific community” but can also contain the opinions of scientists that have a different or opposing view.¹⁸⁴ The risk assessment would therefore demonstrate a state of scientific uncertainty where scientists may come to different conclusions concerning the same scientific evidence. The interpretation of the Appellate Body, therefore, recognises that not necessarily the majority of scientists will in the end be proven correct and that Members may base their measures on a minority view contained in the risk assessment. The Appellate Body, therefore, appreciated the reality of scientific uncertainty.

The Appellate Body examined Dr. Lucier's estimate, presented at the joint meeting of the experts, that approximately one out of every one million women would develop

¹⁸¹ Both the Panel and the Appellate Body required that in order for a study to constitute a risk assessment it had to be specific enough.

¹⁸² *Hormones*, Appellate Body Report, §194.

¹⁸³ *Hormones*, Appellate Body Report, §194.

¹⁸⁴ *Ibidem*.

cancer as a result of consuming meat treated with hormones.¹⁸⁵ The Appellate Body considered that if Dr. Lucier's estimate had met the requirements of a risk assessment, then the estimate would have been sufficient to support the EC's measures. This conclusion implies that a minority viewpoint, supported by objective evidence, may overwhelm a substantial body of contrary evidence representing mainstream scientific opinion and that a single estimate of a one in a million risk would support a measure establishing "no-residue" level of protection. This suggests that a weak relationship between a measure and a risk assessment will be sufficient to satisfy the "rational relationship" test.

Although, the Appellate Body stated that measures based on the opinion of a minority of the scientific community "does not necessarily signal the absence of a reasonable relationship between the SPS measure and the risk assessment, especially where the risk involved is life-threatening in character and is perceived to constitute a clear and imminent threat to public health and safety"¹⁸⁶, which seems to suggest that measures based on minority views will have a greater chance of being considered to have a reasonable relationship with the risk assessment where the risk is of a considerable magnitude or gravity, the treatment of Dr Lucier's statement seems to indicate this is not a determining factor as the Appellate Body found that under the SPS Agreement that there is no minimum threshold of risk imposed on Members.

However, the Appellate Body's finding that a measure may be based on a minority viewpoint does not mean that the requirements of Article 5.1 are substantially less restrictive. The Appellate Body's finding does not indicate that unsubstantiated claims are sufficient to support SPS measures. Even if a risk assessment represents both majority and minority viewpoints, both must be supported by objective evidence. Therefore, the fact that a risk assessment is based on a minority viewpoint does not mean that it lacks an objective basis. This finding was supported by the

¹⁸⁵ *Hormones*, US Panel Report, Annex, §819; Canada Panel Report, Annex, §819.

¹⁸⁶ *Ibidem*.

Agricultural Products Appellate Body in interpreting Article 2.2 and, in particular the meaning of the word “sufficient” in the phrase “sufficient scientific evidence”.

Third, although any quantifiable risk could serve as a basis for the SPS measures, theoretical risk could not. The Appellate Body rejected the *Hormones* Panel finding that a risk which “only represents a statistical range of 0 to 1 in a million” is “not a scientifically identified risk”.¹⁸⁷ The Panel, therefore, implied that a 0 to 1 in a million risk would not be sufficient to serve as a basis for a sanitary measure¹⁸⁸ if one were to interpret the term “scientifically identified risk” as an ascertainable risk.¹⁸⁹ The Panel thereby prescribed implicitly that a certain magnitude or threshold level of risk had to be demonstrated in a risk assessment if an SPS measure based thereon was to be regarded as consistent with Article 5.1.

The Appellate Body rejected the finding that a threshold level of risk is required before a risk assessment can be considered valid in the sense of Article 5.1 as it found that any quantifiable risk could serve as a basis for SPS measures. This was also reiterated by the Appellate Body in the *Salmon* case.¹⁹⁰

However, the Appellate Body did agree with the Panel that if there is no scientific evidence of an *identifiable risk*, there was no basis on which to adopt a measure under the SPS Agreement.¹⁹¹ If a risk assessment points to no risk except the theoretical uncertainty inherent in scientific investigation, then there is nothing concrete to serve as a basis for comparison with the measure, and a meaningful comparison between the measure and risk assessment is impossible. Therefore, theoretical uncertainty concerning the existence of a risk, that is, uncertainty arising from the fact that scientists cannot assure with absolute certainty that there is no risk either in the present or in the future, was not the type of risk to be assessed under

¹⁸⁷ *Hormones*, US Panel Report, footnote 331 and Canada Panel Report, footnote 437.

¹⁸⁸ *Ibidem*.

¹⁸⁹ *Hormones*, Appellate Body Report, §186.

¹⁹⁰ *Salmon*, Appellate Body Report, §130.

¹⁹¹ *Hormones*, US Panel Report, §8.153; Canada Panel Report, §8.156.

Article 5.1.¹⁹² This shows that scientific uncertainty works both ways. Indeed, if science is not able to prove the casual relationship leading to possible damage, then it may also be unable to divert the possibility of its existence. Therefore, requiring science to prove the absence of risk is not possible.¹⁹³

Therefore, the Appellate Body distinguished between risk evaluation in a risk assessment and the determination of the appropriate level of SPS protection. The “risk” evaluated in a risk assessment must be an ascertainable risk not a theoretical uncertainty which is not the same as a Member not being able to determine its own appropriate level of protection to be “zero risk”.

The Appellate Body's finding that a risk assessment need not demonstrate a threshold level of risk in order to serve as a basis for an SPS measure is of great importance because if this were not the case, then a Member would be unable to establish standards to protect their populations against quantifiable, although relatively minor, threats to health and life. This is not the intent of the SPS Agreement as in its preamble it is provided that: “no Member should be prevented from adopting or enforcing measures necessary to protect ... life or health.”

Fourth, in determining whether a measure is reasonably supported by the risk assessment it is necessary that the risks assessments must be specific.

The reason the Appellate Body did not take Dr Lucier's opinion into account is because the opinion did “not purport to be the result of scientific studies ... focusing specifically on residues of hormones in meat from cattle fattened with such hormones.”¹⁹⁴ Since, Dr. Lucier did not assert that his estimate was based on a study of hormones as found in meat or meat products, as administered for growth promotion purposes, the estimate could not be considered a valid risk assessment, or

¹⁹² *Hormones*, Appellate Body Report, §186.

¹⁹³ O. Godard, “Social Decision-making Under Conditions of Scientific Controversy, Expertise and the Precautionary Principle” in (eds.) Joerges, Ladeur and Vos, *Integrating Scientific Expertise into Regulatory Decision-Making*, (1997), p68.

a valid component of a risk assessment. Therefore, the Appellate Body concluded that, “the single divergent opinion expressed by Dr. Lucier is not reasonably sufficient to overturn the contrary conclusions reached in the scientific studies referred to by the European Communities that related specifically to residues of the hormones in meat from cattle to which hormones had been administered for growth promotion.”¹⁹⁵

In addition, the Appellate Body agreed with the findings of the Panel that the scientific material to which the EC referred to in respect of the hormones involved apart from MGA were too general as they referred to entire classes or categories of hormones instead of focusing on the particular hormones at issue¹⁹⁶ and that the potential of those hormones were not evaluated when used specifically for growth promotion purposes¹⁹⁷ or the dangers of the presence of hormone residues in food or more specifically in meat or meat products. The Appellate Body agreed that the general studies although relevant were not sufficiently specific to the case at hand.

The Appellate Body added that the evidence provided by the EC only related to risks involved, where hormones were used in accordance with good veterinary practice. The EC had not shown that the control or prevention of such abuse of the hormones involved was more difficult than the control of other veterinary drugs, the use of which is allowed in the EC and did not provide evidence that control would be more difficult in the absence of import restrictions. The Appellate Body, therefore, agreed with the Panel's finding that no risk assessment had been performed to evaluate the risks resulting from the failure to administer hormones for growth hormone purposes in accordance with good veterinary practice.¹⁹⁸

¹⁹⁴ *Hormones*, Appellate Body Report, §198.

¹⁹⁵ *Ibidem*.

¹⁹⁶ *Hormones*, US Panel Report, §8.110, 8.130, 8.257; Canada Panel Report, §8.113, 8.133, 8.260; Appellate Body Report, §199, 200.

¹⁹⁷ *Hormones*, US Panel Report, §8.110, 8.124, 8.130; Canada Panel Report, §8.113, 8.127, 8.133; Appellate Body Report, §198, 199, 200.

¹⁹⁸ *Hormones*, Appellate Body Report, §208.

The Appellate Body also upheld the Panel's conclusion that with respect to MGA that the measure was not based on a risk assessment.¹⁹⁹ The EC had referred to reports that did not cover MGA but hormone progesterone. The EC argued that these reports were highly relevant because MGA is an anabolic agent that mimics the action of progesterone.²⁰⁰ However, the EC had not included any study that demonstrated how closely related MGA is chemically and pharmacologically to other progestins and what effects MGA residues would actually have on human beings when such residues were ingested along with meat from cattle to which MGA had been administered for growth promotion purposes.²⁰¹

The *Salmon* Panel also considered whether the heat treatment requirement²⁰², with respect to ocean-caught Pacific salmon was based on the 1996 Final Report. The Panel concluded that this was not the case²⁰³ since the 1996 Final Report was not specific enough. Indeed, the 1996 Final Report did not even refer to the heat treatment requirements.²⁰⁴

It is clear that risk assessments must be specific in order for a measure to be “rationally supported” by the risk assessment. Risk assessments are to be specific with respect to specific substances used in specific ways even where there is very little evidence as in the case of MGA. This suggests that specificity is an absolute requirement that is not dependent on the amount of scientific evidence available.

However, although the Appellate Body required that the risk assessment evaluate the measure precisely, it found that Article 5.1 does not insist that a Member that adopts an SPS measure must have carried out its *own* risk assessment. Therefore, an assessment performed by another Member or international organisation could also be referred to. This, however, does not necessarily make it easier for a Member to

¹⁹⁹ *Hormones*, Appellate Body Report, §201.

²⁰⁰ *Ibidem* and EC's appellant's submission, §179.

²⁰¹ *Hormones*, Appellate Body Report, §201.

²⁰² The Panel considered this requirement to be the measure to be examined.

²⁰³ *Salmon*, Panel Report, §8.101.

provide proof that a measure is based on a risk assessment since the Member still needs to demonstrate that the measure is reasonably related to the risk assessment.

Unlike the *Hormones* and *Salmon* cases, both the *Agricultural Products* Panel and Appellate Body chose to examine the measure under Article 2.2 before making findings under Article 5.1. Both the Panel and Appellate Body relied on the interpretation of “based on” a risk assessment by the *Hormones* Appellate Body, as they found that for an SPS measure not to be “maintained without sufficient scientific evidence” requires that there be a rational or objective relationship between the SPS measure and the scientific evidence.²⁰⁵ The *Agricultural Products* Appellate Body stated that the ordinary meaning of “sufficient” is “of a quantity, extent, or scope adequate to a certain purpose or object” and concluded, therefore, that “sufficiency” is a relational concept which requires the existence of a sufficient or adequate relationship between two elements, *in casu*, between the SPS measure and the scientific evidence.²⁰⁶

This interpretation is consistent with the fact that Article 2.2 and 5.1 are closely related and that Article 5.1 provides guidance for the examination as to whether SPS measures are “maintained without sufficient scientific evidence”. The Appellate Body stated that the presence of a rational relationship is to be determined on a case-by-case basis, and depends on amongst other things the characteristics of the measure at issue and the quality and quantity of the scientific evidence.²⁰⁷

The Panel did not find that there was a rational relationship between the varietal testing requirement and the scientific evidence submitted before the Panel because there had been no instance in Japan or in any other country where the treatment approved for one variety of a product had to be modified to ensure an effective

²⁰⁴ *Salmon*, Panel Report, §8.88-8.98.

²⁰⁵ *Agricultural Products*, Panel Report, §8.29, 8.42.

²⁰⁶ *Agricultural Products*, Appellate Body Report, §74.

²⁰⁷ *Ibidem*, §87.

treatment for another variety of the same product²⁰⁸ and that varietal differences were not as significant for quarantine efficacy as had been reflected in the Japanese varietal testing requirement.²⁰⁹

Therefore, the Panel held that the varietal testing requirement was maintained without sufficient scientific evidence in the sense of Article 2.2²¹⁰ and concluded that there was no need to examine whether the measure was based on a risk assessment. However, the Appellate Body considered that this was an error in logic since the Panel's finding of inconsistency with Article 2.2 only covered the varietal testing requirement as it applied to apples, cherries, nectarines and walnuts.²¹¹ With respect to apricots, pears, plums and quince, the Panel found that there was insufficient evidence before it to conclude that this measure was inconsistent with Article 2.2. The Appellate Body noted that since the Panel found that the measure with respect to apricots, pears, plums and quince was not inconsistent with Article 2.2, there was a need to determine whether the measure was inconsistent with Article 5.1 in order to ensure the effective resolution of the dispute.²¹² Therefore, the Panel improperly applied the principle of judicial economy.²¹³ The Appellate Body, as noted above,²¹⁴ found that the measures were not based on a risk assessment because the 1996 Risk Assessment was not a risk assessment in the sense of the SPS Agreement.

The *Apples* Panel considered the risk of transmission of fire blight inherent in mature, symptomless apples, as well as the risk associated with other apples (immature apples, or mature but damaged apples) that might be introduced into Japan as a result of human or technical errors, or of illegal actions.²¹⁵

²⁰⁸ *Agricultural Products*, Panel Report, §9.464.

²⁰⁹ *Ibidem*.

²¹⁰ *Ibidem*, §9.465.

²¹¹ *Agricultural Products*, Panel Report, §8.43.

²¹² *Agricultural Products*, Appellate Body Report, §114.

²¹³ *Ibidem*.

²¹⁴ See Section, D.II.1.c.1.

²¹⁵ *Apples* Panel Report, §8.154.

In determining the consistency of the measure with Article 2.2, the *Apples* Panel found that the infection of mature, symptomless apples had not been established and that it was unlikely that mature, symptomless apples would be infected by fire blight. Indeed, the Panel found that the possible presence of endophytic²¹⁶ bacteria in mature, symptomless apples was not generally established and that scientific evidence did not support the conclusion that mature, symptomless apples could harbour endophytic populations of bacteria,²¹⁷ and, finally, that the presence of epiphytic²¹⁸ bacteria in mature, symptomless apples was also considered to be very rare.²¹⁹

The Panel found that scientific evidence suggested a negligible risk of possible transmission of fire blight through apples,²²⁰ and did not support the view that apples are likely to serve as a pathway for the entry, establishment or spread of fire blight within Japan.²²¹ The Panel also concluded that the measure was maintained “without sufficient scientific evidence” within the meaning of Article 2.2²²² as there was no “rational or objective relationship” between the measure and the relevant scientific evidence.²²³ In addition, the negligible risk identified on the basis of the scientific evidence and the nature of the elements composing the measure, lead the Panel to conclude that the measure at issue was “clearly disproportionate” to that risk.²²⁴

It is surprising that both the *Agricultural Products* and the *Apples* Panel began their analysis by focusing on Article 2.2 instead of Article 5.1. It would have been more

²¹⁶ In this context, “endophytic” is used when the bacterium occurs inside the apple in a non-pathogenic way. *Apples* Panel Report, §2.10.

²¹⁷ *Apples* Panel Report, §8.128 and 8.171.

²¹⁸ “In this context, “epiphytic” is used when the bacterium occurs on the outer surface of a plant or fruit in a non-pathogenic relationship.” *Apples* Panel Report, §2.10.

²¹⁹ *Apples* Panel Report, §8.142 and 8.171.

²²⁰ *Apples* Panel Report, §8.169.

²²¹ *Ibidem*, §8.176.

²²² *Ibidem*, §8.199.

²²³ *Apples* Panel Report, §8.101-8.103 and 8.180. See also *Agricultural Products*, Appellate Body Report, §73-74, 82, and 84.

efficient to determine first whether the measure was based on a risk assessment. Indeed, if a measure is found to be consistent with Article 2.2 it is essential to determine whether the specific provisions have been fulfilled.

This section has demonstrated that there must be scientific evidence in the form of a risk assessment that supports an SPS measure in order for a measure to be based on a risk assessment. The next section will consider the relevance of the precautionary principle in interpreting the requirement of scientific justification.

(4) *Does the precautionary principle override Article 5.1?*

In the *Hormones* case, the EC invoked the “precautionary principle” in support of its claim that the measures were “based on” a risk assessment as required by Article 5.1 and, therefore, implicitly with the requirement that there was sufficient scientific evidence and that the measures were based on scientific principles in accordance with Article 2.2. Although, the EC did not specify what it meant by the precautionary principle, presumably the EC considered that this principle implies that in a state of scientific uncertainty, lack of full scientific proof of a causal relationship between a substance and an adverse health effect would not preclude a Member from taking preventive action.²²⁵

²²⁴ *Apples* Panel Report, §8.198. The Appellate Body upheld the Panel’s finding that Japan’s phytosanitary measure at issue is maintained “without sufficient scientific evidence” within the meaning of Article 2.2 of the SPS Agreement. *Apples* Appellate Body Report, §168.

²²⁵ The precautionary principle is not defined in the EC Treaty. However, “according to the Commission the precautionary principle may be invoked when the potentially dangerous effects of a phenomenon, product or process have been identified by a scientific and objective evaluation, and this evaluation does not allow the risk to be determined with sufficient certainty.” *Activities of the European Union, Summaries of Legislation*, <http://europa.eu.int/scadplus/leg/en/lvb/l32042.htm>.

In a Communication on Precautionary Principle, adopted by EU Commission, Brussels, 2 February 2000, the precautionary principle was considered to apply “where preliminary objective scientific evaluation, indicates that there are reasonable grounds for concern that the potentially dangerous effects on the *environment, human, animal or plant health* may be inconsistent with the high level of protection chosen for the Community.”

The EC claimed that the fact that the precautionary principle had reached the status of a customary rule of international law or at least a general principle of law meant that it could override the explicit wording of Article 5.1 and 5.2.²²⁶

Whether the precautionary principle has attained the status of a customary rule of international law or a general principle of law is subject to debate. These issues will be considered in turn.

Some authors have argued that there is currently sufficient state practice to view the precautionary principle as a rule of customary international law, while recognising that the principle is still evolving.²²⁷ However, it should be noted that, as discussed by Birnie and Boyle, the precautionary principle is not universally applied since states have been selective in adopting it in some Conventions²²⁸ and not in others²²⁹ and that the meaning, application and implementation of the precautionary principle have varied substantially in different contexts.²³⁰ The precautionary principle may impose tougher requirements on magnitude or probability or irreversibility of harm depending on its formulation and on whether the principle is applied²³¹ as opposed to

²²⁶ *Hormones*, US Panel Report, §4.209 and Canada Panel Report, §4.212. See also Appellate Body Report, p18.

²²⁷ See J. Cameron, "The Status of the Precautionary Principle in International Law", in J. Cameron and T. O'Riordan (eds.), *Interpreting the Precautionary Principle* (London), (1994), p283 and P. Sands, *Principles of International Environmental Law*, Vol. I, Manchester, (1995), p212.

Other authors have argued that the precautionary principle has not yet achieved the status of a customary rule of international law. See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), pp118-119 and D. Bodansky, in *Proceedings of the 85th Annual Meeting of the American Society of International Law* (1991), p415.

²²⁸ Art. 4(3)f of the Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, (Bamako Convention), Bamako, January 29, 1991, (1991) 30ILM 773. Art. 2(5)(a) of the Transboundary Watercourses Convention. Art. 3(2) of the Baltic Sea Convention. Art. 3(3) of the Climate Change Convention.

²²⁹ 1994 Protocol under the 1979 Convention on Long Range Transboundary Air Pollution, 1994 Nuclear Safety Convention and the 1995 Washington Declaration on the Protection of the Marine Environment from Land-based Activities. See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p119.

²³⁰ *Ibidem*.

²³¹ Art. 2(2)(b) of the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), Paris, September 22, 1992, (1993) 32 ILM 1069. Art. 3(2) of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, (Baltic Sea Convention) Helsinki, April 9, 1992, BNA Intl. Env. Rep., Ref. File No. 35:0401.

only being considered or used as a guiding principle.²³² In addition, the fact that the precautionary principle is frequently used should not be confused with evidence of a general practice accepting the principle as a rule of law.²³³

The ICJ in the *Gabcikovo/Nagymaros* case²³⁴, considered by Boyle as “the most significant case on international law relating to the environment that has so far been decided by the International Court of Justice”²³⁵ or alternatively as “the first case of its kind to contribute, in the spirit of the 1992 Rio Declaration, to the “further development of international law in the field of sustainable development””²³⁶, did not refer to the precautionary principle.²³⁷ The ICJ recognised that “new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have been taken into consideration, and such new standards given proper weight”.²³⁸ However, the ICJ did not identify the precautionary principle among these new norms. In addition, the ICJ did not determine whether this principle could override the obligations of the Treaty between Czechoslovakia and Hungary of 16 September 1977 concerning the building and

²³² Art. 130r(2) of the 1992 Treaty on European Union, Art. 2(5)(a) of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, (Transboundary Watercourses Convention), Helsinki, March 17, 1992, (1992) 31 ILM 1312. Art. 3(3) of the United Nations Framework Convention on Climate Change, (Climate Change Convention), Rio de Janeiro, May 9, 1992, (1992) 31 ILM 849. See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed, Oxford, (2002), p120. A. Nollkaemper, “What you risk reveals what you value”, and Other Dilemmas Encountered in the Legal Assaults on Risks”, in (eds.) D. Freestone and E. Hey, *The Precautionary Principle in International Law – The Challenge of Implementation*, (1996), p80, believes this different wording does not necessarily create differences in law provided that the “precautionary principle is a *principle*”.

²³³ See Lowe, in A.E. Boyle and Freestone (eds.) *International Law and Sustainable Development* (Oxford), (1992), p24.

²³⁴ *Gabcikovo-Nagymaros Dam Case*, ICJ Judgement, 25 September 1997.

²³⁵ A.E. Boyle, “The Gabcikovo-Nagymaros Case: New Law in Old Bottles”, 8 *YIEL* (1997), p13.

²³⁶ *Ibidem*.

²³⁷ *Ibidem*, p17. See also 101. Request for an Examination of the Situation in accordance with Paragraph 63 of the Court’s Judgement, of 20 December 1974 in the Nuclear Tests (New Zealand v. France) case, Order of 22 September 1995.

In his dissenting opinion, Judge Weeramantry pointed out that important principles of environmental law are involved in this case, such as the precautionary principle. Judge Weeramantry regretted that the Court had not availed itself of the opportunity to consider this principle. <http://www.un.org/law/icjsum/9529.htm>.

²³⁸ *Gabcikovo-Nagymaros Dam Case*, §140.

operation of the Gabčíkovo/Nagymaros System of Locks.²³⁹ Although, this suggests that the ICJ does not recognise the precautionary principle as a new norm, it may also have considered that the application of the precautionary principle in this case was not warranted.²⁴⁰

However, the fact that substantial debate is taking and has taken place on whether the precautionary principle constitutes a customary rule of international law and the fact that in some cases there is an unease in taking position on the matter,²⁴¹ in itself casts considerable doubt on whether the precautionary principle has reached the status of a customary rule of international law.

The same argument could also be put forward against the proposition that the precautionary principle is a general principle of international law. However, it is far more plausible that the precautionary principle is a general principle rather than a customary rule of law. Indeed, a general principle does not amount to an obligation that requires specific normative responses.²⁴² As Cassese notes, general principles are “sweeping and rather loose standards of conduct that can be deduced from the various rules by extracting and generalising some of their most significant common points”.²⁴³

“General principles of law” include common legal maxims²⁴⁴ originating in domestic law such as the right to a fair and equitable legal process but also principles recognised by international law such as consent, reciprocity, equality of states, good faith, freedom of the seas and basic principles of human rights.²⁴⁵ The Court has

²³⁹ *Gabčíkovo-Nagymaros Dam Case*, §140.

²⁴⁰ A.E. Boyle, “The Gabčíkovo-Nagymaros Case: New Law in Old Bottles”. 8 *YIEL* (1997), p17.

²⁴¹ See *Hormones*, Appellate Body Report, §123.

²⁴² P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p120.

²⁴³ A. Cassese, *International Law*, Oxford, (2001), p151.

²⁴⁴ P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p18.

²⁴⁵ *Ibidem*, p19, I. Brownlie, *Principles of Public International Law*, 6th ed., Oxford, (2003), p17-19. See Lowe, in A.E. Boyle and Freestone (eds.) *International Law and Sustainable Development* (Oxford), (1992), p23 making the argument concerning the status of sustainable development in international law.

referred to general concepts of state responsibility,²⁴⁶ the principle of estoppel or acquiescence,²⁴⁷ and made occasional general references to abuse of rights and good faith,²⁴⁸ although as Birnie and Boyle note, most references to general principles have been analogies of domestic law.²⁴⁹

Since one of the purposes of general principles of law is to enable courts to fill inevitable gaps in the law²⁵⁰, including a broad range of principles seems appropriate.

The precautionary principle could be considered as a general principle of international law as it has been included in many treaties and international declarations, used by courts at the national and international level, and the essence of the principle has reached international consensus.²⁵¹ As Birnie and Boyle state:

*“Use by national and international courts, by international organisations, and in treaties, shows that the precautionary principle does have a legally important core on which there is international consensus – that in performing their obligations of environmental protection and sustainable use of natural resources states cannot rely on scientific uncertainty to justify inaction when there is enough evidence to establish the possibility of a risk of serious harm, even if there is as yet no proof of harm. In this sense the precautionary principle is a principle of international law on which decision makers and courts may rely...”*²⁵²

Neither the *Hormones* Panels nor the Appellate Body made any definitive findings with regard to the status of the precautionary principle in international law.²⁵³

²⁴⁶ *Chorzow Factory* (Indemnity; Jurisdiction), PCIJ, Ser.A, no.9, p31. *Chorzow Factory* (Merits), PCIJ, Ser.A, no. 17, p29. I. Brownlie, *Principles of Public International Law*, 5th ed., Oxford, (1998), p19.

²⁴⁷ *Eastern Greenland case* (1933), PCIJ, Ser.A/B, no.53, pp52-62 and 69 and *Arbitral Award of the King of Spain*, ICJ Reports (1960), 192 at 209, 213.

²⁴⁸ For example, *Free Zones case* (1930), PCIJ, Ser.A, no. 24, p12 and (1932), Ser. A/B, no.46, p167.

²⁴⁹ P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p20.

²⁵⁰ *Ibidem*, p19. A. Cassese, *International Law*, Oxford, (2001), p151.

²⁵¹ P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002).

²⁵² *Ibidem*, p120. See also Lowe, in A.E. Boyle and Freestone (eds.) *International Law and Sustainable Development* (Oxford), (1992), p21.

²⁵³ *Hormones*, US Panel Report, §8.157; Canada Panel Report, §8.160; Appellate Body Report, §123.

Although, the Appellate Body viewed the precautionary principle as incorporated in the SPS Agreement, it also recognised that the precautionary principle does not, by itself, and without a clear textual directive to that effect, relieve a panel from the duty of applying the normal customary international law principles of treaty interpretation in considering provisions of the SPS Agreement.²⁵⁴ The Panel was referring to Article 31(1) of the 1969 Vienna Convention on the Law of the Treaties (hereinafter “1969 Vienna Convention”), which provides that the ordinary meaning of the words actually used in their context and in the light of the object and purpose of the Agreement should be examined.²⁵⁵

Even if the Appellate Body had considered that the precautionary principle is a customary rule of international law that is relevant in the sense that the subject matter of the customary norm is related to the treaty norm being interpreted and applicable, in other words, that the customary norm is legally binding (other than *qua* treaty) on the parties disputing the interpretation to be given to a particular treaty or that the precautionary principle is a general principle of international law that is relevant in the interpretation of the treaty norm and had examined the relationship between the precautionary principle and Article 5.1 of the SPS Agreement under Article 31(3)(c) of the Vienna Convention, the Appellate Body's finding would have remained unchanged. Indeed, although Article 31(3)(c) of the 1969 Vienna Convention promotes integration of general international law by reconciling norms arising in treaty in one area of international law and custom in another²⁵⁶, by providing that “other relevant rules of international law” relating to the same subject matter must be taken into account in the interpretation of a treaty text, the customary rule or general principle of international law would still need to be *interpreted into the treaty norm* and *not applied instead of it*.²⁵⁷ Therefore, under Article 31(3)(c) the treaty being

²⁵⁴ *Hormones*, Appellate Body Report, §124.

²⁵⁵ For a more detailed analysis of the 1969 Vienna Convention, see Chapter 5.

²⁵⁶ P. Sands, “Sustainable Development: Treaty, Custom and the Cross-fertilisation of International Law”, in A.E. Boyle and D. Freestone (eds.), *International Law and Sustainable Development*, Oxford, (1999), p41.

²⁵⁷ *Ibidem*, p57. See Chapter 5, section B.II.3.a.

interpreted retains a primary role. Customary norms and general principles have a secondary role as they cannot partly or wholly replace the treaty norm.²⁵⁸

Therefore, the *Hormones* Panels and Appellate Body were justified in finding that the precautionary principle does not override the explicit wording of Article 5.1 and 5.2.

The Panel further supported its finding the precautionary principle would not override Article 5.1 and 5.2 because the precautionary principle had been given specific meaning in Article 5.7 of the SPS Agreement, which enables Members that have not fulfilled the requirements of basing a measure on a risk assessment to provisionally adopt SPS measures while “Members ... seek to obtain the additional information necessary for a more objective assessment of risk”, but that the EC had explicitly stated in this case that it was not invoking Article 5.7.²⁵⁹

However, even if Article 5.7 had not been included in the SPS Agreement this would not change the fact that the precautionary principle could not override the wording of Article 5.1 and 5.2 for the reasons discussed above.

Although the “precautionary principle” cannot create a risk assessment or sufficient scientific evidence where there is none, and, therefore, be sufficient to imply the consistency of a measure with Article 5.1, the requirement that measures be based on a risk assessment does not prevent a Member from being cautious in its risk assessment exercise since risk assessments are infused with science policies that set out a conservative approach or from adopting a conservative approach with regard to

²⁵⁸ P. Sands, “Sustainable Development: Treaty, Custom and the Cross-fertilisation of International Law”, in A.E. Boyle and D. Freestone (eds.), *International Law and Sustainable Development*, Oxford, (1999), p57. See Chapter 5 section B.II.3.a. for a more in-depth discussion.

²⁵⁹ *Hormones*, US Panel Report, §8.157; Canada Panel Report, §8.160.

risks that have been identified regardless of their magnitude as a Member may choose its appropriate level of protection.²⁶⁰

In addition, the Appellate Body stated that a panel evaluating whether “sufficient scientific evidence” exists to warrant the maintenance by a Member of a particular SPS measure “should, bear in mind that responsible, representative governments commonly act from perspectives of prudence and precaution where risks of irreversible ... damage to human health are concerned”.²⁶¹ In other words, a panel should operate in the shadow of the precautionary principle, especially in instances where a provision of the Agreement calls for particular subjectivity such as the amount of evidence that is required to be considered “sufficient” under Article 2.2. This probably means that full scientific proof is not required but that a reasonable relationship between the scientific evidence and the measure is, nevertheless, needed.

Therefore, it is clear that although the precautionary principle may be reflected in the risk assessment exercise, the precautionary principle cannot override the explicit requirements of Article 5.1.

d) Article 5.7 of the SPS Agreement as an exception to the requirement that measures must be based on scientific principles and sufficient scientific evidence

As noted in the last section, the EC in the *Hormones* case could have invoked Article 5.7 where a Member can provisionally impose measures although these are not based on a risk assessment and, therefore, not on scientific principles and sufficient scientific evidence. However, the EC did not attempt to justify its measures under Article 5.7 since it considered its ban to be final and not provisional. This may have

²⁶⁰ The sixth paragraph of the Preamble and in Article 3.3, both recognise the right of Members to individually determine the appropriate level of SPS protection to be reflected in their SPS measures. The SPS Agreement allows the use of measures that achieve a higher level of protection than implied in the international standard are therefore allows for more cautious measures.

²⁶¹ *Hormones*, US Panel Report, §8.157; Canada Panel Report, §8.160.

been the reason for its desperate attempt to use the precautionary principle as a trump card to justify its measures under Article 5.1.

The question, therefore, arises which requirements need to be fulfilled in order for a measure to be justified under Article 5.7.

(1) *The requirements of Article 5.7*

The *Agricultural Products* Panel, which was the first to deal in detail with Article 5.7, found Article 5.7 to provide for four cumulative conditions. The first sentence of Article 5.7 provides that provisional measures are permitted if they are imposed with respect to a situation where “relevant scientific information is insufficient” and adopted “on the basis of available pertinent information”. The second sentence requires that Members “seek to obtain additional information necessary for a more objective assessment of risk” and review the SPS measure accordingly “within a reasonable period of time”.

Japan argued that the wording “except as provided for in paragraph 7 of Article 5” in Article 2.2 refers only to the first sentence of Article 5.7. This, of course, has no basis in the text of either Article 2.2 or 5.7. Article 2.2 clearly refers to Article 5.7 as a whole. The Panel started by examining the requirements of the second sentence, possibly to emphasise this point.

However, for methodological reasons this section will first deal with the requirements of the first sentence.

(a) *“relevant scientific information is insufficient”*

Although, the *Agricultural Products* Panel found and the Appellate Body upheld that Japan had acted inconsistently with the requirements of the second sentence of Article 5.7 and, therefore, did not examine the requirements of the first sentence, the US raised an interesting issue in its submission with respect to the interpretation of whether relevant scientific information was insufficient. The US argued that for a

measure to fall within the ambit of Article 5.7, there had to be *insufficient* relevant scientific evidence in order to perform a risk assessment but that there was in fact *sufficient* evidence to perform such an assessment.²⁶² In other words, the US interpreted Article 5.7 as not covering situations where there was insufficient scientific evidence to support the SPS measures if there was sufficient evidence to conduct a risk assessment that supported another position.

This issue was resolved in the *Apples* case. The Panel found that the measure at issue was not a provisional measure justified under Article 5.7, since the measure was not imposed in respect of a situation where “relevant scientific evidence is insufficient”.²⁶³ The Panel supported its findings by stating that with regard to the risk of transmission of fire blight through mature, symptomless apples that a “large quantity” and a “high quality of scientific evidence has been produced over the years that describes the risk of transmission of fire blight through apple fruit as negligible”, and that “this is evidence in which the experts have expressed strong and increasing confidence.”²⁶⁴ With respect to endophytic bacteria in mature apples,²⁶⁵ the Panel found, based on the opinions of experts, that there was also a large volume of relevant scientific evidence available on this matter.²⁶⁶ In addition, the Panel found that Japan could not demonstrate that the scientific evidence was inconclusive or unreliable.²⁶⁷

The Appellate Body considered Japan’s claim that the Panel had interpreted Article 5.7 “too narrowly” and “too rigidly”.²⁶⁸ The Appellate Body stated that the assessment of whether relevant scientific evidence is insufficient should not be restricted to evidence “in general” on the phytosanitary question at issue, but should also cover a “particular situation” in relation to a “particular measure” or a

²⁶² *Agricultural Products*, Panel Report, §4.235.

²⁶³ *Apples* Panel Report, §8.221-8.222.

²⁶⁴ *Ibidem*, §8.219.

²⁶⁵ *Ibidem*, §8.220.

²⁶⁶ *Apples* Panel Report, §8.220.

²⁶⁷ *Ibidem*, §7.9. See also § 8.128, 8.168, and 8.171.

“particular risk”.²⁶⁹ In addition, the Appellate Body found that relevant scientific evidence is insufficient within the meaning of Article 5.7, if the available scientific evidence, “general” or “specific”, does not permit in either “quantitative or qualitative terms, the performance of an adequate assessment of risks as required under Article 5.1.”²⁷⁰ In other words, if available scientific evidence would enable the execution of a risk assessment, then a measure that is not based on a risk assessment cannot be justified under Article 5.7.²⁷¹

It can be concluded that Article 5.7 can only be successfully invoked in situations where little or no reliable evidence is available.²⁷² Scientific uncertainty that is inherent in scientific assessments does not fall within the scope of the phrase “insufficient scientific evidence”. As the Appellate Body stated, “the application of Article 5.7 is triggered not by the existence of scientific uncertainty, but rather by the insufficiency of scientific evidence”.²⁷³

(b) *“on the basis of available pertinent information”*

The requirement that provisional measures must be taken on the basis of relevant information that is available seems to suggest that although scientific evidence is insufficient, there must be more than no scientific evidence. Unfortunately, it is unclear how specific information needs to be in order to be considered “pertinent”. Certainly, it would be inappropriate that the information would be required to have the same specificity as that requested by the Appellate Body in the *Hormones* case when considering whether the measure was based on a risk assessment, however, it is conceivable that the kind of information provided by Dr Lucier which was not considered specific enough for the purposes of Article 5.1 would probably be considered as relevant information under Article 5.7.

²⁶⁸ *Apples* Appellate Body Report, §178.

²⁶⁹ *Ibidem*, §179.

²⁷⁰ *Ibidem*.

²⁷¹ See *Apples* Panel Report, §8.222 and 9.1(b) and Appellate Body Report, §188.

²⁷² *Apples* Panel Report, §8.219. *Apples* Appellate Body Report, §183.

(c) “seek to obtain the additional information necessary for a more objective assessment of risk”

In considering the requirement that the Member imposing an SPS measure must seek to obtain additional information necessary to perform a more objective assessment of risk, the Panel found that the fact that exporting countries provided additional information when they applied for access to the Japanese market did not satisfy the obligation in Article 5.7 as this information was designed and carried out in order to comply with the varietal testing requirements and not to “examine the appropriateness” of the requirement.²⁷⁴ In addition, the information provided by exporting countries did not address the core issue, whether varietal characteristics caused a difference in quarantine efficacy.²⁷⁵ The Appellate Body agreed with the Panel,²⁷⁶ although the Appellate Body noted that neither Article 5.7 nor any other provision of the SPS Agreement sets out explicit prerequisites regarding the additional information to be collected or a specific collection procedure,²⁷⁷ and that Article 5.7 does not specify what actual results must be achieved. Nevertheless, Article 5.7 states that the additional information is to be sought for in order to allow a Member to conduct “a more objective assessment of risk”. Therefore, the information sought must be germane to conducting such a risk assessment.²⁷⁸ This suggests that the information that must be sought under Article 5.7 similarly to Article 5.1 needs to be specific enough.²⁷⁹

The Appellate Body noted that the obligation is to “seek to obtain” information. However, if a Member would only be required to “seek to obtain” information in order to maintain its measure, then the requirements of Article 5.1 would be rendered meaningless. Indeed, a Member could maintain its “provisional” measure for an

²⁷³ *Apples* Appellate Body Report, §184.

²⁷⁴ *Agricultural Products*, Panel Report, §9.478.

²⁷⁵ *Agricultural Products*, Panel Report, §9.478.

²⁷⁶ *Agricultural Products*, Appellate Body Report, §95.

²⁷⁷ *Ibidem*.

²⁷⁸ *Agricultural Products*, Appellate Body Report, §95.

undetermined period of time on the basis that information is being sought for and, therefore, would have no incentive to comply with the requirements of Article 5.1 to base the measure on a risk assessment.

Therefore, Article 5.7 must be interpreted restrictively and must be read in its systematic context, which means that if a measure is to remain consistent with the SPS Agreement, a Member must have found information within a reasonable period of time and not merely shown its willingness to do so.

(d) *“review the [SPS] measure accordingly within a reasonable period of time”*

The *Agricultural Products* Panel noted that the varietal testing requirement was first applied in 1969 for Hawaiian papayas of the Solo variety. Therefore, the issue of varietal testing and the question of whether it can be justified had been around for 30 years. With respect to the specific products and pest at issue, varietal testing had been around for over 20 years as the first import ban was lifted in 1978.²⁸⁰ The Panel believed that Japan had been in a position to obtain further information on varietal differences and their quarantine efficacy over this period of time and that since 1 January 1995 it was under an explicit obligation to do so. The Panel did not elaborate on what was a reasonable time period or which factors had to be taken into account in determining a reasonable time period. It seems that the Panel in finding that the measure was not supported in a proper way for 20 to 30 years was a contributing factor in determining that, although the obligation only arose from 1 January 1995, that 3 and a half years was not a reasonable time.²⁸¹ The Appellate Body, correctly, only focused on the fact that three and a half years was unreasonable²⁸² since there was no obligation to do so before the SPS Agreement entered into effect. The

²⁷⁹ *Hormones*, Appellate Body Report, §200.

²⁸⁰ *Agricultural Products*, Panel Report, §9.479.

²⁸¹ Although Australia did not claim that the measures were provisional, the *Salmon* Panel nevertheless stated that since the measure in dispute was imposed more than 20 years ago, could not be considered as a provisional measure.

²⁸² *Agricultural Products*, Appellate Body Report, §96.

Appellate Body came to this conclusion as it recalled the experts' conclusion that the collection of information was relatively simple, an argument which the Panel used to justify its finding that there was no justification that no additional information was sought for.

Therefore, the Appellate Body clarified the meaning of "reasonable period of time" to some extent by stating that the factors to be considered were the difficulty of obtaining the additional information necessary for the review and the characteristics of the provisional measure.²⁸³ However, the Appellate Body stated that the meaning of reasonable period of time was to be established on a case-by-case basis but that "an overly broad and flexible interpretation of that obligation would render Article 5.7 meaningless".²⁸⁴

In conclusion, the obligation that additional information be obtained and used to review the measures ensures that the measures reflect the newest information. However, where no additional information becomes available or when this new information is insufficient in order for the Member to be able to provide a risk assessment that reasonably supports the measure, within a reasonable time period suggests that sufficient scientific evidence cannot be found and therefore there seems to be no reason to maintain the measure.

(2) How effectively does Article 5.7 deal with scientific uncertainties?

The GATT and the WTO have often come under fire for neglecting environmental concerns in favour of minimising negative impacts on trade. The question that arises is to what extent Article 5.7 leaves room for a precautionary approach to SPS issues and therefore, whether scientific uncertainties have been sufficiently provided for. In order to evaluate Article 5.7, consideration will be given to the precautionary principle in other contexts.

Although, as mentioned in section D.II.1.b.4, the precautionary principle does not have a unique formulation, the precautionary principle is most often phrased in such a way that uncertainties should be taken into account in the decision-making process, that measures may be taken in the absence of full scientific evidence but that there must nevertheless be some scientific basis for predicting the possibility²⁸⁵ or likelihood²⁸⁶ and magnitude²⁸⁷ of harmful effects or “some reasonable grounds for concern”²⁸⁸ which encourages prudent action.²⁸⁹

This is consistent with the fact that although states are required by international law to ensure that activities within their jurisdiction or control do not cause or permit serious or significant harm to the environment of other states,²⁹⁰ this obligation to adopt a precautionary approach only arises once risks are reasonably foreseeable and a determination of the likelihood and seriousness and magnitude of harm is made.²⁹¹ Of course, it could be argued consistent with the findings in the *Trail Smelter* case

283 *Agricultural Products*, Appellate Body Report, §96.

284 *Ibidem*, §83.

285 When harm to humans or to the environment may be caused: Art. 4(3)(f) of the Bamako Convention.

286 “[I]s likely to cause” significant adverse transboundary effects, Art. 2(5)(a) of the 1992 OSPAR Convention, Art. 2(1) and (2) of the 1992 Transboundary Watercourses Convention.

287 “Threats of serious or irreversible damage”: Art. 3(3) of the 1992 Climate Change Convention.

288 Art. 2(2)(a) of the 1992 OSPAR Convention.

289 O’Riordan and Cameron have argued that the present line “is to act prudently when there is sufficient scientific evidence and where action can be justified on reasonable judgements of cost effectiveness and where inaction could lead to potential irreversibility or demonstrate harm to the defenders and future generations” rather “than to claim scientific uncertainty as a reason for delay. *Interpreting the Precautionary Principle*, (eds.) T. O’Riordan and J. Cameron, London, (1994), p18.

290 See for example, *Trail Smelter case*, 35 *AJIL* (1941), p716: “no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another”; *Advisory Opinion on the Legality or Threat of Use of Nuclear Weapons*, ICJ Rep. (1996), p226, §29 where it was held that “the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment”; 1982 UNCLOS, Articles 192-194; ILC 2000 Draft Convention on the Prevention of Transboundary Harm, Article 3. See also 1972 Stockholm Declaration on Human Environment, Principle 2 I; Rio Declaration, Principle 2; Convention on Biological Diversity, Article 3; Convention on Climate Change, Preamble.

P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), pp109-112.

that such an obligation arises only when there is clear scientific proof of actual or threatened harm.²⁹² However, this interpretation clearly leaves no room for scientific uncertainty.²⁹³ Therefore, although there must be some scientific basis, full scientific certainty is not required.

A common feature of the precautionary principle is that it does little to protect the environment against the unknown but helps when information is poor or inconclusive. Therefore, the precautionary principle does not come into play merely on the basis of personal intuition or speculation.

This was also the position taken in Case C-180/96, *United Kingdom of Great Britain and Northern Ireland v. Commission of the European Communities*²⁹⁴ (hereinafter “BSE”) case, where the European Commission adopted measures pursuant to powers granted by two Community directives where there is “an outbreak ... of any zoonoses, diseases or other cause likely to constitute a serious hazard to animals or to human health”.²⁹⁵ The ECJ adopted a precautionary approach in assessing the legality of the measures: “where there is uncertainty as to the existence or extent of risk to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent”.²⁹⁶ The ECJ emphasised that the link between BSE and Creutzfeldt-Jacob, although not

²⁹¹ *Trail Smelter* case, 35 *AJIL* (1941), p684. ILC 2001 Draft Convention on the Prevention of Transboundary Harm, Article 2. See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p115.

²⁹² See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed., (2002), p115.

²⁹³ *Ibidem*.

²⁹⁴ Judgement of the Court, ECR I-2265, 5 May 1998.

²⁹⁵ Directive 90/425, Article 10(1) and Directive 89/662, Article 9(1).

²⁹⁶ *United Kingdom of Great Britain and Northern Ireland v. Commission*, Case C-180/96, ECR I-2265 (1998), §99. This view is corroborated by Article 130r(1) of the EC Treaty, which states that protecting human health is one of the objectives of Community policy on the environment. Article 130r(2) provides that this policy is to be based on the precautionary principle and on preventive action.

proven, had “ceased to be a theoretical hypothesis”, had become a “possibility”²⁹⁷ and that there was a “probable link”.²⁹⁸

The ECJ supported its statement by referring to the Scientific Veterinary Committee of the EU, which concluded that on the basis of the available data, it was not possible to prove that BSE was transmissible to humans, but that there was a possibility.²⁹⁹ In addition, it noted that the Spongiform Encephalopathy Advisory Committee (SEAC), an independent scientific body advising the UK government, stated that although there was no “direct evidence of a link on current data”³⁰⁰, but that “the most likely explanation” for the disease was exposure to BSE before the introduction of the specified ovine offal ban in 1989.³⁰¹

Therefore, the requirement that measures must be based on available pertinent information in Article 5.7 does not seem to be more restrictive than what would usually allow for the operation of the precautionary principle.

In addition, Article 5.7 does not require that the measures only be aimed at serious or irreversible or imminent threats or that considerations of cost-effectiveness must be taken into account unlike Principle 15 of the Rio Declaration, which provides that, “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation” or the EC Directives mentioned above which provide for “serious hazards” or the position taken by the ECJ in the *BSE* case. Indeed, the ECJ supported the Commission's decision to contain the disease in the

²⁹⁷ *BSE* case, §52.

²⁹⁸ *Ibidem*, §61.

²⁹⁹ *BSE* case, §13.

³⁰⁰ *BSE* case, §9.

³⁰¹ *Ibidem*, §9 and 52.

territory of the UK because of the *urgency* of the situation, the *seriousness* of the matter,³⁰² and the *seriousness* of the hazard to public health.

Therefore, the formulation of the precautionary principle in Article 5.7 appears to be less restrictive than in other contexts.

The more restrictive requirements imposed by Article 5.7 are that these measures be provisional and that further information is to be collected within a reasonable period of time. However, although these obligations are not mentioned in the Rio Declaration or the EC Directives, this requirement does not seem to be unreasonable because if this were not the case, then a country would have no incentive to determine whether the precautionary measures are in fact based on sound scientific grounds. In fact the ECJ adopted the same approach as it referred to temporary measures and the fact that further scientific information was needed. Indeed, the ECJ found that the Commission had not reacted in an inappropriate manner by imposing on a *temporary* basis and pending the production of a *more detailed scientific information*, a general ban on exports of bovine animals, bovine meat and derived products.³⁰³ In addition, the ECJ stated that whether or not there was a causal link between BSE and the Creutzfeldt-Jacob disease was a question that “*required further scientific research*”.³⁰⁴

Therefore, Article 5.7 similarly to Principle 15 of the Rio Declaration, the 1985 Ozone Convention and its 1987 Montreal Protocol as well as the EC provide for the operation of the precautionary principle before cause and effect are demonstrated. However, stronger versions of the precautionary principle that reverse the burden of

³⁰² The measures were also justified because of the uncertainty of the risk and the uncertainty of the adequacy and effectiveness of the measures adopted prior to the total export ban. *BSE* case, §62.

³⁰³ *BSE* case, §110.

³⁰⁴ *Ibidem*, §14.

proof so that an activity may not take place until proven not to cause harm to the environment³⁰⁵ are not covered by Article 5.7.

Nevertheless, claims that the SPS Agreement does not sufficiently provide for scientific uncertainty seem to be unjustified.

2.) *Measures Applied Only to the Extent Necessary*

Apart from the requirements to base measures on “scientific principles” and “not maintain measures without sufficient scientific evidence” except as provided for in Article 5.7, Article 2.2 also requires that measures must be “applied only to the extent necessary to protect human, animal or plant life or health”. The focus of the following sections will be on this latter requirement.

a) Relationship between Article 2.2 and 5.6

Since both other basic obligations of Article 2.2 have been more specifically interpreted, it would seem appropriate to consider the obligation that measures must be “applied only to the extent necessary” in the light of the more specific obligation contained in Article 5.6.

Article 5.6 provides that when Members establish or maintain SPS measures to achieve their appropriate level of protection they “shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of protection, taking into account technical and economic feasibility”. An interpretative footnote to Article 5.6 states that:

“For the purposes of paragraph 6 of Article 5, a measure is not more trade-restrictive than required unless there is another measure, reasonably

³⁰⁵ Resolutions suspending the dumping of low-level radioactive waste at sea without prior approval of the Paris and London Dumping Conventions, the suspension of industrial dumping in the Oslo Commission area without prior justification to the Oslo Commission. See P. Birnie and A. Boyle, *International Law and the Environment*, 2nd ed, Oxford, (2002), p125.

*available taking into account technical and economic feasibility, that achieves the appropriate level of [SPS] protection and is significantly less restrictive to trade”.*³⁰⁶

The *Salmon* Panel and *Agricultural Products* Panel noted that Article 5.6 must be read in context, in the light of the more general language of Article 2.2.³⁰⁷ However, the Panels did not dwell on the matter and swiftly proceeded to examine Article 5.6. The Appellate Body in the two cases did not even address the relationship between Article 5.6 and Article 2.2.

The reason for the evasiveness over the relationship is probably due to the fact that Article 2.2 unlike Article 5.6 seems to deal with the *application* rather than the *substantive requirements* of the measure that is under review. This is consistent with the interpretation given to a nearly identical NAFTA provision, Article 712(5).³⁰⁸ The emphasis is on the word “applied” and would therefore mean, for example, that the provision would prevent a country from imposing a two-year quarantine if a one-year quarantine is sufficient in achieving its appropriate level of protection.

The term “necessary” in Article 2.2 would, in this case, be given its ordinary meaning as the measure would be applied as long as needed to achieve the appropriate level of protection.

This interpretation, however, does not require that the measure be “necessary” in the sense of Article 5.6. In Article 5.6, the emphasis is not on the application of the measure but on the measure itself. In order for the measure to be “necessary”, the measure should not be more trade restrictive than required to achieve the Member's desired level of protection. In other words, there can be no other measure that is economically and technically feasible and *significantly* less restrictive to trade that achieves the Member's appropriate level of protection. The standard applied in the

³⁰⁶ SPS Agreement at footnote 3.

³⁰⁷ *Salmon*, Panel Report, §8.167.

LTRA test in examining measures under the SPS Agreement is more lenient than the one applied in determining the consistency of a measure with Article XX(b) as only alternatives that are *significantly* less trade-restrictive are compared.³⁰⁹

A second interpretation of the requirement in Article 2.2 is that measures are only applied to the extent necessary, if the application of the measure does not cause more trade restriction than is required to achieve the appropriate level of protection. This interpretation therefore, gives the term “necessary” in Article 2.2 the same meaning as in Article 5.6. Although, this interpretation focuses mainly on the content of the measure, it could be argued that implicitly a measure that is necessary in achieving the appropriate level of protection is no longer necessary once that goal is achieved. Therefore, this interpretation would also incorporate the meaning given by the first interpretation that measures are no longer necessary when the appropriate level of protection is achieved.

The advantage of this interpretation is that it also covers the situation where in the process of achieving the level of protection another measure may become significantly less trade restrictive in achieving the appropriate goal. In other words, a measure may have been necessary for a certain period of time but it might not be for the whole time of achieving the appropriate level of protection.

In addition, the *Salmon* Appellate Body stated that the establishment or maintenance of an SPS measure that implies or reflects a higher level of protection than the appropriate level of protection *could* constitute a violation of the necessity requirement of Article 2.2.³¹⁰ This would presumably be the case if there was another measure reasonably available that reflects the same level of protection as the appropriate level of protection. Therefore, the Appellate Body in this footnote interpreted Article 2.2 in such a way that “applied to the extent necessary” requires

³⁰⁸ Article 712(5) provides: “Each Party shall ensure that any [SPS] measure that it adopts, maintains or applies is applied only to the extent to achieve its appropriate level of protection”, North American Free Trade Agreement, 17 December 1992, 32 *ILM* 296 and 32 *ILM* 605.

³⁰⁹ See Chapter 2, section C.II.2.b.

that the measure is necessary in terms of Article 5.6. In other words, the Appellate Body read “applied to the extent necessary” as applied to the extent that the measure is necessary to achieve the appropriate level of protection.

In order to ensure that there is no confusion in the interpretation of Article 2.2 and the relationship between Article 2.2 and Article 5.6, it would have been preferable to provide in Article 2.2 that the measure must be necessary and applied only to the extent necessary and using Article 5.6 not only to interpret the requirement of what is “necessary” but also the exact meaning of “applied to the extent necessary”.

Alternatively, the drafters could have provided that Article 2.2 obliges Members applying measures to ensure that these are “necessary”. Article 5.6 could have specifically defined the requirement of necessity and emphasised that a necessary measure ceases to be necessary once the appropriate level of protection is achieved or if another measure becomes significantly less trade restrictive.

The reason for the confusion around the meaning of Article 2.2 could have been the wording of Article 2.1, which states that Members have the right to take measures that are necessary. It could be that the drafters did not want to phrase the necessity of a measure as a right and an obligation. Since necessary is an obligation, it would have been more suitable to draft the requirement that a measure must be necessary.

However, despite the lack of clarity of the wording of Article 2.2, it can be concluded that a measure may only be applied to the extent that it is necessary to achieve the Member's appropriate level of protection. This is, of course, subject to the fact that there is an identifiable risk that must be protected against.

The next section will take a closer look at the conditions for fulfilling the requirement that measures must not be “more trade restrictive than required” as provided in Article 5.6.

³¹⁰ *Salmon*, Appellate Body Report, footnote 166.

b) “Measures not more trade restrictive than required”

The *Salmon* Panel and Appellate Body³¹¹ as well as the *Agricultural Products* Panel and Appellate Body examined whether the measures that they were examining were “more trade restrictive than required”. In doing so they considered whether there was another SPS measure that was “reasonably available taking into account technical and economic feasibility”, which achieved “the appropriate level of [SPS] protection” and that was “significantly less restrictive to trade” than the SPS measure contested. These elements were considered to be cumulative in nature.³¹² Therefore, the SPS Agreement only condemns SPS measures that are significantly more trade restrictive, when these achieve the Member's level of protection and when they are economically and technically feasible.³¹³

The *Salmon* Panel stated that most of the reports before it only related to ocean-caught Pacific salmon and therefore, did not make any findings with respect to freshwater and cultured salmon.³¹⁴ The Panel noted that the 1996 Final Report identified five potential quarantine policy options such as heat treatment, certification, inspection, evisceration and filleting. The Panel considered whether any of the policy options apart from heat treatment would meet the three elements of the three-pronged test. The Panel excluded the heat treatment as it viewed it to be the SPS measure against which the other four options could be examined. Since the other four options were described to be options “which merit consideration” in the 1996 Final Report, the Panel felt that there were other measures “reasonably available taking into account technical and economic feasibility”.

³¹¹ *Salmon*, Appellate Body Report, §203.

³¹² *Ibidem*.

³¹³ Although it is not explicitly stated in either the SPS or the TBT Agreement or the GATT 1994, there seems to be no reason to restrict alternative measures only to those covered by WTO Agreements. Although this has not been the case so far in disputes relating to the SPS Agreement, this has been the case in disputes involving Article XX where panels and the Appellate Body have considered that it was preferable for the importing countries to engage in discussions in order to establish an international agreement rather than to impose trade restrictions.

See Chapter 2, section C.II.2. *Shrimps* Panel Report, §7.53 and Appellate Body Report, §174.

³¹⁴ *Salmon*, Panel Report, §8.60.

With respect to determining whether these options achieved Australia's appropriate level of protection, the Panel stated that nowhere did the SPS Agreement explicitly impose an obligation on WTO Members to identify or quantify the appropriate level of protection³¹⁵ but that the SPS measure applied to a given situation inherently reflects and achieves a certain level of protection with respect to that situation and that this level of protection, implied in the SPS measure selected by a Member, can be presumed to be at least as high as the level of protection considered to be appropriate by that Member.³¹⁶ Based on this view the Panel stated the alternatives would have to be examined to determine whether they met the level of protection currently achieved by the measure at issue.³¹⁷ Although, the Panel did not conclude that the other measures achieved Australia's appropriate level of protection, it found that Canada had raised a presumption that these other options did achieve Australia's appropriate level of protection that was unrebutted by Australia. The Panel, therefore, concluded that this second requirement was met.

In considering whether there were measures that were significantly less restrictive to trade, the Panel noted that the alternative policy options did not provide for an outright ban as did the heat treatment and, therefore, concluded that these options were significantly less restrictive.³¹⁸

The Panel concluded that since all three elements had been met, that Australia had imposed measures that were more trade restrictive than required with respect to ocean-caught Pacific salmon and had, therefore, acted inconsistently with Article 5.6.³¹⁹ The Panel referred to its earlier ruling that “the measure in dispute is

³¹⁵ *Salmon*, Panel Report, §8.107.

³¹⁶ *Ibidem*.

³¹⁷ *Salmon*, Panel Report, §8.173.

³¹⁸ *Salmon*, Panel Report, §8.182.

³¹⁹ *Ibidem*, §8.183.

inconsistent with Article 2.2”³²⁰ and, therefore, decided that it “shall not further address the legal relationship between Articles 5.6 and 2.2”³²¹.

Since the Appellate Body found that the Panel had erred in finding that the heat treatment as opposed to the import prohibition was the measure at issue, the Appellate Body concluded that the Panel should have examined whether the import prohibition was “not more trade-restrictive than required” to achieve Australia's appropriate level of protection.

The Appellate Body found, based on the factual findings of the Panel, that there were other measures reasonably available taking into account technical and economic feasibility.³²² However, the Appellate Body disagreed with the Panel's reasoning in finding that there were other measures that achieved the Member's appropriate level of protection. Indeed, the Appellate Body noted that the level of protection reflected in the SPS measure at issue was a “zero-risk level” of protection but found that the appropriate level of protection as determined by Australia was not as high as the level of protection reflected in the measure since Australia had determined its appropriate level to be “... a high or “very conservative” level of SPS protection aimed at reducing risk to “very low levels”, “while not based on a zero risk approach”.³²³ The Appellate Body stated that the appropriate level of protection “is a prerogative of the Member concerned and not of a panel or of the Appellate Body”.³²⁴ The “appropriate level of protection” established by a Member and the “SPS measure” have to be clearly distinguished.³²⁵ “The first is an objective, the second is an instrument chosen to attain or implement that objective”.³²⁶ The Appellate Body stated that “it is the appropriate level of protection that determines the SPS measure to be introduced or maintained, not the SPS measure introduced or

³²⁰ *Salmon*, Panel Report, §8.99.

³²¹ *Ibidem*, §8.165.

³²² *Salmon*, Appellate Body Report, §204.

³²³ *Salmon*, Panel Report, §8.107 and Appellate Body Report, §206.

³²⁴ *Salmon*, Appellate Body Report, §207.

³²⁵ *Ibidem*, §209. See also *Hormones*, Appellate Body Report, §214.

maintained which determines the appropriate level of protection”.³²⁷ This is the case since measures do not always achieve the appropriate level of protection. The Appellate Body continued to state that Article 5.6 requires an examination of whether possible alternative SPS measures meet the appropriate level of protection as determined by the Member concerned³²⁸ not the current level achieved by the measures that are in place. Therefore, the alternatives should not be measured against the zero-risk level but the very low risk level.

It is interesting to note that Australia’s appropriate level of protection was lower than the level of protection achieved by the import prohibition. This suggests that there is no measure available, according to Australia, which achieves a very low level of risk apart from a measure that achieves a zero-risk level. Therefore, it is logical to determine whether an alternative measure can achieve a very low level of risk, which is not necessarily a zero-risk level.

Although the SPS Agreement does not contain an explicit provision that obliges WTO Members to determine the appropriate level of protection, it is implicit in several provisions of the SPS Agreement such as Article 3.3 and Article 5.4 of the SPS Agreement.³²⁹ Indeed, Article 3.3 permits measures reaching a higher level of protection than those based on international standards “... as a consequence of the level of ... protection a Member *determines* to be appropriate” and Article 5.4 encourages Members “*when determining* the appropriate level ... of protection” to “take into account the objective of minimising negative trade effects”.

In addition, the SPS Agreement also indicates that the “appropriate level of protection” logically precedes the establishment or decision on maintenance of an “SPS measure”.³³⁰ Indeed, Article 5.3 provides that “in assessing the risk to animal

³²⁶ *Salmon*, Appellate Body Report, §209.

³²⁷ *Ibidem*, §212.

³²⁸ *Ibidem*, §213.

³²⁹ *Salmon*, Appellate Body Report, §214.

³³⁰ *Ibidem*, §210.

or plant life or health and *determining* the measure *to be applied for achieving* the appropriate level of [SPS] protection from such risk” and Article 5.6 states that “...when establishing or maintaining [SPS] measures to achieve the appropriate level of [SPS] protection...”.

Therefore, the provisions indicate that the appropriate level of protection needs to be determined and that this is “separate” from the establishment or maintenance of a measure.³³¹ Although, the level need not be established in quantitative terms, it must not be vague or equivocal.³³² This is logical as if the Member did not determine its appropriate level of protection with sufficient clarity it would be rather difficult to determine whether alternative SPS measures achieve the appropriate level of protection.³³³ Nevertheless, the Appellate Body stated that if this level of protection is not determined or determined with insufficient precision, then the Panel could establish the level of protection on the basis of the level of protection reflected in the SPS measure actually applied.³³⁴ The Appellate Body, therefore, contradicted itself by establishing that the SPS Agreement implicitly requires the appropriate level to be determined and that this level of protection was not the same as the level of protection reflected in the measure and then stating that if the appropriate level of protection is not determined then the level of protection implicit in the measure would be considered as the appropriate level of protection.

The Appellate Body tried to determine whether the alternatives could achieve the level of protection that Australia had set. Due to the fact that the 1996 Final Report did not evaluate the relative risks associated with the different options and due to insufficient factual findings of the Panel and of facts that were undisputed between the parties, the Appellate Body was unable to conclude whether any of the alternative measures achieved Australia's appropriate level of protection and, therefore, could

³³¹ *Salmon*, Appellate Body Report, §212.

³³² *Ibidem*, §215.

³³³ *Salmon*, Appellate Body Report, §214.

³³⁴ *Ibidem*, §216.

not come to a conclusion on the consistency of the measures, relating to all salmon, with Article 5.6.³³⁵

The fact that the Panel did not make a finding on freshwater and cultured salmon was considered by the Appellate Body to be an error of law as this salmon also came within the terms of reference of the Panel.³³⁶ In addition, this was false judicial economy as the Panel considered that the measure was not inconsistent with Article 2.2 there was a need to determine whether the measure was inconsistent with Article 5.5 or 5.6.³³⁷

In the *Agricultural Products* case, the US claimed that the Japanese measures were more trade restrictive than necessary to achieve Japan's appropriate level of phytosanitary protection. The US stated that because there were no varietal differences that affected the efficacy of a quarantine treatment, the same established treatment would achieve for all varieties of a product the appropriate level of protection. The US suggested that an alternative measure would be that the testing should be performed product by product as opposed to variety by variety of a given product. The experts advising the Panel suggested that if, and to the extent, there were differences between varieties, these would be mainly or exclusively related to different levels of sorption of the fruit³³⁸ and that, therefore, Japan "could either monitor or test the sorption characteristics of the different varieties of the products at issue".³³⁹

The Panel found that the US alternative would be significantly less restrictive to trade and would be reasonably available taking into account technical and economic feasibility. The more difficult question was whether the US alternative achieved Japan's appropriate level of protection. In this case, the appropriate level of

³³⁵ *Salmon*, Appellate Body Report, §217-221.

³³⁶ *Ibidem*, §223.

³³⁷ *Ibidem*.

³³⁸ *Agricultural Products*, Panel Report, §9.497.

³³⁹ *Ibidem*.

protection is the level of mortality that Japan seeks with respect to codling moth, in other words, complete mortality in large-scale tests on a minimum of 30,000 codling moths.³⁴⁰ The Panel found on the basis of the experts opinions that it was not possible to state with certainty that the same treatment would be effective for all varieties of a product. The Panel, therefore, found that there was insufficient evidence to conclude that the US alternative achieved Japan's appropriate level of protection.³⁴¹

However, the Panel found that the scientific experts³⁴² alternative was not only significantly less restrictive to trade but also achieved the appropriate level of protection determined by Japan.³⁴³ Therefore, the Panel found that the measure imposed by Japan was inconsistent with Article 5.6.³⁴⁴

The US appealed the finding of the Panel that the alternative measure that it proposed did not achieve Japan's appropriate level of protection. The US argued that the Panel in finding that the US proposal was not an alternative that met the appropriate level of protection, had used a "no hypothetical risk" standard as the Panel concluded that Dr. Ducom's statement was sufficient to preclude a finding that testing by product" does not achieve Japan's appropriate level of protection.³⁴⁵ However, the *Agricultural Products* Appellate Body supported the Panel's decision by stating that the Panel did not exclusively base its conclusion on one expert opinion, and that even if it did it could not understand how the US thought that this was applying a "no hypothetical risk" standard.³⁴⁶ The Appellate Body noted that the Panel had stated that it had carefully examined all the evidence before it in light of the opinions received from its experts and that it subsequently came to the conclusion that it was not convinced that there was sufficient evidence to find that the US

³⁴⁰ *Agricultural Products*, Panel Report, §9.504.

³⁴¹ *Ibidem*, §9.506.

³⁴² The experts: Dr Ducom and Dr Taylor. *Agricultural Products*, Panel Report, §9.522.

³⁴³ *Agricultural Products*, Panel Report, §9.525.

³⁴⁴ *Ibidem*, §9.526.

³⁴⁵ See US Appellant's submission, §38.

alternative would achieve Japan's appropriate level of protection.³⁴⁷ The Appellate Body believed that the US challenged the Panel's consideration and weighing of evidence before it and that an assessment of facts falls outside the scope of the appellate review under Article 17.6 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (hereinafter "DSU").³⁴⁸ However, unlike the Appellate Body stated, the Panel only referred to Dr Ducom's opinion in making its findings. The fact that the Panel's conclusion is in accordance with Dr Ducom's opinion supports the US claim to the extent that the conclusion is based on that scientist's opinion. However, it has been recognised by the *Hormones* Appellate Body that a measure could be based on a minority opinion without lacking an objective basis.

Conclusion

The analysis of the case law relating to the SPS Agreement suggests that the level of protection chosen by a Member (the "appropriate level of protection") in respect of an SPS problem, may not necessarily be reflected in the measure that the Member imposes. For example, a Member's appropriate level of protection may be a zero risk level, but the Member may impose a measure that does not achieve that zero risk level of protection.

When examining alternative measures available to the Member imposing a measure, the level of protection achieved by an alternative measure should be compared to the "appropriate level of protection" set by the Member and not the level of protection reflected in the measure imposed by the Member.

In evaluating whether an alternative measure achieves the Member's appropriate level of protection, it would be preferable that a Member be required to express its

³⁴⁶ *Agricultural Products*, Appellate Body Report, §102.

³⁴⁷ *Ibidem*, §101.

³⁴⁸ *Agricultural Products*, Appellate Body Report, §101. See also *Salmon*, Appellate Body Report, 101.

appropriate level of protection in quantitative rather than in qualitative terms. Comparing quantitative rather than qualitative values would ensure a more objective assessment of the efficacy of different measures.

With respect to the condition that the alternative measure is reasonably available taking into account technical and economic feasibility, there has been no extensive interpretation. The drafters of the SPS Agreement presumably, included the words “technical and economic feasibility” in Article 5.6 as they recognised that an alternative measure may involve substantially higher regulatory or compliance costs, or might be impractical to implement. This is a development from the interpretation of the necessity requirement in Article XX(b), analysed in Chapter 2, where the Panel in the *Thai Cigarette* case found that less trade restrictive measures were available without considering the economic impact that maintaining an alternative regulatory regime would have for Thailand.

Although this element of Article 5.6 is especially important for developing countries that have more limited technical and economic resources than developed countries, this does not mean that developed countries cannot benefit from this requirement. However, it is very likely that developed countries will be faced with a higher compliance threshold than developing countries. Therefore, I would argue that the requirement of “technical and economic feasibility” is a subjective consideration assessed on the individual characteristics of the country imposing an SPS measure.

With regard to the requirement that an alternative measure must be significantly less restrictive to trade, there has been no precise interpretation in the case law so far whether it be in quantitative or in qualitative terms. The ordinary meaning of the words used only suggests that a measure that is “significantly less restrictive to trade” is a measure whose impact on trade is considerably, appreciably lower than that of the measure in place.

Therefore, the drafters of the SPS Agreement possibly formulated a less restrictive requirement with the intention of preventing a Member from being bombarded with various alternatives that may only be marginally less trade restrictive. Without

ascribing a figure as to how much less trade restriction must result from the alternative measure, the requirement should be interpreted restrictively.

Although, the SPS Agreement requires that measures be compared, the proportionality of a measure has not been considered by the WTO DSB in disputes involving the consistency of an SPS measure with the necessity requirement. However, the Appellate Body in the *Asbestos* case, discussed in Chapter 2, included in the necessity test, a means-end test, which to an extent can be viewed as akin to a proportionality test. Since the interpretation of Article XX flavours that of the SPS Agreement and *vice versa*, this will most probably influence future interpretation of the SPS Agreement. This would imply, however, that a Member's right to impose measures that achieve the Member's appropriate level of protection may be jeopardised.³⁴⁹

Hudec argued that the concept of necessity implies an incremental cost-benefit test: "whether a burdensome regulation is necessary to achieve a domestic environmental or health and safety objective "is really an interlocking decision about whether, as compared with the next least restrictive alternative, the burden is worth the extra gain"".³⁵⁰

Esty also argues that the necessity should include a proportionality test: "the pivotal word "necessary" should be reinterpreted to mean "not clearly disproportionate in relation to the putative environmental benefits and in the light of equally effective policy alternatives that are reasonably available".³⁵¹

³⁴⁹ See Chapter 2, section C.II.2.b.

³⁵⁰ Personal communication from R. Hudec cited in C. Ford Runge, *Freer Trade, Protected Environment* 18 n.12 (1994). The same requirement is also contained in the TBT Agreement, Annex 3 relating to standards. Although the meaning of this requirement is not further developed, it is probable that this requirement is interpreted in the same way as for technical regulations.

³⁵¹ D. Esty, *Greening the GATT: Trade, Environment, and the Future*, (1994), p222.

This approach has been adopted by the ECJ concerning environmental matters in the *Danish Bottles*³⁵² case where it held that the Danish restrictions on unauthorised containers were too damaging to trade in comparison to the slight improvement in container recycling they would bring. In other words, the measure was “disproportionate to the objective pursued”.³⁵³

The use of a proportionality test in addition to the least trade restrictive test is less attractive from an environmental perspective since it imposes a supplementary hurdle to Members imposing SPS measures. Although panels and the Appellate Body have not interpreted SPS necessity requirements in the light of the means-end test so far, possibly because the SPS provisions do not explicitly authorise such a test, this is set to change.

This will create an important change in the interpretation of the SPS Agreement that up until now was rooted in a risk assessment paradigm rather than in an economic paradigm where normative rules for designing SPS measures are based on cost-benefit analysis. This is not necessarily a welcome development as although sound science is compatible with sound economics, some SPS measures may have net economic costs while having a sound scientific justification.

In addition, applying the proportionality principle in the WTO also has the disadvantages of comparing costs and benefits as was noted in Chapter 2. Supposing that it would be scientifically plausible that the use of genetically modified organisms (GMOs) is unsafe, then, if the proportionality principle were to apply, it would be necessary to weigh the commercial costs of the country exporting the genetically modified food in the case of an import ban to the environmental benefits of not accepting genetically modified food.³⁵⁴ The question then arises whether the costs are gross costs, in other words, the loss of trade in genetically modified food with the importing country or the net costs, that is, the loss subtracting the revenue

³⁵² *Commission v Denmark*, Case 302/86, ECR 4607, (1988).

³⁵³ *Ibidem*, p4632.

earned in selling the genetically modified food to another importer. Another question in the computation of costs is whether the costs are recurring or whether it is expected that exporting country adapt to the new situation. The calculation of benefits can also be tricky since how does one, for example, evaluate in monetary terms the value of not consuming genetically modified food. Therefore, these methodological problems suggest that the use of the proportionality principle will lead to equivocal results regarding costs and benefits.

III. Obligations under Article 2.3

In addition, to the general obligations contained in Article 2.2, the SPS Agreement also requires in Article 2.3 that SPS measures “do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members” and that SPS measures “shall not be applied in a manner which would constitute a disguised restriction on international trade”.

Article 2.3 is almost identical to the *chapeau* of Article XX of the GATT 1994.³⁵⁴ Article 2.3 only explicitly states what is implied in Article XX, that SPS measures should not arbitrarily or unjustifiably discriminate between Members including between their own territory and that of other Members and that this discrimination should not occur between Members where not only similar conditions prevail but also where these are identical.³⁵⁶

³⁵⁴ See S. Charnovitz, “Free Trade, Fair Trade, Green Trade”, 27 *CILJ* (1994), p483.

³⁵⁵ See Chapter 2, section C.II.2. G. Marceau and J. P. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p823.

³⁵⁶ “Labelling for Environmental Purposes”, Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225 6 March 2003, §29.

However, even with this clarification, this provision is far from being a model of clarity as discussed when analysing Article XX in Chapter 2.³⁵⁷

The SPS Agreement has attempted to shed more light on the meaning of the general obligation in Article 2.3 by including a specific obligation in Article 5.5 that interprets Article 2.3. Therefore, the next sections will examine the requirements of Article 5.5 and determine to what extent it is helpful in interpreting Article 2.3.

1.) Relationship between Article 2.3 and 5.5

Article 5.5 provides that:

“With the objective of achieving consistency in the application of the concept of appropriate level of [SPS] protection... each Member shall avoid arbitrary or unjustifiable distinction in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade. Members shall co-operate in the Committee, in accordance with paragraphs 1, 2 and 3 of Article 12, to develop guidelines to further the practical implementation of this provision. In developing the guidelines, the Committee shall take into account all relevant factors, including the exceptional character of human health risks to which people voluntarily expose themselves”.

The *Hormones* Panel stated that:

*“Article 2.3 deals, in general terms, with [SPS] measures which discriminate between Members or which are applied in a manner which would constitute a disguised restriction on international trade. Article 5.5, on the other hand, deals more specifically with distinctions in levels of protection (which will normally be reflected in one or more [SPS] measures) which result in discrimination or a disguised restriction on international trade”.*³⁵⁸

³⁵⁷ “Labelling for Environmental Purposes”, Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225 6 March 2003, §29.

³⁵⁸ *Hormones*, US Panel Report, §8.168 and Canada Panel Report, §8.171.

The Appellate Body added that “when read together with Article 2.3, Article 5.5 may be seen to be marking out and elaborating a particular route leading to the same destination set out in Article 2.3.”³⁵⁹

The *Salmon* Panel affirmed³⁶⁰ that Article 5.5 must be read in the light of Article 2.3:

*“Indeed, even though Article 5.5 deals with arbitrary or unjustifiable distinctions in levels of protection imposed by one Member for different situations and Article 2.3 addresses, rather, [SPS] measures which (1) arbitrary or unjustifiably discriminate between WTO Members or (2) are applied in a manner which would constitute a disguised restriction on trade; the third element under Article 5.5 also requires that the measure in dispute results in discrimination or a disguised restriction on trade. We conclude, therefore, that if we were to find that all three elements under Article 5.5 - including, in particular, the third element - are fulfilled and that, therefore, the more specific Article 5.5 is violated, such finding can be presumed to imply a violation of the more general Article 2.3. We do recognise, at the same time, that, given the more general character of Article 2.3, not all violations of Article 2.3 are covered by Article 5.5.”*³⁶¹

The *Salmon* Panel emphasised the fact that Article 5.5 appears to have developed a test for determining whether Article 2.3 is complied with, without however covering every possible violation. Therefore, a violation of Article 5.5 implies that the measure is inconsistent with Article 2.3 but consistency with Article 5.5 does not imply that Article 2.3 is complied with. Unfortunately, although, the *Salmon* Panel was right it did not clearly state what those other factors were that would cause a violation of Article 2.3. It is likely, though, that it was referring to findings, for example, made by the *United States - Import Prohibitions of Certain Shrimp and Shrimp Products*³⁶²(hereinafter “*Shrimps*”) Appellate Body in concluding that the measures that it was reviewing were inconsistent with the *chapeau* of Article XX. Indeed, the Appellate Body's findings were made without investigating different but

³⁵⁹ *Hormones*, Appellate Body Report, §212.

³⁶⁰ *Salmon*, Panel Report, §8.109.

³⁶¹ *Ibidem*.

³⁶² Adopted 12 October 1998, WT/DS58/AB/R.

comparable situations as it focused on, among other things, on the lack of transparency and due process in the administration of the measures.³⁶³

2.) *Analysis under Article 5.5*

In considering the obligation to ensure that arbitrary or unjustifiable distinctions in the levels of protection do not cause discrimination or disguised restriction on international trade³⁶⁴, the *Hormones* and *Salmon* Panel and Appellate Body found that Article 5.5 has three elements, which cumulatively can lead to a violation of Article 5.5.³⁶⁵ First, the Member imposing the measure adopts different appropriate levels of SPS protection in different situations; second, the levels of protection exhibit arbitrary or unjustifiable distinctions in their treatment of different situations; third, arbitrary or unjustifiable differences result in discrimination or disguised restriction of international trade.³⁶⁶ These three elements will be considered below.

a) Different levels of protection in different situations

(1) *Different situations*

The *Hormones* Panel in interpreting the term “different situations” stated that situations that involved the same substance or the same adverse health effect could

³⁶³ *Shrimps*, Appellate Body Report, §169-194.

³⁶⁴ The *Hormones* Panel and Appellate Body considered that arbitrary and unjustifiable distinctions that result in discrimination or a disguised restriction on international trade must be avoided, both were of the opinion that the statement of the goal in Article 5.5 that “each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations” does not establish a legal obligation of consistency of appropriate levels of protection as this goal is to be achieved in the future with the assistance of the Committee on Sanitary and Phytosanitary Measures that aims to develop guidelines for the practical implementation of Article 5.5. *Hormones*, US Panel Report, §8.169 and Canada Panel Report, §8.172 and Appellate Body Report, §213. The Appellate Body added that the goal is not to achieve absolute or perfect consistency as governments set their appropriate levels of protection often on an *ad hoc* basis and over time, as different risks arise at different occasions. *Hormones*, Appellate Body Report, §213.

³⁶⁵ *Hormones*, US Panel Report, §8.174; Canada Panel Report, §8.177; Appellate Body Report, §214-215 *Salmon*, Panel Report, §8.108 and Appellate Body Report, §151.

³⁶⁶ *Ibidem*.

be compared to one another³⁶⁷ but also implicitly found that situations where both the substance and the adverse health effect are the same could be compared. Of course, where both the substance and the adverse health effect are the same, the substance must be used for different purposes, in order for there to be two comparable but different situations.

The *Hormones* Panel considered the following situations to be comparable: natural and synthetic hormones administered for growth promotion purposes compared to natural hormones occurring endogenously in meats (natural hormones for growth promotion and occurring endogenously were considered to be the same substance and to have the same adverse health effect whereas synthetic hormones although being considered as different substances to the endogenously occurring natural hormones were believed to have the same adverse health effects); natural hormones administered for growth promotion purposes compared to natural hormones administered for therapeutic or zoo-technical purposes (again these were considered to be the same substance and have the same adverse health effect); natural and synthetic hormones administered for growth promotion purposes compared to carbadox and olaquinox (this comparison covered according to the Panel different substances with the same adverse health effect).

The EC disagreed with the Panel, as it was of the opinion that although a common element, such as the substance or drug or the health risk, must be present it was not necessarily sufficient to ensure a rational comparison.³⁶⁸ The Appellate Body stated the obvious by finding that situations exhibiting differing levels of protection could not “be compared unless they were comparable”, in other words, unless they presented “some common element or elements sufficient to render them comparable”.³⁶⁹ The Appellate Body did not, however, expressly accept that “different situations” that could be compared were situations involving the same

³⁶⁷ *Hormones*, US Panel Report, §8.176 and Canada Panel Report, §8.179. See also *Salmon*, Panel Report, §8.115.

³⁶⁸ EC's appellant's submission, §455.

³⁶⁹ *Hormones*, Appellate Body Report, §217.

substance or the same adverse health effect³⁷⁰ or both the same or similar substance and adverse health effect or the comparisons identified by the Panel.

The *Salmon* Panel and Appellate Body took a similar approach to the *Hormones* Panel by finding that “...in the circumstances of this dispute, we can compare situations under Article 5.5 if these situations involve either a risk of “entry, establishment or spread” of the same or a similar disease or of the same or similar “associated biological and economic consequences” and this irrespective of whether they arise from the same product or other products”.³⁷¹ The *Salmon* Panel and Appellate Body, however, specified that both the same or *similar* hazards would render a situation comparable.

In addition, the Panel did not consider that its analysis had to be limited to diseases that were positively detected in fresh, chilled or frozen ocean-caught Pacific salmon. The Panel stated that:

*“...to the extent that both the other products and the salmon products further examined are known to be hosts to one of these disease agents or for the salmon products – give rise to an alleged concern for that disease agent, they can be associated with the same kind of risk, namely a risk of entry, establishment or spread of that disease”.*³⁷²

The Appellate Body added that in order to compare ocean-caught Pacific salmon products with other products it was not necessary that the other products be the potential hosts to all disease agents of concern.³⁷³ Indeed, if the Panel or Appellate Body was to find that only products which are known to be host to all 24 disease agents of concern to Australia can be compared to the ocean-caught Pacific salmon products, it would be sufficient for a WTO Member imposing an SPS measure, in

³⁷⁰ *Hormones*, US Panel Report, §8.176 and Canada Panel Report, §8.179. See also *Salmon*, Panel Report, §8.115.

³⁷¹ *Salmon*, Panel Report, §8.117 and Appellate Body Report, §154. It should be noted that “same product” refers to ocean-caught Pacific salmon and the other types of salmon.

³⁷² *Salmon*, Panel Report, §8.119.

³⁷³ *Salmon*, Appellate Body Report, §160.

order to avoid application of Article 5.5, to list a series of disease agents allegedly of concern to it, the totality of which is not known to occur in any other product.

Therefore, even if ocean-caught Pacific salmon products were to be host to more disease agents than the other products they are compared to, this would not affect the comparability of the products as “different situations” under Article 5.5. This factor may, however, be a reason to justify a distinction in levels of protection imposed for these different situations under the second element of Article 5.5.³⁷⁴

The Panel determined that the import prohibition on fresh, chilled or frozen ocean-caught Pacific salmon and the admission of imports of uncooked Pacific herring, cod and haddock, Atlantic cod and haddock, European and Japanese eel, Japanese plaice and Dover sole for human consumption; herring in whole, frozen form for use as bait and live ornamental finfish, are “different situations which can be compared under Article 5.5 of the SPS Agreement”.³⁷⁵ The Appellate Body accepted the Panel’s comparisons of measures relating to other types of fish and fish products, as it considered them to be different situations.³⁷⁶

It is clear that a “different situation” in terms of Article 5.5 is a situation that is not identical to another situation, but it is a situation that can be compared to another situation. Therefore, the interpretation of “different situation” is restrictive.

(2) *Different levels of protection*

After having identified different but comparable situations, the *Hormones* and the *Salmon* Panel considered the levels of protection applied by, respectively the EC and Australia, in these situations.

³⁷⁴ *Salmon*, Panel Report, §8.119.

³⁷⁵ *Ibidem*, §8.128.

³⁷⁶ *Salmon*, Appellate Body Report, §161.

The *Hormones* Panel noted that with respect to natural and synthetic hormones administered for growth promotion purposes, the EC had adopted a “no residue” level as its appropriate level of protection, whereas, with respect to natural hormones occurring endogenously in meats, natural hormones administered for therapeutic or zoo-technical purposes, and carbadox and olaquinox administered for growth promotion purposes, the EC had adopted an “unlimited residue” level. Therefore, the Panel considered that the EC had adopted different levels of protection in different but comparable situations, thus establishing the first element of Article 5.5.

The *Salmon* Panel found that the rather substantial difference between the fact that fresh, frozen and uncooked ocean-caught Pacific salmon could not be imported and allowing the imports of the other products often without control,³⁷⁷ reflected a difference in the appropriate levels of protection for each of the four comparisons.³⁷⁸ The Appellate Body did not consider whether there was a difference in the levels of protection, as this issue was not appealed.³⁷⁹

Again as noted in section D.II.2.)b), the Panel incorrectly assumed that the appropriate level of protection determined by the importing country is, necessarily, the level of protection reflected in the measure. The appropriate level of protection was a very low level of risk not a zero level of risk. However, since the other products were subject to very little control, a difference in the levels of protection is nevertheless clear. Therefore, in this particular case the Panel's error is of no consequence.

The fact that the Panel found that the size of the difference was a determining factor in deciding whether the appropriate levels of protection in comparable situations were different should also be criticised. There is no requirement that the difference be of a particular magnitude in order to establish the first element of Article 5.5.

³⁷⁷ Ornamental finfish only after control.

³⁷⁸ *Salmon*, Panel Report, §8.129.

³⁷⁹ *Salmon*, Panel Report, footnote 106.

b) Arbitrary or unjustifiable differences in levels of protection

The second element of Article 5.5 that needs to be demonstrated is that the differences in levels of SPS protection adopted in comparable situations are “arbitrary or unjustifiable”.

The three comparable situations for the *Hormones* case will be discussed in sequence.

(1) *Natural and synthetic hormones administered for growth promotion purposes compared to natural hormones occurring endogenously in meats*

With respect to natural and synthetic hormones administered for growth promotion purposes, as compared to natural hormones occurring endogenously in meat, the Panel found that the distinctions in the levels of protection adopted by the EC were arbitrary and unjustifiable, because the EC had not submitted any evidence that the risk related to the added hormones used as growth promoters was higher than the risk related to endogenous hormones.³⁸⁰

With respect to added natural hormones, the conclusions reached in the 1988 JECFA Report suggested that the total residue level of natural hormones in meat from treated animals fell within the physiological range of levels found in meat from untreated animals.³⁸¹ According to data submitted to the Panel, the residue levels of natural hormones in various natural food products were higher than the residue levels of these hormones in meat from treated animals.³⁸² The Panel rejected the argument that the practical difficulties of detecting residues of natural hormones for growth

³⁸⁰ With respect to added natural hormones: *Hormones*, US Panel Report, §8.193 and Canada Panel Report, §8.196. With respect to synthetic hormones: *Hormones*, US Panel Report, §8.213, 8.246-8.266 and Canada Panel Report, §8.216, 8.267-8.269.

³⁸¹ *Hormones*, US Panel Report, §8.194; Canada Panel Report, §8.197.

³⁸² Such as eggs, soya oil and broccoli. *Hormones*, US Panel Report, §8.194 and Canada Panel Report, §8.197.

promotion from endogenous natural hormones could not justify different levels of protection because the difficulties could be avoided under a different regulatory regime that would not distinguish between endogenous and added natural hormones.³⁸³ In other words, the Panel came to a rather unpersuasive conclusion that natural hormones added for growth promotion should be allowed because their residues could not be distinguished from those arising from endogenous natural hormones.

With respect to synthetic hormones, the scientific experts advising the Panel were of the opinion that synthetic hormones could be better detected and controlled than natural hormones.³⁸⁴

The Panel also noted that there was a marked gap between a “no-residue” level of protection against added natural and synthetic hormones used for growth promotion and the “unlimited-residue” level of protection with regard to hormones occurring naturally in meat and other foods was relevant in finding that the measures were arbitrary or unjustifiable.³⁸⁵

The Appellate Body rejected the Panel's conclusion as it considered that the marked difference in levels of protection was justified on the grounds that while it is possible to eliminate through regulation the residues of hormones which have been administered for growth promotion purposes, it is not possible to eliminate the residues of natural hormones occurring endogenously without “a comprehensive and massive governmental intervention in nature and in the ordinary lives of people.”³⁸⁶ Therefore, the Appellate Body considered added natural or synthetic hormones and natural endogenous hormones to be fundamentally different. Indeed, it would be unreasonable to require the EC to prohibit the production and consumption of such

³⁸³ *Hormones*, US Panel Report, §8.195 and Canada Panel Report, §8.198.

³⁸⁴ *Hormones*, US Panel Report, §8.213, 8.264-8.266; Canada Panel Report, §8.216, 8.267-8.269.

³⁸⁵ With respect to added natural hormones: *Hormones*, US Panel Report, §8.196-8.197; Canada Panel Report, §8.199-8.200. With respect to synthetic hormones: *Hormones*, US Panel Report, §8.213-8.214, 8.264-8.266; Canada Panel Report, §8.216-8.217, 8.267-8.269.

³⁸⁶ *Hormones*, Appellate Body Report, §221.

foods to limit the residues of naturally occurring hormones in food. In addition, even though it is not empirically possible to distinguish between residues of hormones that arise from endogenous or exogenous hormones, consumers would be exposed to greater amount of residue if hormones were added for growth promotion purposes. The Appellate Body concluded that the “considerations cited by the Panel, whether taken separately or grouped together, do not justify the Panel's finding of arbitrariness.”³⁸⁷ The Appellate Body correctly stated that the comparison was absurd,³⁸⁸ thereby implying that in some situations it was not sufficient that there be a same or similar substance and hazard to health for there to be a comparable situation.

(2) *Natural hormones administered for growth promotion purposes compared to natural hormones administered for therapeutic or zoo-technical purposes*

Unlike the use of natural hormones administered for growth promotion purposes that occurs in a regular and continuous manner, and on a herd-wide basis, the EC argued that the use of natural hormones for therapeutic or zoo-technical purposes occurs only on a small scale as it is targeted at animals carrying a disease and only occurs occasionally, that is once a year. In addition, the EC argued that the use of hormones for therapeutic or zoo-technical purposes unlike for growth promotion purposes is subject to strict conditions such as administration by a veterinarian, stringent withdrawal periods and administration to cattle normally intended for breeding not consumption.³⁸⁹ Therefore, the EC argued that the differences in use and control ensured that any risk related to the therapeutic or zoo-technical use of these hormones was prevented and that in practice a level of “no residue” was achieved, thereby suggesting that the differences were justified.

³⁸⁷ *Hormones*, Appellate Body Report, §221.

³⁸⁸ *Ibidem*.

³⁸⁹ *Hormones*, US Panel Report, §8.198-8.199; Canada Panel Report, §8.201-8.202; EC Appellant's submission, §82-84 and *Hormones*, Appellate Body Report, §223-224.

However, because the Panel had determined that the distinctions in the levels of protection of natural and synthetic hormones administered for growth promotion purposes compared to natural hormones occurring endogenously in meats were arbitrary and unjustifiable, the Panel found it unnecessary to consider this comparable situation.

The Appellate Body, however, considered this situation, since unlike the Panel³⁹⁰, it had concluded that the differences in levels of protection with respect to natural and synthetic hormones administered for growth promotion purposes compared to natural hormones occurring endogenously in meats were not arbitrary and unjustifiable.

The Appellate Body also found that the distinctions in levels of protection were not arbitrary and unjustifiable in this comparable situation.³⁹¹ The Appellate Body justified its finding on the basis of the arguments put forward by the EC that the distinctions were justified by the differences in frequency and scope of administration of the hormones and the tighter regulations imposed on the administration of hormones for therapeutic and zoo-technical purposes. Although, the Appellate Body did not specify how the arguments were weighted in its analysis, it is likely that the first consideration carried greater weight. Indeed, there is no reason why hormones administered for growth-promotion purposes could not be more tightly regulated as well. The first argument may also be criticised if the Panel's scientific experts opinion were taken into account that a "no residue" level could not be achieved in practice because these activities could occur regularly and on a large scale and that residues would remain once the animal was slaughtered.³⁹²

³⁹⁰ *Hormones*, US Panel Report, §8.200; Canada Panel Report, §8.203.

³⁹¹ *Hormones*, Appellate Body Report, §225.

³⁹² *Hormones*, US Panel Report, §8.199; Canada Panel Report, §8.202.

(3) *Natural and synthetic hormones administered for growth promotion purposes compared to carbadox and olaquinox*

The Panel rather unexpectedly considered the distinctions in the levels of protection of natural and synthetic hormones administered for growth promotion purposes compared to carbadox and olaquinox administered for growth promotion purposes as the Panel felt that since it had already found that the differences in the levels of protection for natural and synthetic hormones administered for growth promotion purposes compared to natural hormones occurring endogenously in meats were arbitrary and unjustifiable, that it was not necessary to determine whether the differences in the levels of protection of natural hormones administered for growth promotion purposes compared to natural hormones administered for therapeutic or zoo-technical purposes were arbitrary or unjustifiable.³⁹³

The Panel found that the distinctions in the levels of protection between natural and synthetic hormones, and carbadox and olaquinox, administered for growth promotion purposes, were arbitrary and unjustifiable.³⁹⁴ In reaching this conclusion, the Panel rejected seven arguments that the EC had put forward.

First, the Panel noted that the fact that the EC contended that carbadox and olaquinox were anti-microbial agents, and not hormones, was insufficient, as it gave no reason why this difference alone could justify a different regulatory treatment in the light of their potential carcinogenic effect. Since different substances with the same adverse health effects can be compared, the Panel found that it was necessary to give a justification why these substances were treated differently.³⁹⁵

Second, the EC argued that carbadox and olaquinox had preventive therapeutic effects on animals and only indirectly acted as growth promoters by suppressing the

³⁹³ *Hormones*, US Panel Report, §8.200; Canada Panel Report, §8.203.

³⁹⁴ *Hormones*, US Panel Report, §8.238; Canada Panel Report, §8.241.

³⁹⁵ With respect to carbadox: *Hormones*, US Panel Report, §8.231, 8.267-8.270; Canada Panel Report, §8.234, 8.270-8.273.

development of bacteria, and aiding the intestinal flora of piglets as opposed to hormones used for growth promotion purposes that directly acted as growth promoters. However, the Panel felt that the substances could not be distinguished on this ground because the hormones at issue could also have therapeutic effects while being used for growth promotion purposes.³⁹⁶

Third, the EC claimed that carbadox and olaquinox were only commercially available in prepared feedstuffs in predetermined dosages and that, therefore, their administration was less open for abuse. The Panel, however, noted that all five hormones at issue for implantation or injection also contained predetermined dosages. In addition, the scientific experts advising the Panel were of the opinion that administering the hormones through injections and implants is more accurate and reliable than putting additives in the feedstuffs because of carry-over risks from treated to untreated food and because the additives may be harmful for the people handling the feedstuff.³⁹⁷

Fourth, the fact that the EC stated that there were no alternatives to carbadox and olaquinox for therapeutic purposes did not convince the Panel as the scientific experts stated that there were alternatives that existed such as oxytetracycline.³⁹⁸

Fifth, the EC's argument that the potential for abuse for carbadox and olaquinox was smaller than for hormones at issue since the former only exerted growth promotion effects in piglets up to four months and were subject to a strict withdrawal period was not compelling because there is no guarantee that treated piglets would not be slaughtered. In addition, the hormones at issue may also be subject to strict conditions.³⁹⁹

³⁹⁶ With respect to carbadox: *Hormones*, US Panel Report, §8.232, 8.267-8.270; Canada Panel Report, §8.235, 8.270-8.273.

³⁹⁷ With respect to carbadox: *Hormones*, US Panel Report, §8.233, 8.267-8.270; Canada Panel Report, §8.236, 8.270-8.273.

³⁹⁸ With respect to carbadox: *Hormones*, US Panel Report, §8.234, 8.267-8.270; Canada Panel Report, §8.237, 8.270-8.273.

³⁹⁹ *Hormones*, US Panel Report, §8.235, 8.267-8.270; Canada Panel Report, §8.238, 8.270-8.273.

Sixth, the EC's argument that carbadox and olaquinox are used in small quantities and are hardly absorbed implying that effectively there would be no residues remaining in meat destined for human consumption was also rejected as the scientists advising the Panel stated that once a substance has been administered there would always be residues in the meat of that animal.⁴⁰⁰

Finally, the EC argued that it had already taken action to review carbadox and olaquinox. However, the Panel did not find that this reason could be used to justify distinctions and that on the contrary it suggested that the distinctions were not justified.

After briefly recapitulating the first six of the arguments and counter-arguments summarised above, the Appellate Body agreed with the Panel's conclusion that the differences in levels of protection were arbitrary and unjustifiable.⁴⁰¹ The fact that the 36th JECFA Report submitted by the US considered carbadox as a known genotoxic carcinogen that not only promotes but also induces cancer⁴⁰² and the fact that the experts advising the Panel agreed with this finding was probably also decisive in determining that the differences in the levels of protection were unjustifiable. Unfortunately, the Appellate Body did not specify whether it agreed with all the counter-arguments made by the Panel or which of these carried the most weight.

The Appellate Body could have criticised the Panel's finding with respect to two of the EC's arguments. First, the fact that carbadox and olaquinox are food additives implies that the only way to abuse the administration of hormones is to overfeed the animals. This abuse would be rather limited since there are physical limitations on

⁴⁰⁰ *Hormones*, US Panel Report, §8.235, 8.267-8.270; Canada Panel Report, §8.238, 8.270-8.273.

⁴⁰¹ *Hormones*, Appellate Body Report, §228-235.

⁴⁰² Evaluation of Certain Veterinary Drug Residues in Food: Thirty-sixth Report of the Joint FAO/WHO Expert Committee on Food Additives, Technical Report Series 799 (World Health Organisation, 1990), pp45-50. See also *Hormones*, Appellate Body Report, § 226. The Codex Commission declined to establish an MRL for the compound.

how much animals can eat. Unfortunately, however, the EC also banned MGA that is also added to animal feed, which makes the EC's argument less tenable.

Second, the fact that carbadox and olaquinox only provide growth promotion effects in piglets up to four months means that contamination by these additives is limited to a fixed period of time,⁴⁰³ as opposed to growth promotion hormones that are administered on a regular and continuous manner during the lifetime of the animals could have justified a finding that the differences in the levels of protection were not arbitrary or unjustifiable. This would have been consistent with the Appellate Body's findings with respect to the difference in the levels of protection between natural hormones administered for growth promotion purposes and to natural hormones administered for therapeutic or zoo-technical purposes where the Appellate Body considered that the method of administration and frequency of use of the hormones was relevant in determining whether a different level of protection was arbitrary or unjustifiable.

Therefore, the Appellate Body's findings provide relatively little guidance on how to achieve consistency with Article 5.5 of the SPS Agreement as it is difficult to predict which elements the Appellate Body will consider as contributing to a finding of arbitrary or unjustifiable differences or which elements carry the most weight in making this finding. In addition, neither the Panel nor the Appellate Body distinguished between "arbitrary" and "unjustifiable", which as was discussed in the last chapter should be given separate meanings.⁴⁰⁴

In the *Salmon* case, the Panel began its analysis by noting that the differences in the levels of protection for ocean-caught Pacific salmon products and the other four categories of fish and fish products⁴⁰⁵ could be justified if, for example, a higher risk of "entry, establishment or spread" of the same or a similar disease would be

⁴⁰³ This argument of course ignores the possibility that carbadox and olaquinox might be administered for purposes other than growth promotion after four months. However, neither the Panel nor the Appellate Body made this argument.

⁴⁰⁴ See Chapter 2, section C.II.2.

associated with imported ocean-caught Pacific salmon.⁴⁰⁶ The Panel, however, found, based on scientific experts' opinions, reports and studies submitted to them, that some other fish categories, in particular, herring used as bait and live ornamental finfish, although being subject to a lower level of protection could be presumed to represent at least as high a risk if not a higher risk than the one associated with ocean-caught Pacific salmon.⁴⁰⁷ Therefore, the Panel found that the distinctions between ocean-caught Pacific salmon and herring used as bait and live ornamental finfish were arbitrary and unjustifiable. In addition, the Panel noted that the biological and economic consequences of disease introduction would generally be similar in a given country, irrespective of the product introducing the disease.⁴⁰⁸ The Panel, therefore, found this was further evidence that the distinctions in the levels of protection between ocean-caught Pacific salmon and herring used as bait or live ornamental finfish were arbitrary and unjustifiable.⁴⁰⁹ The Appellate Body upheld this finding.⁴¹⁰

Therefore, both the *Hormones* and *Salmon* cases demonstrated that in a comparable situation, the Member must provide a reasonable explanation for this difference.

However, there is no principled way to go about evaluating arguments put forward by the parties. Therefore, the panels and the Appellate Body are left with substantial discretion in determining whether a Member has acted consistently with this second requirement of Article 5.5. Unfortunately, the only indication given by Article 5.5 is that risks taken intentionally can be distinguished from risks taken involuntarily. Therefore, if a Member imposes a higher standard of protection from pesticide exposure and a lower standard of protection from risks arising from voluntary activities such as smoking, then although the risks to human health are similar, the

⁴⁰⁵ See section D.III.2.b.

⁴⁰⁶ *Salmon*, Panel Report, §8.133.

⁴⁰⁷ *Ibidem*, §8.134.

⁴⁰⁸ *Salmon*, Panel Report, §8.121, 8.135.

⁴⁰⁹ *Ibidem*, §8.135.

⁴¹⁰ *Salmon*, Appellate Body Report, §166.

fact that the exposure is voluntary implies that the difference in levels of protection would not constitute arbitrary or unjustifiable distinctions. In other words, the SPS Agreement accepts the public's different perception of risk when that perception depends on whether or not exposure to the hazard is voluntary.

c) Differences resulting in “discrimination or a disguised restriction on international trade”

The third element of Article 5.5 is that the “arbitrary and unjustifiable” differences in the levels of SPS protection must result in “discrimination or a disguised restriction on international trade.”

The Panel and the Appellate Body in the *Hormones* and *Salmon* cases considered that the “distinctions in the levels of protection” that must result in discrimination or a disguised restriction on international trade in order to establish the third requirement of Article 5.5 should be read as requiring that the *SPS measure* reflecting an arbitrary or unjustifiable distinction must not result in “discrimination or a disguised restriction on international trade”. Although, this interpretation is not supported by the text of Article 5.5, the panels and the Appellate Body came to this conclusion because “arbitrary or unjustifiable distinctions” would necessarily result in discrimination between comparable products. In other words, if the *distinctions* and not the *measure* were examined for this third requirement, then arbitrary or unjustifiable distinctions would be sufficient to demonstrate inconsistency with Article 5.5 and the phrase “discrimination or disguised restriction on international trade” would have no meaning.

Therefore, although referring to distinctions in the levels of protection that result in discrimination or a disguised restriction on international trade, the panels and the Appellate Body are in fact referring to the *measure*. The term “discrimination” in Article 5.5 is, therefore, considered to mean arbitrary or unjustifiable discrimination between Members.

In other words, Article 5.5 provides that where a finding of discrimination between comparable products is made, a finding of arbitrary or unjustifiable discrimination between Members *could* under certain circumstances also be made.

The *Hormones* Panel found that the differences in levels of SPS protection were not only arbitrary and unjustifiable but also resulted in “discrimination or a disguised restriction on international trade”.⁴¹¹

In coming to this conclusion, the Panel, began by drawing on an analogy from the Appellate Body Report of the *Japan – Taxes on Alcoholic Beverages* (hereinafter “*Alcoholic Beverages*”) case,⁴¹² which found that dissimilar taxation needs to be “applied ... so as to afford protection to domestic production”⁴¹³ in order to be inconsistent with the national treatment clause in the GATT 1994 and that in some situations the magnitude of the dissimilar taxation could be sufficient to support this finding.⁴¹⁴

The Panel also recalled the decision of the Appellate Body in the *Gasoline* case that “arbitrary discrimination”, “unjustifiable discrimination” and “disguised restriction on international trade” found in Article XX of the GATT 1994, may be read side by side and impart meaning to one another.⁴¹⁵ This is also in line with the interpretation of “disguised restriction on international trade” by the ECJ in *Commission v. Germany* (hereinafter “*German Beer*”) case.⁴¹⁶ In this case, Germany only allowed beer to be sold and labelled as “Bier”, if no additives were used in producing the beer. Germany justified its rule in part on the ground that the additives constituted a

⁴¹¹ *Hormones*, US Panel Report, §8.241, 8.268; Canada Panel Report, §8.244, 8.271.

⁴¹² Adopted 1 November 1996, WT/DS8/AB/R.

⁴¹³ *Alcoholic Beverages*, Appellate Body Report, p24, states that in order for an internal tax measure to be inconsistent with Article III:2, second sentence, three conditions must be satisfied: (1) the products must be “directly competitive or substitutable”; (2) they must be “not similarly taxed”; and (3) the tax measure must be applied “so as to afford protection to domestic production.”

⁴¹⁴ *Ibidem*, p30.

⁴¹⁵ *Gasoline*, Appellate Body Report, p25.

⁴¹⁶ Case 178/84, ECR 1227, (1997).

risk to human health. However, the ECJ rejected this argument because for all beverages, other than beer, German law specifically allowed some of the additives that were banned in beer. Therefore, the arbitrariness of the distinctions was considered by the ECJ to be a disguised restriction to protect German brewers from other EU brewers that used additives in their production of beer due to technical reasons related to the nature of the ingredients.

However, the *Hormones* Panel noted that:

*“... in order to give effect to all three elements contained in Article 5.5 and giving full meaning to the text and context of this provision, we consider that all three elements need to be distinguished and addressed separately. However, we also agree that in some cases where a Member enacts, for comparable situations, [SPS] measures which reflect different levels of protection, the significance of the difference levels of protection, combined with the arbitrariness thereof may be sufficient to conclude that this difference in levels of protection “result(s) in discrimination or a disguised restriction on international trade” in the sense of Article 5.5”.*⁴¹⁷

Although, the Panel recognised that the fact that distinctions in the levels of protection which are found to be arbitrary and unjustifiable combined with the fact that there is a large magnitude in the difference in the levels of protection, could be sufficient to imply that the distinctions resulted in “discrimination or a disguised restriction on international trade”,⁴¹⁸ it found that this element together with the failure on the part of the EC to provide a plausible explanation for the difference and the fact that the distinctions in the level of protection resulted in an import ban on treated meat that restricted international trade suggested that the distinctions in levels of protection resulted in “discrimination or a disguised restriction on international trade”.⁴¹⁹

The Panel also cited three additional factors in support of its conclusion.

⁴¹⁷ *Hormones*, US Panel Report, §8.202; Canada Panel Report, §8.205. See also *Gasoline*, Appellate Body Report, p25.

⁴¹⁸ *Hormones*, US Panel Report, §8.184; Canada Panel Report, §8.187.

First, that the EC had multiple objectives in mind when implementing the measures at issue as reflected in the preambles of the measures in dispute, reports of the European Parliament, and opinions of the EC Economic and Social Committee including, harmonising the regulatory schemes of the EC Member States, bringing about an increase in the consumption of beef, and providing more favourable treatment to domestic producers.⁴²⁰

Second, because prior to the EC ban on treated meat, a significantly higher percentage of animals were treated with hormones in the US and Canada than in the EC, the EC ban resulted in discrimination against US and Canadian meat in favour of EC meat.⁴²¹

Finally, the EC ban affected the bovine meat sector, where the EC seeks to limit meat supplies, and is less concerned with international competitiveness, whereas carbadox and olaquinox, the residues of which are unrestricted, are used in the pork meat sector where there are no domestic surpluses, and where international competition is a higher priority.⁴²²

The Appellate Body only considered the Panel's finding with respect to the third comparable situation: natural and synthetic hormones administered for growth promotion purposes compared to carbadox and olaquinox administered for growth promotion purposes since the Appellate Body found that only in this situation the distinctions in the levels of protection were arbitrary and unjustifiable.

The Appellate Body reversed the Panel's finding of "discrimination or a disguised restriction on international trade"⁴²³ for various reasons.

⁴¹⁹ *Hormones*, US Panel Report, §8.203, 8.216, 8.241, 8.268; Canada Panel Report, §8.206, 8.219, 8.244, 8.271.

⁴²⁰ *Hormones*, US Panel Report, §8.204, 8.217, 8.242; Canada Panel Report, §8.207, 8.220, 8.245.

⁴²¹ *Hormones*, US Panel Report, §8.205, 8.217; Canada Panel Report, §8.208, 8.220.

⁴²² *Hormones*, US Panel Report, §8.243; Canada Panel Report, §8.245.

⁴²³ *Hormones*, Appellate Body Report, §246.

First, the Appellate Body found that the Panel was unjustified in assuming the applicability of the reasoning of the Appellate Body in the *Alcoholic Beverages* case “about the inference that may be drawn from the sheer size of a tax differential for the application of Article III:2, second sentence, of the GATT 1994, to the quite different question of whether arbitrary or unjustifiable differences in levels of protection against risks for human life or health, “result in discrimination or a disguised restriction on international trade”.⁴²⁴ Indeed, the second sentence of Article III:2 “is concerned with the impact of a tax on the competitive relations between directly competitive or substitutable products” whereas “discrimination and disguised restriction in the sense of Article 5.5 of the SPS Agreement are entirely different concepts”.⁴²⁵ Article 5.5 does not deal with “like products” but comparable products and does not require that the national treatment clause be complied with but that no arbitrary or unjustifiable discrimination or disguised restriction on international trade occurs when read in the context of Article 2.3. In addition, the Appellate Body argued that a tax differential was different to a differential in the levels of protection as the impact of tax differentials on international competitiveness could be more easily quantified than the relationship between differentials in the levels of protection and a finding of discrimination or disguised restriction on international trade.⁴²⁶ The Appellate Body also found that “the degree of difference, or the extent of the discrepancy, in the levels of protection, is only one kind of factor which, along with others, may cumulatively lead to the conclusion that discrimination or a disguised restriction on international trade in fact results from the application of a measure or measures embodying one or more of those different levels of protection”.

Second, the Appellate Body also disagreed with the Panel as it found that due to the different structures of the chapeau of Article XX of the GATT 1994 and Article 5.5 of the SPS Agreement, the reasoning in the *Gasoline* Appellate Body Report could

⁴²⁴ *Hormones*, Appellate Body Report, §239.

⁴²⁵ EC's appellant's submission, §486.

⁴²⁶ *Hormones*, Appellate Body Report, footnote 251.

not be simply imported into a case involving Article 5.5 of the SPS Agreement.⁴²⁷ Although, the Appellate Body did not clearly indicate what it meant by the difference in structures, it seems that it agreed with the EC that the elements in Article XX and Article 2.3 were alternative whereas the elements in Article 5.5 were cumulative in nature.⁴²⁸

Therefore, the Appellate Body in rejecting the Panel's analogies also rejected the Panel's finding that the degree of difference in levels of protection together with a finding of an arbitrary or unjustifiable difference alone could be sufficient to demonstrate that the third requirement of Article 5.5 has been met.⁴²⁹ Therefore, the Appellate Body although recognising that the arbitrariness of a measure, combined with a large difference in levels of protection for comparable situations could support the fact that discrimination has resulted or that disguised restriction on international trade has resulted considered that this might not always be the case.

Third, the Appellate Body stated that it “did not attribute the same importance as the Panel to the supposed multiple objectives of the [EC] in enacting the EC Directives that set forth the EC measures at issue.”⁴³⁰ The Appellate Body mentioned that the goals of harmonising the regulatory schemes of the EC Member States, and bringing about an increase in the consumption of beef, were justified and not protectionist.

Fourth, the Appellate Body found that the documentation which preceded and accompanied the enactment of the ban clearly demonstrated the depth and extent of the anxieties experienced within the EC concerning the results of the general scientific studies showing carcinogenicity of hormones, the dangers of abusing hormones used for growth promotion and the quality and drug-free character of the meat available in its internal market.⁴³¹ Therefore, the Appellate Body concluded that

⁴²⁷ *Hormones*, Appellate Body Report, §239.

⁴²⁸ *Ibidem*, §237.

⁴²⁹ *Hormones*, Appellate Body Report, §240.

⁴³⁰ *Ibidem*, §245.

⁴³¹ *Hormones*, Appellate Body Report, §245.

the measures were designed to protect the EC's population from risks of cancer and not to protect the domestic beef producers in the EC.⁴³²

The Appellate Body's analysis reveals that the intent of the Member imposing SPS measures must be taken into account in determining the measure's compliance with the "discrimination or disguised restriction on international trade" requirement. Indeed, the Appellate Body found that the EC's "arbitrary and unjustifiable distinctions" did not result in "discrimination or a disguised restriction on international trade" because it considered that the measures were intended to protect the EC's population from the risk of cancer.

Although, the Appellate Body found that the intent of the EC was not to protect the domestic beef industry, it is understandable that the Panel believed that this was the case. The Panel noted that the EC ban affected the bovine meat sector in a favourable manner, whereas carbadox and olaquinox were used in the pork meat sector where there were no domestic surpluses. Indeed, the EC swine industry is more efficient than the beef sector that relies on costly domestic price support measures, import protection and export subsidies to maintain producer profitability.

Hurst criticised the Appellate Body's analysis for ignoring the fact that both "discrimination" and "disguised restriction" must be given meaning and that although, in the analysis of whether distinctions in levels of protection result in a "disguised restriction on international trade", the intention of the party imposing the measure is relevant, motive is not relevant in determining whether arbitrary or unjustifiable distinctions result in "discrimination".⁴³³ In determining whether discrimination is implied by arbitrary or unjustifiable distinctions in the level of protection the intent⁴³⁴ of the Member is not relevant as either the distinctions suggest or do not indicate that a Member has an unfair trading. In other words, the

⁴³² *Hormones*, Appellate Body Report, §245.

⁴³³ D. Hurst, "*Hormones: European Communities - Measures Affecting Meat and Meat Products*", 9 *EJIL* 1 (1998), p23.

⁴³⁴ See Chapter 2, section C.II.2.

Appellate Body's inquiry was not whether the Member imposing a measure discriminated but rather whether the Member intended to discriminate.⁴³⁵

As was already noted, in Chapter 2, when discussing the *Shrimps* case, the determination of whether a measure results in arbitrary or unjustifiable discrimination between Members should not be dependent on the intent of the Member imposing the measure.⁴³⁶

However, in the *Hormones* Appellate Body's defence, it could be that it did not consider that from the findings of the Panel that the measure resulted in arbitrary or unjustifiable discrimination. Therefore, it is probable that the Appellate Body only found it relevant to consider whether the intention behind imposing different standards was to protect the domestic beef industry and, therefore, make a finding on whether the measure constituted a disguised restriction on international trade. In other words, the conclusion that the Appellate Body only believed the intention of the Member to be relevant in each and every case might have been justified.

Hurst also argued that the Appellate Body's conclusion that the EC's good intentions save its measures from violating Article 5.5 runs counter to the objectives of the SPS Agreement, which requires that Members impose measures that are based on scientific evidence and is manifestly not designed to protect measures that have no basis in science, regardless of whether the Member imposing such measures intends to restrict international trade.⁴³⁷ This point can also be criticised because it ignores

⁴³⁵ D. Hurst, "*Hormones: European Communities - Measures Affecting Meat and Meat Products*", 9 *EJIL* 1 (1998), p24.

⁴³⁶ In the *Shrimps* case, the Appellate Body focused on considerations of whether the measure could be reconciled with the policy objective of the Member imposing the measure, whether comparable measures in the exporting country were rejected, whether efforts were shown to engage in negotiations to conclude a bi-lateral or multilateral agreement, whether procedures for exemption from the measure advantaged some exporting countries over others, whether there was a lack of flexibility, transparency, predictability, or due process in the administration procedures for obtaining an exemption, and whether officials in deciding exemption were left with wide discretionary powers. *Shrimps*, Appellate Body Report, §169-194. See Chapter 2, section C.II.5.a.

⁴³⁷ D. Hurst, "*Hormones: European Communities - Measures Affecting Meat and Meat Products*", 9 *EJIL* 1 (1998), p24.

the fact that the requirement that Members base their measures on scientific evidence is not an objective but a requirement, and that this requirement is already provided for in Article 2.2 and Article 5.1. In addition, Hurst failed to consider the ordinary meaning of the words used in Article 5.5 or the object and purpose of Article 5.5.

In the *Salmon* case, the Panel identified “warning signals” as well as several more substantial “additional factors”⁴³⁸ that cumulatively led the Panel to find that the distinctions constituted “a disguised restriction on international trade”.

The first warning signal detected by the Panel was the arbitrary or unjustifiable character of the differences in the levels of protection,⁴³⁹ confirming the point of view of the Appellate Body in the *Hormones* case which recognised that the arbitrary or unjustifiable character of differences in levels of protection operates as a “warning” signal that the measure in its application might be a discriminatory measure or might be a restriction on international trade disguised as an SPS measure for the protection of human life or health.⁴⁴⁰

The second warning signal considered by the Panel was the rather substantial difference in levels of protection between an import prohibition on ocean-caught Pacific salmon and tolerance for imports of herring used as bait and of live ornamental finfish.⁴⁴¹ This again is in line with the *Hormones* Appellate Body Report where it was stated that the degree of difference is an element to be considered in determining whether a measure results in discrimination or a disguised restriction on international trade.⁴⁴² Both the first and second warning signals are very similar. The fact that there was a “rather substantial” difference in the levels of protection suggested that it could be treated as a separate signal.⁴⁴³ Although, it was clear in this case that the difference was in the words of the Panel “rather substantial”, or could

⁴³⁸ *Salmon*, Panel Report, §8.149 and 8.158.

⁴³⁹ *Ibidem*, §8.149.

⁴⁴⁰ *Hormones*, Appellate Body Report, §215.

⁴⁴¹ *Salmon*, Panel Report, §8.150.

⁴⁴² *Hormones*, Appellate Body Report, §240.

even be qualified as substantial, this may not always prove to be an easy task. In fact, it is probably impossible to precisely define what constitutes a “rather substantial” difference.

The third “warning signal” considered by the Panel was the inconsistency of the measure with Articles 5.1 and 2.2 of the SPS Agreement. The Panel stated that its earlier finding of inconsistency with Articles 5.1 and 2.2 could “...together with other factors, lead to the conclusion that the measure at issue results in a “disguised restriction on international trade””.⁴⁴⁴ The Appellate Body agreed⁴⁴⁵ with this finding. Therefore, the fact that a measure is not based on sufficient scientific evidence may be a sign that the measure was in fact implemented to protect the domestic industry. Both the Panel and the Appellate Body should have emphasised that this warning signal could only lead to the conclusion that the measure at issue results in a “disguised restriction on international trade” if the measure was also inconsistent with Article 5.7 in order to avoid any confusion.

The first additional factor considered by the Panel was the fact that the substantially different SPS measures that Australia applied to salmon compared to herring used as bait and live ornamental finfish was discriminatory. The Panel viewed that the concept of “disguised restriction on international trade” in Article 5.5 includes, among other things, restrictions constituting arbitrary or unjustifiable discrimination between certain products.⁴⁴⁶ The Appellate Body found that this additional factor was not different from the first warning signal and that all “arbitrary or unjustifiable distinctions” in levels of protection will lead logically to discrimination between products, whether these are the same or comparable.⁴⁴⁷ Therefore, this additional factor was considered to be a combination of the first two warning signals and therefore should not be treated as a separate element.

⁴⁴³ *Salmon*, Appellate Body Report, §173.

⁴⁴⁴ *Salmon*, Panel Report, §8.151.

⁴⁴⁵ *Salmon*, Appellate Body Report, §175.

⁴⁴⁶ *Salmon*, Panel Report, §8.153.

⁴⁴⁷ *Salmon*, Appellate Body Report, §178.

The second additional factor considered by the Panel was the substantial but unexplained change in conclusion between the 1995 Draft Report and the 1996 Final Report. Indeed, the former allowed the importation of ocean-caught Pacific salmon under certain conditions whereas the latter recommended the continuing import prohibition.⁴⁴⁸ The Panel suggested that this change of position could have been inspired by Australian protectionism in that industry.⁴⁴⁹ The Panel considered that the 1995 Draft Report was a recommendation of an SPS measure and “part of the architecture” or “part of a process” leading to the 1996 Final Report. Australia argued that a draft recommendation did not have the status of an SPS measure and that no provision of the SPS Agreement requires the implementation of draft recommendations that may not include new scientific evidence. In addition, Australia contended that the Panel had not considered its arguments and evidence on the role of draft reports and recommendation in the decision-making process of governments and that the Panel erred in speculating about the presence and role of lobbying in Australia's decision to adopt the 1996 Final Report.⁴⁵⁰ The Appellate Body, however, agreed with the Panel.⁴⁵¹

This finding would probably have been different if Australia had presented new evidence that justified a change in position between the time the draft report and the 1996 Final Report.

The third additional factor considered by the Panel was the absence of controls on the internal movement of salmon products within Australia compared to the prohibition of the importation of ocean-caught Pacific salmon.⁴⁵² Therefore, the Panel expressed its doubts on whether Australia applied similarly strict SPS standards on the internal movement of salmon products within Australia as it does on the importation of salmon products as a factor to be taken into account when

⁴⁴⁸ *Salmon*, Appellate Body Report, §179.

⁴⁴⁹ *Salmon*, Panel Report, §8.154.

⁴⁵⁰ Australia's Appellant's Submission, §281-289.

⁴⁵¹ *Salmon*, Appellate Body Report, §181.

⁴⁵² *Salmon*, Panel Report, §8.155.

examining Article 5.5. The Appellate Body agreed that this factor could be taken into consideration although recognising that this factor did not carry much weight.⁴⁵³ The Appellate Body, however, did not explain why this was the case.

The Appellate Body agreed with the Panel that taken the warning signals and certain “additional factors” considered cumulatively implied that the distinctions in the levels of protection imposed by Australia resulted in a “disguised restriction on international trade” and, therefore, acted inconsistently with Article 5.5 and by implication Article 2.3.⁴⁵⁴

The Appellate Body continued to apply Article 5.5 to the case of freshwater and cultured salmon, as it found that Australia’s statements regarding its appropriate level of protection applied to all salmon. The Appellate Body found that the same analysis that applied to ocean-caught Pacific salmon under Article 5.5 also applied to freshwater and cultured salmon.

Again, as in the *Hormones* case, the Appellate Body did not clearly indicate what standard or priority should be used or given to balance the factors considered relevant.

Conclusion

The analysis under Article 5.5 has shown a lot of subjectivity which signals that there is no systematic way of determining the consistency of a measure with the requirements contained in Article 5.5 and, therefore, also with Article 2.3. It is difficult to see what the advantage of including Article 5.5 as an interpretation of Article 2.3 is. Article 5.5 does not interpret the requirement in Article 2.3. Article 5.5 only says that in determining whether measures constitute arbitrary or unjustifiable discrimination or a disguised restriction on international trade that discrimination between comparable products *could* lead to this finding without giving an indication

⁴⁵³ *Salmon*, Appellate Body Report, §185.

of what those circumstances are. Therefore, it only adds even more confusion to an already ambiguous and vague provision that is Article 2.3. Even though, Article 5.6 calls for the Committee on SPS Measures to develop guidelines for the practical implementation of this article, to date there are no published guidelines to this effect.

Therefore, unless the terms used in Article 2.3 and 5.5 are clearly defined, panels and the Appellate Body will continue to have difficulties in approaching the interpretation of these articles in a predictable and consistent fashion.

However, even if the terms are clearly defined, the subjective inquiry into the intent of Members imposing SPS measures will remain problematic. Indeed, panels and the Appellate Body are faced with a politically sensitive challenge as their decisions can be considered as an implicit finding that the stated objective of the measure is not its actual purpose. In addition, examining the Member's intent can be deceptive as legislation often reflects mixed objectives and even if it were feasible to determine a Member's intent there is no systematic way to go about the inquiry. Therefore, panels or the Appellate Body must not only rely on facts but also on its instincts thereby introducing substantial unpredictability in the analysis of Article 2.3 and 5.5.

Article 2.3 and 5.5 could, therefore, potentially be a major stumbling block for Members imposing genuine SPS measures and, therefore, be counter-productive in increasing linkage between trade and health issues. Therefore, Schoenbaum's conclusion that "only those SPS standards that are political fabrications are in danger of being invalidated at the WTO"⁴⁵⁵ is in fact too simplistic.

IV. Implications of the Substantive Issues

The aim of this section is to consider the implications of the Appellate Body's interpretation of the substantive requirements of the SPS Agreement in the

⁴⁵⁴ *Salmon*, Panel Report, §8.160 and Appellate Body Report, §187.

Hormones, Salmon, Agricultural Products and *Apples* cases, for Members that impose SPS measures, and this irrespective of whether these measures are aimed at the protection of human, animal or plant life or health from risks arising from additives, contaminants, diseases or pests.

First, the Member imposing an SPS measure must be aware that the only situation where a Member can *presume* that the SPS measures it imposes will be found to be consistent with the SPS Agreement is when these measures *conform* to international standards, guidelines or recommendations established by the Codex Alimentarius Commission for food safety, the International Office of Epizootics for animal health and zoonoses or the Secretariat of the International Plant Protection Convention for plant health.

Therefore, if the international standard, guideline or recommendation specifically provides for the prevention of a risk that the Member wishes to protect itself from and the Member imposes an SPS measure that is identical to the international standard, guideline or recommendation, then there is only a very slim chance that the Member's measure will be inconsistent with the SPS Agreement. In this situation, the Member can be sure that the connection between the measure and the international standard is objectively reviewed since either the levels of protection achieved by the measure and the international standards are identical or they are not.

Therefore, where international standards do not exist, a Member imposing SPS measures is advised to participate in the negotiation of such standards in order to be able to have a standard to which it can conform to, and thereby ensure that in the event of a dispute before the WTO that the outcome will be in its favour.

In a case where the Member's measure is found to be *based on* an international standard, it is quite likely that the measure will also be considered to be based on a risk assessment, not significantly more trade restrictive than another measure that

⁴⁵⁵ T. Schoenbaum, "International Trade and Protection of the Environment: The Continuing Search

achieves the Member's appropriate level of protection, that is technically and economically feasible and not to constitute arbitrarily or unjustifiably discriminate or result in a disguised restriction on international trade. However, the determination of whether a measure is in fact based on an international standard is more of a subjective inquiry as the panels and the Appellate Body have the discretion to decide when this threshold has been met.

In a case where the Member wishes to have more flexibility in setting its own appropriate level of protection, in order to achieve a higher level of protection and therefore chooses not to base its measures on an international standard, the Member must, at least, demonstrate that the measure is based on risk assessment except where the measure is imposed on a temporary basis as provided for in Article 5.7, that the measure is necessary and that it does not result in arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

Therefore, again the determination of whether the measure meets these conditions is a subjective inquiry made by the panels and the Appellate Body, the result of which may be unpredictable.

Indeed, the determination of whether the threshold of "based on" a risk assessment has been met, or where this is not the case whether a measure can be considered as a *temporary* measure, that is taken pursuant to *pertinent* information, that the Member has collected information *necessary* for a more objective assessment of facts; that there is no other measure that is *significantly* less trade restrictive, technically and economically *feasible* and achieves the Member's appropriate level of protection; and that the measure does not result in *arbitrary* or *unjustifiable* discrimination or a *disguised* restriction on international trade, will require a considerable amount of subjective interpretation on the part of the reviewing body.

or Reconciliation", 91 *AJIL* (1997) 2, p285.

The advice that can be given to Members that do not impose measures that conform to international standards is to ensure that the risk assessments they present as evidence are *specific* in the sense that they analyse the risks associated with a particular event occurring under particular conditions and secondly, that the Member avoid relying on opinions expressed by a *minority* of scientific experts as a basis for its measures as these opinions will be subject to very close scrutiny and will have to be convincing in order to compete with the view held by a majority of scientists.

It could be argued that the high degree of specificity and reliance on the majority view may be excessive for the purpose of determining the scientific plausibility of a proposal and that this does not leave much room for scientific uncertainty, but it will probably be decisive in ensuring that the measure is found to be based on a risk assessment.

SPS measures that are not supported by completed specifically focused studies are potentially inconsistent with the SPS Agreement. Members should in these circumstances invoke Article 5.7 in order to justify these measures on a *temporary* basis. However, under Article 5.7 the obligation is clearly on the Member maintaining the measures to seek to obtain additional information and ultimately of providing a risk assessment within a reasonable amount of time and not the exporting country. Therefore, Members are advised to be pro-active in finding a solid scientific basis for their measures even though they benefit from a grace period.

However, in a situation where domestic regulatory programmes automatically bar the import of a new product until the product supplier produces sufficient data, studies and risk assessments that proves its safety, for example, pesticides that are generally toxic by design or food additives that may have dangerous side effects would not realistically be considered inconsistent with the scientific justification requirements of the SPS Agreement. The object and purpose of the SPS Agreement is avoid unnecessary restrictions on international trade not to prevent a Member from protecting human, animal and plant life from substances that are likely to be dangerous. The fact that the exporting country is required to provide a risk assessment of a new substance before being permitted access to the importer's

market would probably be less trade restrictive, time consuming and costly for the exporter than if the importer would impose an outright ban on the product.

With respect to the requirement that the measure must only be applied to the extent that it is not more trade restrictive than required to achieve the Member's appropriate level of protection, it is advisable for Members to continuously reassess the measures in place to ensure that there is no alternative measure that is feasible, *notably* less restrictive to trade, and achieves the Member's level of protection.

Finally, in order for Members imposing SPS measures to comply with the requirements of Article 2.3 and 5.5 on arbitrary or unjustifiable discrimination and disguised restrictions on international trade, Members should ensure that their risk management policies are consistent, transparent and predictable so that similar risks occurring from different events are treated in a comparable manner. In addition, Members should take into account the special and different circumstances of each country affected by the measures, should recognise equivalent measures used by exporting countries, and should show their willingness to engage in negotiations in order to achieve multilateral solutions.

E. PANEL'S SELECTION AND USE OF SCIENTIFIC EXPERTS

After analysing the substantive issues arising under the SPS Agreement, this section examines a procedural issue of particular importance, especially in the context of SPS measures, namely the selection and use of scientific experts.

Due to the complexity of many environmental/health disputes from a scientific point of view and the scientific criteria contained in agreements like the SPS Agreement, panels have been advised by scientific experts.⁴⁵⁶ A panel has the right to seek advice

⁴⁵⁶ For example, *Asbestos*, *Thai Cigarettes*, *Shrimps*, *Hormones*, and *Agricultural Products* cases. See also J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* April 2002, p326.

pursuant to Article 13 of the DSU⁴⁵⁷, and Article 11.2 of the SPS Agreement⁴⁵⁸. The panel decides whether it wishes to appoint experts. Even if the parties to a dispute request that experts be consulted, the panel is under no obligation to do so. The opinions of the experts are not binding on the panels⁴⁵⁹ but assist panels in performing an objective assessment of facts.⁴⁶⁰

In addition to assisting panels with scientific questions, the use of experts also adds transparency and neutrality to the decision-making process, thereby adding legitimacy to the WTO decisions. It is therefore, worth considering whether reference to scientific experts where scientific issues are involved should not be mandatory. So far, though panels have systematically involved scientific experts where disputes arose under the SPS Agreement.⁴⁶¹

In the *Hormones* Appellate Body Report, it was considered whether the Panel acted within the scope of its authority in its selection and use of experts and found, contrary to the allegations of the EC, that the Panel had not erred in consulting individual experts rather than forming an expert review group. The EC had contended that in seeking opinions from experts in their individual capacities, the Panel had deprived the EC of the procedural guarantees provided for expert review groups by Appendix 4 of the DSU. In particular, an expert review group speaks with a single voice, for example, in the form of an advisory report, whereas by consulting individual experts, the Panel put itself in a position to choose among different

⁴⁵⁷ Article 13.2 of the DSU states that: "Panels may seek information from any relevant source and may consult experts to obtain their opinion on certain aspects of the matter. With respect to a factual issue concerning a scientific or other technical matter raised by a party to a dispute, a panel may request an advisory report in writing from an expert review group. Rules for the establishment of such a group and its procedures are set forth in Appendix 4."

⁴⁵⁸ Article 11.2 of the SPS Agreement states: "In a dispute under this Agreement involving scientific or technical issues, a panel should seek advice from experts chosen by the panel in consultation with the parties to the dispute. To this end, the panel may, when it deems it appropriate, establish an advisory technical experts group, or consult the relevant international organisations, at the request of either party to the dispute or on its own initiative."

⁴⁵⁹ Appendix 4, §5 of the DSU.

⁴⁶⁰ See J. Pauwelyn, "The WTO Agreement on Sanitary and Phytosanitary (SPS) Measures as Applied in the First Three SPS Disputes", *JIEL* (1999), pp661-662.

scientific opinions. The Appellate Body found that under both Article 11.2 of the SPS Agreement and Article 13.2 of the DSU, the formation of an expert review group is left to the discretion of a panel. When such a group is formed, its operation is governed by the rules and procedures set forth in Appendix 4 of the DSU. Although, there are no explicit rules in appointing individual scientific experts, the Appellate Body found that the procedures followed by the Panel in both proceedings were consistent with the DSU and the SPS Agreement.⁴⁶²

In appointing individual scientific experts, panels have, so far, applied the rules regarding the appointment of expert review groups.⁴⁶³ The process of selection of experts is based on their expertise and experience in the field in question, professional standing⁴⁶⁴ and nationality.⁴⁶⁵ Neutrality seems to be respected in the selection of experts and although there is no specific rule to this effect, experts are generally chosen by the panel in consultation with the parties to the dispute.⁴⁶⁶ Lists of experts are generally provided by an international organisation, for example, Codex Alimentarius or the International Office of Epizootics. Of course, there is no guarantee that the process is completely unbiased as international organisations could be proposing experts that support their agenda.⁴⁶⁷ Even if this were the case, scientific experts, presumably, are acting with integrity. In addition, although this is not a right, parties to the dispute can object to the appointment of scientific experts and can rank the proposed experts according to their preference.⁴⁶⁸

⁴⁶¹ Scientific experts were also involved in the *Shrimps* and *Asbestos* cases involving Article XX of the GATT 1994.

⁴⁶² *Hormones*, Appellate Body Report, §253(f).

⁴⁶³ Appendix 4 to the DSU. See J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* April 2002, p340.

⁴⁶⁴ Appendix 4 to the DSU, §2.

⁴⁶⁵ Appendix 4 to the DSU, §3. Nationals of parties to the dispute shall not serve without the agreement of all the parties "except in exceptional circumstances when the panel considers that the need for specialised scientific expertise cannot be fulfilled otherwise".

⁴⁶⁶ Article 11.2 of the SPS Agreement.

⁴⁶⁷ See See J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* April 2002, p343.

⁴⁶⁸ *Ibidem*, p344.

The advantage of seeking advice from individual experts provides the panel with more flexibility as far as gathering advice and determining the result is concerned. In addition, the use of individual experts is less time consuming, as no report needs to be drafted by the scientific experts as a whole.⁴⁶⁹ However, seeking advice from individual experts gives more discretion to panels in selecting which scientific opinion a panel should base its decision on.

The use of an expert review group reduces a panel's possible bias in relying on scientific opinions. However, an expert review group would not necessarily be more advantageous for Members imposing environmental/health measures. Indeed, an expert report may in fact only represent a consensus on a specific issue or a majority view. This, of course, may not be beneficial to those seeking to maintain environmental/health issues based on minority scientific opinions.

The choice of individual experts or an expert review group may, however, not have a significant impact on the outcome of a dispute. Indeed, the *Shrimps* Appellate Body clearly communicated that the authority of a panel to "seek" information as well as scientific and technical advice embraces more than the choice and evaluation of the source of information or advice it may seek.⁴⁷⁰ The authority of a panel includes that of deciding not to seek such information or advice as well as accepting or rejecting any information or advice, which it may have sought and received.⁴⁷¹ Where the panel has determined the acceptability or relevance of information or advice, it also has authority to decide what weight to ascribe to it.⁴⁷²

⁴⁶⁹ See J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* April 2002, pp328-329.

⁴⁷⁰ *Shrimps*, Appellate Body Report, §108.

⁴⁷¹ *Ibidem*.

⁴⁷² *Shrimps*, Appellate Body Report, §108.

It is important to emphasise that although a panel enjoys a wide discretion in its assessment of facts, it should not intervene in scientific debates⁴⁷³ but rather determine whether there is a reasonable scientific basis for a given measure.⁴⁷⁴

In a state of scientific uncertainty, a panel should determine whether there is support from reputable scientists concerning the Member's risk assessment by considering whether the theories, methodologies, assumptions and models used in the risk assessment are reasonable,⁴⁷⁵ in order to distinguish between plausible and implausible scientific accounts but should not decide which scientifically plausible account it believes to be true as the WTO does not have the resources or the mandate to examine and assess an evolving scientific discussion.⁴⁷⁶

It would be inappropriate for the WTO to resolve scientific issues, if the scientific community is able to do so. However, if scientific experts cannot resolve the issues, then the dispute will become a matter of political/judicial judgement.

F. CONCLUSION

The most striking development of the SPS Agreement is the mandatory use of science in differentiating between sound and unsound SPS measures.

However, the presence of scientific uncertainty and the resulting use of science policies in risk assessments render the SPS Agreement's reliance on science as a neutral trade-off mechanism rather more complicated than it might appear at first sight.

⁴⁷³ See J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* April 2002, p329.

⁴⁷⁴ V. Walker, "Keeping the WTO from Becoming the "World Trans-science Organisation": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute", 31 *CILJ* 2 (1998), p280.

⁴⁷⁵ Scientists normally consider the individual elements of a risk assessment in order to determine whether it is plausible.

⁴⁷⁶ V. Walker, "Keeping the WTO from Becoming the "World Trans-science Organisation": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute", 31 *CILJ* 2 (1998), pp280-283.

Risk assessment has the advantage of introducing an exposure factor into the environmental decision-making process that not only determines the extent of the harm of a substance but also determines in which conditions or environment a substance is most harmful and in which circumstances the hazards can be mitigated.⁴⁷⁷ In other words, risk assessment represents a shift from the determination of potential for harm that ensues from an analysis of the properties of a product to a prediction of harm that can be deduced by integrating an exposure factor into the assessment.⁴⁷⁸ Therefore, risk assessment enables to compare risks in a more thorough way and to prioritise risk reduction measures, as some substances might need to be controlled more urgently.

In addition, risk assessments provide a structured process of decision-making that can also be standardised, which helps supervise, limit arbitrariness and conflicts of interest in the decision-making process.⁴⁷⁹ In addition, a risk assessment relies to large extent on scientific methodologies and can often only be carried out or verified by scientists. The fact that risk assessment and science go hand-in-hand increases the credibility of institutions that base their SPS measures on risk assessments as the scientific community is usually reputed for its objectivity, neutrality and rigorous handling of facts.⁴⁸⁰

Therefore, risk assessments help regulators assemble data in a thorough, consistent and transparent way so that decisions are made on a sound technical basis.

However, there are not only advantages in carrying out risk assessments.

⁴⁷⁷ V. Heyvaert, "Reconceptualising Risk Assessment", 8 *RECIEL* 2 (1999), p137.

⁴⁷⁸ *Ibidem*, pp137-8.

⁴⁷⁹ *Ibidem*, p138.

⁴⁸⁰ V. Heyvaert, "Reconceptualising Risk Assessment", 8 *RECIEL* 2 (1999), p138. See also S. Jasanoff, "Contested Boundaries in Policy-Relevant Science" 17 *Social Studies of Science*, (1987), p196.

Risk assessment is a time-consuming, resource intensive and arduous process that can paralyse decision-making and thereby places a great burden on national regulatory authorities to justify their SPS measures.

In addition, risk assessments are not necessarily reliable, as uncertainties may not be properly reflected in the assessment.

For example, in the case of hazard identification, tests may be made on animals, which implies that difficult and inaccurate comparisons are often made between the effects of a substance on an animal and on a human being. In addition, animals are usually exposed to high doses of the substance in order to observe an effect. This makes it difficult to then extrapolate the effect of a low dose on a human being, thereby introducing uncertainty into the results of the risk assessment. The problem becomes even more complicated when there are no animal data, or if no statistically significant effect can be observed. Scientists in these cases resort to less direct means of estimating risks based on analogies such as chemical similarity and acute toxicity and thereby increase the uncertainty factor in their evaluation. In addition, these tests are performed on relatively small samples and therefore may not highlight all adverse exposure effects where there is a low occurrence rate but where significant risks exist. Therefore, ruling out alternative reasons for adverse effects is a difficult exercise as results obtained on these alternatives may also contain a degree of uncertainty.

Problems with respect to the reliability of data may also occur with dose-response and exposure assessment as these assessments are based on models, predictions and assumptions.⁴⁸¹ Therefore, risk assessment can be under or over cautious depending on how conservative the assumptions are that are used, and how suitable the model used is, which can lead to unsound science and to systematic under or over-estimations of risks.

⁴⁸¹ V. Heyvaert, "Reconceptualising Risk Assessment", 8 *RECIEL* 2 (1999), p139.

In addition, science policies that are used to complete risk assessments have the disadvantage that they may be unresponsive to the development of new scientific methodologies that may be more reliable.

Therefore, there is little chance that there is only a “single, unique way to analyse the even purely scientific significance”⁴⁸² of most empirical data. The analysis of data requires the use of scientific assumptions, hypotheses, theories, which suggests that there may be more than one scientifically plausible outcome and thereby yielding a series of regulatory results. Therefore, where there are various possible results, science may in fact not be very helpful.

In addition, scientific review is more conciliatory than adjudicatory. The results are not usually bi-polar, in the sense of “yes” and “no” out-come, that is normally contemplated by an adjudicatory process.⁴⁸³ Instead, there is “protracted give and take among experts”⁴⁸⁴ and continuous search for knowledge.

However, despite the fact that risk assessments are by means no infallible, they will provide useful guidance to risk managers on the appropriate measures to be implemented in order to minimise identified risks. Indeed, the difference between managing risks on the basis of a risk assessment and managing risks on the basis of value judgements, can be compared to managing risks on the basis of an estimate of the risks rather than on the basis of a mere guess. The probability that the measures taken on the basis of an estimate of the risks are more efficient and effective will be greater than if measures are based on a guess.

Therefore, although the requirement in the SPS Agreement that measures must be supported by a risk assessment within a reasonable period of time can be seen as a supplementary hurdle for Members in justifying their SPS measures, it can also be

⁴⁸² D. Wirth, “The Role of Science in the Uruguay Round and NAFTA Trade Disciplines”, 27 *CILJ* (1994), p842.

⁴⁸³ *Ibidem*.

viewed as a welcome development for the protection of human, animal, plant, life or health from risks arising from diseases, disease causing organisms, contaminants, additives and toxins.

⁴⁸⁴ D. Wirth, "The Role of Science in the Uruguay Round and NAFTA Trade Disciplines", 27 *CILJ* (1994), p842.

CHAPTER 4

THE AGREEMENT ON TECHNICAL BARRIERS TO TRADE AND ENVIRONMENTAL/HEALTH REGULATIONS

A. INTRODUCTION

The following chapter focuses on the TBT Agreement, which along with Article XX of the GATT 1994 and the SPS Agreement is central to the analysis of the relationship between trade and environmental/health issues.

The TBT Agreement aims to prevent technical regulations, standards and conformity assessment procedures being prepared, adopted or applied in such a way as to create unnecessary barriers to international trade,¹ while recognising that “no country should be prevented from taking measures necessary... for the protection of human, animal or plant life or health” or of the environment.

The fact that the number of technical product requirements have grown considerably in recent years due in part to consumers' demand for products that are safe from a health point of view and environmentally-friendly and that compliance with these requirements involves lost market opportunities² and increased costs arising from losses in economies of scale³, conformity assessments⁴, adjustments in production,

¹ Technical regulations increase unit costs of production and/or transportation and, therefore, create obstacles to free trade. C.M. Correa, “Implementing National Public Health Policies in the Framework of WTO Agreements,” 34 *JWT* 5, (2000), p103.

² K.W. Abbott, “US-EU Disputes over Technical Barriers to Trade and the “Hushkits” Dispute, in E-U. Petersmann and M.A. Pollack (eds.) *Transatlantic Economic Disputes – The EU, the US, and the WTO*, New York, (2003), p259.

³ Due to the production of different products for different markets.

⁴ For example, testing, certification or inspection costs.

for producers and exporters, it is essential that the TBT Agreement achieve a balance between trade and environmental/health objectives.⁵

The following analysis will attempt to consider how the TBT Agreements fares as a tool for accommodating these concerns. In addition, suggestions will be made, where appropriate, to improve current rules or the interpretation given to these rules by the WTO DSB.

B. SCOPE OF APPLICATION OF THE TBT AGREEMENT

I. Technical Product Requirements

As noted above, the TBT Agreement covers technical regulations, standards and conformity assessment procedures.

In order for a measure to be considered under the TBT Agreement, it cannot be subject to the SPS Agreement⁶ as the TBT Agreement and SPS Agreement are mutually exclusive.

As discussed in Chapter 3, an SPS measure is one that aims:

(a) “to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease causing organisms”;

(b) “to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms, in foods, beverages or feedstuffs”;

⁵ See J.H.H. Weiler and S. Cho, “International and Regional Trade Law: The Law of the World Trade Organisation”, *Lecture Papers on Technical Barriers to Trade* (2003), www.kentlaw.edu/classes/scho1/intltradelaw/coursedocs/wto-2003-unit%20ix.pdf.

⁶ Article 1.5. See also chapter 3.

(c) “to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests”; and

(d) “to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests”.⁷

Therefore, the determination of whether a measure falls under the SPS Agreement depends on the purpose of the measure. If the aim of the measure is to protect human or animal life or health within the territory of the Member from SPS risks, then the SPS Agreement applies.

In the *Asbestos* case, Canada claimed before the Panel that the French Decree was inconsistent with Articles 2.1, 2.2, 2.4 and 2.8 of the TBT Agreement.

The measure at issue was clearly not an SPS measure as the objective of the measure was to protect human health or life from the risks associated with asbestos fibres which are not pests, diseases, disease-carrying organisms or disease causing organisms, or additives, contaminants, toxins or disease-causing organisms found in foods, beverages or feedstuffs.

The same reasoning can be applied to seat-belt requirements in cars to protect human life or health, requirements that fish reach a certain length before they can be caught to protect animal health or labelling requirements that aim to inform consumers of health risks.

In the *European Communities – Trade Description of Sardines* case⁸ (hereinafter *Sardines* case) the EC imposed Council Regulation 2136/89 (the “EC Regulation”),⁹ which establishes common marketing standards for preserved sardines whereby only *Sardina pilchardus Walbaum* can be marketed as “sardines”. The objective of the EC

⁷ SPS Agreement, Annex A, §1.

⁸ *European Communities—Trade Description of Sardines*, WT/DS231/AB/R, adopted 23 October 2002.

⁹ Adopted by the Council of the European Communities on 21 June 1989 and became applicable on 1 January 1990.

Regulation is clearly not to protect human life or health from SPS risks but to ensure that consumers are not misled when purchasing sardines.

Another example is re-cycling requirements for paper and plastic products to protect the environment.

In a situation where a measure seeks to inform consumers of potential of risks that fall into the category of SPS risks, the TBT Agreement applies. Therefore, a WTO Member can either formulate the measure as a SPS measure or as a TBT measure by introducing a subjective determination of the purpose of the measure. Since there are no rules on determining the objectives of a measure, a WTO Member by claiming that a measure has a particular objective can ensure that a measure would be considered under the TBT or SPS Agreement.

For example, the SPS Agreement and the TBT Agreement could apply to the regulation of GM products. If the measure aims to protect human, animal or plant health or life from contamination of food through genetic manipulation, then the SPS Agreement applies. However, if the measure intends to inform consumers of the health risks of genetic manipulation then the TBT Agreement would apply.

Once it has been established that a measure does not fall within the ambit of the SPS Agreement, it is necessary to establish whether the measure is a technical regulation, standard or conformity assessment procedure as these measures are subject to different requirements under the TBT Agreement.

A technical regulation is defined in Annex 1.1 as a:

“Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.”

A standard, on the other hand, is defined in Annex 1.2 as a:

“Document approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.”

Therefore, a technical regulation is mandatory whereas a standard is voluntary.¹⁰

The difference between a standard and a technical regulation lies not only in compliance but also in the implications for international trade. Indeed, the incidence of technical regulations on international trade is generally greater than that of standards. An imported product that does not fulfil the requirements of a technical regulation is denied market access. On the other hand, an imported product that does not comply with a standard will be allowed entry onto the market of the importing country, but the market share may be affected as a result of consumer preferences for products that comply with national standards.

Finally, conformity assessment procedures are procedures that are “used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled”, such as “procedures for sampling testing and inspection: evaluation, verification and assurance of conformity; registration, accreditation and approval”.¹¹

Once it is established that a measure is either mandatory, voluntary or a conformity assessment procedure, it is necessary in the case of technical regulations to determine whether the measure covers product characteristics or their related PPMs.¹²

In the *Asbestos* case, Canada claimed that the French Decree was a technical regulation as it considered that all asbestos fibres and products containing such fibres

¹⁰ The *Asbestos* Appellate Body found that the measure regulated the products in a binding or compulsory fashion. *Asbestos* Appellate Body Report, WT/DS135/AB/R, adopted by Dispute Settlement Body, 5 April 2001, §68. The *Sardines* Panel and Appellate Body found that compliance with the provisions contained in the EC Regulation also were mandatory. *Sardines* Panel Report, §7.35. *Sardines* Appellate Body Report, §193.

¹¹ Annex 1.3.

¹² Annex 1.1. Such as size, shape, design, functions and performance, or the way it is labelled or packaged before it is put on sale.

pose public health risks.¹³ The EC, on the other hand, claimed that the Decree was not a “technical regulation” because it was a *general* prohibition on the use of a product for the protection of human health,¹⁴ and that if such prohibitions would fall within the ambit of the TBT Agreement that the provisions of the GATT 1994 would be redundant.¹⁵ In addition, although the Decree prohibits asbestos fibres at all stages, the EC claimed that the Decree did not specify the characteristics for asbestos fibres and asbestos-containing products or the products exempt from the prohibition measure.¹⁶

The *Asbestos* Panel considered the Decree contained a general prohibition on asbestos and asbestos-containing products as well as “exceptions” which permitted, on a temporary basis, the use of certain products containing asbestos. The Panel concluded that prohibitions imposed by the Decree did not constitute a “technical regulation” unlike the exceptions.¹⁷ However, the Panel decided not to examine claims under the TBT Agreement because it was of the view that they only related to the *general* prohibitions.¹⁸

The *Asbestos* Appellate Body stated that a “technical regulation” is a “document” that must provide “product characteristics” such as “terminology, symbols, packaging, marking or labelling requirements” and that these ““product characteristics” include, not only features and qualities intrinsic to the product itself, but also related “characteristics”, such as the means of identification, the presentation and the appearance of a product”.¹⁹ The Appellate Body also stated that the French Decree “aims primarily at the regulation of a named product, asbestos”²⁰ and that if it only imposed a prohibition on asbestos *fibres*, as such, in other words, that the

¹³ *Asbestos* Panel Report, §8.20.

¹⁴ *Asbestos* Panel Report, §8.22.

¹⁵ *Ibidem*, §8.23.

¹⁶ *Ibidem*.

¹⁷ *Asbestos* Panel Report, §8.72(a).

¹⁸ *Ibidem*, §8.72.

¹⁹ *Asbestos* Appellate Body Report, §67.

²⁰ *Ibidem*, §71.

prohibition on these *fibres* did not, *in itself*, prescribe or impose any “characteristics” on asbestos fibres, but only banned them in their natural state, then it would *not* be a technical regulation.²¹

Although, the Appellate Body recognised that, asbestos fibres have “no known use in their raw mineral form”²², and that the regulation of asbestos can only be achieved through the regulation of products that contain asbestos fibres, it found that the Decree when examined as a whole also prohibited products containing asbestos fibres.²³ In addition, the Appellate Body considered that the Decree was a technical regulation despite the fact that the measure imposed “objective features, qualities or “characteristics” on *all* products”.²⁴

In other words, a measure must be examined “as an integrated whole”²⁵ and must either lay down “characteristics” for a single product or for all products.²⁶

In addition, the Appellate Body noted that a measure could be subject to the TBT Agreement if it is imposed in either a positive or a negative form,²⁷ in other words, as a requirement or prohibition.

In the *Sardines* case, the Panel reiterated the *Asbestos* Appellate Body’s finding that “a document may prescribe or impose product characteristics in either a positive or negative form” and concluded that “by requiring the use of only the species *Sardina pilchardus* as preserved sardines, the EC Regulation in effect lays down product characteristics in a negative form, that is, by excluding other species, such as *Sardinops sagax*, from being “marketed as preserved sardines and under the trade description referred to in Article 7” of the EC Regulation”.²⁸

21 *Asbestos* Appellate Body Report, §71.

22 *Ibidem*, §72.

23 *Asbestos* Appellate Body Report, §75.

24 *Ibidem*, §72.

25 *Ibidem*, §75.

26 *Asbestos* Appellate Body Report, §75.

27 *Ibidem*, §69.

28 See *Sardines* Panel Report, §6.4.

The above cases deal with measures that relate to “product characteristics”. Annex 1.1 also refers to documents that lay down “product characteristics or *their* related [PPMs]” and Annex 1.2 on standards refers to “rules, guidelines or characteristics for products or *related* [PPMs]”. These phrases imply that the TBT Agreement covers product-related PPMs but not non-product related PPMs.

However, the second sentences of Annex 1.1 and Annex 1.2, which refer to “terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method” do not require product-relatedness of PPMs.²⁹

The issue of whether the TBT Agreement covers non-product related PPMs remains controversial due to the ambiguous language used in defining technical regulations and standards,³⁰ and also to the lack of consensus by the WTO Members on this issue.³¹

The negotiating history of the TBT Agreement suggests that non-product related PPMs are not included.³² However, if only product-related PPMs are covered under the TBT Agreement, then this would imply that the more controversial type of TBT

²⁹ WTO Document, “Marking and Labelling Requirements”, Submission from Switzerland, WT/CTE/W/192, G/TBT/W/162, 19 June 2001, §25.

³⁰ *Ibidem*.

³¹ Developing countries, the US are opposed to including non-product related PPMs within the ambit of the TBT Agreement unlike the EU and Switzerland. WTO Document, CTE, Report of the Meeting Held on 7 July 2003, Note by the Secretariat, Restricted, WT/CTE/M/34, 29 July 2003, §57; WT/CTE/W/212, 12 June 2002, G/TBT/W/150, 2 November 2000, WT/CTE/W/192, 19 June 2001. See also M. Joshi, “Are Eco-labels Consistent with the World Trade Organisation Agreements?”, 38 *JWT* 1 (2004), pp81-85. See S.W. Chang, “Gatting a Green Trade Barrier – Eco-labelling and the WTO Agreement on Trade Barriers to Trade”, 31 *JWT* 1 (1997), p139.

³² WTO Secretariat, “Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards, and Production and Processes and Production Methods Unrelated to the Product Characteristics, G/TBT/W/11, 29 August 1995, §110, 131 and 146. See also S. Charnovitz, “The Law of Environmental “PPMs” in the WTO: Debunking the Myth of Illegality”, 27 *Yale JIL* (2002), p65. See S.W. Chang, “Gatting a Green Trade Barrier – Eco-labelling and the WTO Agreement on Trade Barriers to Trade”, 31 *JWT* 1 (1997), pp142-147.

measure would be subject to the more lenient requirements of GATT 1994.³³ Indeed, the *Shrimps* Appellate Body examined non-product-related PPMs under Article XX.³⁴ The measure under scrutiny in the *Shrimps* case could be considered a technical regulation provided that the TBT Agreement applies to non-product related PPMs as well as extraterritorial measures. Unlike the SPS Agreement that limits the jurisdictional application of SPS measures, the TBT Agreement is silent on this issue. Again if the TBT Agreement does not apply to extraterritorial measures these would be dealt with under the more lenient rules of GATT 1994 despite the fact that they are more contentious.³⁵ Therefore, to exclude non-product related PPMs and extraterritorial measures from the scope of the TBT Agreement would be paradoxical.

However, from an environmental point of view it is preferable that non-product related PPMs and extra-territorial measures be dealt with under the GATT 1994 and not the TBT Agreement unless the non-discrimination requirement under the TBT Agreement is interpreted less restrictively than under the GATT 1994.

The final step in determining whether a measure can be considered under the TBT Agreement is ascertain that the measure applies to an identifiable product or group of products.³⁶

The *Asbestos* Panel considered that the product(s) to which the characteristics refer must be clearly identifiable in the document³⁷ and that a technical regulation is a regulation that sets out the specific characteristics of one or more identifiable

³³ G. Marceau and J. P. Trachtman, "The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods", 36 *JWT* 5 (2002), p861.

³⁴ *Shrimps* case. See Chapter 2.

³⁵ *Ibidem*.

³⁶ *Asbestos* Panel Report, §8.36.

³⁷ *Ibidem*.

products rather than general characteristics that may be shared by several unspecified products.³⁸

Although, the *Asbestos* Appellate Body agreed with the Panel that a technical regulation must be applicable to an identifiable product or group of products,³⁹ it considered that a technical regulation must not necessarily apply to “products that are actually named, identified or specified in the regulation”.⁴⁰

In the *Sardines* case, the Appellate Body found that *Sardinops sagax* is an “identifiable” product⁴¹ and that even if the term “preserved sardines” in the EC Regulation would refer exclusively to preserved *Sardina pilchardus*, it would still be applicable to a range of “identifiable” products beyond *Sardina pilchardus*. Indeed, preserved products made of *Sardinops sagax* are prohibited from being identified and marketed under the term “sardines”.⁴²

Therefore, a product does not have to be explicitly referred to in a document in order for that product to be identified.⁴³ The implication of this interpretation is that the Members will not be able to circumvent the rules of the TBT Agreement by omitting to explicitly mention a product in a regulation.

The above analysis suggests that the measure at issue in the *Gasoline* case,⁴⁴ examined in Chapter 2, is a technical regulation.

The Gasoline Rule was clearly not an SPS measure as the objective was to protect an exhaustible natural resource. In addition, the requirements of the Gasoline Rule were compulsory. The Gasoline Rule also specified chemical ingredients for an identifiable product: gasoline.⁴⁵ The fact that an averaging technique was used to

³⁸ *Asbestos* Panel Report, §8.39.

³⁹ *Asbestos* Appellate Body Report, §70.

⁴⁰ *Ibidem*, §180. *Asbestos* Panel Report, §8.57

⁴¹ *Sardines* Appellate Body Report, §183.

⁴² *Ibidem*, §184.

⁴³ *Ibidem*, §180 and 183.

⁴⁴ *Gasoline* Panel Report, WT/DS2/R.

⁴⁵ *Ibidem*, §3.75.

determine consistency with the Gasoline Rule, which implied that the requirements on chemical ingredients did not need to be satisfied by each shipment, does not change the fact that an examination of the properties of each individual gasoline shipment was required.⁴⁶ Although, the importers remained free to import different varieties of gasoline provided that the annual average met the requirements, the fact that compliance is required on a yearly basis as opposed to on a shipment basis should not exclude a measure from the scope of the TBT Agreement.⁴⁷ In this case, annual production was simply the unit of production to which the standard was applied.⁴⁸

After examining whether a measure is a technical regulation, standard or conformity assessment procedure, the question arises whether the TBT Agreement applies to measures adopted prior to the entry into force of the TBT Agreement.

III. Temporal Application of the TBT Agreement

The *Sardines* Panel and Appellate Body consistent with the reasoning of the Appellate Body in the *Hormones* case in the context of the SPS Agreement⁴⁹, found that the TBT Agreement applies to measures that entered into force after 1 January 1995 as well as to measures that were adopted prior to 1 January 1995 but which have not ceased to exist.⁵⁰

Article 2.5 of the TBT Agreement refers to “preparing, adopting or *applying* a technical regulation”. Article 2.6 states that Members are to participate in preparing international standards by the international standardising bodies for products, which

⁴⁶ *Gasoline* Panel Report, §3.75.

⁴⁷ *Ibidem*, §4.6

⁴⁸ *Gasoline* Panel Report, §3.76.

⁴⁹ See Chapter 3.

⁵⁰ *Sardines* Appellate Body Report, §197.

they have either “*adopted*, or expect to adopt technical regulations.” Clearly, a technical regulation can only be applied if it is already in existence.⁵¹

This interpretation is also supported by Article XVI:4 of the *Marrakesh Agreement Establishing the World Trade Organisation* which provides a general context for all the covered agreements, and states that each Member shall ensure the conformity of its laws, regulations and administrative procedures with its obligations as provided in the annexed Agreements.⁵²

In addition, the fact that many TBT Agreement provisions consider international standards important for promoting harmonisation and facilitating trade⁵³ indicates that excluding existing technical regulations would undermine the role of international standards in furthering the objectives of the TBT Agreement.⁵⁴

III. Relationship with GATT 1994

The TBT Agreement does not define its relationship with the GATT 1994. However, as the *Asbestos* Appellate Body stated:

*“...although the TBT Agreement is intended to “further the objectives of the GATT 1994”, it does so through a specialised legal regime that applies solely to a limited class of measures. For these measures, the TBT Agreement imposes obligations on Members that seem to be different from, and additional to, the obligations imposed on Members under the GATT 1994.”*⁵⁵

⁵¹ *Sardines* Appellate Body Report, §211.

⁵² *Ibidem*, §213.

⁵³ *Sardines* Appellate Body, §214 and 215. Article 2.5 establishes a rebuttable presumption that technical regulations that are in accordance with relevant international standards do not create unnecessary obstacles to trade. Article 2.6 encourages Members to participate in international standardising bodies with a view to harmonising technical regulations. The important role of international standards is also apparent in the Preamble to the TBT Agreement. The third recital of the Preamble recognises the contribution that international standards can make by improving the efficiency of production and facilitating the conduct of international trade. The eighth recital recognises the role that international standardisation can have in the transfer of technology to developing countries.

⁵⁴ *Sardines* Appellate Body, §215.

⁵⁵ *Asbestos* Appellate Body Report, §80.

Indeed, the TBT Agreement requires measures to be non-discriminatory, imposes transparency obligations and encourages the use of international standards as a basis for TBT measures.

Similarly to the analysis of the relationship between the SPS Agreement and GATT 1994 performed in Chapter 3, the TBT Agreement is *lex specialis* for a review of TBT measures and should, therefore, be addressed first. If a measure falls within the scope of the TBT Agreement, there is no need to demonstrate a prior violation under the GATT 1994.

A general interpretative note to Annex 1A of the WTO Agreement that governs the relation between the GATT 1994 and other agreements of the Final Act of the Uruguay Round in case of conflict provides:

“In event of conflict between a provision of the General Agreement on Tariffs and Trade 1994 and a provision of a nother Agreement in Annex 1 A ... the provision of the other Agreement shall prevail to the extent of the conflict.”

This interpretative note, according to the analysis performed in Chapter 3, only refers to cases of conflict between two opposing provisions where the other agreement only takes precedence to the extent of the conflict. The fact that the TBT Agreement requires non-discrimination unconditionally suggests that there is potentially a conflict with GATT 1994. In such a situation, the TBT Agreement would take precedence over GATT 1994. In addition, the fact that the TBT Agreement also imposes supplementary obligations could be seen as a conflict with the provisions provided in Article XX of the GATT 1994, if “conflict” is defined broadly⁵⁶ and, therefore, implies that the TBT Agreement could take precedence to the extent of these supplementary provisions.

⁵⁶ See Chapter 5, section B.I.

In the *Gasoline*⁵⁷ case, the Panel found that it was not necessary to consider the issues that were raised under the TBT Agreement since the measures were inconsistent with Article XX of the GATT 1994.⁵⁸ However, the Panel should have determined first whether the measures at issue fell within the scope of the TBT Agreement as these provisions take legal precedence over GATT 1994.⁵⁹

GATT 1994 has become redundant to the extent that measures regulating trade in goods are SPS measures or technical regulations, standards or conformity assessment procedures as defined in the TBT Agreement. However, it should be emphasised that the application of the GATT 1994 is only excluded in cases in which another agreement explicitly regulates rights or obligations with regard to a certain trade measure that is similar in scope to one regulated by the GATT 1994.⁶⁰

In the following sections, the obligations arising under the TBT Agreement will be analysed.

C. OBLIGATIONS UNDER THE TBT AGREEMENT

I. Non-discrimination

The non-discrimination rules provided for in the TBT Agreement are very similar to those contained in the GATT 1994. Indeed, the TBT Agreement requires “treatment no less favourable than that accorded to like products of national origin and to like

⁵⁷ Adopted 20 May 1996, WT/DS2/AB/R.

⁵⁸ Venezuela claimed that certain regulations of the US Clean Air Act violated, *inter alia*, Article 2 of the TBT Agreement. *Gasoline* Panel Report, §6.43.

⁵⁹ See *European Communities – Trade Description of Sardines*, Panel Report, WT/DS231/R, (2002) §7.16: “Arguably, the TBT Agreement deals “specifically, and in detail” with technical regulations. If the Appellate Body’s statement in *EC - Bananas III* is a guide, it suggests that if the EC Regulation is a technical regulation, then the analysis under the TBT Agreement would precede any examination under the GATT 1994”.

⁶⁰ *Bananas* Appellate Body Report, pp94-95, §221-222. As was noted in Chapter 3, the Appellate Body in the *Bananas* case also took this position in finding that the Agreement on Agriculture is *lex specialis* in relation to Article XIII of the GATT 1994.

products originating in any other country”.⁶¹ However, the TBT Agreement does not contain an equivalent to Article XX and non-discriminatory regulations permissible under the GATT 1994, Article I and III might be challenged under the TBT Agreement as illegitimate. Similarly to the SPS Agreement, the TBT Agreement has created an alternative to the two-stage approach of moving from Article I, III and IX to Article XX of the GATT 1994.

The TBT Agreement is more restrictive than the GATT 1994. However, the extent to which this is the case depends in part on the way the DSB will interpret “like products” in the context of the TBT Agreement. It could be argued that “like products” should be interpreted less restrictively under the TBT Agreement than under GATT 1994,⁶² since the requirements of national and MFN treatment, provide a higher standard of non-discrimination than the TBT agreement seeks to achieve in its Preamble. Indeed, the Preamble states “that no country should be prevented from taking measures necessary ... at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute arbitrary or unjustifiable discrimination between Members where similar conditions prevail or a disguised restriction on international trade”.⁶³

In the next section, consideration will be given to the necessity test under the TBT Agreement.

⁶¹ Article 2.1 on technical regulations, 5.1.1 on conformity assessment procedures, Annex 3(D) on standards.

⁶² G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p822.

⁶³ As was discussed in Chapter 2 and 3, this type of discrimination requirement is less burdensome on a Member imposing TREMS or health measures.

II. Necessity Test of the TBT Agreement

The TBT Agreement specifies that trade measures must pursue a legitimate goal such as the “protection of human health or safety, animal or plant life or health, or the environment”,⁶⁴ and be necessary⁶⁵.

The TBT Agreement, unlike Article XX and the SPS Agreement, includes the protection of the environment as a legitimate objective. However, as was noted in Chapter 2, this addition may be more symbolic than real.

The necessity obligation under the TBT Agreement differs from Article XX(b) of the GATT 1994 since as was noted in the previous section, the necessity requirement in Article XX only comes into play if it is invoked to justify a TREM that is in violation of the non-discrimination or quantitative restriction obligations.⁶⁶

WTO Members must ensure that measures falling within the scope of the TBT Agreement are “not prepared, adopted, or applied with a view to or with the effect of creating unnecessary obstacles to international trade”.⁶⁷ Furthermore, measures “shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create”, in the case of technical regulations, and taking into account risks of non-conformity in the case of conformity assessment procedures.⁶⁸

Unlike the SPS Agreement, the TBT Agreement does not contain a footnote that clarifies the meaning of the phrase “not more trade-restrictive than necessary”.

⁶⁴ Article 2.2: “Such legitimate objectives are, *inter alia*: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment”.

⁶⁵ TBT Agreement, Article 2.2, 5.1.2, Annex 3(E).

⁶⁶ See G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p831.

⁶⁷ TBT Agreement, Article 2.2, 5.1.2, Annex 3(E).

⁶⁸ TBT Agreement, Annex 3 on standards does not contain an equivalent phrase.

Therefore, whether the DSB will consider the reasonable availability of alternative measures and whether alternative measures must significantly less restrictive to trade remains an open question.⁶⁹

However, it can be assumed that the DSB would apply the LTRA test not only to Article XX and the SPS Agreement but also to the TBT Agreement.

The TBT Agreement is restrictive as measures that are “not more trade-restrictive” than necessary are required taking into account “risks of non-fulfilment” or “non-conformity”. In assessing the risks of not attaining legitimate objectives, “available scientific and technical information, related processing technology or intended end-uses of products” are to be considered in the context of technical regulations.⁷⁰

The reference to risks of non-fulfilment introduces a balancing test in the determination of consistency with the TBT Agreement⁷¹, although it is unclear whether the DSB would use similar variables to those used in the interpretation of GATT 1994 and the SPS Agreement.⁷² However, again, it is likely that interpretation of the TBT Agreement will be influenced by the interpretation of the GATT 1994 and SPS Agreement.⁷³

Finally, it should be noted that Article 2.8 of the TBT Agreement requires Members, whenever appropriate, to specify standards and technical regulations on the basis of performance rather than design or descriptive characteristics, in order to avoid unnecessary restrictions on trade. For example, a technical regulation on fire-

⁶⁹ See SPS Agreement, Article 5.6.

⁷⁰ TBT Agreement, Article 2.2.

⁷¹ See Document *TER/W/16 and corr.1*, which contains draft Article 2.2 which reads that “this provision is intended to ensure proportionality between regulations and the risks non-fulfilment of legitimate objectives would create”. G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p831.

⁷² See *Asbestos* Appellate Body Report, § 172, *Korea – Beef*, Appellate Body Report, § 163 and 166. See also Chapter 2 and 3.

⁷³ See G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A

resistant doors could specify that “the door must be resistant to fire for 30 minutes” rather than requiring that the “door must be made of steel that is 2 centimetres thick”.⁷⁴

This requirement provides producers with more leeway in adapting production for a given market without compromising the attainment of health or environmental objectives.

III. Scientific Justification and Precautionary Action

Unlike the SPS Agreement, the TBT Agreement does not require that risk assessments be performed or that measures must be based on scientific evidence. However, determining compliance with other obligations contained in the TBT Agreement such as necessity and the balancing test may require the demonstration of a scientific basis.⁷⁵ However, the rigour of scientific justification under the SPS Agreement is unlikely to be applied in the examination of the TBT Agreement.⁷⁶

If a scientific basis is required, it is highly likely that where scientific evidence is insufficient or unavailable that a precautionary approach would be authorised.⁷⁷

The question that arises is whether the TBT Agreement should include more rigorous requirements of scientific justification. Although reliance on scientific risk

Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p855.

⁷⁴ See J.H.H. Weiler and S. Cho, “International and Regional Trade Law: The Law of the World Trade Organisation”, *Lecture Papers on Technical Barriers to Trade* (2003), www.kentlaw.edu/classes/scho1/intltradelaw/coursedocs/wto-2003-unit%20ix.pdf.

⁷⁵ G. Marceau and J. P. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p836.

⁷⁶ *Ibidem*. See also N. Covelli and V. Hohots, “The Health Regulation of Biotech Foods under the WTO Agreements”, 6 *JIEL* 4 (2003), p787.

⁷⁷ G. Marceau and J. P. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), p836.

assessments adds neutrality to the determination of the consistency of measures aimed at protecting health or the environment with the WTO agreements, their value should not be over-estimated as was discussed in Chapter 3.

The next section analyses the harmonisation requirements contained in the TBT Agreement.

IV. The Use of International Standards

The harmonisation of measures falling under the TBT Agreement can lead to higher producer benefits as the technical compatibility of products is promoted, thereby enabling costs related to the designing, manufacturing, and delivery of different versions of the same product to be reduced.⁷⁸ In addition, consumer welfare can increase through the harmonisation of technical aspects of products, as markets will become more competitive, provided that harmonised standards do not suppress innovation or the entry of new or improved products on the market. In a competitive environment, consumers benefit from a greater range of products at more competitive prices.⁷⁹

1.) "Relevant international standards"

With respect to technical regulations, Article 2.4 of the TBT Agreement provides:

"Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems."

⁷⁸ See J.H.H. Weiler and S. Cho, "International and Regional Trade Law: The Law of the World Trade Organisation", *Lecture Papers on Technical Barriers to Trade* (2003), www.kentlaw.edu/classes/scho1/intltradelaw/course/docs/wto-2003-unit%20ix.pdf.

⁷⁹ *Ibidem*.

WTO Members must use “relevant international standards” that exist or are about to be completed⁸⁰ as a basis for their technical regulations except under certain circumstances.

In the *Sardines* case, the Panel analysed whether Codex Stan 94 was a “relevant international standard” within the meaning of Article 2.4. Peru exports products of a different species called *Sardinops sagax*, which according to Codex Stan 94 can be referred to as sardines provided that a further qualification is added which indicates the country or region of origin, or the name of the fish species.

The EC claimed that Codex Stan 94 was not a “relevant international standard”,⁸¹ because it was not adopted by consensus. Annex 1.2 of the TBT Agreement, which defines the term “standard”, refers to documents “approved by a recognised body” without specifying the need for “consensus”. However, an explanatory note to Annex 1.2 provides that “standards prepared by the international standardisation community are based on consensus” and that the TBT Agreement “covers also documents that are not based on consensus”.

The *Sardines* Appellate Body upheld the Panel’s interpretation of the rather confusing explanatory note that documents that do not reach consensus fall within the scope of the term “standard”, but cautioned that this conclusion was only relevant for the purposes of the TBT Agreement.⁸² Although a country may not have agreed to certain standards, it must nevertheless take them into account in order to increase the chances of compatibility of a technical regulation with Article 2.4 of the TBT

⁸⁰ Article 2.4: “[w]here ...relevant international standards *exist or their completion is imminent*”. Article 2.6 provides that “with a view to harmonising technical regulations on a wide a basis as possible, Members shall play a full part, within the limits of their resources, in the preparation by appropriate international standardising bodies of international standards for products for which they either have adopted, or expect to adopt, technical regulations”. This article would be redundant if a Member could claim that such standard need not be used as a basis for its technical regulation on the ground that it was already in existence before the standard was adopted. *Sardines* Appellate Body Report, §204.

⁸¹ *Sardines* Appellate Body Report, §217.

⁸² *Ibidem*, §227.

Agreement. A similar interpretation can be applied in the context of standards as Annex 3(F) and Article 2.4 are comparable.

The Appellate Body claimed that this interpretation is only relevant to the TBT Agreement. However, the DSB would also have to take into account standards in the interpretation of the SPS Agreement that are not adopted by all WTO Members as will be discussed in Chapter 5.

The EC also argued that Codex Stan 94 is not a “*relevant international standard*” because its product coverage is different from that of the EC Regulation. The EC considered that its regulation only deals with preserved sardines (*Sardina pilchardus*), whereas Codex Stan 94 also covers other preserved fish that are “sardine-type”.⁸³

However, the Appellate Body upheld the Panel’s finding that the EC Regulation did not only relate to preserved *Sardina pilchardus* since the regulation had legal consequences for other fish species that could be sold as preserved sardines, including preserved *Sardinops sagax*.⁸⁴

The DSB’s interpretation of a “relevant international standard” ensures that the harmonisation obligations imposed by the TBT Agreement will not be circumvented if an international standard includes products that are not explicitly mentioned in the national regulation.

After establishing that a given international standard is relevant to a particular technical regulation, it is necessary to consider whether the technical regulation or standard is based on the international standard.

In the *Sardines* case, the EC argued that the measure was based on Codex Stan 94 because it adopted the part of the Codex standard that reserves the term “sardines”

⁸³ *Sardines* Appellate Body Report, §230.

exclusively for *sardine pilchardus* and that the relationship between the standard and the measure constituted a “rational relationship”.

The *Sardines* Appellate Body considered that the EC’s argument that a “rational relationship” between an international standard and a technical regulation is not sufficient to conclude that the former is used “as a basis for” the latter as this was not supported by the text of Article 2.4.⁸⁵ A similar conclusion would apply for standards as the text of Annex 3(F) is equivalent in this respect.

The conclusion of the *Sardines* Appellate Body is surprising considering that the rational relationship test was used in the context of determining whether SPS measures were based on risk assessments, although there was no textual basis for assuming that “based on” could be equated with a rational relationship.⁸⁶

The *Sardines* Appellate Body found that in order for a standard to be used “as a basis for” a technical regulation, it must be “used as the principal constituent or fundamental principle for the purpose of enacting the technical regulation.”⁸⁷ In addition, the Appellate Body noted that something cannot be the “basis” for another if the two are contradictory.⁸⁸

The EC Regulation contradicted the portion of Codex Stan 94 that *permits* the use of the term “sardines” in combination with, *inter alia*, the name of the country of origin.⁸⁹ In making this determination, the Appellate Body found that the phrase “*relevant parts of them*” in Article 2.4:

⁸⁴ *Sardines* Appellate Body Report, §233. *Sardines* Panel Report, §7.70.

⁸⁵ EC appellant’s submission, §155 and *Sardines* Appellate Body Report, §246-247.

⁸⁶ See Chapter 3.

⁸⁷ *Sardines* Appellate Body Report, §242-3.

⁸⁸ *Ibidem*, §248.

⁸⁹ *Ibidem*, §257. The Appellate Body determined that the relevant parts of Codex Stan 94 are those relating to the use of the term “sardines” to identify fish products, and not only those portions that reserve the term “sardines” alone for *sardina pilchardus*. *Sardines* Appellate Body Report, §251.

*“defines the appropriate focus of an analysis to determine whether a relevant international standard has been used “as a basis for” a technical regulation. In other words, the examination must be limited to those parts of the relevant international standards that relate to the subject-matter of the challenged prescriptions or requirements. In addition, the examination must be broad enough to address all of those relevant parts; the regulating Member is not permitted to select only some of the “relevant parts” of an international standard. If a “part” is “relevant”, then it must be one of the elements which is “a basis for” the technical regulation.”*⁹⁰

Therefore, the Appellate Body, consistent with the Panel’s findings, held that the measure was not “based on” a relevant international standard.⁹¹

The DSB has taken a restrictive approach in determining whether measures are based on an international standard, thereby sending a strong signal that harmonisation is being promoted. However, as was discussed in Chapter 3, international standards tend to provide a limited level of protection in the health/environmental field. Therefore, from an environmental point of view, the requirement of a close nexus between the regulation and the international standard is undesirable.

2.) *“Ineffective” or “inappropriate” International Standards*

Members must base their measures on relevant international standards “except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued”.⁹²

The TBT Agreement imposes stricter requirements for Members wishing to deviate from international standards than the SPS Agreement. Indeed, divergences are only permitted in exceptional circumstances where international standards impede on the fulfilment of legitimate objectives. In order to justify a measure that is not based on an international standard it is not sufficient to demonstrate that this measure is a

⁹⁰ *Sardines* Appellate Body Report, §250

⁹¹ *Sardines* Panel Report, §7.112. *Sardines* Appellate Body Report, §258.

⁹² TBT Agreement, Article 2.4.

more effective alternative but that the international standard is “ineffective” or “inappropriate”.

In the case of standards, the requirement is more lenient as a measure does not have to be based on an international standard if there is no international standard capable of providing a sufficient level of protection.⁹³

According to the *Sardines* Panel, an “ineffective” means is one that does not have the function of accomplishing the legitimate objective pursued, and an “inappropriate” means is one that is not specifically suitable for the fulfilment of the legitimate objective pursued.⁹⁴ Therefore, a measure may be either an inappropriate or ineffective or both.⁹⁵

The *Sardines* Appellate Body agreed that the “term “ineffective or inappropriate means” refers to two questions—the question of the *effectiveness* of the measure and the question of the *appropriateness* of the measure—and that these two questions, although closely related, are different in nature”.⁹⁶

The Appellate Body also noted that a “consideration of the *appropriateness* of Codex Stan 94 and a consideration of the *effectiveness* of Codex Stan 94 are interrelated—as a consequence of the nature of the objectives of the EC Regulation. The capacity of a measure to accomplish the stated objectives—its *effectiveness*—and the suitability of a measure for the fulfilment of the stated objectives—its *appropriateness*—are *both* decisively influenced by the perceptions and expectations of consumers in the European Communities relating to preserved sardine products.”⁹⁷

The DSB’s interpretation does not shed much light on the factors that will be taken into account in ascertaining the appropriateness and effectiveness of an international

⁹³ TBT Agreement, Annex 3(F).

⁹⁴ *Sardines* Panel Report, §7.116.

⁹⁵ *Ibidem*, §7.117.

⁹⁶ *Sardines* Appellate Body Report, §285.

standard. This suggests that Members are faced with considerable uncertainty in determining the suitability of an international standard.

A decision by the TBT Committee provides that criteria such as transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, concerns of developing countries can be used in determining the consistency of an international standard with the TBT Agreement.⁹⁸ Although, these factors provide some guidance to Members imposing technical regulations and standards, the relative importance of these factors has not yet been established.

3.) *Presumption of Consistency of Measures with the TBT Agreement*

Article 2.5 provides that a technical regulation adopted for a legitimate objective “in accordance with” international standards, is presumed not “unnecessarily obstruct international trade”. The phrase “in accordance with” contrasts with the terminology used in the SPS Agreement which refers to “conform to” suggesting that a technical regulation could benefit from a presumption even if it is only “based on” an international standard.

In addition, the presumption in the TBT Agreement contrasts with the one in Article 3.2 of the SPS Agreement⁹⁹ as the use of the term “deemed” in the SPS Agreement implies that it is established irrefutably that the measures are necessary, which is not the case in the TBT Agreement.

⁹⁷ *Sardines* Appellate Body Report, §289.

⁹⁸ Decision by the TBT Committee on Principles for the Development of International Standards Guides, Recommendations with relation to Articles 2, 3 and Annex 3 of the TBT, 2000, G/TBT/9. See G. Marceau and J. Trachtman, “The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods”, 36 *JWT* 5 (2002), pp840-841.

⁹⁹ TBT Agreement, Article 2.5.

This section clearly demonstrated that the TBT Agreement obligations are applied restrictively and that even if a measure is in accordance with an international standard may still be invalidated under the TBT Agreement.

D. CONCLUSION

The controversy over GMOs is gaining momentum in the WTO as the three major GM food producers, the US¹⁰⁰, Canada¹⁰¹ and Argentina¹⁰² have requested the establishment of a panel to review the EC regulations on GM products. The regulation of GMO products can be subject to the requirements of the TBT Agreement.

The EC moratorium on the approval of biotech products that restricts imports of agricultural and food products,¹⁰³ the national marketing requirements and import bans on biotech products maintained by EC Member States as well as the EC Directive adopted with respect to the mandatory labelling of GM products¹⁰⁴ are technical regulations to the extent that they do not aim to protect human health from risks arising from “contamination” of food through genetic manipulation.

If the mandatory labelling requirements, for example, aim to raise consumer awareness with respect to the health risks of products that are genetically modified, then the TBT Agreement applies to these requirements.¹⁰⁵

¹⁰⁰ *European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by the United States*, 8 August 2003, WT/DS291/23.

¹⁰¹ *European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by Canada*, 8 August 2003, WT/DS292/17.

¹⁰² *European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by Argentina*, 8 August 2003, WT/DS293/17.

¹⁰³ Directive 90/220/EC.

¹⁰⁴ Directive 2001/18/EC.

¹⁰⁵ See N. Covelli and V. Hohots, “The Health Regulation of Biotech Foods under the WTO Agreements”, 6 *JIEL* 4 (2003), p787.

At present, scientific evidence that supports the proposition that GM food poses a risk to human health is sparse. Although the TBT Agreement does not explicitly require that Members demonstrate that their technical regulations have a strong scientific basis, it is likely that the DSB will consider available scientific evidence in determining the necessity of a technical regulation.

In addition, the DSB will consider whether WTO Members specify technical regulations on the basis of performance rather than design.¹⁰⁶ The fact that the EU regulates the process used to create GM products suggests that the regulations are inconsistent with the necessity requirements.¹⁰⁷

In other words, it is unlikely that the EC measures will be upheld by the DSB under the TBT Agreement.

The fact that labelling requirements will be examined rigorously by the DSB under the TBT Agreement is, in my opinion, inappropriate.

Indeed, market-based measures such as labelling requirements are far less costly in terms of trade diversion than command-and-control measures.¹⁰⁸ Although, both forms of regulation involve the market, market-based regimes make a maximum use of the market and give producers greater flexibility in meeting targets.¹⁰⁹

Labelling is often identified as a market-based instrument that reduces negative impact on trade and that is a potentially effective instrument of environmental/health

¹⁰⁶ Article 2.8.

¹⁰⁷ See N. Covelli and V. Hohots, "The Health Regulation of Biotech Foods under the WTO Agreements", 6 *JIEL* 4 (2003), p788.

¹⁰⁸ Environmental/health measures that have been examined by the DSB so far have taken the form of command-and-control measures. For example, quantity regulations or specific technical product/process standards. See S. Johnson, "Economics v. Equity: Do Market-Based Environmental Reforms Exacerbate Environmental Injustice?", 56 *Wash. & Lee L. Rev.* 33 (1999), p114. N. Hanley, J.F. Shogren, B. White, **Environmental Economics – In Theory and Practice**, (1997), pp58-97. See also J.R. Nash, "Too Much Market? Conflict between Tradable Pollution Allowances and the "Polluter Pays" Principle", 24 *Harv. ELR* (2000), 465.

policy as it encourages the development of environment/health conscious consumers.¹¹⁰

The recent World Summit on Sustainable Development has given strong support to the use of market-based mechanisms in promoting sustainable development.¹¹¹ Members of the UN of which many are also WTO Members recognised the importance of consumer information in relation to sustainable consumption.¹¹²

In addition, labelling requirements are not appropriate measures where a product poses identifiable risks to public health. Very little quantitative data exists on the extent to which consumers base their purchasing choice on eco-labels,¹¹³ and, therefore, whether it can truly be considered as a measure capable of protecting health. Labels are mainly informative and leave it up to the consumer to decide whether or not to purchase a given product.

Therefore, labelling requirements are more valuable in protecting consumer choice than in protecting consumers from identified health risks. Where no identifiable risk can be ascertained by scientists or where no risk assessment has been performed on the health risks associated with a given product, eco-labelling could enable consumers to choose products according to their preferences. Indeed, it can be assumed that eco-labels are effective where consumers place a high value on the environmental/health characteristics of products or PPMs.

¹⁰⁹ H. Nordström and S. Vaughan, "Trade and Environment", WTO Special Studies, p5, www.wto.org.

¹¹⁰ Conclusions and recommendations of the CTE to the 1996 Singapore Ministerial Conference. WT/CTE/1. Report of the CTE, (1996). Paragraph 32 (iii) of the Doha Ministerial Declaration mandates the WTO Committee on Trade and Environment (CTE) "in pursuing work on all items on its agenda within its current terms of reference, to give particular attention to labelling for environmental purposes" and "report to the Fifth Session of the WTO Ministerial Conference, and make recommendations, where appropriate, with respect to future action, including the desirability of negotiations." WT/MIN(01)/DEC/1. Ministerial Declaration. November 2001.

¹¹¹ Report of the WSSD, September 2002.

¹¹² "Labelling for Environmental Purposes", Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225, 6 March 2003, §13.

¹¹³ Eco-labelling: Actual Effects of Selected Programmes, OCDE/GD(97)105, OECD (1997), p39. Morris & Scarlett, *Buying Green, Consumers, Product Labels and the Environment* (1996), p3.

Labelling schemes where no value judgements are expressed on the labels, should be, in my opinion, exempt from the necessity requirements of the TBT Agreement under certain conditions. For example, voluntary single attribute labelling stating terms such as “recyclable”, “dolphin safe” “ozone friendly”, “biodegradable”, “GMO free”, “growth hormone free” give positive environmental information about one attribute of a product, would enable consumers to purchase goods according to their individual preferences. Eco-labels that cover elements that are not product-related PPMs should also be authorised, since as was noted in Chapter 2, the differentiation between product related and non-product related PPMs is artificial and cannot be substantiated from an environmental/health point of view.

If goods are produced in a manner that is safer from an environmental/health perspective, or that a consumer considers safer, there should be no reason to prevent consumers from choosing this type of product.¹¹⁴

This type of labelling could open a new market, for example, for non-hormone treated beef, GMO free food¹¹⁵ provided consumers are willing to pay a premium for these products. It would be inappropriate for the WTO to impede on the development of a new market.

It could be argued that an exemption from certain disciplines of the TBT Agreement provisions would be inappropriate as eco-labels could inadvertently stigmatise a product by suggesting that there is some health risk associated with the consumption of a food even if scientific evidence does not support that view. However, unless consumers live in splendid isolation, it is unlikely that controversial issues such as the use of GMOs or growth hormones would not already have been stigmatised by the media.

¹¹⁴ See Commission Regulation 880/92, Art. I, 1992 O.J. (L 99) 1.

¹¹⁵ See C.F. Runge and L.A. Jackson, “Labelling, Trade and Genetically Modified Organisms – A Proposed Solution”, 34 *JWT* 1 (2000), p121, who argue that labelling is a partial solution to the impasse over GMOs in the WTO.

Nevertheless, the eco-labels should not be discriminatory and should be prepared, adopted and applied in a transparent way that promotes the mutual supportiveness of trade, environment and development objectives.¹¹⁶ Eco-labels should be accessible to all producers on a non-discriminatory basis and should not contain requirements that favour domestic producers or which are too costly or arduous.¹¹⁷ In addition, encouraging the use of appropriate international standards in the preparation, adoption and implementation of eco-labelling schemes would further ensure that eco-labels are not unnecessarily trade restrictive.¹¹⁸ Members should also be encouraged to accept as equivalent, technical regulations of other WTO Members if they adequately fulfil the objectives of their own regulations.¹¹⁹

Producers should also be able to participate in the design and implementation of eco-labelling schemes and notification as well as the publication of existing and new schemes should also be required.¹²⁰ In addition, the situation of developing countries should also be taken into consideration. WTO Members should provide technical assistance and enable developing country Members to enjoy reduced fees in acquiring such labels.¹²¹

¹¹⁶ “Labelling for Environmental Purposes”, Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225, 6 March 2003.

The TBT Agreement includes notification obligations to the WTO Secretariat and the establishment of national enquiry points. Notification obligations allow for the dissemination of information. They permit exporters to be informed of the new requirements that are developed in their export markets before their entry into force, to provide comments on these requirements, as well as, to have their comments taken into consideration and finally, to prepare themselves for compliance. Enquiry points are designed to increase transparency by contributing to the flow of information. The TBT Committee acts as a forum for consultation and negotiation on all issues pertaining to the Agreement.

See TBT Agreement, Article 2.9, 2.10, 2.11, 3.2, 3.3, 5.2, 5.6 5.7, 10, Annex 3 (J), (L) - (Q).

¹¹⁷ See T. Schoenbaum, “International Trade and the Environmental Protection”, in P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p720.

¹¹⁸ See the 1999 ISO standard 14024. “Labelling for Environmental Purposes”, Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225 6 March 2003, §28.

¹¹⁹ D. Abdel Motaal, “Overview of the WTO Agreement on Technical Barriers to Trade”, paper presented at the CUTS *International Workshop Negotiating Agenda for Market Access: Cases of SPS and TBT*, 24-25 April 2001, Geneva.

¹²⁰ “Labelling for Environmental Purposes”, Submission by the European Communities under Paragraph 32(iii), WT/CTE/W/225 6 March 2003, §28.

¹²¹ *Ibidem*, §29. See TBT Agreement, Article 12.

CHAPTER 5

THE RELATIONSHIP BETWEEN THE WTO AND MEAS: THE NEED FOR COHERENCE

A. INTRODUCTION

The previous chapters analysed the limitations of Article XX of the GATT 1994, the SPS Agreement and the TBT Agreement as well as the interpretations given to these provisions by WTO panels and the Appellate Body.

Disputes under Article XX of the GATT 1994, the SPS Agreement and the TBT Agreement have centred on unilateral measures. However, it is also necessary to consider the relationship between multilateral environmental agreements (MEAs) and the WTO agreements, since the Appellate Body has suggested¹ that parties should co-operate on environmental measures as a means of avoiding unilateral measures in the context of Article XX and since the SPS Agreement and the TBT Agreement encourage the use of international standards as a basis for SPS and TBT measures. The CTE has also promoted the rally that the WTO supports multilateral solutions to global and transboundary environmental problems and that unilateral action in this context should be avoided.²

The implications of these suggestions and requirements need to be clarified since important MEAs contain trade provisions.³ Indeed, the need for incentives to

¹ See *Shrimps* case discussed in Chapter 2.

² See Report of the CTE to the Singapore Ministerial Conference, WT/CTE/1, (1996).

³ For example the 1987 Protocol on Substances that Deplete the Ozone Layer, (Montreal), 26 *ILM* (1987), 1550 (Montreal Protocol), 1989 Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, (Basel) 28 *ILM* (1989), 657 (Basel

participate in MEAs and enhance the effectiveness of sanctions for non-compliance explains why certain MEAs have included trade measures.

The fact that no dispute has arisen so far may suggest that WTO Members have reached a consensus “on the legal value of these MEAs and their relationship with the WTO”.⁴ However, this is unlikely as the continuing debates in the CTE and the proposals to amend the WTO agreements to accommodate MEAs do not seem to show any common understanding.⁵ In addition, the lack of a clearly defined relationship between the WTO and other international agreements has been a source of continuing controversy and concern.

Clarifying the complex relationship between the WTO and MEAs would improve coherence between the international trading system and other sources of international law and therefore between trade, developmental and environmental policies. This ultimately will contribute to the achievement of the goal of sustainable development, a goal that, as noted in Chapter 2, is included in the Preamble to the WTO Agreement.

In addition, the current uncertainty can have a negative impact on MEA negotiations as was the case in the negotiations of the Cartagena Protocol on Biosafety to the Convention of Biological Diversity (Biosafety Protocol)⁶. Clarification of the issue would help MEA negotiators choose the most suitable and effective means and mechanisms to realise the objectives of an MEA.

Convention) and the 1973 Convention on International Trade in Endangered Species (Washington), 12ILM 1085 (1973), (CITES). See also WTO Matrix on MEAs, WT/CTE/W/160/Rev.1. Although trade measures are considered as second best policies as was discussed in Chapter 1 and 2, they are often considered by governments as a useful mechanism for encouraging participation in and enforcement of multilateral environmental agreements. See D. Esty, *Greening the GATT*, (1994), p50.

⁴ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p128.

⁵ *Ibidem*.

⁶ Biosafety Protocol adopted in Montreal on 29 January 2000. The Convention was opened for signature on June 5 1992 and by 4 June 1993 received 168 signatures. The Convention entered into force on 29 December 1993. Article 19 of the Biological Diversity Convention calls for the

In this chapter, consideration will be given to whether and to what extent MEAs can be used in the resolution of disputes concerning TREMs in order to improve coherence in the implementation of trade and environment policies.

The analysis will consider the extent to which the WTO is an open system and, therefore, to what extent it can take into account other sources of international law, in particular MEAs. The 1969 Vienna Convention on the Law of the Treaties⁷ (hereinafter “1969 Vienna Convention”) as well as factors that determine whether other rules of international law will be taken into account are examined. The analysis, of course, will include a discussion of relevant WTO panel and Appellate Body decisions in order to identify past trends and thereby forecast the future directions panels and the Appellate Body will or could take with respect to these issues.

The appropriate forum for the settlement of disputes concerning TREMs that are taken pursuant to an MEA is also central to this chapter. The focus will be on the application of trade measures taken pursuant to an MEA where both parties are members of both the MEA and the WTO. Two recent cases, the *Swordfish*⁸ case and the *Southern Bluefin Tuna*⁹ case, will be analysed as they both highlight problems concerning jurisdiction over disputes that are multi-faceted and that could be reviewed under more than one treaty.

Consideration is also given to the proposition that differences between the dispute settlement mechanism (DSM) of the WTO and the adjudicative systems of MEAs could influence the choice of the dispute settlement forum, irrespective of which

adoption of a protocol on international aspects of biotechnology that may adversely affect human health and conservation and sustainable use of biological diversity.

⁷ Vienna Convention on the Law of Treaties, concluded on May 23, 1969, entered into force on January 27, 1980, U.N. Doc. A/ CONF. 39/27, 8 *ILM*. 679 (1969).

⁸ *Chile-EC: Case concerning the conservation and sustainable exploitation of swordfish stocks in the South-eastern Pacific Ocean*, ITLOS, Order 2000/3, 20 December 2000.

⁹ See *Southern Bluefin Tuna Cases (Provisional Measures)*, ITLOS No. 4 (1999) and *Southern Bluefin Tuna Arbitration*, www.worldbank.org/icsid.

forum is in fact the most “appropriate” for dealing with a given dispute. In this respect, the proposal of an international environmental court is also evaluated.

Finally, options available to WTO Members to further accommodate MEAs in the WTO are assessed in order to determine how coherence between different policy objectives within the WTO system could be promoted most effectively.

The advantages and disadvantages of further legislative action rather than the panels and the Appellate Body establishing the “line of equilibrium” between environmental and trade considerations on a case-by-case basis will also be discussed.

B. THE RELATIONSHIP BETWEEN THE WTO AND OTHER SUB-SYSTEMS OF INTERNATIONAL LAW, PRINCIPLES AND RULES OF GENERAL INTERNATIONAL LAW

I. Trade Measures Taken Pursuant to an MEA

It has been clear throughout the discussions in the CTE on the relationship between the WTO and MEAs, that environmental problems should be resolved by resorting to co-operative or multilateral action under an MEA¹⁰. This is consistent with the approach endorsed by political leaders in 1992 at the UNCED and with the WTO's focus on finding co-operative, multilateral solutions to problems in the area of trade.¹¹

The Appellate Body in the *Shrimps* case has stated that MEAs and/or international co-operative agreements are a useful means of avoiding trade disputes. The Appellate Body noted that the WTO CTE endorsed and supported “multilateral solutions based on international co-operation and consensus as the best and most effective way for governments to tackle environmental problems of a transboundary

¹⁰ See 1994 *Decision on Trade and Environment*, WTO Agreement, Annex 4, preamble and §2(b).

¹¹ See Principle 12 of the Rio Declaration.

or global nature. WTO agreements and MEAs are representative of efforts of the international community to pursue shared goals, and in the development of a mutually supportive relationship between them, due respect must be afforded to both".¹² Former Director General of the WTO Mike Moore has described this approach as "conventional wisdom".¹³

The *Shrimps* Panel also stated that the "negotiation of a multilateral agreement or action under multilaterally defined criteria is clearly a possible way to avoid threatening the multilateral trading system".¹⁴

The *Shrimps* Appellate Body did not explicitly accept that an MEA would be a sound basis for an exception under Article XX, although it welcomed environmental measures, and recommended that these should not be unilateral.¹⁵

Schoenbaum considers that "the *Shrimp/Turtle* opinion provides a principled basis for upholding multilateral and bilateral environmental agreements under Article XX(b) and (g). By interpreting the requirements of (g) (and impliedly (b)) in a pro-environmental manner, it is virtually certain that MEAs, as well as bilateral environmental agreements, would be upheld. They would meet the requirements of the *chapeau* unless they contained substantial flaws or were disguised protectionist measures. Thus, the *Shrimp/Turtle* case provides an important new basis for upholding trade-restrictive international environmental agreements".¹⁶

As discussed in Chapter 2, the reasons given by the Appellate Body for finding that the US measure constituted arbitrary and unjustifiable discrimination centred on the unilateral character of the measure coupled with the lack of willingness on the part of

¹² *Shrimps* Appellate Body Report, §176. See also the Report of the Committee on Trade and Environment, WT/CTE/1, 12 November 1996, §171.

¹³ WTO, CTE Document, WT/CTE/W/178, 28 November 2000.

¹⁴ Panel Report, §7.55.

¹⁵ *Shrimps* Appellate Body Report, §174-180.

¹⁶ T. Schoenbaum, "International Trade and Environmental Protection", in P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp712-713.

the US to find a negotiated solution to the problem. This would suggest that Schoenbaum's view is correct. However, it should also be noted that the Appellate Body stated that:

“The task of interpreting and applying the chapeau is ... essentially the delicate one of locating and marking out a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions (e.g. Article XI) of the GATT 1994, so that neither of the competing rights will cancel out the other and thereby distort and nullify or impair the balance of rights and obligations constructed by the members themselves in that Agreement. The location of the line of equilibrium, as expressed in the chapeau, is not fixed and unchanging; the line moves as the kind and shape of the measures at stake vary and as the facts making up specific cases differ.”¹⁷

Therefore, the circumstances in which the line of equilibrium is reached are uncertain and hence it may be overly optimistic to consider that TREMs taken pursuant to MEAs would, in general, be upheld. In addition, no panel or the Appellate Body has actually made any findings with respect to the circumstances in which a measure taken pursuant to an MEA would in fact be found consistent with WTO obligations.

Measures taken pursuant to an MEA encompass a rather broad category of measures, which include measures that are explicitly required by the MEA, explicitly authorised but not required by the MEA and measures that are allegedly taken pursuant to an MEA but that are not explicitly required or authorised by the MEA. Where a measure is explicitly required by the MEA, it clearly represents a product of international agreement. However, determining whether a TREM permissible under an MEA, but taken by a party alone and more restrictive than the MEA requires, is a product of international agreement or a unilateral action can be challenging.

Even where TREMs are considered to be the product of multilateral action, these measures may nevertheless be inconsistent with WTO obligations. As further developed in section B.II.2., important MEAs require or permit the use of trade measures are potentially inconsistent with WTO requirements.

1.) *Situation Where Both Parties to a Dispute are Both Members of the WTO, but Only One is Party to the MEA*

Where both parties to a dispute are Members of the WTO but only one of them is party to the MEA, the MEA cannot displace a non-party's rights under the WTO if that Member is not bound by the MEA¹⁸, unless a waiver has been agreed, or if the WTO expressly subordinates certain of its obligations to other international agreements.¹⁹ However, so far waivers for MEAs or express provisions subordinating WTO law to MEAs have not been negotiated and are not contained in the WTO agreements.

If an MEA provision incorporates or has acquired status of customary rule of *jus cogens*, then the WTO provision is to that extent invalid, or becomes invalid, pursuant to Article 53 and 64 of the 1969 Vienna Convention. Article 53 of the 1969 Vienna Convention provides that treaty obligations are superseded by a customary norm of *jus cogens* and Article 64 contemplates the emergence of new rules of *jus cogens* in the future. Therefore, a WTO panel would be able to give environmental norms a higher status than those provided for in the WTO but *only* if it were able to declare the environmental norms to be *jus cogens*. However, as Hudec has commented, the field of international environmental law does not seem to be ready for such an analysis.²⁰ Indeed, in the *Gabcikovo-Nagymaros Case*, the ICJ impliedly found that none of the norms of environmental law that were relied on by Hungary

¹⁷ *Shrimps* Appellate Body Report, §167.

¹⁸ Article 30 of the 1969 Vienna Convention considers that if only one of the parties is party to the later treaty then the earlier treaty will govern their relations. Where a state has not given its consent to a given rule it cannot generally be held accountable under that given rule. (*pacta tertiis nec nocent nec prosunt*). See 1969 Vienna Convention, Articles 34-38.

¹⁹ R. Hudec, "The GATT/WTO Dispute Settlement Process – Can it Reconcile Trade Rules and Environmental Needs" in R. Wolfrum (ed.) *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), pp131 and 136. See national security exceptions, international commodity agreements, determinations of the IMF relative to balance of payment issues.

²⁰ R. Hudec, "The GATT/WTO Dispute Settlement Process – Can it Reconcile Trade Rules and Environmental Needs", in R. Wolfrum (ed.) *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), p147.

were *jus cogens*²¹. In addition, although the concept of *jus cogens* has been referred to in ICJ cases²², its content and scope remains contentious.²³

2.) *Situation Where Both Parties are Members of an MEA and the WTO*

a) *Lex posterior, lex specialis*

If both parties to an MEA are members of the WTO and a measure is explicitly *required* by the MEA but conflicts with WTO obligations, the rules contained in Article 30 of the 1969 Vienna Convention on the relationship of successive treaties could apply unless the MEA regulates its relationship with the WTO agreements. Indeed, the WTO agreements do not contain a provision regulating their relationship with other treaties in case of conflict.

Of course, Article 30 of the Vienna Convention could only apply if the treaties under consideration cover at least with respect to the particular measure at issue the same subject matter. However, presumably, where two treaty rules do not address the same subject matter, a dispute is not likely to arise as to which prevails.²⁴

If a dispute arises over a measure that is explicitly required by an MEA but conflicts with WTO obligations, WTO Members that have signed up to an MEA have waived

²¹ *Gabcikovo-Nagymaros Case*, ICJ Rep. (1997), §97. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p81 and p154, footnote 15.

²² See ICJ's reference to *jus cogens* in *North Sea Continental Shelf cases*, ICJ Rep. (1969), pp97-8, 182, 248. See also Judge Ammoun, sep. op., *Barcelona Traction case* (Second Phase), ICJ Rep. (1970), 304, *Case Concerning Military and Paramilitary Activities in and Against Nicaragua* (Merits), ICJ Rep. (1986), pp100-1, §190, *Al-Adsani v. United Kingdom* (2002) 34 EHRR 11, p273, §352-67; *Prosecutor v. Anto Furundzija* (ICTY) 38 ILM 317 (1999), §144, 153-156; *Case Concerning the Arrest Warrant of 11 April 2000 (Democratic Republic of the Congo v. Belgium)*, ICJ Rep., (2002), §56.

²³ I. Sinclair, *The Vienna Convention on the Law of Treaties*, 2nd ed., Manchester, (1984), p18 and pp203-241. *Yearbook of the International Law Commission*, (1966-II), p241. P. Reuter, *Introduction au Droit des Traités*, (1972), pp141-3.

²⁴ P. Sands, "Sustainable Development: Treaty, Custom, and the Cross-fertilization of International Law", in A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999), p49. See R. Jennings & A. Watts (eds.), *Oppenheim's International Law*, (1996), p1212.

their rights under any WTO obligations in conflict with such provisions where the MEA is *lex posterior*²⁵ and/or *lex specialis*.²⁶

However, the rules on treaty interpretation concerning conflicting treaty norms cannot always be conclusively applied. In the case of *lex posterior*, for example, Pauwelyn points out, that rules such as those contained in the WTO agreements and many MEAs are “part of a framework or system that is continuously confirmed, implemented, adapted, and expanded, for example, by means of judicial decisions, interpretations, new norms, and the accession of new state parties”²⁷. The implication is that it is not always reasonable to fix the consent of states to rules to the precise time when the treaty was signed, as these treaties deal with continuing norms.²⁸

In addition, it should be noted that the *lex posterior* rule can be overruled not only by a situation where a prior obligation is *jus cogens*²⁹ but also and far more plausibly in the context of conflicts between WTO and MEA obligations by *inter se* agreements consistent with Article 41 of the 1969 Vienna Convention³⁰ as will be discussed in the next section.

b) Inter se modifications

Article 41 of the 1969 Vienna Convention provides:

“Two or more of the parties to a multilateral treaty may conclude an agreement to modify the treaty as between themselves alone if:

²⁵ Vienna Convention on the Law of Treaties, UNTS Vol. 1155 No. 18232, (1969), Art 30(3), 30(4).

²⁶ Principle applied in *Chemin de Fer Zeltweg*, 3 RIAA, (1934) 1795, 1803; *Chorzow Factory (Jurisdiction)*, PCIJ (ser.A), No.9, 30; *European Commission of the Danube*, PCIJ (ser.B), No.14, 23, *Rights of Passage Case*, ICJ Rep. (1960) 6 Cf.

²⁷ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), pp545-546.

²⁸ *Ibidem*.

²⁹ Article 53 and 64 of the 1969 Vienna Convention. See section B.I.1.

³⁰ Article 41 may take precedence over Article 30(4) of the 1969 Vienna Convention. Article 30(5) of the 1969 Vienna Convention provides that “[p]aragraph 4 [lex posterior] is without prejudice to article 41”. Article 41 can be viewed as an exception to Article 30(4).

(a) the possibility of such a modification is provided for by the treaty; or

(b) the modification in question is not prohibited by the treaty and:

(i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;

(ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the treaty as a whole.”

In the context of the WTO a free trade arrangement authorised by Article XXIV of the GATT 1994 would constitute a modification provided for by the treaty under paragraph (a).³¹

An *inter se* agreement falling under the scope of Article 41(1)(b) would cover at least two WTO Members agreeing not to challenge a measure inconsistent with Article XX of the GATT 1994.³²

In both cases, if such an *inter se* agreement validly modifies an existing WTO agreement, then it will prevail to the extent of the conflict, as between the parties to the *inter se* agreement.³³ It should be noted that *inter se* agreements whether explicitly permitted by a treaty or not, can only validly modify a treaty between the parties to the *inter se* agreement if it does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations and if it is not incompatible with the object and purpose of the treaty as a whole.³⁴

The question that arises is whether *inter se* agreements would affect the enjoyment by the other parties of their rights under the WTO agreements or the performance of

³¹ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p548.

³² *Ibidem*.

³³ *Inter se* modifications cannot alter the rights and obligations of third parties without their consent, (*pacta tertiis nec nocent nec prosunt*). Article 34 of the 1969 Vienna Convention.

³⁴ Article 41(1)(b)(i) and (ii) of the 1969 Vienna Convention.

their obligations or would otherwise be incompatible with the object and purpose of the treaty as a whole.

If WTO obligations are considered to be of a “collective” nature, in the sense that the obligations “apply between a group of states and have been established in some collective interest”,³⁵ that a breach of these obligations by one party affects the individual rights of *all* other parties, since the obligations to the parties cannot be “differentiated or individualised”³⁶, and that therefore, *all* parties both “injured states”³⁷ as well as other states can invoke responsibility in the collective interest of the group of states,³⁸ or in the case of *erga omnes* obligations that all states could

³⁵ Commentary to the ILC Articles. Report on the work of its 53rd Session, General Assembly, Official Records, 55th Session, Supplement No.10 (A/56/10), p320.

³⁶ *Ibidem*, p297.

³⁷ ILC Articles on State Responsibility (2001), Article 42 provides that: “A State is entitled as an injured state to invoke the responsibility of another state if the obligation breached is owed to: (a) That State individually; or (b) A group of States including that State, or the international community as a whole, and the breach of the obligation: (i) Specially affects that State; or (ii) Is of such a character as radically to change the position of all the other States to which the obligation is owed with respect to the further performance of the obligation.”

³⁸ ILC Articles on State Responsibility (2001), Article 48(1)(a): “Any State *other than an injured State* is entitled to invoke the State responsibility of another State in accordance with paragraph 2 if: (a) The obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group”.

claim responsibility in the collective interest,³⁹ albeit to a limited extent,⁴⁰ then modifying these obligations *inter se* would contravene Article 41.⁴¹

On the other hand, if WTO obligations are considered to be of a reciprocal, bilateral nature, in the sense that obligations are owed to individual states for the “mutual interchange of benefits”,⁴² not to the parties as a whole and that responsibility for breach can only be invoked by an “injured” state,⁴³ then *inter se* modifications will probably not affect the rights of parties that have not agreed to these modifications and will, therefore, not contravene Article 41.⁴⁴

³⁹ ILC Articles on State Responsibility (2001), Article 48(1)(b) addresses the issue of *erga omnes* obligations: “Any State *other than an injured State* is entitled to invoke the State responsibility of another State in accordance with paragraph 2 if: ... (b) The obligation breached is owed to the international community as a whole”.

⁴⁰ ILC Articles on State Responsibility (2001), Article 48(2): “Any State entitled to invoke responsibility under paragraph 1 may claim from the responsible State: (a) Cessation of the internationally wrongful act, and assurances and guarantees of non-repetition in accordance with Article 30; and (b) Performance of the obligation of reparation in accordance with preceding articles, in the interest of the injured State or of the beneficiaries of the obligation breached.” “Other state[s]” falling under the scope of Article 48 cannot claim reparation for themselves unless the obligations are of an interdependent nature, that is if the obligation is “of such a character as radically to change the position of all the other states to which the obligation is owed with respect to the further performance of the obligation, in which case every state of a given group enjoys full rights. (ILC Articles on State Responsibility (2001), Article 42(b)(ii)) Commentary to the ILC Articles, Report on the work of its 53rd Session, General Assembly, Official Records, 55th Session, Supplement No.10 (A/56/10), p300: all states will thus be “injured states”. J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), pp919-925.

⁴¹ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), pp549-550.

⁴² Third Report on the Law of Treaties by Gerald Fitzmaurice, UN Doc. A/CN.4/115, YILC, Vol. II, 16, 54. See J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), p911.

⁴³ ILC Articles on State Responsibility (2001), Article 42(a). ILC Articles on State Responsibility (2001) In addition, in case of a material breach, the suspension of the treaty can only take place between the defaulting state and the state that is at the other end of the bilateral relationship. Article 60(1) and 60(2)(b) of the 1969 Vienna Convention. This contrasts with obligations of a collective nature. For example, in the case of a material breach of interdependent obligations, all parties are entitled to suspend the treaty in whole or in part against all parties. 1969 Vienna Convention, Article 60(2)(c). See J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), p923.

⁴⁴ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p549.

Pauwelyn, in my view, correctly argues that the WTO agreements are essentially a “bundle” of bilateral obligations between WTO Members, modification of which *inter se* would not impact the enjoyment of rights and performance of obligations by the other parties and would not jeopardise the object and purpose of the treaty.⁴⁵ The bilateral nature of WTO obligations transpires in the main objective of the WTO agreements, the protection of trade, which is an exchange of goods and services between two countries, and therefore, a bilateral exchange; the fact that trade concessions are negotiated and renegotiated on a state-to-state, bilateral level; and the fact that the remedy of suspension of concessions also occurs on a bilateral basis.⁴⁶

Various arguments could be put forward for the proposition that WTO obligations are of a collective nature. It could be argued that due to economic interdependence, a breach of a WTO obligation could have repercussions on the economic interests of many WTO Members, including those that have not participated in the *inter se* agreement,⁴⁷ that the MFN standard points to the interdependent nature of WTO commitments, and that the fact that WTO obligations are contained in a multilateral treaty implies that these obligations are necessarily of a collective nature suggesting that *inter se* modifications would not comply with the requirements of Article 41 of the 1969 Vienna Convention.⁴⁸

⁴⁵ J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), pp928-941.

⁴⁶ J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), pp928-936. On negotiation process of the WTO, see *European Communities – Customs Classification of Certain Computer Equipment*, Appellate Body Report, WT/DS62/AB/R, adopted 22 June 1998, §109: the Appellate Body stated that “[t]ariff negotiations are a process of reciprocal demands and concessions, “give and take””. On the breach and enforcement on WTO obligations see DSU, Article 22 and see also Chapter 5 and 6.

⁴⁷ The Appellate Body stated in the *Bananas* case, §136: “Members have a greater stake in enforcing WTO rules than in the past since any deviation from the negotiated balance of rights and obligations is more likely than ever to affect them, directly or indirectly.”

⁴⁸ J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), p936.

It is true that economic interdependence may cause a number of WTO Members to suffer a negative impact on their economic situation due to, for example, the ripple effects of a breach of the MFN clause on world prices, however, it does not necessarily follow that the individual legal rights of *all* WTO Members are violated when such a breach occurs.⁴⁹ It should also be noted that in order to invoke responsibility for a breach of a WTO obligation, the complainant must demonstrate that potential or actual trade opportunities have been affected. The Appellate Body in the *Bananas* case found that the US could bring a case to the DSB although it produced only a small amount of bananas and that this production was not exported.⁵⁰ In other words, the potential trade opportunities of the US were affected by the EC measure.

It is also true that the MFN standard indicates that WTO obligations are interdependent, however, it should be remembered that departures from the MFN standards are authorised and that, therefore, adhering strictly to the MFN standard is not essential either to protect the rights of the parties or to ensure that the object and purpose of the WTO is preserved. Moreover, it is also difficult to see how, for example, raising environmental standards between certain parties in breach of the MFN standard would negatively impact trade with parties that have not concluded an *inter se* agreement. On the contrary, it is very likely that the terms of trade between an importer and a third party exporter would be improved.⁵¹

Finally, it should be emphasised that the fact that obligations are contained in a multilateral treaty does not imply that these obligations are of a “collective” nature.⁵² As Birnie and Boyle note: “international lawyers have traditionally distinguished between legal obligations owed to another state, which can be enforced only by that

⁴⁹ *Ibidem.*

⁵⁰ *Bananas*, Appellate Body Report, WT/DS27/AB/R. J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?”, 14 *EJIL* (2003), pp942-3.

⁵¹ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p549.

⁵² J. Pauwelyn, “A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or

state, and legal obligations owed to the whole international community of states, which can be enforced by or on behalf of that community”.⁵³

On the basis that the WTO obligations can be validly modified *inter se*, an MEA concluded *after* the WTO agreements could be considered to be an *inter se* modification of the WTO obligations with respect to environmental measures, provided that a whole new treaty can be considered an *inter se* modification of an existing treaty.

However, there does not seem to be a valid reason for excluding obligations in a new treaty as being potential modifications of obligations contained in another treaty. Therefore, in a case where a later MEA modifies WTO obligations *inter se*, MEA rules will prevail over conflicting prior WTO commitments where the parties to a dispute are party to both agreements. The application of Article 41, therefore, leads to the same result as the application of the *lex posterior* rule.

If an MEA was concluded *prior* to the WTO agreements, then the question arises whether a WTO obligation could be considered an *inter se* modification of an MEA obligation.

Pauwelyn argues that WTO rules cannot modify MEA rules *inter se* since MEAs contain obligations of a collective nature.⁵⁴ Indeed, obligations that arise, for example, in relation to biodiversity⁵⁵, climate change⁵⁶, the pollution of the high

Collective in Nature?”, 14 *EJIL* (2003), p928.

⁵³ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p99 and 196. See ILC Articles on State Responsibility (2001), Article 48, *Barcelona Traction Case*, ICJ Rep. (1970), 3 and *Nuclear Tests Case*, ICJ Rep. (1974), 253, 387 and 457.

⁵⁴ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p549.

⁵⁵ Convention on Biological Diversity, 31 *ILM* (1992), 818, Preamble: “the conservation of biodiversity is a common concern of humankind”.

⁵⁶ Convention on Climate Change, 31 *ILM* (1992), 851, Preamble. UN General Assembly resolution 43/53 declares that global climate change is “the common concern of mankind”. See P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p503.

seas⁵⁷, and ozone depletion⁵⁸ are established in the collective interest, to protect the global environment or areas of common concern or interest⁵⁹ that require common action by all states to be successfully protected.⁶⁰

In this case, the application of Article 41 leads to a result that differs from the application of the *lex posterior* rule as the inconsistent WTO obligation is not a legal modification of the conflicting MEA obligation at issue.

3.) *Limitations of the Rules Concerning Conflicting Treaty Provisions*

The rules on conflicting treaty obligations considered in previous sections are restricted to situations where there is a *conflict* between two treaty provisions. Measures that are only explicitly authorised or adopted under discretionary powers pursuant to an MEA would not constitute a conflict between provisions of two treaties and are, therefore, not covered by these rules.

It could also be argued that a conflict does not exist if a party has an explicit right to impose trade restrictions in an MEA and an obligation not to restrict trade in the WTO. Indeed, a strict definition of conflict implies that a conflict only arises when a party to two treaties cannot simultaneously comply with its obligations under both

⁵⁷ See 1982 UNCLOS, Preamble: "Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole", 1995 Agreement on Straddling and Highly Migratory Fish Stocks, Chapter 17 of the Agenda 21, which considers that the oceans, seas and adjacent coastal areas as an "integrated whole that is an essential component of the global life-support system". P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p97. See also J. Pauwelyn, "A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?", 14 *EJIL* (2003), p934. See J. Crawford, Special Rapporteur to the ILC, Third Report on State Responsibility, A/CN.4/507, 10 March 2000, 106(b).

⁵⁸ The definition of the 1985 Convention regards the stratospheric ozone layer as a global unity. In addition, injury resulting from the destruction of the ozone layer may affect the community of states as a whole. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp 98 and 503.

⁵⁹ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp 97-99 and 196-197.

⁶⁰ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp 97. See J. Crawford, Special Rapporteur to the ILC, Third Report on State Responsibility, A/CN.4/507, 10 March 2000, 88.

agreements.⁶¹ In this scenario, if the obligation not to restrict trade were complied with, then the fact that a right to restrict trade is available in an MEA but not resorted to does not lead to non-compliance with the MEA and there is, therefore, no conflict.⁶²

In addition, relying on these rules does little to integrate rules arising in various sub-systems of international law. Indeed, these rules do not enhance coherence between different rules of international law that would ensure that WTO law evolves in a manner that reduces, rather than enhances, conflict or incompatibility with evolving law in other international legal regimes.⁶³ These rules do not promote linkage between trade and environmental issues, an objective that is considered necessary to achieve sustainable development. Of course, it is not possible to exclude the use of these rules in a situation where there is a real conflict between treaty provisions and where neither of the treaties regulates its relationship with other treaties with respect to conflicts. However, many incompatibilities can be resolved through interpretation that takes into account other rules and principles of international law.

The next section will consider the extent to which the mandate of the WTO allows other rules and principles of international law to be relied upon when interpreting the WTO agreements.

⁶¹ See W. Jenks, "The Conflict of Law-Making Treaties", *BYIL* (1953), p425 *et seq.* *Encyclopedia of Public International Law* (North-Holland 1984), p468. See also *Guatemala – Anti-Dumping Investigation regarding Portland Cement from Mexico*, WT/DS54, 55, 59 and 64/R, Appellate Body Report, adopted on 23 July 1998, §14.29-14.36.

⁶² J. Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?" 95 *AJIL* (2001), p551. See also G. Marceau, "Conflicts of Norms and Conflicts of Jurisdictions – The Relationship between the WTO Agreement and MEAs and other Treaties", 35 *JWT* 6 (2001), p1083-6.

⁶³ R. Howse, "Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence", in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), p58. The case law of the ICJ also demonstrates that an integrated approach to international law should be promoted. See *Gabcikovo-Nagymaros Case*, ICJ Rep. (1997), 7, §112 and 140 and *Advisory Opinion on the Legality of the Use or Threat of Nuclear Weapons (UNGA)*, ICJ Rep. (1996), p226. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p80.

II. To What Extent can the DSB Draw on Other Rules of International Law to Interpret WTO Obligations?

Whether “non-WTO law”, including rules contained in MEAs, can be used in the resolution of WTO disputes depends on whether the WTO system is able to draw from developments in other legal contexts.

1.) *The WTO as Part of the Broader Corpus of Public International Law*

The WTO DSB is not a court of general jurisdiction and as such it does not have jurisdiction to decide on matters where the compatibility with the WTO covered agreements is not at issue.⁶⁴

Therefore, the DSB does not have jurisdiction to decide on all alleged violations of international law, including violations of MEAs.⁶⁵

Article 7 of the DSU, concerning the terms of reference of panels, states that panels shall:

“...examine, in the light of the relevant provisions of the covered agreements cited by the parties to the dispute, the matter referred to the DSB ... and to make such findings as will assist the DSB in making recommendations or in giving the rulings provided for in those agreements”.

Therefore, a panel's terms of reference are limited to the covered agreements, which only include WTO agreements according to Annex I of the DSU. In addition, Article 11 of the DSU specifies that the function of panels is to assess the applicability of and conformity with the covered agreements. It should also be noted that WTO

⁶⁴ See J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p338. This excludes ministerial decisions and declarations that are part of the Final Act. See J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p554.

⁶⁵ Except if the parties to the dispute by mutual consent grant the WTO jurisdiction pursuant to

Members have not granted WTO remedies for the enforcement of rights and obligations other than those under the “covered agreements”.⁶⁶

To the same extent that the WTO is not a court of general jurisdiction, the WTO is not a closed system. WTO rules are part of international law, as a treaty is by definition governed by international law.⁶⁷ Although, it is possible to contract out of certain rules of general international law, to which all states are, in principle, bound by, it is not possible “to contract out of the system of international law”.⁶⁸

The fact that the WTO Agreement⁶⁹ states that it aims at an optimal use of resources while seeking to protect and preserve the environment in a manner consistent with the respective needs and concerns of countries at different levels of economic development, and the fact that there are environmental, health, security exceptions to WTO obligations, suggests that the WTO is necessarily connected to other sub-systems of international law.⁷⁰ In addition, Article 3.2 of the DSU provides that the DSM “serves to preserve the rights and obligations of Members under the covered agreements and to clarify the existing provisions of those agreements in accordance with customary rules of interpretation of public international law”.⁷¹

Article 7.3 and 25 of the DSU.

⁶⁶ See DSU. See also G. Marceau, “WTO Dispute Settlement and Human Rights” 13 *EJIL* 4 (2002), p753.

⁶⁷ Article 2(1)(a) of the 1969 Vienna Convention defines a “treaty” as: “an international agreement concluded between States in written form and governed by international law...”.

⁶⁸ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p539.

⁶⁹ Preamble.

⁷⁰ See G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), pp107-8.

⁷¹ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), pp537, 541-543. Pauwelyn notes that “the absence of explicit contracting out” of *general* international law to which the customary rules of interpretation belong, “must be regarded as a continuation or implicit acceptance of the rules in question”. The implication is also that not only customary rules of treaty interpretation are to be applied but also other customary rules of international law and general principles of law that constitute general international law. However, it could also be argued that explicit provision of a rule implies that the treaty has contracted out of all other rules of general international law. (*expressio unius est exclusio alterius*).

See A. Aust, *Modern Treaty Law and Practice*, Cambridge, (2000), p201. *Chorzów Factory*

In the next sections, consideration will be given to the extent to which non-WTO law influences the interpretation of WTO law.

2.) *Non-WTO Rules that are Incorporated in the WTO Agreements*

Non-WTO rules may enter into WTO dispute settlement if these are incorporated into the WTO agreements either by treaty language or by a waiver.

Incorporation of non-WTO rules in the WTO agreements should not be confused with explicit references to non-WTO rules. The SPS Agreement, for example, explicitly refers to the application of relevant international standards, guidelines, and recommendations developed by relevant international organisations such as the Codex Alimentarius, International Office for Epizootics as well as international and regional organisations operating within the framework of the International Plant Protection Convention (IPPC) as a basis for SPS measures.⁷² The international standards although explicitly referred to, are not “incorporated” in the WTO agreements and, therefore, cannot be subject of an independent claim before the WTO DSB.⁷³ However, these international standards can be used to determine whether measures are compatible with the respective agreements.⁷⁴

(Ger. v. Pol.), Merits, 1928 PCIJ (ser. A) No. 17, at 29 (Sept.13). Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) Notwithstanding Security Council Resolution 276 (1970), Advisory Opinion, 1971 ICJ Rep. 16, 47, §96 (June 21). Elettronica Sicula S.p.A (ELSI) (US v. Italy), ICJ Rep. (1989) 15, 42, §50.

⁷² SPS Agreement, Preamble and Article 3.4.

⁷³ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p555.

⁷⁴ However, it should be noted that it is not essential that particular international standards be explicitly referred to in order to assist in the determination of the consistency of a measure with the WTO agreement. International standards will also need to be taken into account in the evaluation of the consistency of a technical regulation under the TBT Agreement although the TBT Agreement only provides that “where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or relevant parts of them” except where these are inappropriate or ineffective and does not explicitly refer to particular international standards. TBT Agreement, Article 2.4 and Annex 3. Similarly, Articles 208-212 of UNCLOS imply that, for example, the 1972 London Dumping Convention, 1973/78 MARPOL Convention and IMO codes should be used in determining whether measures are compatible with UNCLOS although they are not explicitly referred to in UNCLOS. The 1994 Nuclear Safety Convention also seems to imply that other international

However, if specific provisions of agreements are incorporated into the WTO agreements such as provisions of the Bern, Paris and Rome Conventions in the TRIPs Agreement, then these rules can be enforced by the DSB as they have become part of WTO law.⁷⁵ Presumably, the WIPO interpretations of the incorporated rules do not bind the WTO, although account would probably be taken of these interpretations.⁷⁶

It is unclear whether the rights and obligations brought into the WTO are only those that were in effect at the time the WTO Agreements became effective, or whether these change as the agreements develop.⁷⁷ Neither the GATT 1994 nor the SPS Agreement refer to this issue. The only indication that the obligations are only those brought into the WTO agreements when they became effective is contained in footnote 2 to the TRIPS Agreement, which states that references to the intellectual property conventions are to specific versions of those conventions.⁷⁸ This, however, seems to contrast with the willingness of the *Shrimps* Appellate Body to adopt what it considered a dynamic interpretation of the term “exhaustible natural resources” in Article XX(g) of the GATT 1994.⁷⁹

The extent to which the WTO DSB is willing to interpret another agreement that has been incorporated through a waiver has been illustrated in the *Bananas* case.⁸⁰

standards can be used but these appear to have more of a guidance function. See Articles 10-16 and the preamble to the 1994 Nuclear Safety Convention. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p353 and pp461-462.

⁷⁵ J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p554.

⁷⁶ D.W. Leebron, “Linkages”, 96 *AJIL* 5 (2002), p19.

⁷⁷ D. Palmeter and P. Mavroidis, *Dispute Settlement in the World Trade Organisation – Practice and Procedure*, The Hague, (1999), p53. The same problem of identifying which standards or which version of the standards is relevant also applies to the UNCLOS context.

⁷⁸ D. Palmeter and P. Mavroidis, “The WTO Legal System: Sources of Law”, *AJIL* (1998), p409.

⁷⁹ *Shrimps*, Appellate Body Report, §129. See also *Gabcikovo-Nagymaros Case*, ICJ Rep. (1997), 7, §112 and 140.

⁸⁰ *European Communities – Regime for the Importation, Sale, and Distribution of Bananas*, Appellate Body Report, 9 September 1997, WT/D527/AB/R.

Both the Panel and the Appellate Body held that they had jurisdiction to interpret the Lomé Convention due to the incorporation of that agreement through a prescribed waiver in GATT 1994.

In 1994, the WTO General Council granted a waiver to the EC from its obligations under Article I of the GATT 1994 to allow the EC preferential treatment provided for products originating in African, Caribbean and Pacific (ACP) countries. Indeed, the Lomé Convention requires the EC to give to ACP bananas “treatment not less favourable than in the past” for traditional imports and “more favourable treatment than granted to third countries benefiting from the MFN clause” for all imports of bananas.⁸¹

The Panel interpreted the Lomé Convention in order to clarify the EU's legal obligations and determine how EU measures under the waiver were necessary to give effect to its Lomé Convention obligations. This was despite the fact that the EC and the ACP argued that the Panel was not competent in determining what the Lomé Convention required. The Appellate Body agreed with the Panel as it stated: “to determine what is 'required' by the Lomé Convention, we must look first to the text of that Convention and identify provisions of it that are relevant to trade in bananas.”⁸²

Therefore, the Appellate Body considered whether the Lomé Convention justified all the measures taken by the EC in relation to the banana regime and whether the waiver also covered Article XIII of GATT 1994.

According to the Appellate Body, the Lomé Convention requires the duty-free access for traditional ACP bananas as well as the allocation of tariff quota shares for traditional ACP bananas. In addition, the Appellate Body found that the Lomé Convention requires the duty-free access granted to 90.000 tonnes of non-traditional ACP bananas, the margin of tariff preference of 100 ECU/tonne but not other

advantages, such as the allocation of tariff quota shares in excess of best-ever export volumes prior to 1991, the tariff quota shares for non-traditional ACP exporters and the import licensing regime allowing cross-subsidisation favouring EC operators marketing traditional ACP bananas.

As far as the applicability of Article XIII of the GATT 1994 was concerned, the Appellate Body reversed the Panel's finding that the Lomé Waiver waived not only the obligations under Article I of GATT 1994 but also those under Article XIII of GATT 1994. The Panel considered that the interrelation between those articles and the need to interpret the waiver in a manner that would allow it to achieve its objectives justified this finding. The Appellate Body, on the other hand, found that since Article XIII was not mentioned in the Lomé Waiver, it could not be included within its scope.

The Appellate Body supported its finding by referring to the GATT practice to interpret waivers restrictively, since they constitute exceptions to the general rule. In addition, the Appellate Body considered that during the drafting of the Lomé Waiver, the Members replaced the expression "foreseen" in "preferential treatment *foreseen* by the Lomé Convention" by "required", thereby narrowing its scope⁸³. Finally, the Appellate Body referred to the exceptional nature of waivers under Article XIII.⁸⁴

It is clear that international agreements that are incorporated through a waiver will be interpreted by the WTO DSB where appropriate but only to the extent necessary in interpreting the WTO agreements.

⁸¹ Protocol 5 and Article 168(2)(a)(ii) of the Lomé Convention.

⁸² *Bananas* Appellate Body Report, §167 and 169.

⁸³ *Bananas*, Appellate Body Report, §168 and 186.

⁸⁴ *Ibidem*, §187.

3.) *Non-WTO Rules that are Not Incorporated in the WTO Agreements*

Non-WTO rules may also enter into WTO dispute settlement if these are referred to in the WTO agreements.

The DSB will not only have to consider non-WTO rules that are explicitly provided for in the WTO agreements but also those that are not explicitly referred to in the WTO agreements.⁸⁵ Indeed, as noted in section B.II.1, the DSB must follow the customary rules of interpretation of public international law.⁸⁶

a) Rules on the Interpretation of Treaties - The 1969 Vienna Convention on the Law of the Treaties

WTO Panels and the Appellate Body have observed the principles of treaty interpretation contained in Article 31 and 32⁸⁷ of the 1969 Vienna Convention, despite the fact that certain Members of the WTO, including the US are not party to this convention.⁸⁸ However, the Appellate Body in *Japan-Taxes* declared that the 1969 Vienna Convention represented a codification of customary international law and was, therefore, binding on all states.⁸⁹ The Appellate Body in the *Gasoline* case

⁸⁵ See footnote 70 above.

⁸⁶ Article 3.2 of the DSU.

⁸⁷ Article 31 has been used more extensively than Article 32, since Article 32 provides supplementary means of interpretation, in order to “confirm the meaning resulting from the application of Article 31” or where Article 31 does not resolve the interpretation problem, but where the meaning is “ambiguous or obscure” or “leads to a result which is manifestly absurd or unreasonable”.

These supplementary means of interpretation include *travaux préparatoires* and the circumstances of the conclusion of a treaty. In the *Bananas* case (Appellate Body Report, §168) reference was made to Article 32 of the Vienna Convention, where the *travaux préparatoires* were considered to confirm the Panel's conclusions flowing from the application of Article 31. The *travaux préparatoires* were also referred to by the Appellate Body in the *Periodicals* case, p24 in support of a textual interpretation of Article III(8)(b) of GATT 1994. The *Shrimps* Appellate Body, §157 and the *Gasoline* Appellate Body, p22 referred to the negotiating history in order to confirm its textual interpretation of the *chapeau* of Article XX, respectively that the *chapeau* made the use of the exceptions in Article XX limited and conditional and that the role of the *chapeau* was to prevent abuse of the Article XX exceptions.

⁸⁸ See J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement Body”, 50 *ICLQ* April 2001, p254.

⁸⁹ *Japan-Taxes* Appellate Body Report, p10. See e.g. *Maritime Delimitation and Territorial*

stated that Article 31 of the Vienna Convention had “attained the status of a rule of customary or general international law”.⁹⁰ The position of the Appellate Body is supported by other courts such as the ICJ. For example, in the *Maritime Delimitation and Territorial Questions Case* the ICJ stated:

“It is accordingly incumbent upon the Court to decide the meaning of the text in question by applying the rules of interpretation that it recently had occasion to recall in the case concerning the Territorial Dispute (Libyan Arab Jamahiriya/Chad):

*“in accordance with customary international law, reflected in Article 31 of the 1969 Vienna Convention on the Law of Treaties, a treaty must be interpreted in good faith in accordance with the ordinary meaning to be given to its terms in their context and in the light of its object and purpose”.*⁹¹

Sinclair notes that although not all provisions of the 1969 Vienna Convention can be considered a codification of customary international law, that Articles 31-33 are declaratory of customary law.⁹² In other words, it is not necessary for a state to be party to the agreement, for certain rules contained therein to be applicable, as they are customary rules of international law.⁹³

Questions (Qatar v. Bahrain) Case, ICJ Rep. (1995), p6.

⁹⁰ *Gasoline* Appellate Body Report, p17.

⁹¹ ICJ. Rep. 1994, Judgment, pp. 21-22, §41. See also *Golder Case*, ECHR, 57 ILR 214, *Beagle Channel (Argentina/Chile) Case*, Court of Arbitration, 52 ILR 93. The ICJ in the *Gabcikovo Case* observed that it has no need to dwell upon the question of the applicability or non-applicability in the present case of the Vienna Convention of 1969 on the Law of Treaties, as argued by the Parties. It needs only to be mindful of the fact that it has several times had occasion to hold that some of the rules laid down in that Convention might be considered as a codification of existing customary law.

The term “context” in Article 31(1) includes not only the treaty text, including its preamble and annexes but also “any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty” (Article 31(2)(a)) and “any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty”.(Article 31(2)(b))

⁹² I. Sinclair, *The Vienna Convention on the Law of Treaties*, 2nd ed., Manchester, (1984), pp10-21, especially p19. See also A. Aust, *Modern Treaty Law and Practice*, Cambridge, (2000), pp10-1.

⁹³ *Ibidem*, p9. However, it should also be noted that not all custom is binding on every state.

WTO Panels and the Appellate Body have often considered Article 31(1) of the 1969 Vienna Convention in the interpretation of WTO agreements.⁹⁴ It has become a legal test, which if not applied can result in panel rulings being overturned by the Appellate Body.⁹⁵

The Appellate Body has emphasised that the wording of the treaty text must be the starting point of the analysis, that obligations should not be imposed on Members that have no basis in the text and that the text should not be interpreted in such a way that the actual wording is irrelevant.⁹⁶ This ensures that the adjudicative bodies do not make assumptions concerning the purpose before the text is carefully examined and that thereby the findings do not expose the “importation or prioritisation of a single purpose into a legal text crafted to balance diverse, and possibly competing values”⁹⁷.

The DSB must also apply Article 31(3) in interpreting the WTO agreements. Article 31(3) provides that together with the context “any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions”, “any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation”, and “any relevant rules of international law applicable in the relations between parties” *shall* be taken into account.

⁹⁴ For example, in the *Gasoline* case, the Appellate Body found that the Panel had not given full effect to Article 31(1) of the Vienna Convention in interpreting Article XX(g). The Appellate Body criticised the Panel Report for applying the “necessary” test to Article XX(g). According to the Appellate Body, the Panel disregarded the text of Article XX, in particular, the Article’s use of “relating to” as opposed to “necessary”. The Appellate Body found that this disregard amounted to a fundamental error in treaty interpretation in light of the Vienna Convention, Article 31(1), pp16-7. The *Shrimps* Appellate Body rejected a rigid “original intent” when interpreting Article XX(g) of the GATT 1994 and applied a more dynamic interpretation that puts Article XX(g) in a contemporary context. (§128-131.)

⁹⁵ J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement Body”, 50 *ICLQ* April 2001, p256.

⁹⁶ *Gasoline* Appellate Body Report, p22 and *Japan-Taxes* Appellate Body Report, p12.

⁹⁷ R. Howse, “Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence”, in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), p54.

Article 31(3) of the 1969 Vienna Convention imposes an obligation to take into account rules and principles that may not be explicitly referred to in the WTO covered agreements.

Article 31(3) reflects a 'principle of integration' as it implies that rules should not be considered in isolation of general international law,⁹⁸ thereby promoting coherence in the interpretation of treaty obligations. However, it should be noted that the fact that rules are to be "taken into account" does not imply that these rules must be applied.⁹⁹

Subsequent agreements and practice under Article 31(3)(a) and (b) only bind those parties that have agreed to such practice or agreement unless the subsequent practice or agreement codifies customary international law.¹⁰⁰ As Sinclair states: "Article 31(3)(b) does not cover subsequent practice in general, but only a specific form of subsequent practice - that is to say concordant subsequent practice common to all the parties".¹⁰¹

Relying on Article 31(3)(c), which provides that "any relevant rules of international law applicable in the relations between parties" *shall* be taken into account, rather than Article 31(3)(a) and (b) has the advantage that it is not necessary that, for example, an MEA be considered a subsequent agreement or practice in order to be

⁹⁸ P. Sands, "Sustainable Development: Treaty, Custom, and the Cross-fertilization of International Law", in A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999), p49.

⁹⁹ See Articles 24 and 25 of the 1958 High Seas Convention, which refer to "taking account" of "existing treaty provisions" and "any standards and regulations which may be formulated by the competent international organisations", however, as Birnie and Boyle note there is no obligation to "follow the standards set by these international regulations". P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p351.

¹⁰⁰ See J. Cameron and K.R. Gray, "Principles of International Law in the WTO Dispute Settlement Body", 50 *ICLQ* April 2001, p266.

¹⁰¹ I. Sinclair, *The Vienna Convention on the Law of Treaties*, 2nd ed., Manchester, (1984), p138. "Subsequent practice which does not fall within this narrow definition may nonetheless constitute a supplementary means of interpretation with the meaning of Article 32 of the Convention". In the Separate opinion of Judge Bedjaoui in the *Gabcikovo-Nagymaros* case, it was stated that subsequent law should only be taken into account in very special situations. ICJ Rep. (1997), §8. See also A. Aust, *Modern Treaty Law and Practice*, Cambridge, (2000), pp191-5: "It is not necessary to show that each party has engaged in a practice, only that all have accepted it, albeit tacitly".

taken into account. The phrase “any relevant rules of international law” in Article 31(3)(c) is broad enough to include customary rules of international law, general principles of international law¹⁰² and relevant international conventions¹⁰³, including MEAs.

Determining whether a rule of an international agreement is “relevant” in terms of Article 31(3)(c) may require an examination of the subject matter of the rule or possibly the membership of the international agreement. Indeed, in order for a rule of an international agreement to be considered “relevant” it may be necessary that all the parties to a dispute must be party to both the agreement that is to be interpreted and to the agreement that is to be taken into account, or that at least one of the parties to the dispute is party to both agreements, or all parties to an agreement must also be party to the agreement that is to be taken into account, or that a substantial part of all parties to an agreement are also party of the other agreement that is to be taken into account or that at least one of the parties to an agreement is also party to the agreement that is to be taken into account.

The ambiguity of the term “parties” in Article 31(3) is partly responsible for the uncertainty.¹⁰⁴ Indeed, “parties” could either be taken to mean all the parties to an agreement, some of the parties to an agreement or the parties to the dispute.¹⁰⁵

If one were to argue that the “parties” refers to “the parties to the dispute” then the MEA may only be applicable and relevant to the interpretation of the WTO agreements if both parties to the dispute are Members of the WTO and the MEA. If

¹⁰² See Article 38(1) of the ICJ Statute. The European Court of Human Rights in the *Golder* case has held that the reference to “relevant rules of international law” includes general principles of international law, 57 *ILR* 201, 217 (1975).

¹⁰³ I. Sinclair, *The Vienna Convention on the Law of the Treaties*, 2nd ed., Manchester, (1984), p119.

¹⁰⁴ Unfortunately, the ILC Commentary on Article 31 provides no guidance. See commentary to Article 27, *Yearbook of the International Law Commission*, (1966), Vol.II, p220-222.

¹⁰⁵ I. Sinclair, *The Vienna Convention on the Law of Treaties*, 2nd ed., Manchester, (1984), p1. As Sinclair notes:

“The Convention is the product of many conflicting interests and viewpoints and the customary vices of compromise. Among these is a tendency to overcome points of difficulty by expressing rules at a level of generality and abstraction sufficient to hide underlying divergencies.”

only one party to the dispute is party to the MEA, then account should only be taken of customary rules or general principles of law contained in the MEA. It could be argued that the emphasis in Article 31(3)(c) is that other rules are to be taken into account rather than being applied and enforced¹⁰⁶ and, therefore, other rules that do not necessarily bind the parties could be taken into account. However, this interpretation seems overly broad as Article 31(3)(a) and (b) which also “only” need to “taken into account”, are to be interpreted restrictively as was discussed above.

The interpretation that the “parties” refers to “the parties to the dispute” is not convincing. According to Article 2(1)(g) of the 1969 Vienna Convention, a “party” is “a State which has consented to be bound by the treaty and for which the treaty is in force”.¹⁰⁷ Therefore, it seems unlikely that the “parties” specifically refers to “the parties to the dispute”. In addition, if Article 31(3)(c) is examined in the context of Article 31(3) as a whole, this interpretation seems improbable.

The term “parties” in the context of Article 31(3) does not seem to refer to *all* parties to a treaty. This position can be supported by the fact that in Article 31(2)(a) reference was made to “all the parties”. If “parties” referred to all the parties, this would have been expressly stated in Article 31(3). However, it could also be argued that the reason that in Article 31(2)(a) reference was made to “all the parties” was to distinguish this paragraph from Article 31(2)(b) which refers to “one or more of the parties”. Therefore, if “parties” is unqualified it could be taken to mean “all the parties” to the agreement.

In the *Shrimps* case, however, the Appellate Body found that an MEA did not need to have identical membership to that of the WTO in order to be taken into account. Indeed, the Appellate Body in interpreting the term “exhaustible natural resources” in Article XX(g), extensively consulted agreements that are not WTO covered

¹⁰⁶ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p125 and 127.

¹⁰⁷ See J. Pauwelyn, “The Role of Public International Law in the WTO: How Far Can We Go?” 95 *AJIL* (2001), p575.

agreements. The Appellate Body referred to the Convention on Biological Diversity, UNCLOS and the Convention on the Conservation of Migratory Species of Wild Animals in demonstrating that Article XX(g) includes both living and non-living resources.¹⁰⁸

This seems to be a more appropriate and effective interpretation. If identical membership were required there would be very little use for Article 31(3)(c), since it is very rare that two treaties have identical membership. In addition, over time, memberships may change in MEAs and/or the WTO, thereby creating the possibility that an MEA may be relevant at a particular point in time, but if membership does not evolve consistently with that of the WTO, then it will no longer be relevant until membership would be identical again. This would, of course, suggest that the interpretation of the WTO agreements would be very unpredictable.

In addition, if an *inter se* agreement can be concluded between at least two WTO Members,¹⁰⁹ and is applicable in the interpretation of the WTO agreements between these Members alone, it seems illogical that MEA rules that have been agreed to by two or more WTO Members should not be taken into account in a dispute where both parties are MEA parties.¹¹⁰

It is more likely that the term “parties” in the context of Article 31(3) refers to a subset of parties to an international agreement. It could, of course, also be argued that if the drafters had intended to refer to a sub-set of members of a treaty in Article 31(3)(c), the drafters would have explicitly provided for “some parties” or by “one or more parties” and accepted by “the other parties”.

¹⁰⁸ *Shrimps* Appellate Body Report, §176.

¹⁰⁹ Article 41 of the 1969 Vienna Convention provides:

“[two] or more of the parties to a multilateral treaty may conclude an agreement to modify the treaty as between themselves alone if: ... (b) the modification in question is not prohibited by the treaty and: (i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations; (ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the object and purpose of the treaty as a whole.”

¹¹⁰ G. Marceau, “WTO Dispute Settlement and Human Rights”, 13 *EJIL* 4 (2002), p782.

However, the interpretation that “parties” refers to a subset of parties to an international agreement can be supported in the context of the WTO by the fact that the applicable standards with respect to food safety are those established by Codex Alimentarius, an international body to which most WTO Members are members but not all.¹¹¹ Although, it should be noted that all WTO Members are subject to the disciplines of the SPS Agreement and have, therefore, agreed to the standards contained in these international agreements as a basis for determining the consistency of SPS measures with the SPS Agreement.

The interpretation given above implies that MEA rules would be taken into account in a dispute settlement proceeding provided that these rules reflect the intentions of the parties of the agreement that is interpreted.¹¹² In other words, the rules must *bind* the parties, in order to be taken account into account. This would be the case with rules that reflect customary international law accepted by all states or general principles of law. Whether other MEA rules would be considered as *applicable* in the relations between the parties is less clear.

The analysis suggests that the value of Article 31(3)(c) in providing a basis for taking into account MEAs and the rules contained therein when interpreting the WTO agreements is limited. In addition, it was noted in Chapter 3, that even if a rule of

¹¹¹ See J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement Body”, 50 *ICLQ* April 2001, 248 and SPS Agreement, Article 3.4.

¹¹² An interpretation of an agreement should be “consistent with the intentions (or perceived intentions) of the parties”. See A. Aust, *Modern Treaty Law and Practice*, Cambridge, (2000), p195. However, this does not require that only regard be had to “international law at the time the treaty was concluded ... but also to contemporary law”. Article 31(3)(c) justifies the use of the Appellate Body of an evolutionary interpretation of the terms of the agreement.

ILC commentary to Article 31(3)(b): “The text provisionally adopted in 1964 spoke of a practice which “establishes the understanding of all the parties”. By omitting the word “all” the Commission did not intend to change the rule. It considered that the phrase “the understanding of the parties” necessarily means “the parties as a whole”. It omitted the word “all” merely to avoid any possible misconception that every party must individually have engaged in the practice where it suffices that it should have accepted the practice.” Quoted in D. Rauschnig, *The Vienna Convention on the Law of Treaties, Travaux Préparatoires*, Frankfurt (1978), p254.

In the *Nicaragua case*, the ICJ stated that when a case is decided on the basis of general customary international law, it must discover that law from the practice of states as a whole and that it is not sufficient that only the parties to a dispute have a common view of what that law is. *Nicaragua (Merits) case*, §184.

international law could be used to interpret specific WTO provisions, it could not override the explicit language of treaty provisions,¹¹³ without a clear textual directive to that effect.¹¹⁴

The rule of international law would still need to be interpreted into the treaty norm and not applied instead of it.¹¹⁵ This is consistent with Judge Bedjaoui's Separate Opinion in the *Gabcikovo-Nagymaros* case, that the "interpretation" of a treaty should not be confused with its "revision".¹¹⁶

There is a definite trend that the Appellate Body is attempting to consider treaty norms outside that of the WTO, thereby to some extent separating itself from the image of a self-contained regime.¹¹⁷

However, the degree to which rules of international law covered by Article 31(3)(c) will be taken into account will depend on the circumstances of each dispute. In general, the greater the number of WTO Members that are party to an MEA, the fact that the MEA is open to all WTO Members,¹¹⁸ and the fact that both parties to a dispute are both party to the MEA, the more likely the MEA will be considered to reflect the intentions of the parties, and, therefore, be relevant and applicable in the interpretation of the WTO agreements. If the rule in an MEA can be said to be a

¹¹³ *Hormones*, US Panel Report, §8.157; Canada Panel Report, §8.160; Appellate Body Report, §123.

¹¹⁴ *Hormones*, Appellate Body Report, §124. P. Sands, "Sustainable Development: Treaty, Custom, and the Cross-fertilization of International Law", in A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999), p57.

¹¹⁵ P. Sands, "Sustainable Development: Treaty, Custom, and the Cross-fertilization of International Law", in A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999), p57.

¹¹⁶ Separate Opinion of Judge Bedjaoui, *Gabcikovo-Nagymaros Case*, ICJ Rep., (1997), §5.

¹¹⁷ See *Shrimps* case.

¹¹⁸ In the *Shrimps* case, the Appellate Body, §176 referred to MEAs with a wide membership and that are open to all Members such as the Convention on Biological Diversity, UNCLOS and the Convention on the Conservation of Migratory Species of Wild Animals.

customary rule of international law accepted by all states or a general principle of law, then these factors would be less significant.¹¹⁹

Article 31(3)(c) provides a useful tool in enabling other rules of international law to be taken into account in the process of determining the compatibility of measures with WTO law thereby ensuring a higher degree of coherence in international law. Article 31(3)(c) provides a means of ironing out potential incompatibilities between WTO rules and MEA rules. The next sections will consider potential incompatibilities between WTO rules and MEA rules and the way in which these can be resolved through interpretation.

b) WTO obligations and obligations arising in MEAs

MEAs such as CITES, the Montreal Protocol, and the Basel Convention provide for trade measures that are *potentially* incompatible with certain rules contained in the WTO agreements.

Indeed, certain CITES provisions could be considered to be inconsistent with GATT 1994 that covers restrictions on trade in goods, to which a restriction on trade in endangered species belongs.¹²⁰ CITES requires restrictions on trade in species of wild fauna and flora threatened or that could become threatened with extinction whether the state is a party or non-party to the CITES agreement. These provisions are potentially inconsistent with GATT Article XI on quantitative restrictions.

However, the measures could be justified under Article XX(b) that provides for the protection of animal and plant life or health. Alternatively, the measures could be justified under Article XX(g) that provides for the protection of natural resources. As was discussed in Chapter 2, the definition of “natural resources” is rather wide and would also cover endangered species.

¹¹⁹ See *North Sea Continental Shelf Cases*, ICJ Rep., (1969).

¹²⁰ See for example the *Shrimps* case examined in Chapter 2.

However, the fact that CITES enables contracting parties to adopt more stringent measures than under the agreement,¹²¹ suggests that it may be more difficult to satisfy the necessity test or the arbitrary or unjustifiable discrimination test in Article XX as the measures may be viewed as unilateral.

The Basel Convention¹²² prohibits certain categories of movements of waste whenever there is reason to believe that it will not be managed in an environmentally sound manner. The Basel Convention also contains provisions that may be incompatible with GATT 1994 as GATT 1994 would cover restrictions on trade in hazardous waste as, ironically, hazardous waste would be qualified as a “good”. Indeed, the Convention requires prior notification and informed consent of the receiving country of hazardous wastes as a precondition for authorising international waste shipments.¹²³ Exports of hazardous wastes intended for disposal, reuse, or recycling are banned from industrialized countries (OECD, EU, and Liechtenstein) to developing countries.¹²⁴ In addition, exports and imports between parties and non-parties are also prohibited except under bilateral or multilateral agreements, which provide for the same level of environmental protection as the Basel Convention.¹²⁵ These provisions could be considered inconsistent with GATT Article XI on quantitative restrictions. In addition, parties to the Basel Convention are permitted to use more stringent measures against non-parties which indicates that non-discrimination standards could be violated.

However, these incompatible Basel Convention provisions could be reconciled with the WTO provisions as it could be argued that the measures are necessary to protect human life or health under Article XX(b) of the GATT 1994. Nevertheless, the fact

¹²¹ CITES, Article XIV(1).

¹²² Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, opened for signature March 22, 1989, ILM 28 (1989), 649.

¹²³ Basel Convention, Article 4 and 6.

¹²⁴ The Conference of the Parties to the Convention adopted this amendment in 1995. See T. Schoenbaum, “International Trade and Environmental Protection”, in P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p727.

¹²⁵ Basel Convention, Article 4(5) and Article 11.

that the parties are also permitted to use more stringent measures than those provided for in the agreement as well as more stringent measures against non-parties suggests that the measure may not pass the necessity test or the arbitrary or unjustifiable discrimination test in Article XX, especially if the measures are considered to be unilateral.

The Montreal Protocol¹²⁶ could also be found to be inconsistent with GATT 1994, as products containing CFCs are “goods”, and with the TBT Agreement as mandatory restrictions on products with certain characteristics such as products containing CFCs would be considered a technical regulation.¹²⁷ The Montreal Protocol provides for the gradual phase out of CFCs and allows for restrictions on trade of products containing or produced using CFCs to be used on a party or non-party to the agreement. The fact that parties to the Montreal Protocol can use stricter measures with non-parties and that the Montreal Protocol regulates products manufactured using CFCs implies that non-discrimination requirements contained in GATT and the TBT Agreement would be violated.

It is questionable whether non-product related PPMs would be justified under Article XX(b) or (g) of the GATT,¹²⁸ as was demonstrated in Chapter 2. In addition, even if these measures were justified under Article XX, they could be considered inconsistent with the TBT Agreement, if the TBT Agreement were interpreted to include non-product related PPMs, which requires that the national treatment and MFN standards be respected without exception.¹²⁹

The Biosafety Protocol is an MEA charged with devising a comprehensive international regulatory approach to the protection of biodiversity. The Biosafety Protocol establishes rules to manage environmental risks of transboundary

¹²⁶ Montreal Protocol on Substances that Deplete the Ozone Layer, opened for signature Sept. 16, 1987, ILM 26 (1987), 1550; amended and adjusted, ILM 30 (1991), 537 (entered into force Jan 1, 1989).

¹²⁷ TBT Agreement, Annex 1, §1. See Chapter 4.

¹²⁸ See Chapter 2, section B.IV.1.

¹²⁹ TBT Agreement, Article 2. See also Chapter 3, section C.III.

movements of genetically modified organisms (GMOs). The Biosafety Protocol also contains apart from its environmental orientation significant potential implications for trade in GMOs since it regulates international trade in Living Modified Organisms (LMOs).¹³⁰ The Biosafety Protocol provides that parties may be entitled to impose import restrictions or an import ban for LMOs intended for use as food, feed, or for processing, that are also subject to the SPS Agreement, providing that the measures are “consistent with the objective of the Protocol.”¹³¹

The use of the precautionary principle in the Biosafety Protocol has been identified as a probable source of conflict. The Protocol adopts the precautionary principle, allowing import regulation where there is “lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism...”.¹³² According to Schoenbaum this undoubtedly will result in future conflict with the SPS Agreement, which allows the precautionary principle only for preliminary regulatory decisions.¹³³

Although, the difficulties in reaching agreement on the Biosafety Protocol were mainly due to the precautionary principle, in Chapter 3 it was also demonstrated that although the precautionary principle could only justify measures on a temporary basis, this in effect did not necessarily add a more restrictive requirement. In addition, the fact that under the SPS Agreement, there is an obligation to continue to seek new information and evidence in order to perform a satisfactory risk assessment

¹³⁰ An LMO is defined as “any living organism that possesses a new combination of genetic material obtained through the use of modern biotechnology”.

¹³¹ The transboundary movement of LMOs, except pharmaceuticals, LMOs in transit, contained-use LMOs, and LMOs ‘intended for direct use as food, feed, or for processing,’ as well as those exempted by the COP, are subject to the Advance Informed Agreement (AIA) Procedure under which the movement may proceed only after prior written consent by the importing country. The procedure requires notification by the party of export, acknowledgment of receipt of notification by import country, a decision procedure, and possible review of decisions in the light of new scientific information. Decisions regarding importation must be made using scientifically sound risk assessment procedures and techniques. See Articles, 5-10, 15, 16.

¹³² Article 11.8 of the Biosafety Protocol.

¹³³ T. Schoenbaum, “International Trade and Environmental Protection”, in P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p738.

while temporary measures are in place whereas under the Protocol no such conditionality is imposed, does not suggest that this would be a contentious issue. Indeed, reliance on the precautionary principle cannot be justified indefinitely and the obligation to do further research is implicit.

However, the regulation of PPMs in the Protocol could be a source of incompatibility. Indeed, genetic engineering can be considered a process and it can be argued that the non-transgenic use of the process, that is where genetic material from the same species is selected, does not change the characteristics of the product and would therefore be inconsistent with the SPS Agreement that does not cover non-product related PPMs.¹³⁴ A clearer case would be processed foods, as the refining process often eliminates any trace of GMOs in the product and can, therefore, not be considered as a modification of the characteristics of the product.

This section demonstrated that there are situations in which incompatibility could arise between WTO agreements and MEAs. However, as discussed in the next section it is possible to iron out most of these potential conflicts through interpretation. Should incompatibilities remain, then these need to be resolved in accordance with the law of treaties or under relevant provisions of the MEA if it has any.

The next section will consider how Article 31(3)(c) can be used successfully by the DSB to avoid incompatibility between different rules of international law.

c) Using Article 31(3)(c) to interpret WTO provisions

Where the MEA rules under consideration are binding on the parties and the measure at issue is *explicitly required* by the MEA but, for example, regulates non-PPMs then non-discrimination provisions of the WTO could with the help of Article 31(3)(c), be read in the light of the presumption against conflict of treaties, and therefore, be

¹³⁴ P. Phillips and W. Kerr, "Alternative Paradigms – The WTO Versus the Biosafety Protocol for

reinterpreted to differentiate products on the basis of their non-product PPMs. In the context of the TBT Agreement, this would be of particular importance as non-discrimination standards must be respected as was noted above.

In the context of the GATT and the SPS Agreement, this type of reinterpretation would not be essential as a breach of a non-discrimination requirement can be justified under certain circumstances. Therefore, the MEA measure could simply be presumed to be compatible with Article XX of the GATT 1994 and the SPS Agreement,¹³⁵ again with the help of Article 31(3)(c) the provisions could be read in the light of the presumption against conflict of treaties.¹³⁶

If the measure, however, is not explicitly required but only explicitly permitted it could be argued that when relying on Article 31(3)(c) to assist in the interpretation of GATT 1994, the SPS Agreement or the TBT Agreement, that the principle of effective interpretation should be taken into account, and that, therefore, no provision to which both WTO Members and parties to the MEA have committed themselves to is rendered redundant.¹³⁷

If the measure is only “taken pursuant to an MEA”, justifying the measure under GATT, the SPS Agreement or the TBT Agreement is more difficult. However, if evidence is brought forward that the measure is based on the MEA and that it is not a typical unilateral measure, the principle of effective interpretation could be taken into account.

The nexus of the measure with the MEA requirements will have an important influence on the DSB in determining whether the measure can benefit from the application of Article 31(3)(c) in the interpretation of the WTO agreements.

Trade in Genetically Modified Organisms”, 34 *JWT* 4 (2000), p71.

¹³⁵ To the extent that the MEA rule would reflect an international standard, this would already be the case under the SPS Agreement. See Article 3.2.

¹³⁶ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p131.

¹³⁷ *Ibidem*.

The application of Article 31(3)(c) could provide increased coherence between WTO rules and MEA rules, however, the extent to which this will be the case will depend on the DSB in a given case. The line of equilibrium will be determined on a case-by-case basis by the DSB as will the value of other rules of international law.

So far, consideration has been given to the way in which the WTO DSB could deal with MEAs as a source of interpretation of the WTO agreements. However, the possibility also exists that the dispute settlement mechanism of MEAs may be used for the settlement of disputes concerning TREMs not the WTO DSM. The next section will consider the appropriate forum for the settlement of potential disputes that may arise over the use of trade measures taken pursuant to MEAs.

III. The Appropriate Forum for the Settlement of Disputes

Where a dispute between WTO Members concerns TREMs taken pursuant to an MEA against a non-party to that MEA, it is clear that a non-party to an MEA cannot be bound by the dispute settlement procedures of that MEA. Therefore, a WTO Member that is not party to an MEA but is affected by a TREM taken pursuant to an MEA, would most likely bring a case to the WTO claiming that the TREM is inconsistent with the WTO agreements.¹³⁸

¹³⁸ WTO Members can bring the dispute to a dispute settlement panel or to arbitration with the WTO, if both parties agree., See DSU, Article 25:

“1. Expeditious arbitration within the WTO as an alternative means of dispute settlement can facilitate the solution of certain disputes that concern issues that are clearly defined by both parties.

2. Except as otherwise provided in this Understanding, resort to arbitration shall be subject to mutual agreement of the parties which shall agree on the procedures to be followed. Agreements to resort to arbitration shall be notified to all Members sufficiently in advance of the actual commencement of the arbitration process.

3. Other Members may become party to an arbitration proceeding only upon the agreement of the parties which have agreed to have recourse to arbitration. The parties to the proceeding shall agree to abide by the arbitration award. Arbitration awards shall be notified to the DSB and the Council or Committee of any relevant agreement where any Member may raise any point relating thereto.

4. Articles 21 and 22 of this Understanding shall apply *mutatis mutandis* to arbitration awards.”

Where both parties to a dispute concerning TREMs imposed pursuant to an MEA are both members of the MEA, the WTO Secretariat has stated:

*“There is general agreement that in the event a dispute arises between WTO Members who are each Parties to an MEA over the use of trade measures they are applying among themselves pursuant to the MEA, they should consider in the first instance trying to resolve it through the dispute settlement mechanisms available under the MEA”.*¹³⁹

However, it should be noted that the WTO Secretariat’s statement cannot be interpreted to mean that the WTO has jurisdiction to decide on the compatibility of a TREM with an MEA.¹⁴⁰ It should also be emphasised that there is not a single case in which any WTO Member has sought to settle an MEA dispute before the WTO. The reason is not that all actual WTO environmental cases have involved unilateral trade measures taken in the absence of an MEA but rather that the WTO has no jurisdiction over MEA disputes. If the claim relates to the compatibility of the TREM with the MEA, then the dispute settlement procedures of the MEA must be applied. The WTO DSB can only examine MEA issues to the extent that it is necessary to do so for the purpose of settling a WTO dispute.¹⁴¹ The WTO DSB could also decide general questions of international law, such as the priority/applicability of WTO agreements/MEAs, in a situation where there is a conflict between the WTO and MEA, if it is necessary to do so for the purpose of settling a WTO dispute.

However, the WTO Secretariat’s statement is valid to the extent that it is interpreted as encouraging WTO Members that are party to an MEA to make claims under the

¹³⁹ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p131.

¹⁴⁰ As noted in section B.II.1, the WTO is not a court of general jurisdiction.

¹⁴¹ See also *MOX Plant Case, (Ireland v. UK)*, UNCLOS Arbitration, pending at the Permanent Court of Arbitration, The Hague, www.pca-cpa.org. One issue of contention concerns applicable law. Ireland argues that Article 293 of the UNCLOS (“A court or tribunal having jurisdiction under this section shall apply this Convention and other rules of international law not incompatible with this Convention”) permits an UNCLOS tribunal to “apply” all relevant treaties and customary law binding on the parties to the dispute. Ireland’s interpretation suggests that an UNCLOS tribunal would be able to apply other rules relevant to the dispute even if this is not necessary for the purpose of deciding UNCLOS issues. The UK, on the other hand, in my view correctly, does not accept such a wide view of “applicable law”. Presentation by A.E.

MEA rather than with the WTO agreements. Nevertheless, the WTO Secretariat's statement is not a treaty commitment and cannot be seen as limiting the rights of WTO Members to bring cases to the WTO where the consistency of a TREM with the WTO agreements is at issue. If a party were to bring a claim to the WTO, arguing that the TREM is inconsistent with WTO agreements then it is clear that WTO jurisdiction cannot be limited.

The possibility arises that a dispute could be reviewed by both the MEA dispute settlement mechanism and WTO dispute settlement mechanism if the issues can be kept separate. In other words, the WTO DSM would deal with WTO issues and the MEA dispute settlement would deal with issues arising under that agreement.

The *Southern Bluefin Tuna* arbitral tribunal although recognising "that there is support in international law and in the legal systems of States for the application of a *lex specialis* that governs general provisions of an antecedent treaty or statute" found that "it is a commonplace of international law and State practice for more than one treaty to bear upon a particular dispute" and that "there is no reason why a given act of a State may not violate its obligations under more than one treaty".¹⁴²

The *Swordfish* case that concerned a dispute between Chile and the EU over swordfish fisheries in the South Pacific also illustrates the point.

Chile brought the case to the International Tribunal on the Law of the Sea (ITLOS) claiming that the EU violated UNCLOS, since it failed to co-operate with the coastal state to ensure the conservation of the highly migratory species¹⁴³, whereas the EU

Boyle at the Royal Institute for International Affairs, London, 8 April 2003.

¹⁴² *Southern Bluefin Tuna Arbitration*, §52. See also the *MOX Plant Case, (Ireland v. UK)*, UNCLOS Arbitration, pending at the Permanent Court of Arbitration, The Hague, www.pca-cpa.org. The question arose whether the dispute over the protection of the marine environment from radioactive waste is a single dispute where the main elements fall under OSPAR Convention and EU law and other elements under UNCLOS. North-East Atlantic Convention (OSPAR), 22 September 1992, 32 ILM 1069 (1993). See also B. Kwiatkowska, "The Ireland v. United Kingdom (Mox Plant) Case: Applying the Doctrine of Treaty Parallelism", 18 *IJMCL* 1 (2003), pp3-5.

¹⁴³ *Case Concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the*

brought the case to the WTO claiming that the Chilean denial of port access violated the GATT 1994.¹⁴⁴

The Case at the WTO

The EU initiated WTO dispute settlement proceedings after ten years of bilateral consultations, exchange of notes, and experiments with a bilateral technical commission.¹⁴⁵ Since this was the second request from the EU, the DSB automatically agreed to establish a panel to hear this case.¹⁴⁶

The EU claimed that Chile signed a framework agreement, the “Galapagos Agreement” on the conservation of living resources in the high seas, negotiated within the Permanent Commission for the South Pacific, (a regional fishing organisation comprising Chile, Colombia, Ecuador and Peru) to which the EC and other interested countries were not invited to participate, although it repeatedly showed its willingness to take part in a similar multilateral negotiating exercise. The EC claimed that what Chile proposed to it and other interested states was participation in a non-negotiable agreement.

One of the interesting aspects is that the EC brought the case to the WTO, because the EC considered that the dispute was over port-access, an issue that UNCLOS does not cover.

South-eastern Pacific Ocean, International Tribunal for the Law of the Sea, Order 2000/3, 20 December 2000.

¹⁴⁴ *Chile – Measures Affecting the Transit and Importation of Swordfish*, Request for the Establishment of a Panel by the European Communities, 7 November 2000, WT/DS193/2.

¹⁴⁵ Consultations were held and the Commission suggested that multilateral negotiations open to any interested party should start as soon as possible and be concluded within a pre-established timeframe and that at least a limited and regulated access to Chilean ports should be made available to Community vessels in parallel to the negotiating process. According the EU, Chile refused to discuss any (even limited) access to their ports to Community vessels. See www.europa.eu.int.

¹⁴⁶ If after 60 days following the receipt of a request for consultations, consultations fail, the complaining party can request the establishment of a panel. The defending party may block the establishment of the panel. However, if a second request is made the appointment can not be blocked. Presumably, Chile blocked the first request, however, there is no trace of this on the WTO web-site.

The EC's challenge before the WTO dealt with the Chilean denial of port access to the EC's fishing fleet. The EC complained that its "fishing vessels operating in the Southeast Pacific are not allowed under Chilean legislation to unload their swordfish in Chilean ports, either to land them for warehousing or to transship them onto other vessels. Consequently, Chile makes transit through its ports impossible for swordfish. This prohibition renders also impossible the importation of the affected catches into Chile."¹⁴⁷

Article 165 of the Chilean Fisheries Law effectively prohibits the use of its ports for the landing and service to the EU long-liners and factory ships that disregard minimum conservation standards,¹⁴⁸ thereby impeding on the EU's ability to re-export fresh/chilled fish to the US market.

The EC, therefore, claimed that the Chilean measures were inconsistent with Article V of the GATT 1994 dealing with freedom of transit.

Chile, on the other hand, argued that Article V of the GATT 1994 does not restrict its sovereignty over its ports under international law, and demanded that the EC should enact and enforce conservation measures for its fishing operations in the high seas, in accordance with UNCLOS.

The dispute deals with the controversial issue of the applicable law regarding port access.

States do not seem to favour a system of open ports,¹⁴⁹ especially not from a fisheries conservation perspective.¹⁵⁰ Under customary international law there is no general

¹⁴⁷ *Chile - Measures Affecting the Transit and Importation of Swordfish, Request for Consultations by the European Communities*, WT/DS193/1, G/L/367, 26 April 2000. See also *Case Concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the South-eastern Pacific Ocean*, International Tribunal for the Law of the Sea, Order 2000/3, 20 December 2000.

¹⁴⁸ D.S. N°598, (DO Nov. 25, 1999).

¹⁴⁹ F. Orrego Vicuña, *The Changing International Law of the High Seas Fisheries* (1999), pp261-6.

¹⁵⁰ For example, Canada has on a number of occasions closed its ports to fishing vessels in order to

right of access to foreign ports.¹⁵¹ The ICJ in the *Nicaragua* case noted that it is, by virtue of its sovereignty that the coastal State may regulate access to its ports.¹⁵² However, since sovereignty has to be exercised in accordance with treaties, it is necessary to determine whether UNCLOS and/or the WTO deal with port access.

UNCLOS does not contain any provisions on port access. The last paragraph of its preamble affirms that “matters not regulated by this Convention continue to be governed by the rules and principles of general international law”. Therefore, the issue of port access cannot be examined under UNCLOS.

It is not clear whether Article V of the GATT applies to port access, as it is not expressly mentioned in the provision, it has never been applied to issues regarding fisheries or port access and it is difficult to determine whether all WTO Members agreed to open their ports during the Uruguay Round.¹⁵³

Article V.2 states:

*“There shall be freedom of transit through the territory of each contracting party, via the routes most convenient for international transit, for traffic in transit to or from the territory of other contracting parties. No distinction shall be made which is based on the flag of vessels, the place of origin, departure, entry, exit or destination, or any circumstances relating to the ownership of goods, of vessels or of other means of transport.”*¹⁵⁴

combat overfishing. L. de La Fayette, “Access to Ports in International Law” 11 *International Journal of Marine and Coastal Law* 1 (1996), p9. Article 2 of the Convention on the International Regime of Maritime Ports provides for port access on a MFN and national treatment basis. However, Article 14 of the convention specifically excludes fishing vessels and their catches from its scope. Opened for signature 9 December 1923, 58 LNTS 285 (1923) (entered into force 2 December 1926). See also UNESCO, *Convention on the Protection of the Underwater Cultural Heritage*, UN Doc 31 C/24 (3 August 2001), <http://unesdoc.unesco.org/images/0012/001232/123278e.pdf>. Article 15, provides that “states parties shall take measures to prevent the use of their ... maritime ports ... in support of any activity directed at underwater cultural heritage which is not in conformity with this Convention”.

¹⁵¹ L. de La Fayette, “Access to Ports in International Law” 11 *International Journal of Marine and Coastal Law* 1 (1996), p2.

¹⁵² *Military and Paramilitary Activities (Nicaragua v. U.S.)*, ICJ Rep., (1986), 111.

¹⁵³ *Ibidem*.

¹⁵⁴ Article V.1 contains a definition of the term “traffic in transit”. Article V.3 provides that traffic

Supposing that Article V is applicable to a situation where access to a port is refused for the purpose of transshipment,¹⁵⁵ and that therefore, the Chilean measure is inconsistent with Article V of the GATT 1994, does not mean that the measure would necessarily be inconsistent with GATT 1994. Indeed, Chile could have argued that the measure was consistent with Article XX(g) that enables Members to impose measures relating to the conservation of natural resources if these are taken in conjunction with restrictions on domestic production or consumption, and provided that there is no arbitrary or unjustifiable discrimination, and no disguised restriction on trade.

The goal of fisheries conservation would fall under the policy goal of Article XX(g).¹⁵⁶ Chile could have argued that the measures were imposed pursuant to UNCLOS, that UNCLOS is binding on the parties and that, therefore, UNCLOS should be taken into account when interpreting Article XX(g).

However, as it was noted in section B.I and B.II.c. with respect to MEAs, TREMs which are imposed pursuant to an MEA but that are not explicitly required or authorised by the MEA would not benefit from a presumption of consistency with Article XX. However, the measure would have an advantage over a unilateral measure.

If the DSB would examine the measure under UNCLOS and find that Chile was authorised to impose such measures and that the EU failed to comply with UNCLOS requirements, this would probably weigh in the balance of determining the legitimacy of the Chilean measure under Article XX.

However, the WTO DSB could also have followed its reasoning in the *Shrimps II* case examined in Chapter 2. In other words, the DSB would have to determine

in transit “shall not be subject to any unnecessary delays or restrictions”, however,, but this appears to relate to processing of the goods at the customs barrier.

¹⁵⁵ See L. de La Fayette, “Access to Ports in International Law” 11 *International Journal of Marine and Coastal Law* 1 (1996), p20.

¹⁵⁶ See *Shrimps* case and Chapter 2.

whether Chile had made good faith attempts to negotiate an agreement with the EU. In order to determine whether this was the case, the WTO would not necessarily have to determine whether the EU had complied with UNCLOS. Indeed, even if it were found that the EU had not negotiated in good faith under UNCLOS, this would not necessarily mean that Chile did negotiate in good faith. In addition, if it were found that the EU had negotiated in good faith, this would not imply that Chile did not negotiate in good faith. Therefore, if the dispute were solved by the WTO and not by ITLOS, the claim raised by Chile under UNCLOS might not necessarily have to be considered.

Indeed, in determining whether the Chilean measure would be justified under Article XX, the DSB might only focus on whether Chile negotiated in good faith.

According to this interpretation, Article XX might permit unilateral, extra-jurisdictional measures even where both parties to the dispute have negotiated in good faith, but have not reached agreement.¹⁵⁷

In this situation, the DSB might have considered whether Chile and not the EU had acted consistently with the co-operation requirements of UNCLOS in examining the consistency of the Chilean measure with Article XX.

Of course, the degree of trade restrictiveness of the measure and whether the measure constituted arbitrary or unjustifiable discrimination would also have to be examined.

*The Case before the ITLOS Chamber*¹⁵⁸

While the EC requested the establishment of a WTO panel, Chile referred the dispute to ITLOS, so that the matter be considered under UNCLOS. Chile insisted that the issue at stake in the controversy is not of a commercial nature, but relates to the need

¹⁵⁷ See *Shrimps II* case and Chapter 2, section C.II.5.a.

¹⁵⁸ *Conservation and Sustainable Exploitation of Swordfish Stocks in the South Eastern Pacific Ocean (Chile/European Community)*, ITLOS Case no. 7, 20 December 2000.

for conservation measures ensuring the sustainable fisheries for swordfish. On this basis, Chile invited the EU to engage in formal dispute settlement under UNCLOS Part XV. In November 2000, the Parties agreed ad-referendum to the establishment of a special five-judge Chamber of the ITLOS in December 2000. On the request of Chile and the EC, the ITLOS, by an Order dated 20 December 2000, formed a Special Chamber to deal with their dispute concerning the conservation and sustainable exploitation of swordfish stocks in the South-Eastern Pacific Ocean under UNCLOS.

The special chamber¹⁵⁹ would have had to consider, among other issues, whether the EC complied with its obligations under UNCLOS, Articles 116 to 119, “to ensure conservation of swordfish, in the fishing activities undertaken by vessels flying the flag of any of its Member States in the high seas adjacent to Chile’s exclusive economic zone”¹⁶⁰, Article 64 to co-operate with Chile as a coastal State for the conservation of swordfish in the high seas, that is for the conservation of highly migratory species and whether the EU had fulfilled its obligations to report its captures to the coastal state and to the relevant international organisation (FAO).¹⁶¹

In addition, the tribunal would have had to consider issues such as whether the Chilean Decree, which purports to apply Chile’s conservation measures relating to swordfish on the high seas is in breach of Article 87 providing for freedom of the high seas including freedom of fishing, subject to conservation obligations, Article

¹⁵⁹ Article 15 of the Statute of the Tribunal provides for the formation of a Special Chamber, if so requested by the parties to a dispute. The composition of the Chamber is determined by the Tribunal, with the approval of the parties.

¹⁶⁰ *Conservation and Sustainable Exploitation of Swordfish Stocks in the South-eastern Pacific Ocean*, ITLOS, Order 2000/3, 20 December 2000, §2.3(a).

¹⁶¹ §2.3(b). The special chamber would also have had to determine whether the EC had challenged the sovereign right and duty of Chile, as a coastal state, to impose measures within its jurisdiction for the conservation of swordfish and to ensure their implementation in its ports, in a non-discriminatory manner, and whether such challenge is compatible with the UNCLOS. §2.3(c).

In this respect, it would also have had to determine whether it had jurisdiction in this matter. §2.3(h). Also the EC obligations arising under Articles 300 calling for good faith and no abuse of right, and 297(1)(b) concerning dispute settlement would have been examined for consistency. §2.3(d).

89 prohibiting any State from subjecting any part of the high seas to its sovereignty and Articles 116-119¹⁶², whether the “Galapagos Agreement” of 2000 was negotiated in keeping with, and whether the substantive provisions were consistent with, Article 64 and 116-119 of UNCLOS.¹⁶³

If one relies on the reasoning in the 1999 ITLOS judgment on provisional measures in the *Southern Bluefin Tuna* case, ITLOS implicitly recognised the relevance of the precautionary principle to the management of sustainable fisheries in which Australia and New Zealand claimed that Japan had failed to cooperate in the conservation of southern bluefin tuna. The ITLOS considered the scientific uncertainty regarding measures to be taken to conserve southern bluefin tuna, considered that the parties should in the circumstances act with caution, and ordered provisional measures designed to preserve existing stocks pending resolution of the dispute.¹⁶⁴

In addition, the emergence under customary law of the general obligation to respect the environment beyond areas of national control¹⁶⁵, and the duty to consider the interests of other states when a state exercises its fishing rights under the Convention on the high seas¹⁶⁶ could have been used by Chile to support its claim under UNCLOS.

However, the EU could also have contended that it complied with all these requirements and that it was Chile that refused to negotiate in good faith. In addition, as was demonstrated in the *Southern Bluefin Tuna Arbitration*, the fact that there

¹⁶² *Conservation and Sustainable Exploitation of Swordfish Stocks in the South-eastern Pacific Ocean*, ITLOS, Order 2000/3, 20 December 2000, §2.3(e).

¹⁶³ *Conservation and Sustainable Exploitation of Swordfish Stocks in the South-eastern Pacific Ocean*, ITLOS, Order 2000/3, 20 December 2000, §2.3(f). Whether Chile's measures were in conformity with Article 300 and whether Chile and the EC remain under a duty to negotiate an agreement on co-operation under Article 64 of the Convention. §2.3(g).

¹⁶⁴ See *Southern Bluefin Tuna Cases (Provisional Measures)*, ITLOS No. 4 (1999).

¹⁶⁵ *Nuclear Weapons Advisory Opinion*, ICJ Rep. (1996). 1982 UNCLOS, Article 192: “States have the obligation to protect and preserve the marine environment”.

¹⁶⁶ *Fisheries Jurisdiction Case (United Kingdom v. Iceland)*, ICJ Rep. (1974), p72.

were issues arising under different agreements would possibly put Chile at a disadvantage in attempting a successful claim.

Japan argued that the dispute at issue was to be dealt with under the 1993 Convention on the Conservation of Southern Bluefin Tuna ("1993 CCSBT") and not under UNCLOS. The advantage for Japan in having the dispute resolved under the 1993 CCSBT was that the dispute would not be subject to compulsory jurisdiction. Japan's argument rested on the fact that Australia and New Zealand by becoming parties to the 1993 CCSBT had waived their right to bring the matter for arbitration under UNCLOS. The tribunal considered that "a dispute concerning the interpretation and implementation of the CCSBT will not be completely alien to the interpretation and application of UNCLOS" and that although, the dispute was centred in the 1993 CCSBT, issues also arose under the UNCLOS.¹⁶⁷

A similar issue was considered in relation to the GATT 1994 and the SPS Agreement in Chapter 3, where it was also found that issues could arise under both agreements.¹⁶⁸

However, the tribunal found that on the issue of jurisdiction, the parties had "precluded subjection of their disputes to section 2 procedures in accordance with Article 281(1)".¹⁶⁹ Article 281(1) of UNCLOS states that where

"parties to a dispute concerning the interpretation or application of this Convention have agreed to seek settlement of the dispute by a peaceful means of their own choice, the procedures provided for in this Part apply only where no settlement has been reached by recourse to such means and the agreement between the parties does not exclude any further procedure..."

In reaching this conclusion, the arbitral tribunal considered the relationship between Article 281(1) with Article 16 of the 1993 CCSBT which provides:

¹⁶⁷ *Southern Bluefin Tuna Arbitration*, §52.

¹⁶⁸ See Chapter 3, Section C.III.

¹⁶⁹ *Southern Bluefin Tuna Arbitration*, §63.

“1. If any dispute arises between two or more of the Parties concerning the interpretation or implementation of this Convention, those Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent in each case of all parties to the dispute, be referred for settlement to the International Court of Justice or to arbitration; but failure to reach agreement on the reference to the International Court of Justice or to arbitration shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 above”.

The arbitral tribunal found that Article 16 of the CCSBT was “virtually identical” to Article XI of the 1959 Antarctic Treaty and that, therefore, Article 16, although not explicitly providing so, “excludes any further procedure’ within the contemplation of Article 281(1) of UNCLOS”¹⁷⁰. The arbitral tribunal also supported its conclusion by highlighting the fact that Article 281 of UNCLOS enables parties to limit the jurisdiction of UNCLOS, where the parties agree.¹⁷¹ In addition, the tribunal referred to the practice of states in many post-UNCLOS “international agreements with maritime elements”, of excluding compulsory adjudicative or arbitral procedures.¹⁷²

Boyle, on the other, considered that other agreements post-UNCLOS that did not provide for compulsory jurisdiction such as the 1993 CCSBT say nothing about the parties intentions regarding compulsory jurisdiction under UNCLOS.¹⁷³

¹⁷⁰ *Southern Bluefin Tuna Arbitration*, §56 and 58.

¹⁷¹ *Ibidem*, §60-61. See Article 297 of the UNCLOS that provides limitations on the applicability of compulsory procedures where coastal states are concerned. See also Article 298 that establishes certain optional exemptions to the applicability of compulsory section 2 procedures and enables parties to reject compulsory procedures under certain circumstances and Article 299 which provides that disputes excluded by Article 297 and exempted by Article 298 from application of compulsory section 2 procedures may be submitted to such procedures “only by agreement of the parties to the dispute.”

¹⁷² *Southern Bluefin Tuna Arbitration*, §63.

¹⁷³ A.E. Boyle, “The Southern Bluefin Tuna Arbitration”, 50 *ICLQ* 2 (2001), p449. For a survey of the dispute see B. K wiatkowska, “The Australia and New Zealand v Japan Southern Bluefin Tuna (Jurisdiction and Admissibility) Award of the First Law of the Sea Convention Annex VII Arbitral Tribunal”, 16 *IJML* 2 (2001), pp239-294.

It could be argued that these other agreements are subsequent agreements or represent subsequent practice of the parties under Article 31(3)(a) and (b) of the 1969 Vienna Convention or that they contain rules that are covered by Article 31(3)(c) and that, therefore, these rule must be taken into account when interpreting UNCLOS. However, as discussed in section B.II.2.a, these do not override the explicit wording of the treaty that is to be applied.

Boyle correctly questioned the use of Article 281 of UNCLOS rather than Article 282 of UNCLOS¹⁷⁴. Article 282 provides:

“If the Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed, through a general, regional or bilateral agreement or otherwise, that such dispute shall, at the request of any party to the dispute, be submitted to a procedure that entails a binding decision, that procedure shall apply in lieu of the procedures provided for in this Part, unless the parties to the dispute otherwise agree.”

It is very clear from the wording of Article 282 that only a procedure that entails a *binding* decision can apply instead of the procedures in UNCLOS.¹⁷⁵ Therefore, it can be concluded that the 1993 CCSBT procedures do not apply instead of UNCLOS procedures, since the 1993 CCSBT procedures do not provide for binding decisions. It should also be noted that even if Article 297, 298, 299 limit the applicability of compulsory procedures of section 2 in certain situations, for example, where a coastal state exercises its sovereign rights with respect to living resources in its EEZ, including the determination of allowable catch, this would still not justify the fact that a procedure of a general, regional or bilateral agreement leading to a *non-*

¹⁷⁴ A.E. Boyle, “The Southern Bluefin Tuna Arbitration”, 50 *JCLQ* 2 (2001), p449.

¹⁷⁵ For example, in the *Mox Plant Case*, the ECJ “may be seized of the question whether the provisions of the Convention on which Ireland relies are matters in relation to which competence has been transferred to the European Community and, indeed, whether the exclusive jurisdiction of the European Court of Justice, with regard to Ireland and the United Kingdom as Member States of the European Community, extends to the interpretation and application of the Convention as such and in its entirety.” If this view were to be sustained by the ECJ, the jurisdiction of the arbitral tribunal would be precluded by virtue of Article 282 of the Convention.

MOX Plant Case (Ireland v. United Kingdom), Order N° 3, Suspension of Proceedings on Jurisdiction and Merits, and Request for Further Provisional Measures, Permanent Court of

binding decision that would cover these issues, would apply instead of UNCLOS procedures¹⁷⁶.

Boyle's argument that the tribunal's use of Article 281 was inappropriate is pertinent. Indeed, the use of Article 281 in this case renders the use of both Article 281 and Article 282 redundant, which is inconsistent with the principle of effectiveness in treaty interpretation. Indeed, Boyle argues that the result of this reading of Article 281, that a regional agreement that does not provide for binding decisions will exclude resort to UNCLOS procedures, on the assumption that this is the intention of the parties, implies that a single provision that regional agreements exclude UNCLOS procedures would be sufficient since Article 282 excludes resort to UNCLOS where a regional agreement provides for compulsory jurisdiction.¹⁷⁷ The arbitrators gave too much weight to what they considered to be the teleological interpretation of Article 281 rather than looking at the wording of Article 282.

The arbitrators possibly saw in Article 281 a means of avoiding that a dispute be dealt with under two agreements, despite the fact that separate issues arise under UNCLOS and the 1993 CCSBT.¹⁷⁸ It is clear that if two jurisdictional fora deal with a dispute, the potential for contradictory or incompatible decisions increases. However, the arbitrators as noted in Section B.I. did recognise that a state act could violate more than one agreement¹⁷⁹, so it is more likely that the arbitrators may have considered it difficult to decide on UNCLOS issues and on issues that arose under

Arbitration, 24 June 2003, §20-23.

¹⁷⁶ For *contra*, see *Southern Bluefin Tuna Arbitration*, §61.

¹⁷⁷ A.E. Boyle, "The Southern Bluefin Tuna Arbitration", 50 *ICLQ* 2 (2001), p449.

¹⁷⁸ *Ibidem*, p450. Kwiatkowska argues that the reason that Article 281 was resorted to was because the tribunal probably agreed with Japan's argument that Australia and New Zealand had acted inconsistently with their duty to submit the dispute to the ICJ, in reliance on Optional Clause under Article 36(2) of the Court's Statute, which all three parties adhered to. *Southern Bluefin Tuna Award*, §39(c). In other words, under Article 282 jurisdictional priority is given to the ICJ over both the ITLOS and the Annex VII Arbitral Tribunal, as between states that have accepted the Optional Clause, in all cases of compulsory jurisdiction under Part XV. See *Southern Bluefin Tuna Oral Hearings*, Vol. I (Counsel Rosenne, 7 May 2000). B. Kwiatkowska, "The Australia and New Zealand v Japan Southern Bluefin Tuna (Jurisdiction and Admissibility) Award of the First Law of the Sea Convention Annex VII Arbitral Tribunal", 16 *IJMCL* 2 (2001).

¹⁷⁹ *Southern Bluefin Tuna Arbitration*, §52.

both UNCLOS and the 1993 CCSBT without also deciding on the interpretation and application of the 1993 CCSBT¹⁸⁰. The arbitral tribunal probably considered that the fact that it did not have jurisdiction over the 1993 CCSBT, implied that it lacked jurisdiction to rule on the merits of the case.¹⁸¹ The result of this position is that a UNCLOS arbitral tribunal might reject jurisdiction to rule over any aspect of a dispute unless it had jurisdiction over all aspects.¹⁸²

This contradicts the approach taken by the ICJ in the *Nicaragua* case. Indeed, the ICJ declared itself to have jurisdiction over certain claims under customary international law despite the fact that the US rejected jurisdiction of the ICJ with respect to the multilateral treaty because not all parties to the multilateral agreement were party to the dispute¹⁸³ and despite the fact that many issues overlapped.¹⁸⁴

The fact that a provisional settlement was reached in *Swordfish* case¹⁸⁵ leaves many questions unanswered such as whether or not the ITLOS would have followed a similar reasoning. The possibility that both ITLOS and the WTO DSM would examine the issue is realistic and raises the problem of inconsistent decisions over a same dispute. Although, treaty provisions should be read in the light of the presumption against conflict of treaties, there is of course no guarantee that incompatible decisions will not emerge.

180 A.E. Boyle, "The Southern Bluefin Tuna Arbitration", 50 *ICLQ* 2 (2001), p450.

181 *Ibidem*.

182 *Ibidem*.

183 *Military and Paramilitary Activities in and Against Nicaragua Case*, (Jurisdiction and Admissibility), ICJ Rep. (1984), 392, §67. J. Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?", 95 *AJIL* (2001), p557.

184 *Military and Paramilitary Activities in and Against Nicaragua Case*, (Merits), ICJ Rep. (1986) 14, §175. See also *Diplomatic and Consular Staff in Teheran Case*, ICJ Rep. (1980) 3, 19 §36: "no provision of the Statute or Rules contemplates that the Court should decline to take cognizance of one aspect of a dispute merely because that dispute has other aspects, however important". J. Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?" 95 *AJIL* (2001), pp557-8.

185 The EU and Chile reached a provisional arrangement to resolve the dispute covering both access for EU fishing vessels to Chilean ports and bilateral and multilateral scientific and technical cooperation on the conservation of swordfish stocks. Pending the ratification of this arrangement, the EU requested a suspension of panel proceedings within the WTO launched in November 2000 and Chile suspended proceedings before the ITLOS. See WT/DS193/3 and

Although, the possibility exists of separating issues under different agreements, it could be argued that the fact that the WTO dispute settlement mechanism is more efficient than MEA dispute settlement mechanisms, that it is more likely that only WTO claims would be made under the WTO agreements even if an MEA claim could be made under the MEA. To the extent that the effectiveness of the dispute settlement mechanism could impact the formulation of a particular claim and, therefore, the use of a particular dispute settlement forum, the next section will analyse whether the effectiveness of dispute settlement procedures under MEAs should be increased. The validity of this proposition will be considered following an examination of the WTO DSM and the dispute settlement arrangements of MEAs.¹⁸⁶

IV. Compulsory versus Non-compulsory Adjudication

The dispute settlement system of the WTO Agreement provides procedures for compulsory jurisdiction, quasi-judicial panel procedures, independent appellate review, quasi-automatic dispute settlement rulings within one year, automatic adoption by the DSB unless there is a consensus not to adopt the panel report (negative consensus), appellate review by a standing appellate body, alternative dispute settlement, arbitration procedures, mandatory compliance and sanctions for non-compliance in the form of compensation and suspension or withdrawal of concessions.¹⁸⁷

The DSU at the time of the entry into force of the WTO Agreement was considered as a major breakthrough and strength of the new ruled-based multilateral trading system.¹⁸⁸ The DSU was an improvement over the GATT 1947 DSM, which allowed

WT/DS193/3/Add. 1.

¹⁸⁶ The question of whether the WTO should promote alternative dispute settlement is considered in Section C.V.

¹⁸⁷ See DSU. The parties to a dispute can also agree to have their dispute settled by arbitration and abide by the arbitration award pursuant to Article 25 of the DSU. The award is also subject to surveillance of implementation and compensation, and suspension of concessions. DSU, Articles 21 and 22.

¹⁸⁸ C. Valles and B. McGivern, "The Right to Retaliate under the WTO Agreement – the 'Sequencing' Problem, 34 *JWT* 2 (2000), p83.

parties to block the establishment of a dispute settlement panel or the adoption of a panel report and where there was no possibility to appeal panel decisions. The GATT DSM was political, conciliatory and at most a “legal order-in-embryo” that was marked by adaptability rather than consistency and predictability.¹⁸⁹ The WTO removed to a large extent the “political filter that did not allow politically objectionable decisions to have legal effect”.¹⁹⁰ The WTO DSM also “protects the weaker WTO Members that previously were either unable or insufficiently daring to muster a consensus in support of their complaints”.¹⁹¹

Unlike the WTO DSM, the focus of most MEAs is on developing mechanisms to assist parties to comply with their obligations in a flexible and non-confrontational manner, thereby preventing disputes from arising. Therefore, instead of focusing on bilateral disputes, most MEAs contain elaborate and flexible procedures aimed at promoting compliance¹⁹² rather than sanctioning non-compliance.

¹⁸⁹ Stiles, W. Kendall, “The New WTO Regime: The Victory of Pragmatism”, 4 *JIL & Practice* 3 (1995), p4. See R. Behboodi, “Legal Reasoning and the International Law of Trade - The First Steps of the Appellate Body of the WTO”, 32 *JWT* 4 (1998), pp55 and 58-59. See also, F. Weiss, “WTO Dispute Settlement and the Economic Order of WTO Member States” in P. Dijck and G. Faber (eds.) *Challenges to the New World Trade Organisation*, The Hague, (1996), p83.

¹⁹⁰ J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p345.

¹⁹¹ J. Pauwelyn, “Enforcement and Countermeasures in the WTO: Rules are Rules – Toward a More Collective Approach”, 94 *AJIL* 2 (2000), p336.

¹⁹² Reporting, notification and information requirements and establishment of multilateral review mechanisms as they promote the effective identification of problems, assist in the assessment of compliance, and thereby encourage transparency. Reporting evaluates progress in meeting objectives. See CITES, Article VIII.7, Decision 11.137 and Resolution Conf. 11.1, Kyoto Protocol, Article 7.1, Article 18 of the UN Fish Stocks Agreement, Article 9 and 10 of the Stockholm (POPs).

Multilateral mechanisms for the review, inspection, verification, and/or monitoring of efforts to implement and comply with treaty obligations are also provided for. The Conference of the Parties (COP), standing committees, or other subsidiary bodies review and report on compliance-related issues and can make recommendations and provide parties with technical assistance to prepare reports, develop national legislation, or identify and implement other measures to comply with treaty obligations. CITES (Resolution Conf. 11.1), Kyoto Protocol Article 8, Article 18. The Basel Convention and the recent Rotterdam (PIC), Article 17 and POPs, Article 17, are in the process of developing non-compliance regimes.

Financial and technical assistance the transfer of technology, differentiated responsibilities and disincentives to address cases of non-compliance. Article 12, 13, 15 of POPs.

“Compliance and Dispute Settlement Provisions in the WTO and in Multilateral Environmental Agreement”, Note by the WTO and UNEP Secretariats, WT/CTE/W/191, 6 June 2001, (01-2811), §12-13.

Although, the main emphasis is on encouraging compliance, certain MEAs contain dispute settlement provisions. These provide for non-binding options such as negotiation¹⁹³, good offices, mediation¹⁹⁴ and compulsory conciliation if agreement cannot be reached on any means of settlement or where all parties to the dispute agree.¹⁹⁵ Certain MEAs contain dispute settlement provisions that enable binding outcomes if both parties to the dispute make an optional declaration accepting compulsory judicial settlement of the ICJ or binding arbitration.¹⁹⁶ However, since few states make such a declaration, most MEAs, in effect, do not include a real system of compulsory and binding dispute settlement.¹⁹⁷ The most notable exception

¹⁹³ Article XVIII.1 of CITES, Article 27, UN Fish Stocks Agreement.

¹⁹⁴ UN Fish Stocks Agreement, Article 27, Montreal Protocol and the Convention on Biological Diversity. The role of the mediator is usually assigned to another party to the MEA, the Secretariat or a Committee of the Convention. See "Compliance and Dispute Settlement Provisions in the WTO and in Multilateral Environmental Agreement", Note by the WTO and UNEP Secretariats, WT/CTE/W/191, 6 June 2001, (01-2811), §23. See P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p230. C. Cooper, "The Management of International Environmental Disputes in the Context of Canada-US Relations: A Survey and Evaluation of Techniques and Mechanisms", 24 *CYIL* (1986), p248.

¹⁹⁵ 1979 Convention on Long-range Transboundary Air Pollution, Article 9; 1985 Ozone Convention, Article 11; 1992 Convention on Climate Change, Article 14; 1992 Convention on Biological Diversity, Article 27, CITES, Article 28, Article 13(2); 1980 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), Article 25; Basel Convention, Article 20; 1991 Convention on Environmental Impact Assessment, Article 15. See P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp230-1. See also J.C. Merrills, *International Dispute Settlement*, 3rd ed., Cambridge, (1998).

¹⁹⁶ Basel Convention, Article 20, Montreal Protocol, 1972 London Dumping Convention procedure agreed by the parties under Article XI; 1996 Protocol, Article 16. 1973 MARPOL Convention, Article 10; 1976 Rhine Chemicals Convention, Article 15; 1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats, Article 18; 1992 Paris Convention for the Protection of the Marine Environment of the Northeast Atlantic, Article 32; 1999 Rhine Convention, Article 16.

¹⁹⁷ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp226-227. For example, see the Biological Diversity Convention and the 1985 Vienna Convention, 1995 Agreement on Straddling and Highly Migratory Fish Stocks, 34 *ILM* 1547, Article 30 and 1994 Agreement on the Implementation of Part XI of the UNCLOS, 33 *ILM* 1311, Article 2.

See also A.E. Boyle, "The International Tribunal for the Law of the Sea and the Settlement of Disputes" in *The Changing World of International Law in the Twenty-First Century: A Tribute to the Late Kenneth Simmonds*, (eds.) J. J. Norton, M. Adenas and M. Footer, The Hague, (1998), p110 and P. Sands, "Compliance with International Environmental Obligations: Existing International Legal Arrangements" in *Improving Compliance with International Environmental Law*, (eds.) J. Cameron, J. Werksman and P. Roderick, (1996), London, Chapter 3.

is UNCLOS¹⁹⁸ which provides for compulsory jurisdiction under ITLOS, ICJ, arbitration or special arbitration.¹⁹⁹

However, the question arises whether it would appropriate for MEAs to have a system of compulsory adjudication.

The institutional arrangements in MEAs established since the 1970's²⁰⁰ are to some extent similar to those found in the GATT 1947.²⁰¹ Although, it was mentioned previously in this section that the WTO DSM improved the GATT dispute settlement mechanism, it should be noted that the GATT system achieved a high level of compliance with trade commitments. The reduction of tariffs under the GATT 1947 system was very successful despite the fact that dispute settlement was not compulsory.

¹⁹⁸ UNCLOS is an MEA to the extent that it contains provisions on fisheries and the marine environment.

¹⁹⁹ UNCLOS, Article 287.

²⁰⁰ For example see 1971 Convention on Wetlands of International Importance (Ramsar Convention); the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, (London Convention); CITES; 1979 Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention); 1985 Convention for the Protection of the Ozone Layer; 1987 Montreal Protocol; 1989 Basel Convention; 1992 UN Convention on Climate Change together with the 1997 Kyoto Protocol; 1992 Convention on Biological Diversity and the Biosafety Protocol.

Prior to 1970, MEAs either had no institutional arrangements at all or they set up or used existing IGOs to adopt detailed measures to further the goals of the MEA and to exercise a supervisory role to ensure that parties would comply with the terms of the agreement. The fact that IGOs were not cost-efficient and were very bureaucratic and there was a need for an effective institutional machinery that would enable MEAs to be developed, updated, and adapted to changing circumstances explained the shift in institutional arrangements. The more recent institutional arrangements are more apt at allowing protocols to be added on. In addition, there was a need to monitor states' implementation and compliance with MEAs and to take appropriate sanctions when necessary. R.R. Churchill and G. Ulfstein, "Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-noticed Phenomenon in International Law", 94 *AJIL* (2000), pp626-628.

²⁰¹ In the sense that the GATT 1947 was not a formal IGO, as meetings of the parties were periodic and were serviced by a permanent secretariat and supported by numerous subsidiary bodies, that the normative content of the agreement was developed at the meetings of the parties, that the supervision over implementation and compliance was ensured through the subsidiary bodies giving scientific and technological advice or advice concerning financial assistance and transfer of technology or advice on implementation and compliance, that decisions were taken by consensus and that GATT 1947 panel decisions were more of a conciliatory nature.

Boyle considers that compulsory dispute settlement provisions in MEAs can provide an authoritative mechanism for resolving issues concerning the interpretation or application of the treaty,²⁰² but that dispute avoidance has the advantage that the emphasis on reaching a consensus contributes to the stability of the system.²⁰³

The disadvantage, however, in trying to reach a consensus is that states may not be willing to do so and that the process may be very time-consuming and extend over a long-time span.²⁰⁴ In addition, the provision of compulsory dispute settlement does not exclude the use of alternative dispute resolution. The WTO agreements also contain provisions intended to facilitate compliance similar to those of MEAs. WTO agreements contain notification, counter-notification, monitoring and transparency requirements, as well as requirements that committees or similar bodies be set up to oversee the operation of the agreement and review agreements. For example, the SPS Agreement requires governments to notify any new or revised SPS measure that could significantly affect trade. Members also have to set up “enquiry points” to respond to requests for information on new or existing measures. The SPS Committee enables the exchange of information relating to the implementation of the SPS Agreement,²⁰⁵ reviews compliance with the agreement, discusses specific trade concerns and issues related to notification and transparency as well as recommends notification procedures.²⁰⁶

The WTO also provides for a range of non-binding dispute resolution options such as good offices, mediation, and conciliation procedures.²⁰⁷ Although, the provision of binding dispute settlement procedures does not exclude the use of alternative dispute resolution, WTO Members mainly rely on the binding dispute settlement procedures.

²⁰² P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p226.

²⁰³ *Ibidem*, pp230-1.

²⁰⁴ The *Swordfish* case demonstrated that even after ten years of negotiations no consensus or agreement had been reached.

²⁰⁵ Article 12.

²⁰⁶ Annex B, Articles 5.8 and 7.

²⁰⁷ DSU, Article 5.

However, bilateral dispute settlement²⁰⁸ is often considered inappropriate and ineffective in the context of MEAs, because breaches of environmental obligations often damage the interests of the international community in general rather than solely the complaining party,²⁰⁹ hence the emphasis on co-operation.²¹⁰

MEAs also need to be flexible as they should be in a position to adjust to an evolving and expanding knowledge on environmental issues and to promote or impose stricter measures over time where this is needed.

The advantage of resorting to alternative dispute settlement is that they are more cost-effective, flexible and the parties remain free to negotiate a settlement without having to follow the treaty provisions or rules of international law religiously.²¹¹ This flexibility enables the parties to determine the extent to which they wish to implement the provisions.

Therefore, the provision of compulsory dispute settlement jurisdiction in the context of MEAs does not seem necessarily appropriate.

It could also be argued that an effective enforcement mechanism should be available to the parties to MEAs. However, there may be little point in having an enforcement mechanism that sanctions non-compliance as non-compliance does not seem to be a real problem in the context of MEAs²¹² as opposed to the problem of non-participation by some important states and the weakness of the measures agreed.²¹³

²⁰⁸ As well as the traditional mechanisms of state responsibility.

²⁰⁹ R.R. Churchill and G. Ulfstein, "Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-noticed Phenomenon in International Law", 94 *AJIL* (2000), p629.

²¹⁰ "Compliance and Dispute Settlement Provisions in the WTO and in Multilateral Environmental Agreement", Note by the WTO and UNEP Secretariats, WT/CTE/W/191, 6 June 2001, (01-2811), §6.

²¹¹ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p230.

²¹² See D.G. Victor, K. Raustiala, E.B. Skolnikoff, *The Implementation and Effectiveness of International Environmental Commitment: Theory and Practice*, (1998), pp138-139, 661-662. The only non-compliance procedure to generate any complaints is the Montreal Protocol one.

²¹³ This problem is exemplified by the Kyoto Protocol.

Even in a situation where non-compliance would occur, MEAs do contain non-compliance procedures that allow for sanctions such as the suspension of treaty rights. However, these sanctions are ineffective as they lead to the exit rather than action of parties to an MEA. In addition, sanctions can also be counterproductive as non-compliance with MEAs tends to arise from an inability to comply rather than from an intentional disregard of obligations.²¹⁴ Therefore, sanctioning a party that does not have the resources to comply with the requirements does not encourage or enable a party to comply in the future. The provision of assistance and other incentives are often more suitable.

It can also be concluded that even if an international environmental court with enforcement mechanisms would be created, this would not necessarily resolve potential non-compliance problems that could potentially arise under MEAs.²¹⁵ In addition, it is doubtful whether an international environmental court would be an appropriate move since environmental disputes are often multidimensional as they involve not only international environmental law but also other areas of international law.²¹⁶ Indeed, as Boyle notes it is preferable for the parties to take their disputes to a generalist rather than specialist court in these cases²¹⁷, whereas specialist courts and tribunals are to be favoured when a special body of law is to be applied or where the issues to be resolved are of a technical nature.²¹⁸

²¹⁴ EC's TBR, §8.

²¹⁵ For contra see D. Esty, *Greening the GATT- Trade, Environment, and the Future*, (1994), pp150, 239-241. In addition, as Boyle notes: "there is no evidence of any need for new institutional arrangements to handle the far smaller number of disputes that arise under environmental treaties, and which have been quite satisfactorily resolved through non-compliance procedures or negotiation" and that international courts and arbitration have not played a large role in the development of international environmental law. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p55 and 221.

²¹⁶ *Gabcikovo-Nagymaros Dam Case* ICJ Rep. (1997) involved the law of treaties, international watercourses, state responsibility, and state succession. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p224.

²¹⁷ This is probably one of the reasons why the special chamber for environmental cases established in 1993 by the ICJ has not been a success. In addition, this "specialist" court is not composed of judges that are necessarily experts on international environmental law or on the scientific and technical issues that are relevant to environmental disputes. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p224.

²¹⁸ Such as the UNCLOS or the WTO Agreements.

In addition, it should be noted that the value of an enforcement mechanism should not be over-estimated. Indeed, although the WTO provides for compulsory dispute settlement and sanctions, there are compliance problems with the Appellate Body decisions. Therefore, Koester's statement that WTO DSB decisions are respected needs to be relativised.²¹⁹

The primary aim of the DSM is “to secure the withdrawal” of the WTO-inconsistent measure. The Member must comply with the recommendations and rulings of the DSB, within a “reasonable period of time”,²²⁰ if prompt compliance is impracticable.

However, full compliance in the sense that inconsistent measures are removed has not been achieved in cases such as the *Bananas*, *Salmon* and *Hormones* disputes, although compensation or suspension of concessions have been granted. The provision of compensation “should be resorted to only if the immediate withdrawal of the measure is impracticable” and on a *temporary* basis. Compensation is voluntary and should be determined by negotiation within 20 days after the date of expiry of the reasonable period. If no agreement can be reached, the complaining Member may request the suspension of concessions equivalent to the level of nullification and impairment.²²¹ A Member may suspend concessions after it has been held by arbitration that the measures are not in compliance with the covered agreements,²²² and after the DSB has authorised the suspension.²²³ If the other Member does not agree to the level of suspension of concessions, the matter can be brought to arbitration where the level of suspension of concessions will be determined.²²⁴

²¹⁹ V. Koester, “A New Hot Spot in the Trade-Environment Conflict”, 31 *EPL* 2 (2001), p86.

²²⁰ Usually established after negotiation between the parties or by arbitration under Article 21.3(c). See *Bananas – WT/DS27/15*.

²²¹ DSU, Article 22.4.

²²² DSU, Article 21.5.

²²³ DSU, Article 22.2.

²²⁴ DSU, Article 22.6.

Although, the WTO DSU contains elaborate provisions for sanctioning non-complying Members, it cannot force full compliance with the Appellate Body decisions. Therefore, ensuring compliance with rulings is obviously not solely linked to whether a system provides compulsory dispute settlement procedures or elaborate enforcement provisions. For example, political failures and the fact that the law may not be viewed as legitimate will also provoke intentional non-compliance.

In conclusion, the argument that MEAs should provide an enforcement mechanism similar to the one of the WTO should be rejected.

C. SOLUTIONS AVAILABLE TO WTO MEMBERS IN FURTHER INTEGRATING MEA RULES IN THE WTO

It is essential that efforts be made in the WTO to further address the WTO-MEA relationship and promote coherence between different sources of international law. Section B.I, II and III have considered how the DSB can contribute to increasing coherence between the WTO and other sub-systems of international law, the following sections will evaluate the options that are available to WTO Members in doing so and will consider the relative effectiveness of these options.

I. Amendment of Article XX of the GATT 1994

A possible solution to integrate MEA rules in the WTO agreements would be to draft rules that explicitly accommodate MEAs, for example, by amendment of existing provisions.

Suggestions have been put forward to include a new sub-paragraph in Article XX that would allow WTO Members to impose measures that are taken pursuant to an MEA negotiated under internationally recognised institutions,²²⁵ or that would enable

²²⁵ WTO Document, CTE, Non-Paper by the European Community (19 February 1996). See also See "Multilateral Environmental Agreements (MEAs) and WTO Rules; Proposals Made in the

these measures, at least where they are specifically required by the MEA, to benefit from a presumption of consistency with the requirements of Article XX. The presumption of consistency of MEAs would follow the model of the SPS Agreement that presumes that a measure, which conforms to an international standard is consistent with the SPS Agreement.²²⁶

A new paragraph could also be included in Article XX based on Article XX(h), which recognises the legitimacy of international commodity agreements that conform to principles approved by the Economic and Social Council. Commodity agreements that conform to specified criteria are valid automatically, other commodity agreements can be validated on an *ad hoc* basis if submitted and not disapproved by the WTO Members.²²⁷

However, a formal amendment of the rules contained in the WTO agreements is difficult to achieve as this requires, for key provisions such as the non-discrimination rules and provisions of the DSU, unanimous agreement of the membership²²⁸ and for other provisions such as Article XX, a two-thirds majority of all Members.²²⁹

In addition, the amendment would only be binding on those Members having voted in favour of it. There is, of course, a procedure for obliging non-consenting countries to accept the amendment, which requires that the amendment be approved by three-fourth majority of all Members and that these three-fourth of all Members adopt a separate decision forcing non-ratifying Members to either accept the amendment or withdraw their membership. This is, of course, a very radical method of imposing

Committee on Trade and Environment (CTE) From 1995-2002, WTO Document, TN/TE/S/1, 23 May 2002, p2.

²²⁶ SPS Agreement, Article 2.4. See WTO CTE, WT/CTE/W/168, 19 October 2000. NAFTA, Article 104 identifies three trade-related MEAs that may take precedence over NAFTA provided that the MEA is implemented in the least NAFTA-inconsistent way. The listed agreements include the Montreal Protocol, Basel Convention and CITES.

²²⁷ T. Schoenbaum, in P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p706.

²²⁸ Article X.2 of the WTO Agreement.

²²⁹ Article X.3 of the WTO Agreement.

amendments, which is very unlikely to take place in this context.²³⁰ In 1955, an amendment was attempted with respect to Article I of the GATT 1947, but failed because the unanimous consent required was not achieved as one single country blocked ratification. It is, of course, difficult to speculate if nowadays the amendment would have gone through, but this example clearly illustrates that amending the agreements is very difficult. Amendments that have been ratified under GATT 1947 related to special conditions for developing countries.²³¹ It should be remembered, that a country that has not joined consensus to solve an environmental problem through an MEA will most probably not do so at the WTO by agreeing to amend trade rules in such a way that these could have a negative impact on their interests.

II. Establishment of a New “Understanding” on MEAs

Another option available to Members would be to establish a new “Understanding”, that is a new side agreement.²³² This would be a more appropriate solution where Members would consider it necessary to further develop the criteria that MEAs or the measures taken pursuant to these agreements would need to fulfil, in order to take precedence over WTO agreements or to benefit from a presumption of consistency with WTO obligations.

Developing an Understanding would also be a more suitable option than an amendment where Members would want to include a list of MEAs that fulfil certain requirements²³³ or where an approval system of future MEAs would be included.

²³⁰ R. Hudec, “The GATT/WTO Dispute Settlement Process – Can it Reconcile Trade Rules and Environmental Needs”, in R. Wolfrum (ed.) *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), p126.

²³¹ In 1955 and in 1964.

²³² See “Multilateral Environmental Agreements (MEAs) and WTO Rules; Proposals Made in the Committee on Trade and Environment (CTE) From 1995-2002, WTO Document, TN/TE/S/1, 23 May 2002, p3.

²³³ Article 104 of the NAFTA, which provides that the Montreal Protocol, CITES and the Basel Convention take precedence over NAFTA obligations.

A proposal was made at the Singapore Conference by the European Commission to draft an “Understanding” that would enable measures taken pursuant to an MEA to be considered “necessary” within the terms of Article XX of GATT 1994, whilst enjoying no presumption of consistency with the *chapeau* of Article XX,²³⁴ if the MEA would enable the participation of all states concerned and if there was adequate participation in order to reflect the interests of the states, including those with significant trade and economic concerns.

This proposal, however, may not bring more than what is already the practice of panels and the Appellate Body, since even unilateral measures have been justified under Article XX(b) and (g) but failed the test under the *chapeau* of Article XX.²³⁵ It could be argued, though, that the chances of being inconsistent with the terms of the *chapeau* are reduced. However, as noted in section B.I., if the measures are not explicitly required by the MEA, these could well be found to be inconsistent with the *chapeau* of Article XX. In addition, as discussed in Chapter 2 and 3, the requirements of the *chapeau* and the interpretation given to these requirements by the WTO DSB, as far as clarity and consistency are concerned, leave a lot to be desired.

Rutgeerts proposes an additional conditionality in order to prevent protectionism, namely that “MEAs should only be accommodated under the Understanding if there is enough scientific evidence of their environmental necessity and if they are truly global”.²³⁶

This proposal should be rejected. States negotiate MEAs because they believe them to be necessary. It would be inappropriate for the WTO to sit in judgement on the scientific evidence and any sensible government would dismiss this idea out of hand.

²³⁴ See “Multilateral Environmental Agreements (MEAs) and WTO Rules; Proposals Made in the Committee on Trade and Environment (CTE) From 1995-2002, WTO Document, TN/TE/S/1, 23 May 2002, p3. See also Chapter 3, section D.I.3 and approach taken in Article 3.2 of the SPS Agreement.

²³⁵ See *Shrimps* Appellate Body Report, §195.

²³⁶ A. Rutgeerts, “Trade and Environment – Reconciling the Montreal Protocol and the GATT”, 33 *JWT* 4 (1999), p85.

In addition, MEAs may not be “truly global” in the sense that all or most of the WTO Members are party to an MEA, while nevertheless aiming to protect the environment in a meaningful way. A requirement that an MEA should be open to all those Members that have a legitimate interest in the environmental problem would be far more appropriate.

Brack considers the establishment of a new side agreement on MEAs as the best solution since it would avoid an amendment process, clear rules would be established with respect to MEAs, and that it would be easier to negotiate.²³⁷ However, although, the amendment process would be avoided, it is doubtful that consensus would be reached more easily. Despite the fact that clear rules would be established, the number of new rules may provide considerable grounds for discussion and disagreement. As with an amendment process, a new agreement would also require acceptance and ratification before it would be binding on all Members.

Marceau suggests that since consensus on the environment-trade debate would be difficult to reach, a plurilateral agreement could be envisaged that would only bind certain Members of the WTO.²³⁸ However, this would not necessarily be desirable since this would have the tendency to encourage Members to pick-and-choose which rules they wish to be bound by, thereby reverting to some extent to the system under the old GATT.

III. Granting of Waivers for MEAs

Waivers that enable a WTO Member to derogate from its obligations under the WTO agreements are provided for in Article IX.3 and IX.4 of the WTO Agreement and in the GATT 1994 Understanding on Waivers.

²³⁷ D. Brack, “The Shrimp-Turtle Case: Implications for the Multilateral Environmental Agreement-World Trade Organisation Debate”, 9 *YIEL* (1998), p19.

²³⁸ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p148.

A Member could request a waiver for a specific measure taken pursuant to an MEA or for a list of specific measures taken pursuant to various MEAs. Kingsbury argues that temporary waivers for major MEAs could prove to be a practical and expeditious means of resolving conflicts.²³⁹ However, although, waivers could provide for the accommodation of TREMs pursuant to MEAs, they are difficult to obtain²⁴⁰ and may not be of great use from an environmental perspective since they may only be granted in exceptional circumstances on a temporary basis.²⁴¹ In addition, the granting of waivers is determined on a case-by-case basis and is, therefore, unpredictable. It is also worth noting that parties negotiating an MEA are faced with considerable uncertainty, since waivers could only be granted after an MEA is concluded.²⁴²

The *Bananas* case also demonstrated that waivers are interpreted restrictively and are viewed as very specific.²⁴³ Therefore, using waivers as a means of integrating environmental concerns is not a viable solution and should not be considered as a substitute for amending or negotiating new rules. In addition, waivers are very cumbersome since requests are processed through various stages in order to achieve a consensus and where this is not achieved, a three-fourths majority of WTO

²³⁹ See "Multilateral Environmental Agreements (MEAs) and WTO Rules; Proposals Made in the Committee on Trade and Environment (CTE) From 1995-2002, WTO Document, TN/TE/S/1, 23 May 2002, p2 and B. Kingsbury, "Environment and Trade: The GATT/WTO Regime in the International Legal System" in A.E. Boyle (ed.), *Environmental Regulation and Economic Growth*, (1994), pp219-220.

²⁴⁰ Historically, the GATT 1947 provided waivers to authorise the Generalized System of Preferences and a South-South tariff preference scheme both for a period of ten years. The scope of the waivers was enlarged during the Tokyo Round of negotiations (1973-1979) and became quasi-permanent through the adoption of the Enabling Clause. See also the Lomé Waiver. See R. Hudec, "The GATT/WTO Dispute Settlement Process – Can it Reconcile Trade Rules and Environmental Needs", in R. Wolfrum (ed.) *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), p128.

²⁴¹ WTO Agreement, Article IX.4. Waivers that are for more than one year are to be reviewed annually.

²⁴² A. Rutgeerts, "Trade and Environment – Reconciling the Montreal Protocol and the GATT", 33 *JWT* 4 (1999), p84.

²⁴³ See section B.II.1. above.

Members is required.²⁴⁴ However, since waivers do not amend or add obligations to the WTO Agreement, they do not need to be ratified by the WTO Members.

Kingsbury also argues that since votes are influenced by extraneous political considerations, it may be desirable to adopt a code of practice on such waivers.²⁴⁵ Although, this may to some extent alleviate arbitrariness, waivers will be a political decision, which almost inevitably contains extraneous political considerations.

IV. Formal Interpretations by the General Council

As an alternative to an amendment process or the adoption of a new agreement, Article XX of the GATT 1994 could be given an authoritative interpretation by the General Council under Article X.2 of the WTO Agreement and Article 3.9 of the DSU, where there is a three fourths vote of WTO Members in favour of the adoption of the interpretation.²⁴⁶ Again, as is the case for waivers, an interpretation would not need to be ratified by each Member.

Since the WTO is often criticised for operating with limited regard to substantive principles of international or national environmental policy or law²⁴⁷, the General Council could decide that certain principles of international environmental law should be relied on when interpreting the WTO agreements and could specify the extent to which this would be the case.²⁴⁸

Of course, it could be argued that since the Preamble to the WTO Agreement explicitly refers to sustainable development, that the Marrakesh Decision on Trade

²⁴⁴ WTO Agreement, Article IX.3.

²⁴⁵ B. Kingsbury, "Environment and Trade: The GATT/WTO Regime in the International Legal System" in A.E. Boyle (ed.), *Environmental Regulation and Economic Growth*, (1994), pp219-220.

²⁴⁶ Article XI.8.

²⁴⁷ B. Kingsbury, "Environment and Trade: The GATT/WTO Regime in the International Legal System" in *Environmental Regulation and Economic Growth* ed. A.E. Boyle, 1994, p221.

²⁴⁸ G. Marceau, "A Call for Coherence in International Law – Praise for the Prohibition Against "Clinical Isolation" in WTO Dispute Settlement", 33 *JWT* 5 (1999), p141.

and Environment refers to the Rio Declaration, that it may not be necessary to determine which principles of international environmental law are to be relied on, since many that are relevant to trade are parameters of sustainable development.

Since the preamble to the WTO Agreement is part of the context of the WTO Agreement, it can be concluded that the components of the principle of sustainable development, such as the principle of protection of the environment, the principle of conservation, the precautionary principle to anticipate adverse consequences of environmental degradation, limits to territorial sovereignty and the principle of common but differentiated responsibility are also by implication part of the context of the WTO agreements, even though they are not explicitly mentioned in the WTO agreements, and are, therefore, sources of interpretation of WTO agreements pursuant to Article 31(1) of the 1969 Vienna Convention.

The Appellate Body in the *Shrimps* case referred to the Preamble of the WTO Agreement with respect to sustainable development, and stated that “we believe [the preamble] must add colour, texture and shading to our interpretation of the agreements annexed to the WTO Agreement, in this case, the GATT 1994”²⁴⁹.

Therefore, the principles of international environmental law that are parameters of sustainable development also must also “add colour, texture and shading” to the interpretation of the covered agreements.

For example, the Appellate Body in considering the unilateral character of the measure at issue, referred to the standard set in the 1992 Rio Declaration, Principle 12.²⁵⁰ The precautionary principle is in the words of the Appellate Body in the *Hormones* case, incorporated in the SPS Agreement, in particular in Article 3.3 and 5.7 of the SPS Agreement, although not being explicitly referred to.²⁵¹

²⁴⁹ *Shrimps* Appellate Body Report, §161 and 163.

²⁵⁰ *Ibidem*, §168-173. See also *Gasoline*, Appellate Body Report, p29.

²⁵¹ *Hormones* Appellate Body Report, §124.

The polluter-pays-principle, contained in Principle 16 of the Rio Declaration as well as in conventions such as the UN/ECE Convention on the Transboundary Effects of Industrial Accidents, the International Convention on Oil Pollution Preparedness, Response and Co-operation, EC Treaty, and the OSPAR Convention²⁵² has been mentioned in the *Superfund* case examined in Chapter 2. The Panel noted that the rules on border tax adjustments could follow the polluter-pays-principle,²⁵³ therefore, it could be argued that the term “necessary” in Article XX(b) and in the SPS Agreement could be interpreted to imply that the exporter must follow the polluter-pays-principle. However, it is not certain that this interpretation would be accepted by the DSB.

Therefore, although, principles of international environmental law have been considered in the interpretation of the covered agreements, clear guidelines or rules concerning their use would have the advantage of alleviating any doubts as to whether and in which circumstances such principles should be relied upon.

V. Encouraging Dispute Avoidance

As discussed in section B.IV., the WTO DSM also provides for alternative dispute resolution but it is not often resorted to. Marceau suggests that the procedures in Article 5 of the DSU could include some duty to negotiate, so that non-binding dispute resolution methods are fully exhausted before reliance is had on binding forms of dispute settlement, in order to deescalate disputes that might arise. This type of requirement is included in treaties such as the 1978 Vienna Convention on Succession of States in Respect of Treaties, Article 41, which provides that “if a dispute regarding the application or interpretation of the present Convention arises between two or more Parties to the Convention, they shall, upon the request of any of them, seek to resolve it by a process of consultation and negotiation” and a milder

²⁵² See J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement Body”, 50 *ICLQ* April 2001, p269, footnote 106.

²⁵³ *Ibidem*, p269.

form contained in UNCLOS, which requires that parties “proceed expeditiously to an exchange of views”.²⁵⁴

The downfall of such an approach is that the “terms of a negotiated settlement will usually reflect not the merits of each party's case, but their relative power”²⁵⁵. If too much emphasis is put on negotiation, developing countries although not as often party to disputes would possibly suffer from a lack of power over developed countries and a fair settlement would be difficult to reach. In addition, although negotiation may discourage “copy-cat” disputes, Members may also see an opportunity “to win time” by prolonging negotiations, thereby lengthening the time span of individual disputes, while upholding their measures.

Conciliation is often used in disputes where the main issue is legal.²⁵⁶ It may therefore, not be ideal in situations where scientific issues are central to the dispute such as is the case in disputes concerning the SPS Agreement, the TBT Agreement and Article XX of the GATT 1994.

VI. DSU Consultation Obligations

Marceau argues that WTO Members could consider modifying the DSU to introduce new consultation obligations and/or new obligations requiring panels to consult with experts, MEA Secretariats and “other outside sources of legal, scientific or technical information”.²⁵⁷ As was noted in Chapter 5, the use of experts adds transparency and neutrality to the decision-making process, thereby adding legitimacy to the WTO decisions. Although, panels consult with experts even though they are not obliged to

²⁵⁴ Article 283.

²⁵⁵ J. G. Merrills, “The Principle of Peaceful Settlement of Disputes”, in (eds.) C. Warbrick and V. Lowe, *The United Nations and the Principles of International Law – Essays in Memory of Michael Akehurst*, London, New York, (1994), p51.

²⁵⁶ Conciliation is widely used in dispute settlement provisions in multilateral treaties UNCLOS Articles 284, 297-8, and Annex V and in certain environmental treaties. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp230-1.

²⁵⁷ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p141.

do so, it would be appropriate to make a formal amendment that ensures that panels refer to experts.

An obligation that consultations be held with MEA secretariats should be promoted as well as an obligation that MEA secretariats participate in negotiations or mediation. Panels could, for example, be encouraged to fully use their right to request information under Article 13 of the DSU²⁵⁸, especially from MEA secretariats that could, for example, advise on the conformity of a measure with the MEA at issue.²⁵⁹ This would enable the already ongoing informal exchanges with MEA Secretariats in the CTE to be strengthened and formalised.²⁶⁰

Attention should be directed at strengthening the dialogue between the WTO and MEA secretariats, raising awareness in the WTO of the processes in MEAs, encouraging increased co-ordination between trade and environment officials at the national as well as international levels in order to share information and increase transparency. In the long-term, this may encourage the wider acceptance of MEAs and the desire on the part of all WTO Members to accommodate these in the WTO to a greater extent.

Ministers in Doha have agreed to negotiate procedures for regular information exchange between secretariats of MEAs and the WTO. The new information exchange procedures should, hopefully, expand the scope of existing cooperation.²⁶¹

²⁵⁸ Article 13 of the DSU:

“1. Each panel shall have the right to seek information and technical advice from any individual or body which it deems appropriate...”

2. Panels may seek information from any relevant source and may consult experts to obtain their opinion on certain aspects of the matter...”

²⁵⁹ G. Marceau, “A Call for Coherence in International Law – Praise for the Prohibition Against “Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p141.

²⁶⁰ The WTO's Doha Ministerial Declaration welcomes “the WTO's continued co-operation with UNEP and other inter-governmental environmental organisations” and “encourage[s] efforts to promote cooperation between the WTO and the relevant international environmental and developmental organisations”. WT/MIN(01)/DEC/1, (2001), §6.

²⁶¹ Doha Ministerial Declaration, WT/MIN(01)/DEC/1, (2001), §31(ii).

VII. CTE Involvement

The CTE's mandate is to identify the relationship between trade measures and environmental measures to promote sustainable development, and to make recommendations on whether any modifications to WTO provisions are required.²⁶² However, so far the CTE has mainly been a discussion forum that has not been used as a means of negotiating amendments or new rules and it has failed to make recommendations as to the interpretation of existing rules. Indeed, the Appellate Body stated that it interpreted Article XX in the absence of recommendations of the CTE.²⁶³ It has been argued that the reason for this appears to be the “unwillingness of many Members, particularly developing countries, to change WTO rules”.²⁶⁴

However, the SPS Committee has provided a number of clarifications to the interpretation of the SPS Agreement, including decisions²⁶⁵, recommended procedures for implementation of certain provisions, guidelines.²⁶⁶

Article 32 of the Doha Declaration, instructs the CTE to continue work on all items on its agenda within its current terms of reference, which includes the relationship

²⁶² See S. Shaw and R. Schwartz, “Trade and Environment in the WTO – State of Play”, 36 *JWT* 1 (2002), p130.

²⁶³ See *Shrimps*, §155. See S. Shaw and R. Schwartz, “Trade and Environment in the WTO – State of Play”, 36 *JWT* 1 (2002), p146.

²⁶⁴ See S. Shaw and R. Schwartz, “Trade and Environment in the WTO – State of Play”, 36 *JWT* 1 (2002), p132.

²⁶⁵ WTO document, G/SPS/19.

²⁶⁶ WTO Documents, Committee on Sanitary and Phytosanitary Measures -Recommended Notification Procedures – Revision, 26/11/1999, G/SPS/7/Rev.1 and Committee on Sanitary and Phytosanitary Measures -Recommended Procedures for Implementing the Transparency Obligations of the SPS Agreement (Article 7) – Revision, 2/4/2002, G/SPS/7/Rev.2.

between the WTO and MEAs,²⁶⁷ and that the work “should include the identification of any need to clarify relevant WTO rules”. Hopefully, the renewed commitment to the clarification of trade-environment issues, will bear its fruit and demonstrate a willingness on the part of all WTO Members to increase the linkage between these issue areas.

VIII. Reference to the ICJ

Although, the WTO has a special body of law to apply and adjudicates over disputes concerning the consistency of TREMs with the WTO agreements, these disputes often cover not only international trade law but also the law of the treaties and international environmental law. Since it was recognised in section B.IV.3. that it is preferable for disputes that are multi-disciplinary to be referred to a generalist court it could be argued that the WTO should cede adjudicative power to a generalist court such as the ICJ or leave it up to the parties to determine where these cases are to be adjudicated.

In other words, the WTO would similarly to the dispute settlement arrangements of UNCLOS provide a choice of dispute settlement forum.²⁶⁸ UNCLOS enables parties

²⁶⁷ The Doha Declaration, WT/MIN(01)/DEC/1, 20 November 2001, §32 states that the CTE should give particular attention to:

“(i) the effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed among them, and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development;

(ii) the relevant provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights; and

(iii) labelling requirements for environmental purposes.”

²⁶⁸ The Convention does not aim to allocate a functional jurisdiction to each of the four compulsory fora. The parties have the discretion to choose the fora that they consider most appropriate. Only where parties do not agree to the choice of fora are the parties compelled to select arbitration. See the “Montreux formula” of Article 287. See P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p221.

The choice of dispute resolution was due to the reticence on the part of some states in accepting judicial settlement, the fact that the ICJ would be the only forum for such settlement and because of the view that no individual forum would be able to deal with the wide range of issues that are likely to arise and that therefore specialist bodies with technical expertise are needed. Where the dispute involves the marine environment or living resources of the high seas and the parties are unable to agree on a forum, the UNCLOS provides that arbitration is obligatory. UNCLOS, Part

to refer disputes to arbitration²⁶⁹, special arbitration²⁷⁰, the ICJ as well as to a specialised court, the ITLOS.²⁷¹

Marceau considers that provisions could be included for the referral of certain issues involving the relationship between obligations of the WTO and the provisions of other treaties to the ICJ.

However, it is questionable whether a generalist court such as the ICJ would be able to sustain the burden of litigation, at least with its current resources.²⁷²

Rather than referring disputes to another tribunal, the opinion of other courts or tribunals could be sought for. Indeed, Article 13 of the DSU is not limited to factual issues. For example, the ICJ could provide an opinion on the consistency of a measure with the MEA or the legal relationship of the MEA and the WTO provisions.²⁷³ Provided that such a procedure does not become too cumbersome, this

XV.

A.E. Boyle, "The International Tribunal for the Law of the Sea and the Settlement of Disputes" in *The Changing World of International Law in the Twenty-First Century: A Tribute to the Late Kenneth Simmonds*, (eds.), J. J. Norton, M. Adenas and M. Footer, The Hague, (1998), p111 and P. Sands, "Compliance with International Environmental Obligations: Existing International Legal Arrangements" in J. Cameron, J. Werksman and P. Roderick (eds.), *Improving Compliance with International Environmental Law*, London, (1996), Chapter 3.

²⁶⁹ Arbitrators appointed under Annex VII are not necessarily lawyers but must be "experienced in maritime affairs". P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p225.

²⁷⁰ Special arbitrators equally are not necessarily lawyers but are experienced in the domain of fisheries, protection of the marine environment, scientific research, or navigation as appropriate. Special arbitrators may also be appointed as technical experts to "advise" the ICJ, ITLOS or an arbitral tribunal in accordance with Article 289. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p225.

²⁷¹ The ITLOS is composed of persons of "recognised competence in the field of the Law of the Sea", in other words, it is an alternative to the ICJ. Although, it should be said that the ITLOS's structure is more eclectic than that of the ICJ as it accommodates litigation involving states, international organisations, and private parties. The ITLOS tribunal is composed of 21 judges as opposed to the ICJ's 15. See A.E. Boyle, "The International Tribunal for the Law of the Sea and the Settlement of Disputes", in *The Changing World of International Law in the Twenty-First Century*, p102.

²⁷² P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p224. V. Lowe and M. Fitzmaurice (eds.), *Fifty Years of the International Court of Justice, Essays in Honour of Sir Robert Jennings* (1996), pp302-8. See generally, T.O. Elias, *The International Court of Justice and Some Contemporary Problems: Essays in International Law* (1983).

²⁷³ G. Marceau, "A Call for Coherence in International Law – Praise for the Prohibition Against

may well be a valuable resource in adding neutrality to the decision-making process. In addition, advisory opinions of the ICJ would “provide authoritative guidance on the state of the law at the time they are decided”.²⁷⁴

Co-operation and co-ordination between different courts/tribunals would certainly contribute to a degree of coherence between different branches of international law and would decrease potential conflicts between the decisions of different courts/tribunals.²⁷⁵

This section demonstrated that there are solutions available to WTO Members in further accommodating these rules and principles in the WTO. However, it is clear that most of these solutions can only be truly successful if WTO Members as a whole agree to use them.

The recent Doha Declaration seems to be a step in the right direction as Members have agreed to negotiations. Paragraph 31(i) of the Doha Declaration states:

“With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:

(i) the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question.”

The objective of the new negotiations will be to clarify the relationship between trade measures taken under the environmental agreements and WTO rules. However, whether specific rules regulating the MEA-WTO relationship will emerge from these negotiations is unclear.

“Clinical Isolation” in WTO Dispute Settlement”, 33 *JWT* 5 (1999), p143.

²⁷⁴ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p108.

²⁷⁵ See J. Pauwelyn, “The Use of Experts in WTO Dispute Settlement”, 51 *ICLQ* April (2002), p333.

Indeed, there is a rift in the WTO between those Members that consider that existing WTO rules are sufficient to accommodate MEAs²⁷⁶, particularly given the recent developments in WTO jurisprudence and those Members that have identified a need to clarify the legal status of the WTO-MEA relationship so as to reduce uncertainty and avoid undermining environmental negotiations.²⁷⁷

D. CONCLUSION

The inclusion of health, environmental and other exceptions to the general trade obligations implies that the WTO agreements are necessarily linked to some extent to other sources of international law that deal with these other non-trade issues.

The DSB has shown willingness to look beyond the WTO agreements in order to resolve disputes. This is a development from GATT 1947 panels that in most cases did not follow international law rules on the interpretation of treaties. The DSU as well as various panel and Appellate Body reports demonstrate that the WTO is not a closed system that is impermeable to other sources of international law. As the Appellate Body in the *Gasoline* case acknowledged, WTO agreements cannot “be read in clinical isolation from public international law”.²⁷⁸ The WTO DSB has shown its willingness not only to take into consideration rules of international law contained in Article 31 and 32 of the 1969 Vienna Convention but also to rely on other general rules of treaty interpretation such as the principle of non-retroactivity contained in Article 28 of the Vienna Convention,²⁷⁹ the principle that an exception to a general

²⁷⁶ On 27-28 June 2001, UNEP and MEAs participated in a CTE information session on compliance and dispute settlement that addressed the WTO-MEA relationship.

²⁷⁷ In a Report submitted by the Secretariat, it was noted that problems are unlikely to arise in the WTO over trade measures agreed and applied among parties to an MEA. In the event of a dispute, however, “WTO Members are confident that the WTO dispute settlement provisions would be able to tackle any problems, which arise in this area, including in cases when resort to environmental expertise is needed”. WTO Secretariat, see Trade and Environment in the WTO, www.wto.org/english/thewtoe/minute/min99e/english/aboute/13envie/htm.

²⁷⁸ *Gasoline*, Appellate Body Report, p17.

²⁷⁹ Article 28 states that “[u]nless a different intention appears from the treaty or is otherwise established, its provisions do not bind a party in relation to ... any *situation which ceased to exist* before the date of the entry into force of the treaty” was applied in the *Hormones* case as

rule is to be interpreted narrowly²⁸⁰, the principle of estoppel²⁸¹, the principle contained in Article 18 of the 1969 Vienna Convention that “a State is obliged to refrain from acts which would defeat the object and purpose of a treaty”²⁸², the principle of effectiveness (*ut res magis valeat quam pereat*)²⁸³, the principle of good faith²⁸⁴, the principle of proportionality,²⁸⁵ the principle of legitimate expectations²⁸⁶ and the presumption against conflicts.²⁸⁷

The use of these rules and principles of international law, including those contained in MEAs has the effect of legitimising the WTO dispute settlement process, in the eyes of those whose values or interests are involved, in resolving disputes over

noted in the previous chapter. *Hormones*, US Panel Report, §8.25, Canada Panel Report, §8.28. See also *Brazil - Measures Affecting Desiccated Coconut*, adopted 20 March 1997 (WT/DS22/AB), Appellate Body Report, p15.

²⁸⁰ Article XX is entitled general exceptions and as such provides for a “limited and conditional exception from obligations under other provisions” and “not a positive rule establishing obligations in itself” and thus should be interpreted narrowly. *United States - Section 337 of the Tariff Act of 1930*, adopted on 7 November 1989, BISD 36S/345, §5.9. See also *Wool Shirts*, p16, *Shrimp* Panel Report.

²⁸¹ See *United States - Measures Affecting Imports of Softwood Lumber from Canada*, BISD 40S/358 (Adopted 27 October 1993), 480-486, §308-325.

²⁸² When invoking Article XX, a Member invokes the right to certain specific substantive provisions of GATT 1994 but in doing so should not frustrate or defeat the purposes and objects of the General Agreement and the WTO Agreement or its legal obligations under substantive rules of GATT by abusing the exception contained in Article XX. *Shrimps* Appellate Body Report, §151.

²⁸³ Relied upon by the *Gasoline* Appellate Body, p18, where it was held that the interpretation of a provision must not create a situation where paragraphs of a treaty are redundant, since all terms of the treaty must be given meaning and effect. The Appellate Body in the *Japan-Taxes* case also applied the effectiveness principle when addressing the interpretation of Article III. The Appellate Body stated that failing to take into account Article III.1 in interpreting Article III.2 was a legal error because this would render “the words of Article III.1 meaningless, thereby violating the fundamental principle of effectiveness in treaty interpretation”. Section G. The *Shrimps* Appellate Body also made use of this principle in determining that Article XX(g) referred both to living and non-living exhaustible resources. §128-131.

²⁸⁴ Emphasised by the *Shrimps* Appellate Body as it considered that where a Member would refuse to enter into negotiations over the protection of exhaustible natural resources beyond its national jurisdiction, unilateral measures may not be justified as the principle of good faith would be breached. See Chapter 2, section C.II.5.a.

²⁸⁵ See *Shrimps* Appellate Body Report, §141 and *Asbestos* Appellate Body Report, §172.

²⁸⁶ See *Japan - Taxes*, Appellate Body Report, Section E.

²⁸⁷ See *Guatemala - Anti-Dumping Investigation Regarding Portland Cement From Mexico*, adopted 25 November 1998, WT/DS60/AB/R, §65. *Indonesia - Certain Measures Affecting the Automobile Industry*, adopted 23 July 1998, WT/DS54, 55, 59, 64, §14.28ff.

See J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement

competing values.²⁸⁸ The reason for this is that these principles encompass law and values that are not exclusively concerned with trade liberalisation. This is common sense as states have after all agreed to rules that are not solely contained in the WTO agreements.

However, the primary responsibility for clarifying the WTO-MEA relationship rests with WTO Members, not the dispute settlement system.²⁸⁹ Although, the DSB, can make decisions in a specific case, it may not be able to clarify the general relationship between the WTO and MEAs because the MEA-WTO relationship is not merely a legal question, but also a politically sensitive issue that should be addressed in negotiations. As Howse notes “it is all politics”,²⁹⁰ therefore, the linkage problem should be solved by political actors in a political arena²⁹¹.

The advantages of additional guidelines or rules are to promote the handling of trade-environment issues in a consistent and predictable way. The clarification of rules could provide greater legal security for both MEAs and for the WTO and create a clearer policy making environment for both trade policy makers and negotiators of MEAs. In addition, as Boyle states “although courts are not unmindful of the need for purposive construction, the parties to a treaty are usually best placed to decide for themselves what is appropriate, and can help stabilise the regime by their decisions.”²⁹²

However, the problems of co-operation that were highlighted in Chapter 2 with respect to MEAs also apply to the WTO in the context of reaching further agreement

Body”, 50 *ICLQ* April 2001.

²⁸⁸ R. Howse, “Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence”, in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), p36.

²⁸⁹ Trade and Environment News Bulletins, TE/036, 6 July 2001.

²⁹⁰ R. Howse, “From Politics to Technocracy - and Back Again: The Fate of the Multilateral Trading Regime”, 96 *AJIL* (2002), p117.

²⁹¹ D. Steger, “Afterword: The “Trade and ...” Conundrum – A Commentary”, 96 *AJIL* (2002), p140.

²⁹² P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), Chapter 4.

on trade and environmental issues. If rules are to be negotiated, incentives for co-operation in reaching more specific rules must be explored. According to price theory, and indeed common sense, co-operation will only take place if it is in the interest of most members to do so. In this respect, co-operation between the WTO and relevant international bodies should be encouraged, such as UNEP, the World Bank, UNCTAD and secretariats of MEAs in order to contribute to technical assistance and capacity building in developing countries.²⁹³

However, the advantage of the DSB in establishing the “line of equilibrium” between trade and environmental concerns is that there is no risk that further legislative action could result in a more restrictive approach to MEAs. Relying on an evolving interpretation could be more flexible and would possibly leave more room for dialogue.²⁹⁴ In addition, interpretation through the WTO DSB is relatively rapid and straightforward means of achieving legal change since panel rulings, as noted in section B.IV.1, are automatically binding on parties unless WTO Members reach a consensus to overrule them (negative consensus).

Although, interpretation through the DSB, represents a transfer of power to the DSB,²⁹⁵ since dispute resolution is not a mechanism for the “neutral application” of legislation²⁹⁶, and that “dispute resolution inevitably interprets and expands upon legislation”²⁹⁷, this is not unlimited. The Member States have the ability to reverse

²⁹³ The WTO and UNCTAD have increased their strategic partnership by creating, on 16 April 2003, a new legal framework for cooperating in technical assistance. Press release: http://www.wto.org/english/news_e/pres03_e/pr338_e.htm

²⁹⁴ J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p369.

²⁹⁵ *Ibidem*, p335.

²⁹⁶ J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p336. In many national and international systems the principles of state responsibility and reparation of injury for illegal acts were clarified through national and international jurisprudence rather than legislation. E-U. Petersmann, “From the Hobbesian International Law of Coexistence to Modern Integration Law: The WTO Dispute Settlement System”, 1 *JIEL* 2 (1998), p185.

²⁹⁷ J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p339. The Appellate Body in the *Japan-Taxes* case found that that panels are not bound by the details and legal reasoning of prior panel reports since there are other factors such as GATT practices and particular circumstances of the case. Decisions were considered to be isolated acts that are in general insufficient to establish subsequent practice. Indeed, the Appellate Body considered that decisions do not form a sequence of acts establishing an agreement of the parties. Section E,

DSB interpretations, as they can renegotiate the treaty provisions,²⁹⁸ they have exclusive power to adopt interpretations of WTO agreements²⁹⁹ and the authority to specify the standard of review.³⁰⁰

Nevertheless, it is essential that there be continuity, consistency, integrity and coherence in legal interpretation in order to avoid manipulating the law to achieve a given result.³⁰¹ The DSB can only be considered as legitimate in adjudicating competing values, if it demonstrates that its “decisions are not simply a product of its own personal choice of the values that should prevail in a given dispute”.³⁰²

This, of course, raises the issue of the value of precedents in the WTO. Indeed, in order to establish that there is consistency, continuity and integrity in legal interpretation, it is essential to consider how past decisions are being dealt with by the DSB. Although, the WTO rejects *stare decisis*, the *Japan-Taxes* Appellate Body did recognise that panels “should” take into account previous adopted panel reports where these create “legitimate expectations” concerning future dispute settlement outcomes. It, therefore, appears that the DSB will follow previous rulings unless an explanation is provided for the departure of a previous approach. This would be similar to the ICJ which, although, precludes *stare decisis* in accordance with Article

p13. J. Cameron and K.R. Gray, “Principles of International Law in the WTO Dispute Settlement Body”, 50 *ICLQ* April 2001, p274.

Petersmann criticised the Appellate Body for overlooking the “contextual difference between, for instance, a judgement and a GATT panel report, whose subsequent deliberation and adoption by both the GATT Council and the annual conference of the GATT Contracting Parties could make such reports more than an “isolated act”. E.U. Petersmann, “International Trade Law and the GATT/WTO Dispute Settlement System 1948-1996: An Introduction”, p3.

²⁹⁸ WTO Agreement, Article IX.2.

²⁹⁹ DSU, Article 3.9.

³⁰⁰ See J. Trachtman, “The Domain of the WTO Dispute Resolution”, 40 *Harv. ILJ* 2 (1999), p345.

³⁰¹ See D. Palmeter and P. Mavroidis, *Dispute Settlement in the World Trade Organisation: Practice and Procedure*, The Hague, 1999, p41 and Howse, “Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence”, in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), p60.

³⁰² R. Howse, “Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence”, in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), p51.

59 of its Statute, also relies on the value of past decisions.³⁰³ Indeed, although the ICJ has the power to depart from them, it would not exercise that power lightly.³⁰⁴

Therefore, dispute resolution is a source of persuasive precedent of less binding legislation,³⁰⁵ and it will be considered as an authoritative statement of law³⁰⁶, especially when both the panel and Appellate Body agree. Therefore, decisions are likely to be consistent and coherent, which indicates that the DSB is able short of new rules to ensure a certain degree of coherence between competing values.

³⁰³ J. Cameron and K.R. Gray, "Principles of International Law in the WTO Dispute Settlement Body", 50 *ICLQ* April 2001, p274.

³⁰⁴ M. Shahabuddeen, *Precedent in the World Court* 3, Cambridge, (1996).

³⁰⁵ J. Trachtman, "The Domain of the WTO Dispute Resolution", 40 *Harv. ILJ* 2 (1999), p339.

³⁰⁶ R. Hudec, "The GATT/WTO Dispute Settlement Process – Can it Reconcile Trade Rules and Environmental Needs", in R. Wolfrum (ed.) *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996), p125.

CHAPTER 6

CONCLUSION

Linkage between trade and environmental/health issue areas can and should be improved in order to contribute to the goal of sustainable development. The ways in which linkage can be improved in the WTO have been examined in the previous chapters. However, it is inevitable that the degree of linkage will not be acceptable to all WTO Members in each and every circumstance. Disputes dealing with environmental and public health issues are controversial and can reach impasse.¹ The fact that the WTO Members have different cultures, priorities, national political imperatives, risk management procedures, consumer preferences and perceptions of risk, different experience with respect to environmental protection and food safety, and the fact that a consensus agreement does not necessarily and consistently maximise welfare of its signatories, increases the risk that where a dispute is brought to the WTO DSB, that the recommendations and rulings of the DSB will not be complied with.

¹ See the ongoing *Hormones* dispute.

WTO 2003 News Items, Dispute Settlement Body, 7 November 2003, Communication:

“The EC announced the entry into force of a new directive concerning the prohibition on the use in stockfarming of certain hormones. The EC said that the new directive was based on a risk assessment performed by an independent scientific committee. This committee, the EC said, identified a risk for consumers for each of the hormones the use of which was banned in the EC for growth promoting purposes. The EC stated that, accordingly, they considered that with the entry into force of the directive, the EC was in conformity with the DSB recommendations and rulings in the hormone case. The EC added that it thus expected that the US and Canada would terminate their suspension of concessions to the EC.

The US responded that the directive neither removed the EC's unjustified ban on US beef, nor did it present an appropriate risk assessment as a basis for the ban. The US said that it could not therefore understand how the new directive could amount to the implementation of the DSB recommendations. Likewise, Canada said that it saw no new scientific evidence in the new risk assessment and that it consequently saw no reason to remove the existing sanctions.”

See also *Australia – Measures Affecting Importation of Salmon – Recourse to Article 21.5 by Canada*, Panel Report, 18 February 2000, WT/DS18/RW.

Therefore, there is a need to focus on the issue of how best to deal with situations where conflicts are not resolved.

Non-compliance with WTO Rulings– A Breach of International Law?

Non-compliance can either be treated as a breach of international law which most often requires the cessation of the wrongful conduct and reparation to be made or non-compliance can be authorised, in the sense that a Member is able to maintain WTO-inconsistent measures provided that an appropriate price be paid for this right that enables an efficient breach of existing commitments.

It has been argued, by some authors, that non-compliance with the recommendations and rulings of the DSB does not constitute a breach of international law.² However, many DSU provisions support the fact that Members are *obliged* to bring their measures into conformity with the WTO agreements.³

Article 3.7 of the DSU states:

“[T]he first objective of the dispute settlement mechanism is usually to secure the withdrawal of the measures concerned... [C]ompensation should be resorted to only if the immediate withdrawal ... is impracticable...”

The provision states that the aim of the DSM is to ensure that inconsistent measures are withdrawn, which seems to be equivalent to the international law remedy of cessation of wrongful conduct.⁴ The fact that the provision states that the aim of the

² See also J. Bello, “The WTO Dispute Settlement Understanding: Less Is More”, 90 *AJIL* 416 (1996), pp416-418.

³ See J.H. Jackson, “The WTO Dispute Settlement Understanding – Misunderstandings on the Nature of Legal Obligation”, 91 *AJIL* (1997), pp60-64 and J. Pauwelyn, “Enforcement and Countermeasures in the WTO: Rules are Rules – Toward a More Collective Approach”, 94 *AJIL* (2000), p336.

⁴ International Law Commission Draft Articles on State Responsibility, Article 41, (1996), UN GAOR, 51 Session, Supp. No. 10, UN DOC. A/51/10. *Military and Paramilitary Activities in and Against Nicaragua Case*, (Merits), ICJ Rep. (1986), 146-9. *United States Diplomatic and Consular Staff in Teheran*, ICJ Rep. (1980), 44-5. See J. Pauwelyn, “Enforcement and Countermeasures in the WTO: Rules are Rules – Toward a More Collective Approach”, 94 *AJIL* (2000), p337. See also I. Brownlie, *Principles of Public International Law*, 5th ed., Oxford, (1998), p462 and A. Aust, *Modern Treaty Law and Practice*, (2000), Cambridge, p301.

DSM is “usually” to secure the withdrawal of an inconsistent measure implies, in my view, that the DSM enables Members to modify their measures in such a way that render them consistent with the WTO agreements rather than obliging Members to *withdraw* the measure altogether. The text of Article 3.7 does not imply that inconsistent measures can be upheld indefinitely, despite the fact that immediate withdrawal is not required.⁵

Indeed, a WTO Member has a reasonable period of time, usually not exceeding 15 months, to bring its policies into conformity with its obligations under the WTO Agreements⁶, “if it is impracticable to comply immediately with the recommendations and rulings”⁷. This enables Members sufficient time to make administrative changes as well as replace domestic laws and regulations where necessary to ensure compliance with the WTO agreements. The fact that *immediate* compliance is not mandatory, in my view, suggests that the WTO Members as a whole accept that changing national laws and regulations can be arduous and costly from a political and legislative perspective, but not that they allow non-compliance.

⁵ Prompt compliance is nevertheless preferred. Article 21.1 of the DSU provides: “Prompt compliance with the recommendations or rulings of the DSB is essential in order to ensure effective resolution of disputes to the benefit of all Members.”

⁶ *EC Measures Concerning Meat and Meat Products (Hormones)*, Arbitration under Article 21.3(c) of the Understanding on Rules and Procedures Governing the Settlement of Disputes, Award of the Arbitrator, 29 May 1998, WT/DS26/15, WT/DS48/13, §39, 41, 42 and 48. The reasonable period of time was determined to be 15 months from the date of adoption of the Appellate Body and Panel Reports by the DSB and that “it would not be in keeping with the requirement of prompt compliance to include in the reasonable period of time, time to conduct studies or to consult experts to demonstrate the consistency of a measure already judged to be inconsistent...”.

See also *Australia - Measures Affecting Importation of Salmon*, Arbitration under Article 21.3(c) of the Understanding on Rules and Procedures Governing the Settlement of Disputes, Award of the Arbitrator, 23 February 1999, WT/DS18/9, §38 where it was pointed out that “the arbitrator is not obliged to grant 15 months as the reasonable period for implementation in all cases. “Particular circumstances” justifying a longer or shorter period must be taken into account on a case-by-case basis”. “The conducting of risk assessments is not pertinent to the determination of the reasonable period of time, it follows that the reasonable period in this case should be considerably less than 15 months. The reasonable period of time, as determined under Article 21.3(c), should be the shortest period possible within the legal system of the Member to implement the recommendations and rulings of the DSB.

⁷ Article 21.3 of the DSU.

In a situation, where an inconsistent measure is upheld beyond a reasonable period of time, *temporary* remedies are available.

Article 22.1 of the DSU provides:

“Compensation and the suspension of concessions or other obligations are temporary measures available in the event that the recommendations and rulings are not implemented within a reasonable period of time. However, neither compensation nor the suspension of concessions or other obligations is preferred to full implementation of a recommendation to bring a measure into conformity with the covered agreements.”

Sykes and Schwartz argue that the fact that full compliance is only “preferred” to compensation or the suspension of concessions could indicate that the withdrawal of an inconsistent measure is not obligatory. However, despite the weak language used, the fact that compensation and suspension of concessions are to be *temporary* excludes this possibility.

In addition, Article 22.8 of the DSU provides:

“The suspension of concession or other obligations shall be temporary...[T]he DSB shall continue to keep under surveillance the implementation of adopted recommendations or rulings . . . [while] the recommendations to bring a measure into conformity with the covered agreements have not been implemented.”

Ongoing “surveillance” is in my view aimed at inducing compliance. Sykes and Schwartz’s although recognising that surveillance indicates that there is an obligation to comply, also offer an alternative explanation. Sykes and Schwartz argue that since circumstances can change as well as the “calibration” of the “substantially equivalent” concessions that:

“Ongoing oversight serves to check periodically on whether the impasse that led to compensation or retaliation may have lifted. In effect, the violating country is required to persuade the international community that persisting in the violation is desirable. Hence, the existence of continued oversight by no means excludes the possibility that Members have the legal right to opt for

paying “damages” in the form of a loss of trade concessions from other parties”.⁸

However, it is also stated in Article 22.8 that the withdrawal of substantially equivalent concessions is to be *temporary*. Neither Article 22.1 or 22.8 provide a textual basis for arguing that these measures could be upheld as long as the losing party wishes or on a permanent basis. As was noted in Chapter 5, interpretation must be based above all upon the text of the treaty, especially if there is no reason for assuming that the textual approach would lead to an interpretation that “leads to a result which is manifestly absurd or unreasonable in the light of the objects and purposes of the treaty”⁹ that would justify recourse to the teleological approach.

Other provisions of the DSU also point to the fact that compliance with the recommendations and rulings is required.

With respect to “non-violation complaints,” the DSU specifies in Article 26.1(b) of the DSU:

“[W]here a measure has been found to nullify or impair benefits under, or impede the attainment of objectives, of the relevant covered agreement without violation thereof, there is no obligation to withdraw the measure.”

There is no equivalent provision for measures that violate the WTO agreements, which can be taken as support for the fact that if the covered agreements are violated, that the withdrawal of the measure is obligatory.

Sykes and Schwartz also argue that the fact that the enforcement mechanism does not “punish” Members that do not abide by the rules, since countermeasures are to be substantially equivalent to the harm caused through non-compliance suggests that the

⁸ W.F. Schwartz and A.O. Sykes, “The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System”, John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>.

⁹ ILC, Final Draft, Article 28, 1969 Vienna Convention, Article 32.

WTO Members did not want to make compliance with the dispute resolution findings mandatory.¹⁰

The argument that countermeasures do not punish those deviating from their obligations is correct as well as the fact that punishing sanctions can be effective in deterring Members from failing to comply. The economic paradigm of rational opportunism implies that a party will comply with a treaty only if and as long as the benefits of complying exceed the benefits of not complying. Therefore, according to this paradigm, non-compliance with international agreements may only be prevented if the costs of non-compliance are higher than those incurred through complying.¹¹ In addition, if the threat to impose the sanction is credible, and if the sanction is big enough to deter “cheating,” then cheating will never occur. Sanctions, therefore, will never need to be imposed.¹²

However, it cannot be concluded that the absence of punishing sanctions implies that non-compliance is permitted. In addition, as was pointed out in Chapter 5, experience in other international contexts such as MEAs demonstrates that punishing sanctions may not lead to compliance.¹³

In addition, non-compliance entails reputation costs that impact on their future ability and credibility to negotiate with the aggrieved party and those that condemn the offending Member's conduct. The WTO deals with more than just trade in goods and links not only trade and environment issues. Game theory suggests that the interconnection of issues encourages cooperation. Interconnected games incorporate

¹⁰ W.F. Schwartz and A.O. Sykes, “The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System”, John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>

¹¹ See G. Kirchgässner and E. Mohr, “Trade Restrictions as Viable Means of Enforcing Compliance with International Environmental Law: An Economic Assessment”, in: R. Wolfrum (ed.), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?*, Berlin, (1996), p203.

¹² S. Barrett, “International Cooperation and the International Commons”, *Duke Environmental Law and Policy Forum*, 10(1), (1999), pp131-146.

¹³ The technical and financial ability to comply, the fact that the law is viewed as legitimate may also determine whether rules are complied with. See Chapter 5, section B.IV.

the concept that Members could adapt their actions with respect to TREMs according to the outcomes observed in other areas being dealt within the WTO.¹⁴ The presence of many Prisoner's Dilemma games over different subject areas could increase the incentive to co-operate in a given area as there is a risk that non-co-operation in one area could lead to non-cooperation in other areas.¹⁵

Negotiations in the WTO have a continuous character and do not have a known endpoint. The negotiations in the WTO resemble an infinite repeated Prisoner's Dilemma game, where the best strategy is to co-operate on every round of the game.¹⁶

In addition, the risk of being submitted to tit-for-tat strategies encourages compliance. Axelrod conducted a prisoner's dilemma tournament where he invited all interested parties to submit strategies for repeated Prisoner's Dilemma.¹⁷ The winner cooperated on the first round, betrayed in any round if the opponent had betrayed in the round before, and cooperated otherwise.¹⁸

Dasgupta also demonstrated that alternative strategies involving social norms or codes of conduct could lead to co-operation in repeated games. For example, the adoption of co-operative behaviour by one player if the other does so and of non-co-operative behaviour for the rest of the game if the other cheats.¹⁹

¹⁴ See N. Hanley, J.F. Shogren and B. White, *Environmental Economics – In Theory and Practice*, (1997), p169.

¹⁵ R. Blackhurst and A. Subramanian, "Promoting Multilateral Cooperation on the Environment" in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p252.

¹⁶ R. Gibbons, *Game Theory for Applied Economists*, Princeton, (1992), pp89-91.

¹⁷ R. Axelrod, *The Evolution of Cooperation*, New York, (1984).

¹⁸ *Ibidem*. See also R. Axelrod, "The Emergence of Cooperation Among Egoists" *75 American Political Science Review* (1981), pp306-18. If two strategies are identical, tit-for-tat always produces the cooperative solution - the players cooperate on every round, maximising their combined winnings. Playing against a strategy similar to itself, tit-for-tat usually produces the cooperative solution.

¹⁹ See P.S. Dasgupta, "The Environment as a Commodity", *6 Oxford Review of Economic Policy* (1990), pp51-67. See also R. Blackhurst and A. Subramanian, "Promoting Multilateral Cooperation on the Environment" in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p252.

Kreps and Wilson argue that a finite repeated Prisoner's Dilemma game where the payoffs are uncertain can produce either a co-operative or non-cooperative equilibria. Therefore, each player should indicate their intention to co-operate and hope that the other players will reciprocate. Although, dispute settlement in the WTO is not a finite game, the example demonstrates that co-operation is promoted through reputation and trust-building strategies.²⁰

In addition to the fact that the absence of punishing measures cannot be taken to mean that the WTO authorises inconsistent measures to be imposed indefinitely, it is equally true that the fact that the WTO does not require full "reparation" for the injury caused cannot be used as evidence to demonstrate that the WTO obligations are not breaches of international law. Signatories to a treaty can decide on the form of remedy available under the treaty and can in addition, seek remedies such as the cessation of the wrongful conduct, assurances and guarantees of non-repetition, satisfaction, restitution in kind, compensation, and countermeasures.²¹ However, there is no obligation to provide for all of these remedies.²²

Finally, although the WTO has "no jailhouse, no bail bondsmen, no blue helmets, no truncheons or tear gas"²³ to force compliance, does not imply that compliance is not an obligation. The fact that it is difficult to force a state to end conduct that is in breach of international law reflects a general problem of enforcement of international law. In addition, despite the fact that a more collective and effective enforcement

²⁰ D.M. Kreps and R. Wilson, "Reputation and Imperfect Information", 27 *Journal of Economic Theory* (1982), pp253-79. See also R. Blackhurst and A. Subramanian, "Promoting Multilateral Cooperation on the Environment" in K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992), p252 and R. Gibbons, *Game Theory for Applied Economists*, Princeton, (1992), pp224-32.

²¹ ILC 2000 State Responsibility Draft Articles 30-31 and 35. See P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), pp190-1. ILC Draft Article 35. Full reparation is the "restitution, compensation and satisfaction, either singly or in combination". In addition, countermeasures may be taken by injured state to induce the offending state to comply with its obligations. See also J. Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?", 95 *AJIL* (2001), p537.

²² A. Aust, *Modern Treaty Law and Practice*, (2000), Cambridge, pp300-4. This is common sense as not all remedies may be appropriate to a given situation.

²³ J. Bello, "The WTO Dispute Settlement Understanding: Less Is More", 90 *AJIL* 416 (1996), pp416-417.

mechanism aimed at inducing compliance²⁴ has not been negotiated does not indicate that non-compliance is allowed, even if in practice the situation may arise that a Member does not comply even after a reasonable period of time has elapsed.²⁵

Although, the WTO DSU does not authorise non-compliance, past a reasonable period of time, the question arises whether non-compliance would be beneficial in certain circumstances and should be authorised when it is efficient to do so. The next section deals with this issue.

Should the DSU Authorise Efficient Breach of WTO Obligations?

Non-compliance with the WTO DSB recommendations and rulings occurs when the WTO agreements are not Pareto optimal. In other words, the weighted sum of welfare for each government²⁶, measured by the political welfare of the political officials, is not maximised. If an agreement is not on the Pareto efficiency frontier, then there is an incentive to deviate from existing commitments as this could potentially be welfare improving.

²⁴ If the aim is to increase compliance with rulings, Pauwelyn suggests that a more collective and effective enforcement mechanism. J. Pauwelyn, "Enforcement and Countermeasures in the WTO: Rules are Rules – Toward a More Collective Approach", 94 *AJIL* (2000), p336.

²⁵ Although the Doha Ministerial Declaration, WT/MIN(01)/DEC/1, 20 November 2001, §30 set out the commitment to improve and clarify the DSU, proposed changes in the procedures for collective retaliation have not been included in the more advanced negotiations due to an insufficient level of support.

Paragraph 30 "We agree to negotiations on improvements and clarifications of the Dispute Settlement Understanding. The negotiations should be based on the work done thus far as well as any additional proposals by members, and aim to agree on improvements and clarifications not later than May 2003, at which time we will take steps to ensure that the results enter into force as soon as possible thereafter".

The General Council at its meeting on 24 July 2003 extended the timeframe to review WTO Dispute Settlement Rules to 31 May 2004. http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm#negotiation.

See also World Trade Organisation, TN/DS/9, 6 June 2003, Special Session of the Dispute Settlement Body, Report by the Chairman, Ambassador Péter Balás, to the Trade Negotiations Committee, §6.

²⁶ The weights or "shadow prices" enable the political welfare of one WTO Member to be traded off against the welfare of another. W.F. Schwartz and A.O. Sykes, "The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System", John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>.

Therefore, from a welfare point of view, non-compliance may be desirable. As Schwartz and Sykes note “when the political burden of performance to a promisor exceeds the political detriment of nonperformance to the promisee(s), evaluated at the proper weight or shadow price, nonperformance is jointly desirable”.²⁷

From a welfare perspective, a party should comply with its obligations whenever compliance yields greater benefits to the promisee than costs to the promisor, while allowing the promisor to depart from its obligations whenever the costs of compliance to the promisor exceed the benefits to the promisee.²⁸

The question arises whether the WTO system should allow departure from the agreement at a specific exercise price and if so whether this should be authorised with or without first securing the permission of the promisee(s). In other words, would a property rule, that requires negotiating with all affected parties to the agreement or a liability rule that does not require negotiation before a WTO inconsistent measure can be maintained, be preferable?

Property rules, although preponderant in international law, tend to be disadvantageous when the number of signatories of a given agreement is high, when the agreement covers many issue areas that are not easily reconciled, and when the amendment process is arduous. Renegotiating an agreement when it is no longer welfare maximising or not consistently welfare maximising can be burdensome but also costly. Transactions costs of bargaining with the promisee(s) including strategic bargaining costs associated with the modification of commitments tend to be very high.

²⁷ W.F. Schwartz and A.O. Sykes, “The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System”, John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>.

²⁸ *Ibidem*. See R.A. Posner, *Economic Analysis of Law*, 4th ed., (1992), pp95-6, 135-6. J. Dunoff and J. Trachtman, “Economic Analysis of International Law”, 24 *The Yale JIL* 1 (1999), pp31-3. See generally, R.A. Posner, *Values and Consequences: An Introduction to Economic Analysis of Law*, (1998).

The use of a liability rule does not entail bargaining transaction costs but it also has disadvantages. Indeed, the measurement of damages is costly. This is one of the reasons that the international legal system usually uses property rules rather than liability rules.²⁹ In addition, a liability rule also has the drawback that errors in assessing damages may deter efficient breach if they are too high or permit inefficient breach if they are too low.³⁰

If a legal system has the resources to perform an accurate assessment of the price of non-compliance then in the presence of high transaction costs a liability rule is generally to be preferred to a property rule.³¹ Although, the WTO leaves it to the parties to a dispute to offer and accept mutually satisfactory compensation, the WTO also provides for a process for determining the level of suspension or withdrawal of concessions.³² Therefore, it appears that the WTO has the capacity to ensure the proper calibration of “damages” and hence support a liability rule system.

Of course, a liability rule is not suitable to every international law context. Indeed, the use of a liability rule requires that the setting of a monetary price for non-compliance be appropriate.³³ A liability rule is appropriate in the context of international trade law as it protects economic interests that can easily be valued in monetary terms. In the context of human rights law and environmental law, however, it would be inappropriate to fix a pecuniary value for the violation of such commitments.

²⁹ J.L. Dunoff and J.P. Trachtman, “Economic Analysis of International Law”, 24 *Yale JIL* (1999), p26.

³⁰ See D. Friedmann, “The Efficient Breach Fallacy”, 18 *J. Legal Stud.* (1989), pp6-7.

³¹ Of course, if deviation from obligations is consistently inefficient, then a property rule is preferable. See W.F. Schwartz and A.O. Sykes, “The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System”, John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>.

³² Article 22 of the DSU.

³³ J.L. Dunoff and J.P. Trachtman, “Economic Analysis of International Law”, 24 *Yale JIL* (1999), pp31-3.

Another argument against the use of a liability rule, is that the only Members that would benefit from the option of not complying with the recommendations and rulings would be developed countries as they are possibly the only Members in the position to afford to not comply.³⁴ In addition, if the Member that is suffering harm from an inconsistent measure is a developing country, it is unlikely that the right to take countermeasures would put this country in a better position. On the contrary, if its main volume of trade is with the offending Member, countermeasures would put this country in a worse position.³⁵ With respect to this problem, however, it is not the liability rule in itself that is inadequate but the remedy.

Compensation under the WTO is understood to be the lifting of trade barriers by the losing party and the suspension of concessions as the increase of barriers by the winning party. However, if an offending Member were obliged to pay damages for harm caused rather than negotiated concessions being rebalanced, this problem would be alleviated.

The next section will examine the appropriateness of the remedies available under the DSU in more detail.

Evaluation of WTO Compensation and Countermeasures

The appropriateness of the WTO remedies of compensation and suspension or withdrawal of concessions depends on the purpose of an enforcement mechanism.

If the enforcement mechanism is to protect the balance of negotiated concessions, then the remedies of compensation and suspension of concessions are appropriate. If the goal is to ensure compliance with the obligations contained in the WTO Agreements, in other words, to protect a rule-based system, it would arguably be more effective to provide for reparation which, although, as Boyle notes, is not an

³⁴ However, so far only one developing country has invoked TREMs under GATT 1947 in the *Thai Cigarettes* case.

inflexible concept,³⁶ should eliminate the consequences of the wrongful act.³⁷ In addition, an obligation to cease the wrongful act should be imposed. If, however, the aim is to allow for efficient breaches, the remedy should be one that compensates the injured party for harm arising from non-compliance with WTO obligations. Whether WTO compensation or the suspension or withdrawal of concessions after a reasonable time has elapsed is suitable for achieving this task is questionable.

Compensation, if offered, must be given to *all* WTO Members in accordance with the MFN standard.³⁸ It is difficult to see how compensating all WTO Members, regardless of whether they have suffered injury or not, could enable an efficient breach.

The suspension or withdrawal of concessions entails the raising of trade barriers against the Member upholding the inconsistent measure by the complaining party but not the whole WTO membership. Therefore, unlike compensation, the suspension of concessions does not “punish” non-compliance. In theory, the suspension or withdrawal does not jeopardise opportunities for efficient breach.

However, the suspension of concessions is a right that only a complaining party has. Therefore, third parties and other WTO Members that have been adversely affected by an inconsistent measure, must bring complaints to the DSB in order to have access to this remedy. Therefore, unless all injured parties bring complaints to the DSB, the full price of non-compliance may not be accounted for.

In order to apply a liability rule that only allows for “efficient breaches”, it would be worth considering whether after a country's measure is found to be WTO

³⁵ See J. Pauwelyn, “Enforcement and Countermeasures in the WTO: Rules are Rules – Toward a More Collective Approach”, 94 *AJIL* (2000), p338.

³⁶ P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p191.

³⁷ *Chorzów Factory* (Idemnity) case, (1928) PCIJ, Ser. A, no. 17, p47. ILC Commentary Notes, *YbILC* (1993), II, Part 2, p63. P. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002), p191.

³⁸ There is no obligation to offer compensation. Article 22.1 of the DSU.

inconsistent, that Members that have been adversely affected by the inconsistent measure be able to suspend concessions without necessarily having to bring their case to a dispute settlement panel. This would be more efficient from the WTO perspective as it would only have to rule once that the measure is inconsistent. If opposing Members do not agree on the level of suspension of concessions, an injured party could be afforded the same right as a winning party to refer the matter to arbitration. However, it could be argued that this procedure would unfairly disadvantage the complaining party as it would have to bear the costs of bringing the case to the WTO. This issue could be solved by requiring that all litigation costs be paid by the losing party.³⁹

However, as was mentioned in the previous section, the remedy of suspension of concessions is unlikely to be useful to developing countries and has a detrimental effect on international trade due to the increase of trade barriers.

³⁹ Although, there are no plans to do this, negotiations on the clarification and improvement of the DSU have led to a proposal to add a new article to the DSU on Litigations Costs that would make dispute settlement more accessible to developing countries.

Draft Article 28 provides:

“Members shall bear their own costs in procedures brought under this Understanding. However, a panel or the Appellate Body may decide to award, at the request of [the parties][one of the parties] to a dispute, an amount for litigation costs, taking into account the specific circumstances of the case, the respective conditions of the parties concerned and special and differential treatment to developing country Members. Where a panel or the Appellate Body decides to grant such costs, it shall be guided by principles to be determined in a decision by the DSB.” World Trade Organisation, TN/DS/9, 6 June 2003, Special Session of the Dispute Settlement Body, Report by the Chairman, Ambassador Péter Balás, to the Trade Negotiations Committee. See Proposed Decision by the General Council included in this document:

“Desiring to give effect to the provisions of Article 27 of the DSU in order to assist developing country Members in enhancing their capacity to make effective use of the dispute settlement procedures, and build capacity in the area of dispute settlement, thereby assisting them to exercise the rights of their membership;

Decides as follows:

1. The Secretariat is instructed to maintain and administer, through its technical cooperation services, a roster comprised of at least [x] qualified legal experts, whose services would be made available to developing country Members for the provision of legal advice and assistance in respect of dispute settlement pursuant to paragraph 2 of Article 27 of the DSU;
2. The General Council requests the Budget Committee to explore the manner in which adequate resources, including through voluntary extra-budgetary contributions, can be ensured for the delivery of technical assistance under Article 27 of the DSU, including the provision of legal assistance as foreseen in paragraph 2 of that provision, and to report to the General Council by [-].”

The need to improve conditions for developing countries with respect to WTO remedies has been recognised in the negotiations on the clarification and improvement of the DSU that are taking place pursuant to the Doha Declaration. Indeed, Members have proposed to add a new paragraph to Article 22 that provides:

“Where the complaining party is a developing country Member, the proposal should take into account all relevant circumstances and considerations relating to the application of the measure and its impact on the trade of that developing country Member. In such cases, the suitable form of compensation should also be an important consideration. Where the complaining party is a least developed country Member, special consideration shall be given to the specific constraints that may be faced by such countries in finding effective means of action through the possible withdrawal of concessions or other obligations.”⁴⁰

A mandatory compensation payment would, as mentioned in the previous section, be a more effective form of compensation for developing countries. In addition, a mandatory compensation payment to the affected parties would have the advantage of not being trade restrictive. Another argument in favour of a compensation payment is that unlike the adjustment of concessions that does not compensate a specific industry for lost income due to trade restrictions, a compensatory payment would enable the adversely affected Member to redirect the compensatory payment to those domestic industries that have suffered harm.

If a compensation payment were to replace existing remedies, the question arises how compensation payments should be calculated. Currently, the WTO only provides for remedies after a “reasonable period of time” has elapsed and only for harm caused after this time.

Compensation should pay for the lost benefits to the promisee, in terms of political welfare, arising from non-compliance with WTO obligations. If one assumes, that

⁴⁰ Paragraph 2bis (c). World Trade Organisation, TN/DS/9, 6 June 2003, Special Session of the Dispute Settlement Body, Report by the Chairman, Ambassador Péter Balás, to the Trade Negotiations Committee.

political welfare is directly correlated to national welfare, then compensation should be paid from the time the inconsistent measure causes harm to promisee(s).

Compensation that arises from the time an inconsistent measure affects other WTO Members, in a detrimental manner, is more disadvantageous to those Members wishing to uphold an inconsistent TREM or SPS measure or technical regulation than the current system of compensation and countermeasures from a financial aspect.

It could be argued that since compliance cannot be forced, that WTO Members wishing to maintain an inconsistent measure could do so and would consequently suffer from countermeasures. However, the costs associated with a loss of reputation, the increased difficulty with negotiations and cooperation in other issue areas, and the risk of being submitted to tit-for-tat strategies when a system requires compliance are likely to be more burdensome than the costs arising from an efficient breach of obligations under a liability rule system.

On the whole the advantage of a liability rule system is to provide an environmental/public health safety net for those WTO Members that consider that the maintenance of trade related environmental measures or sanitary or phytosanitary measures or technical regulations is appropriate. In a conflictual situation, options need to be available to WTO Members that can lead to a compromise and that enable both parties to not lose face. Nevertheless, a liability rule system is not a linkage mechanism as environmental/health protection has to be paid for, where the TREMs, technical regulations or SPS measures do not comply with existing WTO commitments. A liability system should not be considered as a substitute for a linkage system.

Linkage between environmental and trade imperatives must take place through the dispute settlement body and more importantly through negotiations between the WTO Members that aim to clarify and improve existing WTO agreements.

BIBLIOGRAPHY

Treaties and Instruments

1969 Convention on the Law of Treaties (Vienna), 8 *ILM* (1969), 679

1972 Declaration of the United Nations Conference on the Human Environment, (Stockholm), UN Doc. A/Conf. 48/14/Rev. 1, (1972)

1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington), 12 *ILM* (1973), 1085

1982 United Nations Convention on the Law of the Sea, www.un.org/depts/los/unclos

1987 Protocol (to the 1985 Vienna Convention) on Substances that Deplete the Ozone Layer, (Montreal), 26 *ILM* (1987), 1550

1989 Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, (Basle), 28 *ILM* (1989), 657

1992 Convention on Biological Diversity, (Rio de Janeiro), 31 *ILM* (1992), 822

1992 Declaration of the UN Conference on Environment and Development, UN Doc. A/CONF.151/26/Rev.1 Report of the UNCED (Vol. I)

1992 United Nations Framework Convention on Climate Change, (New York), 31 *ILM* (1992), 849

Agenda 21 of the 1992 UNCED UN Doc. A/CONF. 151/4 (1992)

1994 Marrakesh Agreement Establishing the World Trade Organization

- Annex 1A: General Agreement on Trade in Goods 1994

Agreement on Technical Barriers to Trade

Agreement on Sanitary and Phytosanitary Standards

- Annex 1C: Agreement on Trade-Related Aspects of Intellectual Property Rights

- Annex 2: Understanding on Rules and Procedures Governing the Settlement of Disputes

- Annex 4: Decision on Trade and Environment

2000 Protocol on Biosafety to the Convention of Biological Diversity Biosafety Protocol, (Cartagena), 39 *ILM* (2000)

2001 ILC Articles on State Responsibility

Report of the World Summit on Sustainable Development, Johannesburg, 26 August-4 September (2002), UN Document, A. CONF.199/20

Cases

Aegan Sea Continental Shelf Case, ICJ Rep. (1978)

Al-Adsani v. United Kingdom (2002) 34 EHRR 11

Arrest Warrant of 11 April 2000 (Democratic Republic of the Congo v. Belgium), ICJ Rep., (2002)

Australia - Measures Affecting Importation of Salmon, Appellate Body Report, 20 October 1998, WT/DS18/AB/R

Australia - Measures Affecting Importation of Salmon, Panel Report, 12 June 1998, WT/DS18/R

Barcelona Traction Case (Second Phase), ICJ rep. (1970)

Beagle Channel Case, Court of Arbitration, 52 ILR 93

Belgian Linguistics, ECHR, Series A, No. 6, (1986)

Brazil - Measures Affecting Desiccated Coconut, Appellate Body Report, 20 March 1997, WT/DS22/AB/R

Canada - Administration of the Foreign Investment Review Act, adopted on 7 February 1984, BISD 30S/140

Canada - Certain Measures Concerning Periodicals, 30 July 1997, WT/DS31/AB/R

Canada - Measures affecting Exports of Unprocessed Herring and Salmon, Panel Report, adopted on 22 March 1988, BISD/35S/98

Chemin de Fer Zeltweg, 3 RIAA (1934)

Chorzow Factory (Jurisdiction), PCIJ (ser.A), No.9 (1927)

Chorzów Factory (Ger. v. Pol.), Merits, PCIJ (1928) (ser. A) No. 17

Commission v. Brazzelli Lualdi and Others, Case C - 136/92 P, ECR I-1981, (1994)

Commission v Denmark, Case 302/86, ECR 4607, (1988)

Commission v. Germany, Case 178/84, ECR 1227, (1997)

Conservation and Sustainable Exploitation of Swordfish Stocks in the South Eastern Pacific Ocean (Chile/European Community), ITLOS Case no. 7, (2000)

Continental Shelf Case, ICJ Rep., (1968)

Diplomatic and Consular Staff in Teheran Case, ICJ Rep. (1980)

EC Commission v Denmark, Case 302/86, 1 CMLR (1989), 619

Elettronica Sicula S.p.A (ELSI), ICJ Rep. (1989)

European Commission of the Danube, PCIJ (ser.B), No.14

European Communities - Measures Affecting Asbestos and Asbestos-Containing Products, Panel Report, 18 September 2000, WT/DS135/R

European Communities - Measures Affecting Asbestos and Asbestos-Containing Products, Appellate Body Report, 12 March 2001, WT/DS135/AB/R

European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by the United States, 8 August 2003, WT/DS291/23

European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by Canada, 8 August 2003, WT/DS292/17

European Communities - Measures Affecting the Approval and Marketing of Biotech Products - Request for the Establishment of a Panel by Argentina, 8 August 2003, WT/DS293/17

European Communities - Measures Concerning Meat and Meat Products (Hormones), Appellate Body Report, 16 January 1998, WT/DS26/AB/R, WT/DS48/AB/R

European Communities - Measures Concerning Meat and Meat Products (Hormones), Panel Reports, Complaint by the United States, 18 August 1997, WT/DS26/R/USA and Complaint by Canada, 18 August 1997, WT/DS48/R/CAN

European Communities - Regime for the Importation, Sale, and Distribution of Bananas, Appellate Body Report, 9 September 1997, WT/DS27/AB/R.

European Communities - Trade Description of Sardines, Panel Report, WT/DS231/R

European Communities - Trade Description of Sardines, Appellate Body Report, 26 September 2002, WT/DS231/AB/R

European Economic Community- Regulation on Imports of Parts and Components, adopted on 16 May 1990, BISD 37S/132

Gabcikovo-Nagymaros Dam Case, ICJ Rep. (1997)

Golder Case, ECHR, 57 ILR 214

Guatemala - Anti-Dumping Investigation regarding Portland Cement from Mexico, Appellate Body Report, adopted on 23 July 1998, WT/DS54, 55, 59 and 64/R

Hilti v. Commission, Case C - 53/92 O, ECR 667, (1994)

Icelandic Fisheries Jurisdiction Case (United Kingdom v. Iceland), ICJ Rep. (1974)

India – Patent Protection for Pharmaceutical and Agricultural Chemical Products, 16 January 1998, WT/DS50/AB/R

Japan - Measures Affecting Agricultural Products, Appellate Body Report, 22 February 1999, WT/DS76/AB/R

Japan - Measures Affecting Agricultural Products, Panel Report, 27 October 1998, WT/DS76/R

Japan - Measures Affecting Consumer Photographic Film and Paper, Panel Report, 22 April 1998, WT/DS44/R

Japan - Taxes on Alcoholic Beverages, Appellate Body Report, 4 October 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R

Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef, Appellate Body Report, 10 January 2001, WT/DS/161,169/AB/R

Lac Lanoux Arbitration, 24 ILR (1957)

Legality of the Use or Threat of Nuclear Weapons, (Advisory Opinion), ICJ R ep. (1996)

Maritime Delimitation and Territorial Questions (Qatar v. Bahrain) Case, ICJ Rep. (1995)

Military and Paramilitary Activities in and Against Nicaragua Case, (Jurisdiction and Admissibility), ICJ Rep. (1984)

Military and Paramilitary Activities in and Against Nicaragua Case, (Merits), ICJ Rep. (1986)

Minority Schools in Albania, PCIJ, Series A/B, No. 64, (1935)

Mox Plant Case, Ireland v. UK, UNCLOS Arbitration, pending at the Permanent Court of Arbitration, The Hague, www.pca-cpa.org.

Nambibia (South West Africa), Advisory Opinion, ICJ Rep. (1971)

North Sea Continental Shelf Case, ICJ Rep. (1969)

Nuclear Weapons Advisory Opinion, ICJ Rep. (1996)

Procureur du Roi v. B. and G. Dassonville, Case 8/74, ECR 837, (1974)

Prosecutor v. Anto Furundzija (ICTY) 38 ILM 317 (1999)

Rewe Zentralverwaltung AG v Bundesmonopolverwaltung für Branntwein (Cassis de Dijon), Case 120/78, ECR 649 (1979)

Rights of Passage Case, ICJ Rep. (1960)

South West Africa Cases, ICJ Rep., (1966)

Southern Bluefin Tuna Arbitration, www.worldbank.org/icsid.

Southern Bluefin Tuna Cases (Provisional Measures), ITLOS No. 4 (1999)

Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted on 7 November 1990, GATT, BISD/37S/200

United Kingdom of Great Britain and Northern Ireland v. Commission, Case C-180/96, ECR I-2265, (1998)

United States - Imports of Certain Automotive Spring Assemblies, adopted on 26 May 1983, BISD 30S/107

United States - Imports of Sugar from Nicaragua, adopted on 13 March 1984, BISD 31S/67

United States - Import Prohibitions of Certain Shrimp and Shrimp Products, Appellate Body Report, 12 October 1998, WT/DS58/AB/R

United States - Import Prohibitions of Certain Shrimp and Shrimp Products, Panel Report, 15 May 1998, WT/DS58/R

United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of DSU by Malaysia, 21 November 2001, WT/DS58/AB/RW

United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of DSU by Malaysia, Panel Report, 15 June 2001, WT/DS58/RW

United States - Measure Affecting Imports of Woven Wool Shirts and Blouses from India, 23 May 1997, WT/DS33/AB/R.

United States - Prohibition of Imports of Tuna and Tuna Products from Canada, adopted on 22 February 1982, BISD 29S/91

United States - Restrictions on Imports of Tuna, not adopted, circulated on 16 June 1994, DS29/R

United States - Restrictions on Imports of Tuna, not adopted, circulated on 3 September 1991, BISD 39S/155

United States - Section 337 of the Tariff Act of 1930, adopted on 7 November 1989, BISD/36S/345

United States - Standards for Reformulated and Conventional Gasoline, Appellate Body Report, 29 April 1996, WT/DS2/AB/R

United States - Standards for Reformulated and Conventional Gasoline, Panel Report, 29 January 1996, WT/DS2/9

United States - Taxes on Automobiles, not adopted, circulated on 11 October 1994, DS31/R

United States - Taxes on Petroleum and Certain Imported Substances, adopted on 17 June 1987, BISD 34S/136

WTO Documents

Chile – Measures Affecting the Transit and Importation of Swordfish, Request for the Establishment of a Panel by the European Communities, 7 November 2000, WT/DS193/2.

Chile - Measures Affecting the Transit and Importation of Swordfish, Request for Consultations by the European Communities, WT/DS193/1, G/L/367, 26 April 2000

Egypt – Import Prohibition on Canned Tuna with Soybean Oil – Request for Consultations by Thailand, WT/DS205/1-G/L/392-G/SPS/GEB/203, 27 September 2000.

Committee on Sanitary and Phytosanitary Measures -Recommended Notification Procedures – Revision, 26/11/1999, G/SPS/7/Rev.1

Committee on Sanitary and Phytosanitary Measures - Recommended Procedures for Implementing the Transparency Obligations of the SPS Agreement (Article 7) – Revision, 2/4/2002, G/SPS/7/Rev.2.

“Compliance and Dispute Settlement Provisions in the WTO and in Multilateral Environmental Agreement”, Note by the WTO and UNEP Secretariats, WT/CTE/W/191, 6 June 2001

Decision of the Contracting Parties on the Application of Sanitary and Phytosanitary Measures, MTN.GNG/NG5/WGSP/7, 20 November 1990

“Methodologies for Environmental Valuation: A Selected Bibliography”, WTO Committee on Trade and Environment, 26 November 1997, WT/CTE/W/72

H. Nordström and S. Vaughan, “Trade and Environment”, WTO Special Studies, www.wto.org

“Multilateral Environmental Agreements (MEAs) and WTO Rules; Proposals Made in the Committee on Trade and Environment (CTE) From 1995-2002”, WTO Document, TN/TE/S/1, 23 May 2002

Report of the Committee on Trade and Environment, WT/CTE/1, 12 November 1996

Report of the *Working Party on Border Tax Adjustments*, adopted on 2 December 1970, BISD 18S/97

WTO, CTE Document, WT/CTE/W/178, 28 November 2000

WTO CTE Document, WT/CTE/W/168, 19 October 2000

WTO Document, "Marking and Labelling Requirements", Submission from Switzerland, WT/CTE/W/192, G/TBT/W/162, 19 June 2001

WTO Document, CTE, Report of the Meeting Held on 7 July 2003, Note by the Secretariat, Restricted, WT/CTE/M/34, 29 July 2003, §57; WT/CTE/W/212, 12 June 2002, G/TBT/W/150, 2 November 2000, WT/CTE/W/192, 19 June 2001.

WTO, Matrix on MEAs, WT/CTE/W/160/Rev.1

WTO, Ministerial Declaration, Adopted on 14 November 2001, WT/MIN(01)/DEC/1

WTO Secretariat, "Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards, and Production and Processes and Production Methods Unrelated to the Product Characteristics, G/TBT/W/11, 29 August 1995

Books

M.D. Adler and E.A. Posner, *Rethinking Cost-Benefit Analysis* (1999)

K. Anderson and R. Blackhurst (eds.), *The Greening of World Trade Issues*, (1992)

A. Aust, *Modern Treaty Law and Practice*, Cambridge, (2000)

R. Axelrod, *The Evolution of Cooperation*, New York, (1984)

D.G. Baird, *The Law and Economics of Contract Damages*, (1995)

J. Berdell, *International Trade and Economic Growth in Open Economics: The Classical Dynamics of Hume, Smith, Ricardo and Malthus*, (2002)

J.H. Bhagwati and T.N. Srinivasan, *Lectures on International Trade*, (1983)

J.S. Bhandari and A.O. Sykes, *Economic Dimensions in International Law – Comparative and Empirical Perspectives*, Cambridge, (1997)

P.W. Birnie & A.E. Boyle, *International Law and the Environment*, 2nd ed., Oxford, (2002)

A.E. Boyle (ed.), *Environmental Regulation and Economic Growth*, (1994)

- A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999)
- R.W. Broadway and N. Bruce, *Welfare Economics*, (1984)
- E. Brown Weiss and J.H. Jackson (eds.), *Reconciling Environment and Trade*, (2001)
- I. Brownlie, *Principles of Public International Law*, 6th ed., Oxford, (2002)
- J. Cameron, J. Werksman and P. Roderick (eds.), *Improving Compliance with International Environmental Law*, London, (1996)
- L. Campiglio *et al.*, (eds.), *The Environment after Rio: International Law and Economics*, (1994)
- K. Choi, *et al*, *Economic Growth and International Trade* (2000)
- R. Dorfman and N.S. Dorfman (eds.), *Economics of the Environment*, 3rd ed., (1993)
- Encyclopaedia of Public International Law*, North-Holland, (1984)
- F. Francioni (ed.), *Environment, Human Rights & International Trade*, (2001)
- F. Francioni & T. Scovazzi (ed.), *International Responsibility for Environmental Harm*, (1991)
- D. Freestone and E. Hey (eds.), *The Precautionary Principle and International Law - The Challenge of Implementation*, (1996)
- R. Gibbons, *Game Theory for Applied Economists*, Princeton, (1992)
- K. Ginther, E. Denters, P. de Waart (ed.), *Sustainable Development and Good Governance*, (1995)
- N. Hanley and H. Folmer, *Game Theory and the Environment*, (1998)
- N. Hanley, J.F. Shogren, B. White, *Environmental Economics – In Theory and Practice*, (1997)
- D.J. Harris, *Cases and Materials on International Law*, 5th ed., London, (1998)
- R.G. Harris, *The General Theory of the Second Best after Twenty-Five Years*, (1981).
- J. Jackson, W. Davey and A. Sykes, Jr, *Legal Problems of International Economic Relations - Cases, Materials and Text*, 3rd ed., (1995)
- M. Jacobs, *The Green Economy - Environment, Sustainable Development and the Politics of the Future*, London, (1991)
- R. Jennings & A. Watts (eds.), *Oppenheim's International Law*, (1996)
- W.M. Landes, *Counterclaims: An Economic Analysis* (1994)

- T. O'Riordan and J. Cameron, *Interpreting the Precautionary Principle*, London, (1994)
- F. Orrego Vicuña, *The Changing International Law of the High Seas Fisheries* (1999)
- R.A. Posner, *Economic Analysis of Law*, 5th ed. (1998)
- R.A. Posner, *Values and Consequences: An Introduction to Economic Analysis of Law*, (1998)
- D. Palmeter and P. Mavroidis, *Dispute Settlement in the World Trade Organisation – Practice and Procedure*, The Hague, (1999)
- E-U. Petersmann, *The GATT/WTO Dispute Settlement System - International Law, International Organisations and Dispute Settlement*, (1997)
- R.C. Picker, *An Introduction to Game Theory and the Law*, (1994)
- J.M. Ramseyer, *Public Choice* (1995)
- M. Redclift, *Sustainable Development - Exploring the Contradictions*, (1987)
- D. Reid, *Sustainable Development - An Introductory Guide*, London, (1995)
- P. Reuter, *Introduction au Droit des Traités*, (1972)
- P. Sands (ed.), *Greening International Law*, London, (1994)
- M.N. Shaw, *International Law*, 4th ed., Cambridge, (1997)
- I. Sinclair, *The Vienna Convention on the Law of Treaties*, 2nd ed., Manchester, (1984)
- C.R. Sunstein, *Rules and Rulelessness*, (1994).
- C.R. Sunstein, *The Cost-Benefit State* (1996).
- J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000)
- F. Weiss, E. Denters and P. de Waart (eds.), *International Economic Law with a Human Face*, The Hague, (1998)
- R. Wolfrum (ed.), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?* (1996)
- A. Ziegler, *Trade and the Environmental Law in the European Community*, Oxford, (1996)

C. Warbrick and V. Lowe (eds.), *The United Nations and the Principles of International Law – Essays in Memory of Micheal Akehurst*, London, New York, (1994)

Yearbook of the International Law Commission, II (1966)

Yearbook of the International Law Commission, II (1980)

World Commission on Environment and Development, *Our Common Future*, (1987)

Articles

K.W. Abbott, “US-EU Disputes over Technical Barriers to Trade and the “Hushkits” Dispute, in E-U. Petersmann and M.A. Pollack (eds.) *Transatlantic Economic Disputes – The EU, the US, and the WTO*, New York, (2003), 247

M. Akehurst, *The Hierarchy of the Sources of International Law*, BYIL (1974-5)

P. Ala'I, “Free Trade or Sustainable Development? An Analysis of the WTO Appellate Body's Shift to a More Balance Approach to Trade Liberalisation”, 14 *Am. U. Int'l. L. Rev.* (1999), 1129

A. Appleton, “Shrimp/Turtle: Untangling the Nets”, 2 *JIEL* 3 (1999), 477

R. Axelrod, “The Emergence of Cooperation Among Egoists” 75 *American Political Science Review* (1981), 306

P. Bailey, “The Creation and Enforcement of Environmental Agreements”, *European Environmental Law Review*, (June 1999), 170

E. Barbier, “Introduction to the Environmental Kuznets Curve Special Issue”, 2 *Environment and Development Economics* 4 (1997), 369

J. Barboza, “Necessity Revisited in International Law”, in *Essays in International Law in Honour of Judge Manfred Lachs* (1984), 27.

J. Barcelo III, “Product Standards to Protect the Local Environment – the GATT and the Uruguay Round Sanitary and Phytosanitary Agreement”, 27 *CILJ* (1994), 755

L. Bartels, “Applicable Law on WTO Dispute Settlement Proceedings”, 35 *JWT* 3 (2001), 499

R. Behboodi, “Legal Reasoning and the International Law of Trade - The First Steps of the Appellate Body of the WTO”, 32 *JWT* 4 (1998), 55

G. Berg, “An Economic Interpretation of “Like Product””, 30 *JWT* 2 (1996), 195

G. Berg, “Dividing the Like-product – Economics, the Law, and the International Trade Commission”, 20 *World Competition* 4 (1997), 73

- J. Berger, "Unilateral Trade Measures to Conserve the World's Living Resources: An Environmental Breakthrough for the GATT in the WTO Sea Turtle Case", 24 *Columbia JEL* (1999), 355
- F. Biermann, "The Rising Tide of Green Unilateralism in World Trade Law – Options for Reconciling the Emerging North-South Conflict", 35 *JWT* 3 (2001), 421
- J. Bourgeois, "The European Court of Justice and the WTO: Problems and Challenges", J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), 71
- A.E. Boyle, "Economic Growth and Protection of the Environment: The Impact of International Law and Policy", *Environmental Regulation and Economic Growth*, (ed.) A.E. Boyle, Oxford, (1994)
- A.E. Boyle, "The Southern Bluefin Tuna Arbitration", 50 *ICLQ* 2 (2001), 447
- A.E. Boyle, "The International Tribunal for the Law of the Sea and the Settlement of Disputes" in *The Changing World of International Law in the Twenty-First Century: A Tribute to the Late Kenneth Simmonds*, (eds.) J. J. Norton, M. Adenas and M. Footer, The Hague, (1998)
- D. Brack, "The Shrimp-Turtle Case: Implications for the Multilateral Environmental Agreement-World Trade Organisation Debate", 9 *YIEL* (1998), 13
- D. E. Buckingham and P. W.B. Phillips, "Hot Potato, Hot Potato: Regulating Products of Biotechnology by the International Community", 35 *JWT* 1 (2001), 1
- J. Cameron and J. Abouchar, "The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment", XIV *Boston College ICLR* 1 (1991), 1
- J. Cameron and K.R. Gray, "Principles of International Law in the WTO Dispute Settlement Body", 50 *ICLQ* April 2001, 248
- J. Cameron and J. Robinson, "The Use of Trade Provisions in International Environmental Agreements and Their Compatibility with the GATT", 2 *YIEL* (1991), 3
- S. Charnovitz, "Exploring the Environmental Exceptions in GATT Article XX", 25 *JWT* 5 (1991), 37
- S. Charnovitz, "Free Trade, Fair Trade, Green Trade: Defogging the Debate", 27 *Cornell ILJ* (1994), 459
- S. Charnovitz, "Multilateral Environmental Agreements and Trade Rules", *EPL*, 26/4 (1996), 163
- G. Chichilnisky, "The Economics of Global Environmental Risks", *The Intl' Yearbook of Environmental and Resource Economics*, (1998/1999), 235

- S. Cho, "GATT Non-Violation Issues in the WTO Framework: Are they the Achilles' Heel of the Dispute Settlement Process?", 39 *Harv. ILJ* 2 (1998), 311
- R.R.Churchill, "ITLOS: The Southern Bluefin Tuna Cases", 49 *ICLQ* October (2000), 979
- R.R. Churchill and G. Ulfstein, "Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-noticed Phenomenon in International Law", 94 *AJIL* (2000), 623
- R. Coase, "The Problem of Social Cost", 3 *Journal of Law and Economics* 1 (1960)
- M. Cole, "Examining the Environmental Case Against Free Trade", 33 *JWT* 5 (1999), 183
- C. Correa, "Implementing National Public Health Policies in the Framework of WTO Agreements", 34 *JWT* 5 (2000), 89
- T. Cottier and K. Schefer, "The Relationship Between World Trade Organization Law, National and Regional Law", 1 *JIEL* 1 (1998), 83
- S. Croley and J. Jackson, "WTO Dispute Procedures, Standard of Review, and Deference to National Governments", 90 *AJIL* 2 (1996), 193
- P.S. Dasgupta, "The Environment as a Commodity", 6 *Oxford Review of Economic Policy* (1990), 51
- W. Davey, "Supporting the World Trade Organization Dispute Settlement System", 34 *JWT* 1 (2000), 167
- L. de La Fayette, "Access to Ports in International Law" 11 *International Journal of Marine and Coastal Law* 1 (1996)
- P. Demaret and R. Stewardson, "Border Tax Adjustments under GATT and EC Law and General Implications for Environmental Taxes", 28 *JWT* 4 (1994), 5
- H. Demsetz, "Toward a Theory of Property Rights", *American Economic Review* (1967), 57
- M.G. Desta, "Food Security and International Trade Law – An Appraisal of the World Trade Organisation Approach", 35 *JWT* 3 (2001), 449
- W. Douma and M. Matthee, "Towards New EC Rules on the Release of Genetically Modified Organisms", 8 *RECIEL* 2 (1999), 152
- W. Douma, "The Beef Hormones Dispute and the Use of National Standards Under WTO Law" *European Environmental Law Review* May 1999, 137
- B. Driessen, "New Opportunities or Trade Barrier in Disguise? – The EC Eco- Labelling Scheme", *European Environmental Law Review*, January 1999, 5

- J. Dunoff and J. Trachtman, "Economic Analysis of International Law", 24 *The Yale JIL* 1 (1999), 1
- J. Dunoff, "From Green to Global: Toward the Transformation of International Environmental Law", 19 *Harv. ELR* (1995), 241
- D. Esty and D. Geradin, "Environmental Protection and International Competitiveness - A Conceptual Framework", 32 *JWT* 3 (1998), 5
- M. Faure, "Harmonisation of Environmental Law and Market Integration: Harmonising for the Wrong Reasons?", *European Environmental Law Review* June 1998, 169
- C. Feddersen, "Recent EC Environmental Legislation and its Compatibility with WTO Rules: Free Trade or Animal Welfare Trade?", *European Environmental Law Review* July 1998, 207
- T. Frazier, "Protecting Ecological Integrity within the Balancing Function of Property Law", 28 *Environmental Law* (1998), 53
- J. Gaba, "Environmental Ethics and Our Moral Relationship to Future Generations: Future Rights and Present Virtue", 24 *Columbia JEL* (1999), 249
- J. Gaffney, "Due Process in the World Trade Organization: The Need for Procedural Justice in the Dispute Settlement System", 14 *Am. U. Intl'l L. Rev.* (1999), 1173
- S. Gaines, "The Polluter Pays Principle: From Economic Equity to Environmental Ethos", 26 *Texas International Law Journal* (1991), 423
- J. Gaisford and D. McLachlan, "Domestic Subsidies and Countervail: The Treacherous Ground of the Level Playing Field", 24 *JWT* 4 (1990), 55
- A. Gesser, "Canada's Environmental Choice Program: A Model for a "Trade-Friendly" Eco-Labeling Scheme", 39 *Harv. ILJ* 2 (1998), 501
- G. Goh and A. Ziegler, "A Real World Where People Live and Work and Die", 32 *JWT* 5 (1998), 271
- P. Hansen, "Transparency, Standards of Review, and the Use of Trade Measures to Protect the Global Environment", 39 *Virginia JIL* 4 (1999), 1017
- V. Heyvaert, "Reconceptualizing Risk Assessment" 8 *RECIEL* 2 (1999), 135
- M. Hirsch, "Game Theory, International Law, and Future Environmental Cooperation in the Middle East", 27 *Denv. J.Int'l L. & Policy* 1 (1998), 75
- G. Horlick, "Dispute Resolution Mechanism - Will the United States Play by the Rules?", 30 *JWT* 2 (1996), 163
- R. Howse, "The Turtles Panel - Another Environmental Disaster in Geneva", 32 *JWT* 5 (1998), 73

R. Howse, "Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of the WTO Jurisprudence", in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), 35

R. Howse and D. Regan, "The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy", 11 *EJIL* 2 (2000), 249

Institute for Sustainable Development, *Sustainable Developments - A Summary Report on the WTO Symposium on Trade, Environment and Sustainable Development: 20-21 May 1997*, Vol.5, No. 1, 26 May 1997

Institute for Sustainable Development, *Sustainable Developments - A Summary Report on the WTO Symposium on Strengthening Complementarities between Trade, Environment and Sustainable Development*, Vol. 12, No. 1, 21 March 1998

J. Jackson, "Global Economics and International Economic Law", 1 *JIEL* 1 (1998), 1

J. Jackson, "Comments on Shrimp/Turtle and the Product/Process Distinction", 11 *EJIL* (2000), 303

W. Jenks, "The Conflict of Law-Making Treaties", *BYIL* (1953)

K. Joergens, "True Appellate Procedure or Only a Two-Stage Process? – A Comparative View of the Appellate Body Under The WTO Dispute Settlement Understanding", 30 *Law & Policy in International Business* 2 (1999), 193

S. Johnson, "Economics v. Equity: Do Market-Based Environmental Reforms Exacerbate Environmental Injustice?", 56 *Wash. & Lee L. Rev.* 33 (1999), 111

H. Kim, "The WTO Dispute Settlement Process: A Primer", 2 *JIEL* 3 (1999), 457

P. Kohona, "The WTO and Trade and Environmental Issues – Future Directions", 20 *World Competition* 4 (1997), 87

P. Kohona, "Dispute Resolution under the World Trade Organization - An Overview", 28 *JWT* 2 (1994), 23

N. Komuro, "The WTO Dispute Settlement Mechanism - Coverage and Procedures of the WTO Understanding", 29 *JWT* 4 (1995)

D.M. Kreps and R. Wilson, "Reputation and Imperfect Information", 27 *Journal of Economic Theory* (1982), 253

B. Kwiatkowska, "Southern Bluefin Tuna", 94 *AJIL* (2000), 150

B. Kwiatkowska, "The Australia and New Zealand v Japan Southern Bluefin Tuna (Jurisdiction and Admissibility) Award of the First Law of the Sea Convention Annex VII Arbitral Tribunal", 16 *IJMCL* 2 (2001)

- A. Layard, "Cattle, Health and the GATT: Finding the Link", 21 *World Competition* 1 September 1997, 141
- D.W. Leebron, "Linkages", 96 *AJIL* 5 (2002)
- P. Lichtenbaum, "Procedural Issues in WTO Dispute Resolution", 19 *Michigan JIL* (1998), 1195
- M. Lugard, "Scope of Appellate Review: Objective Assessments of the Facts and Issues of Law", 1 *JIEL* 2 (1998), 323
- G. Marceau, "A Call for Coherence in International Law – Praises for the Prohibition Against "Clinical Isolation" in WTO Dispute Settlement", 33 *JWT* 5 (1999), 87
- G. Marceau and J. P. Trachtman, "The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade – A Map of the World Trade Organisation Law of Domestic Regulation of Goods", 36 *JWT* 5 (2002), 811
- G. Marceau, "Conflicts of Norms and Conflicts of Jurisdictions – The Relationship between the WTO Agreement and MEAs and other Treaties", 35 *JWT* 6 (2001), 1081
- G. Marceau, "Rules on Ethics for the New World Trade Organization Dispute Settlement Mechanism - The Rules of Conduct for the Understanding on Rules and Procedures Governing the Settlement of Disputes", 32 *JWT* 3 (1998), 57
- G. Marceau, "WTO Dispute Settlement and Human Rights", 13 *EJIL* (2002), 753
- S. Marr, "The Southern Bluefin Tuna Cases: The Precautionary Approach and Conservation and Management of Fish Resources", 11 *EJIL* (2000), 815
- A. Mattoo and A. Subramanian, "Regulatory Autonomy and Multilateral Disciplines: The Dilemma and a Possible Resolution", 1 *JIEL* 2 (1998), 303
- P. Mavroidis, "Trade and Environment after the *Shrimps-Turtles* Litigation", 34 *JWT* 1 (2000), 73
- D. McNeil, "The First Case Under the WTO's Sanitary and Phytosanitary Agreement: The European Union's Hormone Ban", 39 *Virginia JIL* 1 (1998), 89
- J.E. Meade, "External Economies and Diseconomies in a Competitive Situation", *Economic Journal* (1952)
- J. G. Merrills, "The Principle of Peaceful Settlement of Disputes", in (eds.) C. Warbrick and V. Lowe, *The United Nations and the Principles of International Law – Essays in Memory of Michael Akehurst*, London, New York, (1994), 49
- P. Monnier, "The Time to Comply with an Adverse WTO Ruling – Promptness within Reason", 35 *JWT* 5 (2001), 825

- M. Montini, "The Necessity Principle as an Instrument of Balance", in F. Francioni (ed.), *Environment, Human Rights & International Trade*, (2001).
- J.R. Nash, "Too Much Market? Conflict between Tradable Pollution Allowances and the "Polluter Pays" Principle", 24 *Harv. ELR* (2000), 465
- J. Neumann and E. Türk, "Necessity Revisited: Proportionality in World Trade Organisation Law After *Korea-Beef*, *EC-Asbestos* and *EC-Sardines*", 37 *JWT* 1 (2003), 199
- E. Neumayer, "Greening the WTO Agreements – Can the Treaty Establishing the European Community be of Guidance?", 35 *JWT* 1 (2001), 145
- G. Nogueira, "The First WTO Appellate Body Review, *United States - Standards for Reformulated and Conventional Gasoline*", 30 *JWT* (1996), 5
- M. Orellana Cruz, "The Swordfish in Peril: the EU Challenges Chilean Port Access Restrictions at the WTO", *BRIDGES*, August 2000
- D. Palmetier and P. Mavroidis, "The WTO Legal System: Sources of Law", 92 *AJIL* (1998), 398
- J. Pauwelyn, "Evidence, Proof and Persuasion in WTO Dispute Settlement: Who Bears the Burden?", 1 *JIEL* 2 (1998), 227
- J. Pauwelyn, "The Role of Public International Law in the WTO: How Far Can We Go?" 95 *AJIL* (2001)
- J. Pauwelyn, "The Use of Experts in WTO Dispute Settlement", 51 *ICLQ* (April 2002)
- J. Pauwelyn, "A Typology of Multilateral Treaty Obligations: Are WTO Obligations Bilateral or Collective in Nature?", 14 *EJIL* (2003), 907
- E-U. Petersmann, "The Dispute Settlement System of the World Trade Organisation and the Evolution of the GATT Dispute Settlement System Since 1948", *CMLR* (1994), 1157
- E-U. Petersmann, "How to Promote the International Rule of Law? Contributions by the World Trade Organisation Appellate Review System", 1 *JIEL* 1 (1998), 25
- P. Phillips and W. Kerr, "Alternative Paradigms – The WTO Versus the Biosafety Protocol for Trade in Genetically Modified Organisms", 34 *JWT* 4 (2000), 63
- S. Pardo Quintillan, "Free Trade, Public Health Protection and Consumer Information in the European and WTO Context – Hormone-treated Beef and Genetically Modified Organisms, 33 *JWT* 6 (1999), 147
- Report by the International Institute for Sustainable Development, *The World Trade Organization and Sustainable Development: An Independent Assessment* (1996)

- A. Qureshi, "The Cartagena Protocol on Biosafety and the WTO – Co-existence or Incoherence?", 49 *ICLQ* October 2000, 835
- W. Ruckelshaus, "Risk, Science, and Democracy", *Issues Sci. & Tech.*, (1985)
- C. Runge, "Labelling, Trade and Genetically Modified Organisms – A Proposed Solution", 34 *JWT* 1 (2000), 111
- C. Runge, "A Global Environment Organisation (GEO) and the World Trading System", 35 *JWT* 4 (2001), 399
- A. Rutgeerts, "Trade and Environment – Reconciling the Montreal Protocol and the GATT", 33 *JWT* 4 (1999), 61
- P. Sands, "Compliance with International Environmental Obligations: Existing International Legal Arrangements" in *Improving Compliance with International Environmental Law*, (eds.) J. Cameron, J. Werksman and P. Roderick, (1994), London
- P. Sands, "Sustainable Development: Treaty, Custom and the Cross-fertilisation of International Law", in A.E. Boyle and D. Freestone (ed.), *International Law and Sustainable Development*, Oxford, (1999)
- T.J. Schoenbaum, "International Trade and Protection of the Environment: The Continuing Search for Reconciliation", 91 *AJIL* (1997), 268
- T.J. Schoenbaum, "International Trade in Living Modified Organisms: The New Regimes", 49 *ICLQ* October 2000, 856
- J. Scott, "On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO", www.harvard.edu/programs/JeanMonnet/papers/99/990301.html
- A. S. Hoyer, "The First Three Years of the WTO Dispute Settlement: Observations and Suggestions", 1 *JIEL* 2 (1998), 277
- W.F. Schwartz and A.O. Sykes, "The Economic Structure of Renegotiation and Dispute Resolution in the WTO/GATT System", John M. Olin Law & Economics Working Paper No. 143, (2nd series), <http://www.law.uchicago.edu/Lawecon/workingpapers.html>
- B. Simmons, "In Search of Balance: An Analysis of the WTO Shrimp/Turtle Appellate Body Report", 24 *Columbia JEL* (1999), 413
- P. Specht, "The Dispute Settlement Systems of WTO and NAFTA – Analysis and Comparison", 27 *Ga.J. Int'l & Comp. L.* 1 (1998), 57
- E. Staffin, "Trade Barrier or Trade Boon? A Critical Evaluation of Environmental Labeling and Its Role in the "Greening" of World Trade", 21 *Columbia Journal of Environmental Law* (1996), 205

- R.I. Steinzor, "Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control", 22 *Harv. ELR* (1998), 103
- D. Steger, "Appellate Body Jurisprudence Relating to Trade Remedies"; 35 *JWT* 5 (2001), 799
- D. Steger and S. Hainworth, "World Trade Organisation Dispute Settlement: The First Three Years", 1 *JIEL* 2 (1998), 199
- R. Steinberg, "Trade-Environment Negotiations in the EU, NAFTA, and WTO: Regional Trajectories of Rule Development", 91 *AJIL* (1997), 231
- R.I. Steinzor, "Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control", 22 *Harv. ELR* (1998), 103
- C. Stevens, "Trade and the Environment: The PPMs Debate", in *Sustainable Development and International Law*, (ed.) W. Lang, (1995)
- S.P. Subedi, "The Road from Doha: The Issues for the Development Round of the WTO and the Future of International Trade", 52 *ICLQ* 2 (2003), 425
- A. Sykes, "Comparative Advantage and the Normative Economics of International Trade Policy", 1 *JIEL* 1 (1998), 49
- H. Torres, "The Trade and Environment Interaction in the WTO – How Can a "New Round" Contribute?", 33 *JWT* 5 (1999), 153
- J. Trachtman, "The Domain of the WTO Dispute Resolution", 40 *Harv. ILJ* 2 (1999), 333
- J. Trachtman, "Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity", 9 *EJIL* 1 (1998), 32
- C. Valles and B. McGivern, "The Right to Retaliate under the WTO Agreement – the 'Sequencing' Problem, 34 *JWT* 2 (2000), 63
- E. Vermulst, P. Mavroidis and P. Waer, "The Functioning of the Appellate Body After Four Years – Towards Rule Integrity", 33 *JWT* 2 (1999), 1
- V. Walker, "Keeping the WTO from Becoming the "World Trans-science Organization": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute", 31 *CILJ* 2 (1998), 251
- J.H.H. Weiler, "The Rule of Lawyers and the Ethos of Diplomats – Reflections on the Internal and External Legitimacy of WTO Dispute Settlement" 35 *JWT* 2 (2001), 191
- J.H.H. Weiler, "Epilogue: Towards a Common Law of International Trade", in J.H.H. Weiler (ed.), *The EU, the WTO and the NAFTA – Towards a Common Law of International Trade*, Oxford, (2000), 201
- T. Weiler, "International Regulatory Reform Obligations", 34 *JWT* 3 (2000), 71

J. Wiener, "Global Environmental Regulation: Instrument Choice in Legal Context", 108 *The Yale Law Journal* (1999), 677

D. Wirth, "The Role of Science in the Uruguay Round and NAFTA Trade Disciplines", 27 *Cornell IJL* (1994), 817