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**TRADE AND ENVIRONMENT: STRIKING A BALANCE
IN INTERNATIONAL LAW**

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Abstract

This thesis seeks to balance trade and environmental concerns in international law. It studies a number of multilateral environmental and trade agreements to observe the extent to which environmental and trade treaty regimes have made allowances for each other's interests, and whether allowed such interests to be disregarded or overridden in practice.

Serious questions remain, however, about the compatibility between overlapping environmental and trade rules in the absence of a clear authority relationship or means of securing unity in the international legal order as a whole. The international legal system does not possess well-developed hierarchies; thus, none of the agreements inherently takes precedence in the event of a conflict. Consequently, the aim should be to achieve a better harmonization of the two regimes through available mechanisms. The multilateral trade agreements have made allowances and included exceptions with regard to the protection of environmental concerns. However, the precise way in which trade institutions balance environmental considerations by comparison with trade considerations is likely to prove critically important for the protection of the environment.

It is for this reason that this thesis analyses the current balance between trade and environmental considerations in the international legal order, and proposes ways for improving its coherence.

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List of Acronyms

BISD – Basic Instruments and Selected Documents
PCA – Permanent Court of Arbitration
ICTR – International Criminal Tribunals for the former Yugoslavia and Rwanda
ILM – International Legal Materials
IRL – International Law Reports
RIAA – Report of International Arbitration Awards
ITLOS – International Tribunal for the Law of the Sea
PCA – Permanent Court of Arbitration
ECHR – European Court of Human Rights
ECJ – European Court of Justice
AJIL – American Journal of International Law
BYIL – British Yearbook of International Law
WTO – World Trade Organization
GATT – General Agreement on Tariffs and trade
ICJ – International Court of Justice
CTR – Claims Tribunals Reports
ECR – European Court Reports
UNTS – United Nations Treaty Series
ILM – International Legal Materials
Tulsa J. Comp. & Int'l L - Tulsa Journal of Comparative & International Law
YbIEL – Yearbook of International Environmental Law
Can YIL – Canadian Yearbook of International Law
Georgetown IELR - Georgetown International Environmental Law Review
Texas LR -Texas Law Review
JEL - Journal of Environmental Law
EJIL – European Journal of International Law
Nordic JIL - Nordic Journal of International Law
SYBIL – Singapore Year Book of international Law
JEEPL - Journal of European Environment and Planning Law
NYIL - Netherlands Yearbook of International Law
George Washington ILR - George Washington International Law Review
ICLQ - International and comparative Law Quarterly
UK – United Kingdom of Great Britain and Northern Ireland
UN – United Nations
US – United States of America
EU – European Union
Yale HRDLJ - Yale Human Rights and Development Law Journal
Macquarie JICEL - Macquarie Journal of International and Comparative Environmental Law
NILR – Netherlands International Law Review
Wm & Mary Envtl L & Pol Rev - William and Mary Environmental Law and Policy Review
Colorado JIELP – Colorado Journal of International Environmental Law and Policy
Can YbIL – Canadian Yearbook of International Law
IILJ – Institute for International Law and Justice
EPL – Environmental Policy and Law
Stan ELJ - Stanford Environmental Law Journal
JWT – Journal of World Trade Law

Harv LR – Harvard Law Review
Indian YbIA - Indian Yearbook of International Affair
JEL – Journal of Environmental Law
Tulane ELJ – Tulane Environmental Law Journal
PACE ILR – Pace International Law Review
Mich JIL - Michigan Journal of International Law
Mar LR - Marine Law Review
Vand JTL - Vanderbilt Journal of Transnational Law
JIEL - Journal of International Economic Law
Georgetown IELR – Georgetown International Environmental Law Review
Fordham ILJ – Fordham International Law Journal
Cornell ILJ - Cornell International Law Journal
JIWLP – Journal of International Wildlife law and Policy
PACE ELR – Pace Environmental Law Review
Leiden JIL - Leiden Journal of International Law
Chinese JIL - Chinese Journal of International Law
YbIEL – Yearbook of International Environmental Law
Boston CICLJ – Boston College International and Comparative Law Journal
RECIEL – Review of International Community and International Environmental Law
Harv ILJ – Harvard International Law Journal
Harv ELR – Harvard Environmental Law Review
New York UELJ – New York University Environmental Law Journal
Den JILP - Denver Journal of International Law and Policy
ITTA – International Tropical Tiber Agreement
ITTO- International Tropical Timber Organization
WTO – World Trade Organization
COP – Conference of Parties
CBD- Convention on Biological Diversity
CITES – Convention on International Trade in Endangered Species
DSB – Dispute Settlement Body
EC – European Community
ILC – International Law Commission
EIA – Environmental Impact Assessment

'Our economic system – our civilization – is only possible if the basic resources of the atmosphere, oceans, forests and soils, and fundamental processes ... remain intact. To make economics and ecology into enemies is to doom both. But to reconcile them is to open up the possibility of a richer, more sustainable, more profitable and fairer world.'

Yvo de Boer¹

1. Introduction

Since the middle of the last century, international law has been developing in many directions to keep pace with the complexities of life in the modern era,² paving the way for numerous specialized regimes to come into existence. The tremendous expansion of both rules and institutions in specialist areas has led to the argument that international law as a 'holistic system' is in the process of fragmentation.³ This has led to the fear that the decentralized system of international law might dissolve into a series of specialized sectors with little or no interrelationship.⁴ Consequently, the norms derived from these various sectors could overlap while addressing the same subject matter from different perspectives, causing lack of coherence or outright conflict between them.⁵ This thesis accordingly sets out to study the relationship between two of these many specialized regimes of international law, with a view to

¹ Yvo de Boer, Executive Secretary of the United Nations Climate Convention, 'The New Copenhagen Climate Deal', a pocket guide published by the WWK-UK (2009).

² Malcolm Shaw, *International Law* (6th edn CUP, Cambridge 2008) 43.

³ For more about fragmentation of international law and its implications, see ILC, 'Report of the Study Group of International Law Commission on Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (13 April 2006) UN Doc. A/CN.4/L.682; Martti Koskenniemi and Päivi Leino, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 *Leiden JIL* 553; Mario Prost and Paul Clark, 'Unity, Diversity and the Fragmentation of International Law: How Much Does the Multiplication of International Organizations Really Matter?' (2006) 5 *Chinese JIL* 341; Bruno Simma and Dirk Pulkowski, 'Of Planets and the Universe of Self-Contained Regimes in International Law' (2006) 17 *EJIL* (2006) 483; Eyal Benvenisti and George Downs, 'The Empire's New Clothes: Political Economy and the Fragmentation of International Law' (2007) 60 *Stanford Law Review* 595; Shaw, *supra* n 2, 65–7.

⁴ Koskenniemi and Leino, *supra* n 3.

⁵ Andreas Zimmermann, Hanna Goeters and Rainer Hofmann (eds), *Unity and Diversity in International Law* (Berlin, 2006); Karel Wellens, 'Fragmentation of International Law and Establishing an Accountability Regime for International Organizations: The Role of the Judiciary in Closing the Gap' (2004) 25 *Michigan JIL* 1159.

establishing coherence between them and minimizing the risk of conflict or inconsistency.

The relationship upon which this thesis will focus specifically is that between treaties from the contemporary environmental and trade regimes. The system of international trade is based primarily on the 1994 *Marrakesh Agreement Establishing the World Trade Organization* (hereinafter the *WTO Agreement*) and its annexed agreements, which aim to promote and liberalize free trade in goods and services.⁶ Since the *WTO Agreement* entered into force, the *GATT* and other related multilateral trade agreements have been administered by the World Trade Organization (WTO). The WTO is the principal forum for negotiations on multilateral trading relations among member states, and provides for the binding settlement of disputes arising under the multilateral trade agreements. The other trade treaty that will be discussed in this thesis is the 2006 *International Tropical Timber Agreement (ITTA)*,⁷ a commodity agreement⁸ dealing with trade in tropical timber.

In contrast, a number of multilateral environmental agreements (MEAs) address the effects and consequences of global and regional environmental degradation. Although the agreements are varied according to their subject matters, the aim of MEAs is uniform – to protect the environment from degradation occurring globally or

⁶ For the text of the *1994 Marrakesh Agreement Establishing the World Trade Organization*, and related agreements, see WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* (CUP, Cambridge 1999) or WTO Online Database <<http://docsonline.wto.org>>. There are sixteen different multilateral agreements (to which all WTO members are parties) and two different plurilateral agreements (to which only some WTO members are parties) under the umbrella of the *WTO Agreement*. It is relevant to mention here that the discussion of this thesis is not extended to trade in services and therefore does not include the *General Agreement on Trade in Services (GATS Agreement)*.

⁷ The *2006 International Tropical Timber Agreement*, Doc. TD/TIMBER.3/12, 27 January 2006 (not yet in force). Text available at: <<http://www.itto.int>>.

⁸ See Michael Bowman, Peter Davies and Catherine Redgwell, *Lyster's International Wildlife Law* (2nd edn CUP, Cambridge 2010) 18.

regionally. At present, over two hundred and fifty MEAs are in force in order to address various environmental issues. Several require parties to restrict trade in order to protect the environment. The 1878 *Phylloxera Agreement* was the first international treaty to restrict trade in grapevines to prevent the spread of pests that damage vineyards.⁹ Since then, numerous international treaties have been adopted to respond to specific environmental issues. The WTO Secretariat has identified fourteen MEAs containing trade-related environmental measures.¹⁰ These include conventions protecting fur seals, migratory birds, polar bears, whales and endangered species generally.

Serious questions remain, however, about the compatibility between overlapping environmental and trade rules in the absence of a clear authority relationship¹¹ or means of securing unity in the international legal order as a whole.¹² The international legal system does not possess well-developed hierarchies; thus, none of the agreements inherently takes precedence in the event of a conflict.¹³ Consequently, the

⁹ See Sophie Riely, 'Invasive Alien Species and the Protection of Biodiversity: The Role of Quarantine Laws in Resolving Inadequacies in the International Legal Regime' (2005) 17 JEL 323.

¹⁰ See Note by the Secretariat, 'Matrix on Trade Measures Pursuant to Multilateral Trade Agreements' (16 February 2005) WT/CTE/W/160/Rev3, TN/TE/S/5/Rev 1.

¹¹ See Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3rd edn OUP, Oxford 2009) Ch 14; Joost Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to the Other Rules of International Law* (CUP, Cambridge 2003); Richard Tarasofsky, 'Ensuring Compatibility between Multilateral Agreements and the GATT/ WTO' (1996) 7 YbIEL 52; Edith Weiss, 'Free International Trade and the Protection of the Environment: Irreconcilable Conflict?' (1992) 86 AJIL 700; Thomas Schoenbaum, 'International Trade and Protection of the Environment: The Continuing Search for Reconciliation' (1997) 91 AJIL 268; Steve Charnovitz, 'The World Trade Organization and the Environment' (1998) 8 YbIEL 98.

¹² See Bruno Simma, 'Self-Contained Regimes' (1985) 16(1) NYIL 115.

¹³ For the debate on hierarchy of norms in international law, see RSJ Macdonald, 'Fundamental Norms in Contemporary International Law', (1987) 25 Can YbIL 115; V Gowlland-Debbas, 'Judicial Insight into Fundamental Values and Interests of International Community', in S Muller, D Raic and JM Thuranszky (eds), *The International Court of Justice: Its Future Role after Fifty Years* (Martinus Nijhoff Publishers: 1997); Dinah Shelton, 'Normative Hierarchy in International Law' (2006) 100 AJIL 291; Eva MK Uhlmann, 'States Community Interests, *Jus cogens* and Protection of the Global Environment: Developing Criteria for Peremptory Norms' (1998–9) 11 Georgetown IELR 101; George Schwarzenberger, 'International *Jus cogens*'

aim should be to achieve a better harmonization of the two regimes through available mechanisms. Both the *GATT/WTO* agreements and the *ITTA* have made allowances and included exceptions with regard to the protection of environmental concerns. However, the precise way in which the WTO trade institutions and the International Tropical Timber Organisation (ITTO)¹⁴ balance environmental considerations by comparison with trade considerations is likely to prove critically important for the protection of the environment. It is for this reason that this thesis analyses the current balance between trade and environmental considerations in the international legal order, and proposes ways for improving its coherence.

1.1. Context of research

Over the last two decades, the inter-relationship between MEAs containing trade-related environmental measures and the WTO rules has received considerable attention. Consequently, at the 2001 Doha Ministerial Conference,¹⁵ WTO members agreed to negotiate on the relationship between WTO rules and MEAs, particularly those that contain specific trade obligations.¹⁶ The ongoing efforts under the Doha Development Agenda and the regular Trade and Environment Committee (CTE) are also focused on the relationship between environmental policies relevant to trade and environmental measures with significant trade effects, and the provisions of the

(1964–5) 43 Texas LR 455; Michael Akehurst, 'The Hierarchy of the Sources on International Law', (1974–5) 47 BYIL 273.

¹⁴ The International Tropical Timber Organization (ITTO) was established in 1986 under the auspices of the United Nations to promote sustainable forest management and forest conservation, and to assist tropical member countries to implement the *ITTA*.

¹⁵ The Declaration of the Doha Ministerial Conference (4th WTO Ministerial Conference, Qatar, 14 November 2001) WT/MIN(01)/DEC/1.

¹⁶ See especially, paragraphs 31(i) and 31(ii) of the *Doha Ministerial Declaration*.

multilateral trading system.¹⁷ The CTE aims to achieve mutual supportiveness under a prescribed mandate and adopts technical approaches, including information exchange and choice of dispute settlement forum to that end.¹⁸

The ‘trade and environment’ issue has also been addressed by a number of *GATT*/WTO panels and WTO Appellate Body decisions.¹⁹ The WTO dispute settlement system provides interpretation of the Article XX *GATT* exceptions to accommodate non-trade values. However, in those cases, the question at issue has not been the general revision or reinterpretation of a treaty. Rather, each case was concerned with the interpretation of particular provisions or phrases, such as ‘exhaustible natural resources’ or ‘necessary’.²⁰ The interpretation of Article XX *GATT* by the WTO panels and the Appellate Body in recent rulings demonstrates that the WTO is gradually developing an environmental conscience, but that this does not amount to full environmental protection or to giving environmental policy priority over trade.²¹

The scholarly output in this area is also extensive and covers a relatively broad range of issues and policy debates.²² Studies have focused on the inconsistencies between

¹⁷ For the most recent Draft Ministerial Decision on Trade and Environment see CTESS TN/TE/20, 21 April 2011. Available at: http://www.wto.org/english/tratop_e/dda_e/chair_texts11_e/chair_texts11_e.htm (accessed on 1 May 2011). For the decision establishing the CTE see ‘Trade and Environment’, *GATT* Ministerial Decision of 14 April 1994 (1994) 33 ILM 1267.

¹⁸ See Chapter 3.

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ Anja Lindroos and Michael Mehling, ‘From Autonomy to Integration? International Law, Free Trade and the Environment’ (2008) 77(3) *Nordic JIL* 253 at 259 and 265; Mike Miere, *GATT, WTO and the Environment: To What Extent Do GATT/WTO Rules Permit Member Nations to Protect the Environment When Doing So Adversely Affects Trade?* (1997) 8 *Colorado JIELP* 241.

²² On trade and environment generally, see Daniel Esty, *Greening the GATT: Trade, Environment and the Future* (Institute for International Economics, Washington DC 1994); James Cameron, Paul Demaret and Damien Geradin (eds), *Trade and Environment: The Search for Balance*

MEAs and WTO rules and proposed a number of ways to reconcile this relationship. Such proposals have included (i) examining each MEA case by case to observe whether it falls within the WTO Agreement's waiver provisions;²³ (ii) following the *North American Free Trade Agreement (NAFTA)*²⁴ approach, which gives precedence to certain MEAs over its own obligations;²⁵ (iii) amending Article XX of the *GATT* to add a provision concerning MEAs; and (iv) adopting a collective interpretation of Article XX, validating existing MEAs and setting out criteria for future MEAs.²⁶

The ITTO has also been working to establish collaboration with relevant MEA institutions to ensure effective conservation of tropical forest biodiversity. In 2009, for example, ITTO and IUCN released the *ITTO/IUCN Guidelines for the Conservation and Sustainable Use of Biodiversity in Tropical Timber Production Forests* (hereafter

(Cameron May, London 1994); Ernst-Ulrich Petersmann, *International and European Trade and Environmental Law after the Uruguay Round* (The Hague 1995); Rüdiger Wolfrum (ed), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means* (Springer, Berlin 1996); Richard Steinberg, *The Greening of Trade Law* (Rowman and Littlefield Publishers, Inc., New York 2002); Gary Sampson, *The WTO and Sustainable Development* (United Nations University Press, Tokyo 2005); Anupam Goyal, *The WTO and International Environmental Law* (OUP, Oxford 2006); Nathalie Bernasconi-Osterwalder et al., *Environment and Trade: A Guide to WTO Jurisprudence* (Earthscan, London 2006); Halina Ward, 'Common but Differentiated Debates: Environment, Labour and the World Trade Organization' (1996) 45 ICLQ 592.

²³ Jill Nissen, 'Achieving a Balance between Trade and the Environment: The Need to Amend the WTO/GATT to Include Multilateral Environmental Agreements' (1996–97) 28 *Law and Policy in International Business* 901 at 917–8.

²⁴ The 1993 *North American Free Trade Agreement (NAFTA)*, (1993) 32 ILM 682, entered into force 1 January 1994. NAFTA is a treaty between Canada, Mexico and the United States that was designed to foster greater trade between the three countries.

²⁵ Article 104 of NAFTA applies the 'least-trade-restrictive principle' to the use of MEA trade measures by enlisting seven international environmental agreements, and agrees that they will trump NAFTA in the case of disagreement. For further discussion see John Knox, 'The Judicial Resolution of Conflicts between Trade and the Environment' (2004) *Harvard ELR* 1 at 13–4 and 17–9; Joseph Weiler (ed), *The EU, the WTO and the NAFTA towards a Common Law of International Trade* (OUP, Oxford 2000) Ch 6; Bradly Condon, 'Multilateral Environmental Agreement and the WTO: Is the Sky Really Falling?' (2002) 9 *Tulsa J. Comp. & Int'l L.* 533 at 557 at 557–62.

²⁶ These ideas of amendment and/or collective interpretation are discussed in V Rage, 'GATT Law and Environment-Related Issues Affecting the Trade of Developing Countries' (1994) 28 *JWT* 95; RE Hudec, 'GATT Legal Restraints on the Use of Trade Measures against Foreign Environmental Practice', in Jagdish Bhagwati and Robert Hudec (eds), *Fair Trade and Harmonization* (MIT Press, Cambridge 1996) vol. II, 120–42; Steve Charnovitz, 'Multilateral Environmental Agreements and Trade Rules' (1996) 26 *EPL* 163 at 163–69; Nissen, *supra* n 23, 901; Knox *supra* n 25, 14.

ITTO/IUCN Guidelines).²⁷ Recently, ITTO and the Secretariat of the Convention on Biodiversity (*CBD*)²⁸ signed a Memorandum of Understanding (MoU) to strengthen collaboration in the pursuit of their common objectives of conserving and sustainably managing tropical forest resources.²⁹ In that MoU, both ITTO and *CBD* committed themselves to promoting the *ITTO/IUCN Guidelines*.

In this general context, Articles 31–33 of the 1969 *Vienna Convention on the Law of Treaties* (hereinafter the *Vienna Convention*)³⁰ offer rules for treaty interpretation. There are a number of principles and maxims available in general international law that also contribute to the interpretation of treaty provisions in order to harmonize inconsistent norms, such as the principle of good faith, the principle of effectiveness, the principle of proportionality, the principle of reciprocity and the maxims *lex specialis derogat legi generali* and *lex posterior derogate legi priori*. In addition, Article 30 of the *Vienna Convention* expressly offers rules to resolve tension between successive treaty norms relating to the same subject matter.

A number of key soft law instruments, for example, the *Stockholm Declaration*,³¹ the *Rio Declaration*³² and the *World Charter of Nature*³³, have also contributed to the ‘environment and trade debate’ by settling fundamental (trans-)sectoral principles for this relationship. Some of these principles have been reflected and accommodated in

²⁷ ITTO, *ITTO/IUCN Guidelines for the Conservation and Sustainable Use of Biodiversity in Tropical Timber Production Forests* (Yokohama 2009).

²⁸ The 1992 *Convention on Biological Diversity*, 1760 UNTS 79, entered into force 29 December 1993.

²⁹ CBD-COP Decision XLVI/6.

³⁰ The 1969 *Vienna Convention on the Law of Treaties*, 1155 UNTS 331, entered into force 27 January 1980.

³¹ The *Declaration of the United Nations Conference on the Human Environment (1972)*, UN Doc.A/CONF/48/14/REV.1.

³² The *Rio Declaration on Environment and Development (1992)*, UN Doc.A/CONF.151/26/Rev.

³³ The *World Charter of Nature* UNGA Res 37/7 (28 October 1982) UN Doc A/RES/37/7.

both MEAs and multilateral trade agreements, for example, the principle of sustainable development. Such principles may influence the interpretation, application and development of specific treaty rules.³⁴

Recent scholarly endeavours on this issue emphasize the integration of these specialized regimes. They are of the view that specialized regimes of international law are not ‘self-contained’,³⁵ and that the WTO rules are not to be considered in ‘clinical isolation’.³⁶ In this regard, the International Law Commission (ILC), in a major study on fragmentation, examined the various techniques available within the international legal system for avoiding or resolving conflicts between treaties from different regimes addressing the same subject matter.³⁷ The ILC emphasized the importance of ‘systemic integration’ between different treaty regimes. The case law of the International Court of Justice (ICJ) appears to favour an integrated conception of international law rather than a fragmented one.³⁸ Scholarly writings of lawyers, both practising and academic, have also attempted to provide methods and techniques to deal with divergence and conflicting treaty norms, but both acknowledge that more work is necessary.³⁹

³⁴ Alan Boyle and Christine Chinkin, *The Making of International Law* (OUP, Oxford 2007) 223.

³⁵ Pauwelyn, *supra* n 11; Weiss, *supra* n 11; Schoenbaum, *supra* n 11; Charnovitz, *supra* n 11; Lindroos and Mehling, *supra* n 21.

³⁶ WTO, *US: Standards for Reformulated and Conventional Gasoline – Report of the Appellate Body* (hereinafter *US – Gasoline*) (20 May 1996) WT/DS2/R and WT/DS2/AB/R, 33.

³⁷ See the ILC Report on Fragmentation *supra* n. 3, 249.

³⁸ See especially *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)*, ICJ Rep. 1997, 7, paras 112 and 140; *Advisory Opinion on the Legality of the Use or Threat of the Nuclear Weapons* (UNGA), Advisory Opinion, ICJ Rep. 1996, 66 at 95; *Case Concerning Oil Platforms (Islamic Republic of Iran v US)*, ICJ Rep. 6 November 2003, 161.

³⁹ See *supra* n 3. Literature on conflicts of treaties in public international law include well-known handbooks on the law of international treaties: Arnold D McNair, *The Law of Treaties* (Clarendon Press, Oxford 1961) 219–22; György Haraszti, *Some Fundamental Problems of the Law of Treaties*, translated by J Decsenyi (Akadémiai Kiado, Budapest 1973) 294–306; Taslim O Elias, *The Modern Law of Treaties* (Oceana Publications, New York 1974) 54–8; Sir Ian Sinclair, *The Vienna Convention on the Law of Treaties* (2nd edn MUP, Manchester 1984) 93–8; Anthony Aust, *Modern Treaty Law and Practice* (CUP, Cambridge 2007). Scholars have analysed this subject more extensively: Wilfred Jenks, ‘The Conflict of Law-Making Treaties’

There is very little or no literature dealing comprehensively with the balance that has currently been struck between environmental and trade considerations in international law. Extensive discussion certainly exists on the balance struck between MEAs and WTO rules, but it tends to focus upon individual issues, and only emphasizes particular methods based on particular circumstances.⁴⁰ None provides systemic methods or techniques which can be used not only to resolve specific inconsistencies or tensions between MEAs and multilateral trade agreements, but also to achieve a coherent legal system.

1.2. Selection of treaties and research questions

With that in mind, a number of particular multilateral agreements are reviewed in this thesis, including three MEAs, namely the 1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (hereinafter *CITES*)⁴¹, the 1992 *Convention on Biological Diversity* (hereinafter *CBD* or *Convention*)⁴² and the 2000 *Cartagena Protocol on Biosafety to the Convention on Biological Diversity* (hereinafter *Biosafety Protocol*),⁴³ and two multilateral trade agreements, namely the 2006 *International Tropical Timber Agreement* (hereinafter *ITTA*)⁴⁴ and the *WTO Agreement* and the annexed multilateral trade agreements.⁴⁵

(1953) 30 BYIL 401–53; KN Dal, ‘The Application of Successive Treaties Dealing with the Same Subject Matter’, (1974) 17 Indian YbIA 279–318; EW Vierdag, ‘The Time of the Conclusion of the Multilateral Treaty: Article 30 of the *Vienna Convention* on the Law of the Treaties and Related Provisions’ (1988) 59 BYIL 92–111; W Czaplinski and GM Danilenko, ‘Conflict of Norms in International Law’ (1990) 21 NYIL 12–28; Jan B Mus, ‘Conflicts Between Treaties in International Law’ (1998) XLV NILR 208–32.

⁴⁰ See *supra* n 16, 17 and 24.

⁴¹ 993 UNTS 243, entered into force 1 July 1975.

⁴² See *supra* n 28.

⁴³ 2226 UNTS 208, entered into force 11 September 2003.

⁴⁴ See *supra* n 7.

⁴⁵ See *supra* n 6.

As mentioned earlier, a number of MEAs contain trade-related environmental measures to protect the environment. Since this thesis specifically considers issues related to the conservation of biodiversity, *CITES*, the *CBD* and the *Biosafety Protocol* are selected to study. They are all conservation agreements aiming to protect biodiversity. Yet, they make allowances for the protection of trade or commercial interests. On the other hand, multilateral trade agreements that are reviewed in this thesis are those whose rules overlap with relevant MEAs provisions whilst making allowances and exceptions for the protection of the environment.

MEAs and the multilateral trade agreements studied in this thesis contain provisions which make allowances and provide specific exceptions for the interests of the other regime. The existence of such concessions has been an essential criterion for the selection of treaties for this study since this thesis aims to balance trade and environmental considerations in international law. They can be divided into three groups: i) treaties which provide the fundamental values and principles for the global environmental and trade treaty regimes respectively; ii) treaties which protect particular narrow interests within these respective fields; and iii) one treaty which balances interests from both fields. The *WTO Agreement* and its annexed agreements are the principal trade agreements, which provide for the fundamental principles of international trade. They also contain specific provisions providing exceptions for the protection of non-trade values, including environmental values.⁴⁶ The *CBD* is the principal agreement for the conservation of biodiversity. It recognizes a range of values of the environment and also contains specific rules and principles for its protection and exploitation. In particular, it recognizes the anthropocentric value of

⁴⁶ See Chapter 3 for further discussion.

biodiversity along with its intrinsic values, and permits the sustainable use of biological resources.

The *ITTA* is a commodity agreement which deals with tropical timber trade, while *CITES* is a conservation agreement, regulating trade in endangered species in order to protect them. The *ITTA* aims to promote the expansion and diversification of international trade in tropical timber, as well as the sustainable management of tropical timber-producing forests. Thus, the *ITTA* addresses environmental concerns essentially in order to achieve trade objectives. On the other hand, *CITES* utilizes a number of trade measures in order to protect endangered species. Here, trade measures are primarily a means to achieve its conservation objectives.

The *Biosafety Protocol* attempts to balance both environmental and trade interests by providing an international regulatory framework to reconcile the respective needs for trade and environmental protection with respect to biotechnology.⁴⁷ The analysis of the *Biosafety Protocol* demonstrates the extent to which its specific rules permit the international trade in living modified organisms (LMOs) while protecting biodiversity and human health from its adverse effects.

In a properly integrated legal system, approaches adopted under the MEAs would dovetail exactly with the approach adopted under the multilateral trade agreements when addressing the same subject matter, so that no possibility of conflict or inconsistency could arise. In practice, however, it is unlikely that full co-ordination is currently being achieved between these sectors in so far as their concerns overlap.

⁴⁷ See Chapter 7 for further discussion.

Furthermore, in the event of occasional overlap between trade and environmental concerns, trade interests tend to seek priority over environmental interests. Therefore, it becomes necessary to determine the precise relationship between these two sectors.

This thesis seeks to balance trade and environmental concerns in international law. It argues that preserving biodiversity is not only an obvious prerequisite to continue trade, but also a prerequisite to attain all political aspirations and goals and also to pursuing the ultimate values of the international community. These values may also contribute to balancing the environment and trade consideration in international legal order. It also argues that both MEAs and multilateral trade agreements adopted political aspirations and basic community values as specific treaty rules in order to balance environmental and trade relationship.

This thesis studies how environmental and trade concerns are balanced in MEAs and multilateral trade agreements. It examines the extent to which political aspirations and basic community values are realized through the adoption of more concrete rules in MEAs and multilateral trade agreements whilst balancing overlapping environmental and trade concerns. To what extent are MEAs trade-related environmental measures compatible with those of the relevant rules of the multilateral trade agreements? Are the rules available in international law adequate to balance this relationship? What is the best way to reconcile environmental and trade interests? Does any hierarchy exist between MEAs and WTO rules, and, if not, should such a hierarchy be established? What are the obstacles to, or limitations upon, achieving a coherent system among these legal regimes and how can they be overcome? These are the questions which this thesis seeks to answer.

1.3. Methodology

This thesis is doctrinal and theoretical in its orientation, and aims to present a means of resolving inconsistencies and incoherence between treaties deriving from different regimes. Several different areas of law are implicated in the research, including public international law generally, as well as several of its sub-disciplines, including international economic law, international environmental law and the law of treaties.

The scope and context of this thesis require a positivist approach⁴⁸, as it analyses a number of environmental and trade treaties. This analysis is based on trade and environmental principles, rules, relevant cases and other sources of law. The thesis compares and contrasts trade and environmental treaties to expose inconsistencies and incoherence between them. Furthermore, it considers the underlying rules and principles of international law governing the inter-relationship between these treaties. Thus, the thesis analyses what the law currently is and how certain rules of law might be required to change in order to achieve a better fit with the central trends, themes or concepts that will be revealed through positive analysis. The positive side of deploying the doctrinal legal method in this research is that it has a direct relation to legal doctrine or substantive rules of law, rendering the research more authoritative and mainstream. The aim of this doctrinal analysis and evaluation is to increase the coherence of the international legal order and to present it as a systemic whole.⁴⁹

⁴⁸ For the characteristics of legal positivism, see Herbert LA Hart, *The Concept of Law* (OUP, Oxford 1997); Raymond Wacks, *Philosophy of Law* (OUP, Oxford 2006) Ch 6; Hans Kelsen, *Introduction to the Problem of Legal Theory* (Clarendon Press, Oxford 2001); Ian Mclecod, *Legal Theory* (5th edn Palgrave Macmillan, 2010) Ch 4, 67–82; Herbert Hart, 'Positivism and the Separation of Law and Morals' (1958) 71 Harv L R 593.

⁴⁹ Aleksander Peczenik, 'Can Philosophy Help Legal Doctrine?' (2004) 17 Ratio Juris 107.

The approach taken in this thesis is based on the understanding that the relationship between specialized treaty regimes can only be achieved ‘through a process of reasoning’ that makes them appear as parts of a ‘coherent whole’.⁵⁰ It envisages an escalating scale, from modest to utopian, of techniques and processes that should be deployed to achieve an integrated system of norms in environmental and trade fora. This methodology is based on the argument that when *appraising* or *evaluating* the coherence and consistencies of the system, one should adopt a holistic perspective, i.e. one that is fully consistent and completely harmonious legal order. When determining the practical action needed to resolve any inconsistencies identified, however, one should start with the simplest, least demanding techniques and only move to the next phase once it has become apparent that a solution is not available via a less intense or demanding mechanism.⁵¹

This thesis involves a careful reading and comparison of treaties from the environmental and trade sectors with a view to identifying ambiguities, exposing inconsistencies and developing distinctions. Other primary sources include: customs, general principles of international law; resolutions and decisions of treaty institutions; WTO Ministerial Declarations; the United Nations Charter and General Assembly resolutions; political recommendations, declarations, programmes and the agendas of international conferences; decisions of the WTO dispute settlement organs, the ICJ, the European Court of Human Rights (ECHR), the European Court of Justice (ECJ) and various other tribunals. Secondary sources include relevant scholarly works, journal articles, working papers, research papers, ILC reports and the websites of

⁵⁰ The ILC Report on Fragmentation, *supra* n 3, para 414; Birnie et al., *supra* n. 11, Ch 14, 809–10.

⁵¹ Michael Bowman, ‘International Law and the Treaties of Coherence’ (work in progress, 2010, University of Nottingham Treaty Centre).

different organizations and libraries. The positive and normative analysis of these sources⁵² does not consider any other kind of methodological approach, such as critical-legal theory, feminist legal theory, international relation theories or socio-legal theories.

1.3.1. Terminological clarification

To avoid ambiguity, it is important to clarify certain terms and concepts that will be commonly used throughout this thesis. The terms ‘multilateral environmental agreements (MEAs)’ and ‘multilateral trade agreements’ are used in this thesis specifically to refer respectively to conservation agreements and to the *WTO Agreement*, its annexed multilateral trade agreements and the *ITTA*. These terms are widely used in formal documents, academic writings and reports of the ILC in order to refer to international environmental agreements which aim to protect the environment, and international trade agreements, which aim to liberalize trade.

The author is aware of the fact that such a ‘pigeonholing’ approach to terminology runs the risk of exacerbating the incoherence that exists between the environmental and trade treaty regimes even further. Moreover, certain MEAs and multilateral trade agreements might not actually fit in either of the pigeonholes when their contents and purposes are strictly considered, for example, if they have achieved a perfectly harmonious balance between the two sectors. Nevertheless, these terms have been retained on account of their general familiarity and convenience, as the risks involved seem relatively small.

⁵² Hart, *The Concept of Law*, *supra* n 48, Ch 10; Wacks, *Philosophy of Law*, *supra* n 48, Ch 6; Hilaire McCoubrey, Nigel White and JE Penner, *Textbook on Jurisprudence* (4th edn OUP, Oxford 2008) 11.

The author has also opted to use the term ‘tension’ in this thesis in order to describe any situation where a lack of appropriate harmony or proper coherence exists. By contrast, the term ‘conflict’ has been used to describe situations where implementing one treaty would require activity that would explicitly violate obligations set out in another treaty. According to Kelsen, ‘A conflict exists between two norms when that which one of them decrees to be obligatory is incompatible with that which the other decrees to be obligatory, so that the observance or application of one norm *necessarily* or *possibly* involves the violation of the other’.⁵³

With such a narrow definition of ‘conflict’, there are only a few examples available where a true conflict exists between environmental and trade treaties. This thesis, however, does not intend to restrict itself to the consideration of such cases. In particular, achieving a better integrated legal system requires looking beyond specific treaty norms. A legal system can only be said to be properly integrated when the basic values of the international community are given effect in all treaties regardless of their specificity. Using the term ‘tension’ allows this thesis to consider any lack of coherence between specific treaty norms and the ultimate community values.

1.3.2. Emphasis on environmental considerations

Both the environment and trade are an integral part of life for humans. ‘Trade’ is a means for growth. Having originated as barter, the modern form of trade has not only diversified but also extended internationally. International trade is the exchange of goods and services across national borders. While international trade has been present

⁵³ Hans Kelsen, *General Theory of Norms* (Clarendon Press, Oxford 1991), Ch 29, 123.

throughout much of history, its economic, social and political importance has increased in recent times, mainly because of industrialization, advanced transportation, globalization and multinational corporations.

On the other hand, planet earth is the only source of resources for the maintenance of such trade, and for human civilization generally. Crucially, these resources are not infinite. Excessive and uncontrolled utilization of these finite resources can threaten the sustainability of the earth's ecosystems, threatening the welfare of human beings and other life forms that depend on the environment for survival.⁵⁴ As the earth has never experienced such exceptional growth in population and consumption before, it is not clear how long its ecosystem will be able to keep pace with the present rate of growth. Recent research identifies safe boundaries for nine 'planetary life-support systems' that are vital for human survival and warns that humanity has already exceeded three of them, including the planetary boundary of biodiversity conservation, where it 'has already entered deep into a danger zone'.⁵⁵

Although trade is an important means of achieving economic and social development, protection of the environment is both a means of securing key values of the international community and an end in itself. More recently laws have been made to protect the environment. The international community in successive environmental summits since 1972 has acknowledged the prerequisite of the preservation of the earth's life-support systems in order to attain all political objectives and goals. The

⁵⁴ Donella Meadows, Jorgen Randers and Dennis Meadows, *The Limits to Growth: 30-Year Update* (3rd revision, Earthscan, London 2005).

⁵⁵ Steffen Rockström et al., 'Planetary Boundaries: Exposing the Safe Operating Space for Humanity' (2009) 14 *Ecology and Society* 32; Fred Pearce, 'Earth's Nine Lives' *New Scientist* 27 February 2010, 31–5.

1992 *Rio Declaration*⁵⁶ declares the conservation of both biodiversity and the global climate system as the common concern of humankind.⁵⁷ The *CBD* and the 1982 *World Charter for Nature (WCN)*⁵⁸ also endorse the intrinsic values of biodiversity.⁵⁹

Since humanity has already crossed the safe operational boundary in a number of environmental functions, further pressure on these systems can ‘destabilize critical biophysical systems’ and trigger irreversible environmental changes, which could have a catastrophic effect for human well-being.⁶⁰ For this reason, this thesis argues that environmental objectives, especially those related to the protection of biodiversity, should now be given higher priority, as compared to trade considerations, within the international legal order.

1.4. Importance of research

Two distinguishing features differentiate this thesis from other existing researches: i) an environmental perspective to study the trade and environmental relationship, and ii) introduces a formal legal mechanism through which environmental and trade considerations may be balanced in the international legal order.

The existing literatures⁵⁶ observe the trade and environmental relationship from a trade point of view. They study whether environmental rules are compatible with those of

⁵⁶ The *Rio Declaration on Environment and Development (1992)*, UN Doc.A/CONF.151/26/Rev.1.

⁵⁷ The *Rio Declaration* itself does not use the term. However, the Rio treaties, the *Convention on Biological Diversity (CBD)* and the *Framework Convention on Climate Change (FCCC)* use the concept of ‘common concern’ to designate those issues which involve global responsibilities.

⁵⁸ Adopted by the UNGA Res 37/7 (28 October 1982) UN Doc A/RES/37/7.

⁵⁹ See the preamble of the *CBD* and the preamble and Annex I(3) of the *WCN*.

⁶⁰ Rockström et al., *supra* n 55, 34.

the trade rules. However, this thesis examines whether environmental concerns are addressed in a balanced manner in the multilateral trade agreements. Thus, it discusses rules of selected MEAs and the multilateral trade agreements which provide exceptions and make allowances with regard to the protection of trade and environmental interests or concerns respectively. It then proceeds to compare and contrast the solutions provided in the MEAs and multilateral trade agreements on overlapping rules with high-level standards as evidenced in *jus cogens*, other non-peremptory norms, key soft law principles, political aspirations and basic community values (are discussed in chapter 2) to observe the extent to which environmental concerns are balanced in the multilateral trade agreements.

The most original aspect of this thesis is the analysis of formal legal mechanisms through which the inconsistencies and incoherence in overlapping treaty relationships can be addressed, and a balance can be achieved. A significant amount of literature exists on reconciling conflicting treaty norms and on the fragmentation of international law in particular, as mentioned previously. However, there is no other study known to the present author that has provided a comprehensive method applicable to all treaty relationships in the context of trade and the environment.

The mechanisms proposed in this thesis would condition the application of individual treaty norms, where appropriate, by standards of higher and more overarching norms. Rather than concentrating on case-by-case solutions for inconsistent MEAs and WTO norms, this thesis seeks to achieve a broader level of coherence within the global legal order. Any attempt to establish a coherent global legal order cannot ignore the fact that there are numerous legitimate fields of concern, but this thesis seeks to achieve a

better accommodation of relevant values across relevant areas of international law, including the law of treaties, international economic law and international environmental law.

The thesis is divided into seven substantive chapters (excluding introduction and conclusion chapters). Chapter 2 analyses various methods and techniques for resolving inconsistencies and incoherence between overlapping and competing norms derived from the environmental and trade treaty regimes. It starts with the discussion of methods contained in the *Vienna Convention*. The *Vienna Convention* provides rules for treaty interpretation and the application of treaties, which can be used to resolve certain inconsistencies and incoherence in treaty relationships. However, this chapter argues that these rules tend to leave considerable discretion to individual states, allowing them to depart from conventional practice and prevailing standards in many cases.

This discretion is, however, limited to some extent by the *Vienna Convention* principle of *jus cogens*. The thesis accordingly identifies various high-level standards as evidenced in *jus cogens*, other non-peremptory norms, key soft law principles, political aspirations and basic community values. It argues that these high-level standards are to some extent implicitly reflected in every treaty or else individual treaties may make express reference to such standards: for example with the sustainable development principle. It also argues that such high-level standards not only affect the interpretation of individual treaties but also serve as a vehicle for the reconciliation of tensions or outright conflict between environmental and trade treaty regimes.

Chapters 3 to 7 then analyse selected MEAs and multilateral trade agreements, focusing on the extent to which environmental and trade treaty regimes have made allowances for each other's interests. It also examines the practical application of such exceptions or allowances. In the light of the overall objectives and purposes of the multilateral trading system, Chapter 3 analyses the Article XX *GATT* environmental exceptions, along with other specific provisions of the *WTO Agreement* and its annexed agreement, which provide exceptions and make allowances with regard to the protection of environmental interests or concerns. It also examines the practice of the CTE and the WTO dispute settlement system to observe the extent to which such permitted interests are disregarded or overridden. This chapter argues that, although the multilateral trading system embraced 'sustainable development' and 'protection and preservation of the environment' as objectives, it has failed to address current environmental concerns as recognized in various research and in the policy documents of the international community. Thus, it fails to achieve an appropriate balance in environmental and trade relationship in practice.

Chapter 4 reviews the 2006 *ITTA*. The key objectives of the *ITTA* are to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests. These broad and extended objectives show *ITTA*'s intention to balance both the economic and the environmental concerns and interests. It refers to conservation, sustainable forest management, sustainable utilization and the maintenance of ecological balance in its various provisions in order to balance both economic and environmental interests.

This chapter analyses the Agreement's specific provisions on the protection of the tropical timber forest and observes the extent to which environmental concerns have been protected in practice under this commodity agreement. It concludes that although the *ITTA* is now paying greater attention to sustainable development, it is still effectively little more than a commodity agreement, with a commitment to increase international trade in tropical timber from sustainably managed and legally harvested forests. Therefore, this chapter argues that the *ITTA* has been unsuccessful to balance trade and current environmental concerns.

Chapter 5 discusses one extremely important MEA that relies on trade measures to protect the environment – the 1973 *CITES*. Annually, international wildlife trade is estimated to be worth billions of dollars and to include hundreds of millions of plant and animal specimens. *CITES* recognizes the economic contribution of international trade of wildlife in the Contracting Parties economy. Thus, it does not prohibit wildlife trade, but subject international trade in specimens of selected species to certain controls in order to protect endangered species. *CITES* aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

This chapter focuses on how the *CITES*' approach towards trade differs from that of the multilateral trade agreements. Consequently, some trade restrictions imposed by *CITES* appear to be in conflict with the principles of the *GATT/WTO* agreements, increasing the potential for a conflict between the *CITES* and the *WTO*. It argues that *CITES*' trade related environmental measures to balance conservation and trade objectives are not disguised restrictions to trade.

Chapter 6 considers the *CBD*. It illustrates how the objectives of the Convention go well beyond the conservation of biological diversity *per se* and covers such diverse issues as sustainable use of biological resources, access to genetic resources, the sharing of benefits derived from the use of genetic resources and access to technology.⁶¹ Although the Convention does not contain any specific trade restrictive measures, the Contracting Parties, while implementing the Convention, may develop and adopt specific measures restricting trade in biological resources to pursue the Convention's objectives. Such measures have, or are likely to have, the possibility of overlapping with obligations set out in the multilateral trade agreements whilst dealing with the same subject matter. This chapter argues that the soft law principles of the Convention allow Contracting Parties to integrate the fundamental values of the international community balancing the environmental and trade relationship.

Chapter 7 analyses how trade and environmental interests are balanced in the *Biosafety Protocol*, which provides an international regulatory framework to reconcile the respective needs for trade and environmental protection with respect to biotechnology. Hence, this chapter examines in particular the extent to which the *Biosafety Protocol* permits the international trade of living modified organisms (LMOs) while protecting biodiversity and human health from its adverse effects. Since some multilateral trade agreements also address issues related to the transboundary movement of LMOs, there is a possibility that some of the Protocol provisions may overlap with them. Thus, the chapter further analyses the extent to which the Protocol's permitted trade-restrictive measures are compatible with the multilateral trade agreements which deal with the same subject matter. It argues that

⁶¹ Article 1 of the *CBD*.

the *Biosafety Protocol* includes soft law principles of the international community in order to balance environmental and trade relationship.

Finally, chapter 8 proposes mechanisms to balance trade and environmental considerations in the international legal order whilst comparing and contrasting the various solutions provided in both the trade agreements and MEAs to reconcile overlapping environmental and trade interests, as discussed in chapters 3 to 7. It observes whether the solutions for overlapping issues adopted in the trade agreements and MEAs are identical, complementary or incompatible with one other. In the event of disagreement, it considers the underlying rules governing the interpretation and prioritization of legal norms as identified in chapter 2. Where it is possible to make a comparison between current solutions, it assesses the current balance against other relevant values of the international community as evidenced in *jus cogens*, other non-peremptory norms, key soft law principles, political aspirations and basic community values. Taking into consideration the current environmental concerns, this chapter argues that the WTO and the ITTO should give greater and more specific recognition to environmental values.

This thesis concludes with the hope of stimulating academic discussion and general scholarship in the area, as well as encouraging practical action for WTO trade institutions, including its dispute settlement organs. The WTO is encouraged to give specific recognition to environmental values and its dispute settlement organs to interpreting environmental exceptions, broadly to reflect environmental values as recognized in MEAs and high-level standards set by the international community. Overall, this thesis seeks to demonstrate the need to acknowledge the role of high-

level norms in harmonizing different treaty interests and proposes a systemic approach to reconciling tension in overlapping treaties from different regimes.

2. Treatment of the competing norms

2.1. Introduction

As mentioned in the preceding chapter, a number of MEAs contain rules affecting trade interests, while several multilateral trade agreements also provide rules affecting environmental interests. This can lead to a situation where it becomes necessary to determine the precise relationship between two or more overlapping norms arising from MEAs and the multilateral trade agreements, both of which are valid and applicable in respect of a particular situation. Accordingly, this chapter analyses ways and techniques to resolve inconsistencies and incoherence between overlapping and competing norms derived from different treaty regimes.

In this context, the 1969 *Vienna Convention Law of Treaties* partly reflects customary law, and constitutes the basic framework for any discussion of the nature and characteristics of treaties. Its rules for treaty interpretation and application of treaties are particularly relevant to resolve inconsistencies and apparent conflict between overlapping treaty norms from different regimes. Articles 31–33 of the *Vienna Convention* offer rules for treaty interpretation, whilst Article 30 expressly offers rules to resolve tension between successive treaty norms relating to the same subject matter.

To date, Article 31(3)(c) of the *Vienna Convention* has been recognized as ‘the only provision of international law’ that can integrate the various sources of international law.⁶² Since this Article requires the interpreter of a treaty to take into account ‘any relevant rules of international law applicable in relations between the parties’, the

⁶² Duncan French, ‘Treaty Interpretation and the Incorporation of Extraneous Legal Rules’ (2006) 55 ICLQ 281 at 301; Philippe Sands, ‘Treaty, Custom and the Cross-fertilization of International Law’ (1998) 1 Yale HRDLJ 85 at 95.

International Law Commission (ILC) in its Report on the ‘Difficulties Arising from the Diversification and Expansion of International Law’ took the view that Article 31(3)(c) of the *Vienna Convention* gives expression to the ‘principle of systemic integration’.⁶³ Furthermore, Article 32 of the *Vienna Convention* allows for supplementary means of interpretation, for example, the preparatory work of the treaty (travaux préparatoires, or travaux for short), and other aids to interpretation as discussed in this chapter.

Furthermore, the purpose behind applying Article 30 to ‘successive treaties relating to the same subject matter’ is that it acts as a guide to select only one of the two competing rules applicable to the particular situation at hand. However, these are not the only articles in the *Vienna Convention* governing the relationship between successive treaties; where the norms are actually incompatible, and it may be necessary to bring to an end one of the two norms through ‘invalidity or termination or illegality’. In this context, the *Vienna Convention* provides rules for treaty amendment (Articles 39 and 40), modification (Article 41) and termination or suspension (Articles 58, 59 and 60), all of which may help to resolve conflicts between overlapping treaty norms. Furthermore, there is another category of norms from which no derogation is permitted, i.e. *jus cogens* norms (Articles 53 and 64).

The application of *Vienna Convention* rules provides the following possible outcomes for inconsistent or conflicting norms: harmonizing the apparent inconsistent norms to avoid conflict; if that seems implausible, it must be established whether one of the norms supersedes the other; and finally, if that cannot be determined, it will be

⁶³ Report of the ILC on Fragmentation, *supra* n 3, para. 413. For more detail on ‘systemic integration’, also see Campbell McLanhan, ‘The Principle of Systemic Integration and Article 31(3)(c) of the *Vienna Convention*’ (2005) 54 ICLQ 279–320.

necessary to establish definite relationships of priority between them. How can competing norms be harmonized? How should priority between successive treaties be determined? Are the rules and techniques provided by the *Vienna Convention* sufficient to address conflicting treaty relationships? If not, are there any other methods or rules available in international law to resolve tension between treaties? Due to the proliferation of multilateral treaties in recent years, tension between successive treaties is rising and thus these questions are more important than ever.

This chapter seeks to answer such questions. It presents a critical analysis of the rules and techniques of the *Vienna Convention* and examines the extent to which they are sufficient to address the complexities which can possibly arise between MEAs and multilateral trade agreements. This chapter addresses the strengths and weaknesses of those techniques provided in the *Vienna Convention*, pointing out what it can achieve and what it cannot, which technique offers the best hope for a balanced relationship, and if they fail to resolve probable conflicts, what alternatives exist. Furthermore, it focuses upon those aspects of normality which do not bind states and other legal persons to comply with them, but can set limits, or provide guidance, or determine how a conflict between other rules and principles will be resolved.⁶⁴ Accordingly, it also analyses the key soft law norms and principles relevant to environmental and trade concerns, which can often be found in non-binding declarations and resolutions of the international community of states.

The chapter consists of four sections. Sections II–IV critically analyse the rules of international law to observe the extent to which they tackle inconsistencies and incoherence in treaty relationships. The *Vienna Convention* offers three broad

⁶⁴ See Birnie et al., *supra* n 11, 26–8.

techniques to tackle inconsistencies and incoherence in treaty relationships: harmonization, supersession and prioritization. Apparent conflict between mere unsympathetic but compatible norms can typically be resolved by harmonizing them, but in case of mutually exclusive norms, one will inevitably prevail over the other. Furthermore, where the norms are actually incompatible, it is necessary to establish definite relationships of priority between them. Section V's discussion focuses on various norms and principles of the international community as expressed in key soft and hard law instruments. Such norms include: fundamental sectoral and trans-sectoral norms; general trans-sectoral or cross-sectoral meta-norms; global political aspirations; and ultimate community values. It observes the extent to which these norms and principles assist in establishing a coherent legal system in the trade and environmental relationship.

2.2. Techniques to avoid apparent conflicts

Many apparent or potential conflicts can be prevented or avoided before they actually materialize in a practical sense. One obvious way of preventing or avoiding conflict between norms from different regimes is to keep in mind existing norms of international law when negotiating and drafting new regimes. Another way is to interpret them in order to harmonize them. For this purpose, the two norms must be of such nature that they can be read in a way that makes it possible to harmonize them.⁶⁵

⁶⁵ See Pauwelyn, *supra* n 11, 251.

2.2.1. Prevention is better than cure

Many potential conflicts of overlapping treaty rules can be avoided by taking precautions while negotiating and/or drafting an instrument. This can be done by drafting a new treaty more clearly and thoughtfully, keeping other treaties fully in mind.⁶⁶ Adding a 'conflict clause' with clear language while negotiating a new treaty can also reduce the potential for conflict between overlapping norms from different treaties. A conflict clause describes how that treaty's relationship with other treaties will be regulated insofar as their concerns overlap. This type of clause may seek to determine the relationship of the treaty in question with any treaty past or future. A conflict clause can clarify the basic parameters of an agreement. The *Vienna Convention* has recognized the 'conflict clause' as a way for parties to come to an agreement, to clarify their intentions vis-à-vis other agreements.⁶⁷ If all parties to a negotiation are clear that no conflict is intended, they could agree to reflect this in an explicit provision. Thus, some multilateral treaties contain express provision for the priority of the present treaty over all other treaties.⁶⁸ For example, Article 103 of the 1945 UN Charter states its priority over all other treaties past and future. On the other hand, some multilateral treaties contain an express provision that subordinates it to an earlier treaty. For example, Article 4 of the 1995 *Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement* establishes the

⁶⁶ Jenks, *supra* n 39, 429; Wolfram Karl, *Conflict Between Treaties*, in Rudolf Bernhardt (ed), 4 *Encyclopaedia of Public International Law* (2000) 936; Christopher Borgen, 'Resolving Treaty Conflicts' (2005) 37 *George Washington ILR* 573 at 584.

⁶⁷ Article 30 of *Vienna Convention*.

⁶⁸ Hans Blix and Jirina Emerson (ed), *The Treaty Makers Handbook* (Oceana Publications, Dag Hammarskjold Foundation, Dobbs Ferry, New York 1973) 210–17 and Aust, *supra* n 39, 227–9 sets out a typology of different types of conflict avoidance clauses, for example, i) the present treaty prevails over the other treaties; ii) the present treaty prevails over all earlier treaties; iii) the present treaty prevails over earlier treaties for parties to the present treaty; iv) the parties to the present treaty undertake an obligation not to enter into later treaties inconsistent with the present one; v) supplementary agreements are permitted only if they are compatible with the present treaty; vi) the parties to the present treaty undertake an obligation to modify existing treaties that they may have with third parties; vii) the treaty prevails over all other treaties past and future, etc.

priority of the 1982 *Law of the Sea Convention (UNCLOS)* over its provisions.⁶⁹ The insertion of such a clause may prove an effective way to prevent dispute between treaties. However, agreeing on a ‘conflict clause’ is not so simple.

In the era of specialized treaty regimes, thoughtful drafting plays a significant role in avoiding or resolving potential conflict between specialized treaties from different regimes. As Jenks pointed out, the negotiators of specialized treaties are often tempted ‘to secure fuller satisfaction for their own views on debatable questions of details at the price of conflict between different instruments and incoherence in the body of related instruments’.⁷⁰ He calls for negotiators to ‘form the habit’ of recognizing any proposed new instrument as part of the entire corpus of international law, and thus keeping in mind what effect it might have on existing instruments.⁷¹ For this purpose, whenever negotiating a new instrument, negotiating states need to check beforehand whether a proposed new norm would be compatible with their own prior commitments. In this way, conflict can be avoided before it arises.

Another way of avoiding conflict between specialized regimes is to establish cooperation and information-sharing arrangements between international institutions or between international organizations and states. This process makes it possible for international organizations and states negotiating specialized treaties to be aware of their area of competence and also enables them to take into account existing rules of other regimes while making new rules. This process is well recognized by the international community as a conflict-avoidance tool. An example is the

⁶⁹ ‘Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States under [UNCLOS]. This Agreement shall interpreted and applied in the context of and in a manner consistent with the [UNCLOS]’.

⁷⁰ Jenks, *supra* n 39, 452.

⁷¹ *Ibid.*

Memorandum of Understanding between the 1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)* Secretariat and the Food and Agriculture Organization (FAO).⁷² *CITES* and FAO share an interest on a broad range of issues, which include certain marine and forest resources. When the CITES-COP included certain commercially exploited marine species within its framework, it did not have the data or technical expertise on marine species to prove scientifically that the species is endangered – but the FAO does. As a result, the two institutions have formed a ‘Memorandum of Understanding’ on joint work programmes.⁷³

However, one of the limitations of such cooperation is that norms from a weaker regime may lose out to norms from a stronger regime, as the latter may well provide for stronger compliance mechanisms, which states are more likely to follow in their decision-making process.⁷⁴ For example, the WTO regimes are more likely to prevail in this process over most MEAs regimes, as the latter do not have strong enforcement mechanisms.⁷⁵ In addition, it is questionable how far this cooperation process can harmonize conflicting norms while they have to take into account the rights and obligations of each set of treaty parties. Moreover, it is difficult in practice to establish cooperation between institutions to resolve any conflict.⁷⁶ Cooperation requires expertise, resources and preparation. One group having huge resources may well be able to observe all meetings in all areas, but this is not possible for an institution with inadequate resources.

⁷² Fifteenth meeting of the Conference of the Parties (13–25 March 2010). Available at: <<http://www.CITES.org/eng/cop/15/doc/E15-10-02.pdf>> [2 September 2010].

⁷³ For more examples of sectoral, cross-sectoral and trans-sectoral cooperation between treaties institutions and institutions and states, see Chapter 8.

⁷⁴ Claire Kelly, ‘The Value Vacuum: Self-enforcing Regimes and the Dilution of the Normative Feedback Loop’ (2001) 23 *Mich JIL* 673 at 690.

⁷⁵ *Ibid.*

⁷⁶ See Chapter 8 for further discussion.

2.2.2. Treaty interpretation

Interpretation is an established process to harmonize two or more agreed norms,⁷⁷ where either or both include terms that are open-textured or ambiguous. It begins with finding the meaning of ambiguous or potentially inconsistent treaty norms in the light of the context and object and purpose of a single treaty but it can be extended to systemic integration between norms from different treaties.

2.2.2.1. Interpretation ‘in the context’ of a treaty

Article 31 of the *Vienna Convention* sets out the basic rules for treaty interpretation, which is that treaties are to be ‘interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose’. In this process, priority has been given to the text of the treaty, as the ILC took the view that ‘the starting point of interpretation is the elucidation of the meaning of the text, not an investigation *ab initio* into the intention of the Parties’.⁷⁸ Therefore, for the purpose of treaty interpretation, first the terms of the treaty need to be considered in the light of the context in which they arise, and then the ‘objective and purpose’ of the treaty.⁷⁹ Article 31(1) of the *Vienna Convention* considers three main elements in treaty interpretation: the text, its context⁸⁰ and the object and purpose of the treaty. Over-reliance upon any one of these factors to the detriment of others is unlikely to produce a satisfactory result.

⁷⁷ Conclusions of the work of the Study Group on the Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, Report adopted by the ILC in its 58th session in 2006, para. 1(4).

⁷⁸ Yearbook of International Law Commission (1966 – II), 218.

⁷⁹ Ulf Linderfalk, ‘Is the Hierarchy Structure of Articles 31 and 32 of the *Vienna Convention* Real or Not? Interpreting the Rules of Interpretation’ (2007) 54 NILR 133 at 136.

⁸⁰ By context it meant material related to the conclusion of the treaty; and the reference to ‘context’ in the opening phrase of paragraphs 2 and 3 is designed to link those paragraphs with paragraph 1.

Therefore, an acceptable treaty interpretation needs to be a perfect blend of all these factors.

The ILC observed that the principle of effectiveness (*ut res magis valeat quam pereat*) is ‘subsumed in the reference to “good faith” and “the object and purposes of a treaty” contained in Article 31(1) of VCLOT’.⁸¹ In the language of the ILC, ‘[W]hen a treaty is open to two interpretations one of which does and the other does not enable the treaty to have appropriate effects, good faith and the object and purposes of the treaty demand that the former interpretation should be adopted’.⁸² Consequently, in the absence of any explicit guideline, treaty interpretation by reference to the principle of effectiveness can work as a conflict-avoidance technique. The principle of effectiveness, by dint of interpretation, gives effect to both apparently inconsistent norms in such a way as to resolve any apparent conflict. Within a single treaty, in any situation where one norm explicitly derogates from another norm or makes it clear that the scope of one norm must be restricted to give effect to another norm, effective interpretation of both norms may solve apparent conflicts. For example, Articles III and XX of the *GATT* create a potential tension.⁸³ However, this can be resolved by effective treaty interpretation, which will narrow down or carve out the effect of Article III to give proper effect to Article XX.⁸⁴

However, effective treaty interpretation does not necessarily call for a ‘liberal’ or ‘narrow’ interpretation as a matter of abstract principle; on the contrary, interpretation on the basis of this principle is conditioned by the overall objective and purposes of

⁸¹ Sinclair, *supra* n 39, 118 and Yearbook of International Law Commission, ‘Draft Articles on the Law of Treaties with Commentaries’, *supra* n 78, 219.

⁸² *Ibid.*

⁸³ See Chapter 3.

⁸⁴ See Chapter 3 for the detailed provisions of Articles III and XX of the *GATT* 1994.

the treaty.⁸⁵ Often an exception, or a derogative norm, is given a relatively narrow interpretation so as not to undermine the overall objective and purposes of the treaty.⁸⁶ Even where a restrictive approach is adopted, the effective treaty interpretation principle does not allow interpreters to read apparent inconsistent norms in a way that would render whole clauses or paragraphs of a treaty ‘redundant’ or ‘unutilized’.⁸⁷ Furthermore, such interpretation does not allow introducing words that are not in a treaty or the importation of concepts that are not intended.⁸⁸ Consequently, words cannot be ‘interpreted out of’ specific treaty provisions and new words cannot be ‘imported into’ the treaty.⁸⁹

Furthermore, the principle of effectiveness may well demand that an exception be given an extensive reading: it all depends on the relationship between the exception and the overall objective and purposes of the treaty. For example, *CITES* permit exceptions for captive breeding and artificial propagation, ranching and scientific research.⁹⁰ Exceptions such as ‘captive breeding or artificial propagation’, ‘ranching’ and ‘scientific research’ are not only intended to accommodate *CITES* objectives (i.e. ‘protect’ endangered species ‘against over-exploitation’) but also positively to promote these objectives.⁹¹

⁸⁵ In the *Corfu Channel* case the PCIJ applied this principle to interpret the term ‘a special agreement’. *Corfu Channel (UK v Albania) (Merits)*, ICJ Rep. 1949, 4 at 24. Also see Hersch Lauterpacht, ‘Restrictive interpretation and the principle of effectiveness in the interpretation of treaties’ (1949) 29 BYIL 48.

⁸⁶ It is the practice of the *GATT* panels to interpret exceptions narrowly, see decisions on *US – Countervailing Duties on Fresh, Chilled and Frozen Pork from Canada* (1991) *GATT* BISD 38S/30, para. 4.4; *Canada – Import Restrictions on Ice Cream and Yogurt* (1989) *GATT* BISD 36S/68, para. 59.

⁸⁷ *US – Gasoline*, *supra* n 36; WTO, *Japan: Taxes on Alcoholic Beverages II – Report of the Appellate Body* (hereinafter *Japan – Alcoholic Beverage*) (4 October 1996) WT/DS10/AB/R and WT/DS11/AB/R.

⁸⁸ WTO, *India: Patent Protection for Pharmaceutical and Agricultural Chemical Products – Report of the Appellate Body* (19 December 1997) WT/DS50/AB/R, para. 46.

⁸⁹ Pauwelyn, *supra* n 11, 249.

⁹⁰ Article VII of the *CITES*.

⁹¹ This issue has been discussed in detail in Chapter 5.

However, it is doubtful how far this principle is useful to solve a conflict between treaties from different regimes which have different objectives and purposes,⁹² since this principle does not call for an ‘extensive’ or ‘liberal’ interpretation in any sense which goes beyond the meaning of the terms and objectives of a treaty. Furthermore, if a harmonious reading of the two apparently inconsistent norms is not feasible by means of effective interpretation, it becomes necessary to choose between the norms, since the existence of a conflict is acknowledged.

2.2.2.2. Interpretation with reference to norms outside of the treaty

Articles 31 and 32 of the *Vienna Convention* incorporate provisions that may require a reference to normative elements other than those set out in the treaty itself, such as ‘any subsequent agreements’ (Article 31(3)(a)); ‘any subsequent practice’ (Article 31(3)(b)); ‘any relevant rules of international law’ (Article 31(3)(c)); and ‘supplementary means of interpretation’ (Article 32). In the event of apparent conflict between the respective norms of MEAs and of multilateral trade agreements, if there is room for an interpretation of either one that would render it consistent with the other, such interpretation should be preferred in order to harmonize those norms.

(a) Interpreting inconsistent norms taking into account subsequent agreements and practices

Article 31(3)(a) provides that, together with the context, the interpreter should take into account any subsequent agreement between the parties regarding the

⁹² Gerald Fitzmaurice, ‘The Law and Procedure of the International Court of Justice 1951-4: Treaty Interpretation and Other Treaty points’ (1957) 33 BYIL 223.

interpretation of the treaty or the application of its provisions. This provision is understood to allow the parties to effectively revise the treaty and permits the Conference of the Parties (COP) to a treaty to enact an authoritative interpretation of treaty provisions, which may amount in effect to an amendment.⁹³ It seems that Article 31(3)(a) also permits the evolutionary interpretation of a treaty.

Furthermore, Article 31(3)(b) provides for account to be taken, together with the context, of any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation. In the context of a treaty, such subsequent practices can be found either in state practice or in the practice of treaty organizations,⁹⁴ for example, the COP of an MEA, or one of the WTO dispute settlement systems. Both the practice of parties to a treaty and the practice of a treaty institution can be referred to in the interpretation of a treaty. Consequently, subsequent practice can lead to further clarification of treaty rules. Furthermore, the ICJ decided in the *Namibia* case that 'subsequent practice' is capable also of actually changing treaty norms.⁹⁵ In that instance, subsequent practice was equated with an explicit agreement which modifies a treaty by means of subsequent practice.

Both subsequent agreement and practice carry considerable weight in the interpretation of a treaty and may be utilized in order to modify a treaty norm so that it reads consistently with norms from another treaty where an apparent conflict exists between them. However, the extent to which subsequent agreement or subsequent

⁹³ Francis Jacobs, 'Varieties of Approach to Treaty Interpretation: With Special Preference to the Draft Convention on the Law of Treaties before the Vienna Diplomatic Conference' (1969) 18 ICLQ 318 at 330.

⁹⁴ *Namibia Advisory Opinion*, ICJ Rep. 1971, 16, para. 22.

⁹⁵ *Ibid.* In this case the ICJ found that the voting practices of the UN Security Council have effectively changed the UN Charter provisions.

practice will work as a conflict-avoidance technique depends on the practice of states and organizations.

(b) ‘Systemic integration’ referencing to norms external to the treaty

Article 31(3)(c) requires the interpreter of a treaty to take into account ‘any relevant rules of international law applicable in the relations between the parties’. It reflects a ‘principle of integration’,⁹⁶ which is based on a presumption that treaties are a creation of a single international legal system and their operation should be considered upon that basis.⁹⁷ Article 31(3)(c) allows for the application of other relevant rules of international law, which may themselves derive from treaties, customary rules or general principles of law,⁹⁸ in order to interpret a treaty norm. This technique of interpretation helps to modify, clarify or update a treaty norm with the application of similar norms from other treaties regardless of their subject matter. Consequently, apparent conflict between overlapping treaty norms from different regimes may be avoided.

In the *Golder* case, the European Court of Human Rights (ECHR) in reference to Article 31(3)(c) decided that ‘general principles of law’ more precisely refer to the ‘general principles of law recognised by civilized nations’, as recognized by Article 38(1)(c) of the *Statute of the International Court of Justice*.⁹⁹ It is not completely clear whether this Article refers only to general principles of municipal law or also includes principles recognized by international law itself, such as the principle of good faith.

⁹⁶ Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 95.

⁹⁷ The ILC Report on Fragmentation, *supra* n 3, para. 4(17). Also see Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 95.

⁹⁸ *Ibid.*, para. 4(18).

⁹⁹ *Golder v UK* (App no 4451/70) ECHR 21 February 1975, para. 29.

The positivist view is that Article 38(1)(c) refers only to general principles accepted by all nations in *foro domestico*. Other writers, however, believe that Article 38(1)(c) does not codify an existing unwritten rule on general principles, but endeavours to establish a new secondary source, leaving it to a court or a tribunal, not states, to enunciate the relevant principles by induction.¹⁰⁰ This would give a court or a tribunal a more creative role, within certain limits, to construct new principles.

Such general principles are also important, as they influence the interpretation, application and development of treaties in accordance with Article 31(3)(c) of the *Vienna Convention*.¹⁰¹ Furthermore, Article 31(3)(c) also covers rules of customary international law and certain treaty provisions.¹⁰² In the *Case Concerning Gabčíkovo-Nagymaros Project*, the ICJ noted that ‘developed norms of environmental law are relevant for the implementation of the treaty’.¹⁰³ In the *Al-Adsani* case, the Strasbourg Court resorted to Article 31(3)(c) of the *Vienna Convention* and stated that ‘[t]he Convention ..., cannot be interpreted in a vacuum’; rather the court would have to take into account the ‘generally recognized rules of public international law...’.¹⁰⁴

As discussed in chapter 3, this trend of taking into account not only the general principles of law but also other treaties finds reflection in *US – Shrimps*, where the WTO Appellate Body interpreted the words ‘exhaustible natural resources’ in Article XX(g) of *GATT* by reference to various MEAs.¹⁰⁵ It held that when interpreting a

¹⁰⁰ Antonio Cassese, *International Law in a Divided World* (Oxford, Clarendon Press 1986) 171–2; Jonathan Charney, ‘Universal International Law’, (1993) 87 AJIL 529 at 535–6.

¹⁰¹ Boyle and Chinkin, *The Making of International Law*, *supra* n 34, 225.

¹⁰² The ILC Report on Fragmentation, *supra* n 3, para. 4(17). Also see Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 8; Sinclair, *supra* n 39, 119.

¹⁰³ ICJ Report (1997) 7, 67.

¹⁰⁴ *Al-Adsani v UK* (App no 35763/97) ECHR 21 November 2001, 55.

¹⁰⁵ WTO, *US: Import Prohibition of Certain Shrimp and Shrimp Products – Report of the Appellate Body* (6 November 1998) WT/DS58/AB/R, para. 130.

treaty norm interpreters are free to seek ‘additional interpretative guidance, as appropriate, from the general principles of international law’, which could derive from another treaty.¹⁰⁶ However, as the Appellate Body did not mention Article 31(3)(c) specifically, it is not clear whether it was intending to invoke that provision, or merely to determine the ordinary meaning given to the treaty terms in accordance with Article 31(1).¹⁰⁷

Furthermore, it is also unclear either from the *Vienna Convention* itself, with respect to the specific implications for parties, whether Article 31(3)(c) refers to rules applicable only between the parties to a treaty dispute or, by contrast, to all the parties to the treaty in question.¹⁰⁸ Therefore, the precise scope of application of this provision is unclear.¹⁰⁹ In this connection, to limit the application of Article 31(3)(c) only to rules applicable between parties to a treaty dispute, rather than to all the parties to a treaty, makes its application uncertain with regard to other treaty parties.¹¹⁰ Furthermore, Article 18 of the *Vienna Convention* broadens the obligation of signatory states to refrain from acts which would defeat the object and purpose of the treaty. Thus, signatory states although not ‘parties’ to a treaty are obliged not to act against

¹⁰⁶ *Ibid.*, para. 158.

¹⁰⁷ Pauwelyn, *supra* n 11, 256.

¹⁰⁸ Article 2.1(g) of the *Vienna Convention* defines the meaning of the term ‘party’ for the purposes of the *Vienna Convention* as ‘a State which has consented to be bound by the treaty and for which the treaty is in force’. The *GMO* case has inferred from these elements that the rules of international law applicable in the relations between ‘the parties’ are the rules of international law applicable in the relations between the States which have consented to be bound by the treaty which is being interpreted, and for which that treaty is in force. Therefore, Article 31(3)(c) refers to ‘the parties’, not ‘all parties’. See WTO, *EC: Measures Affecting the Approval and Marketing of Biotech Products – Report of the Panel* (hereinafter *EC – Biotech Products*) (29 September 2006), para. 7.68 and Pauwelyn, *supra* n 11, 261.

¹⁰⁹ Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 102. See discussion on *Biotech* case in Chapter 8.

¹¹⁰ The COP of the MEAs engage from time to time in interpretation of the provisions of the MEAs in a way that relates to and gives effect to the substantive obligations of their parties. In some cases, this power of interpretation is expressly conferred by the MEAs.¹¹⁰ But more commonly, the COP interprets MEAs even though the agreement does not expressly authorize it with the power. In operation, sometimes MEAs experience scientific, technical or other developments which lead the COP to interpret MEAs to meet the demand of the present situation and to keep it up to date.

its objectives. If they do so, the ILC and academic commentators have concluded that that would amount to a material breach of their treaty obligations.¹¹¹

In any event, it is not easy to determine the intentions of the parties. States as such are not capable to forming intentions; they send delegations to treaty negotiations represented by natural persons.¹¹² These delegations can have divergent understandings even amongst themselves regarding the ‘meaning and objectives’ of the instrument. Therefore, consensus should be based on ‘objective appearances and ostensible intentions’, so that ‘the undeclared aims or secret aspirations of the parties cannot be allowed to dictate the sense which the instrument must bear’.¹¹³ Thus, although the ‘subjective approach’ of treaty interpretation (whereby the aim of the interpretation is to ascertain the ‘intentions of the parties’) is well supported and advocated by various writers and jurists,¹¹⁴ the ‘common intention’ which is needed for this approach is widely criticized for not being clear in ‘many and varied situations’.¹¹⁵ In multilateral treaties, moreover, many of the parties will, or may, have joined by subsequent accession. They have not taken part in the original framing of the text, and therefore they may well be unaware of the original framers’ basic intentions.

The terms of Article 31(3)(c) permit the evolutionary interpretation of a treaty. This approach is based on the presumed intention of the parties and is designed to ensure

¹¹¹ Yearbook of International Law Commission (1965) Part I, 87–99, 262–3 and Part II, 43–5; Martin Rogoff, ‘International Legal Obligations of Signatories to an Unratified Treaty’ (1980) 32 Mar LR 263; Jan Klabbers, ‘How to Defeat a Treaty’s Object and Purpose Pending Entry into Force: Toward Manifest Intent’ (2001) 34 Vand JTL 283.

¹¹² Michael Bowman, “‘Normalising’ the International Convention for the Regulation of Whaling’ (2008) 28 Mich JIL 293 at 317.

¹¹³ *Ibid.*

¹¹⁴ McNair suggested that the main task of any tribunal to interpret a treaty is to give effect to the express intention of the parties. McNair, *supra* n 39, 365, The Restatement para. 146.

¹¹⁵ Jacobs, *supra* n 93, 318–21.

that the continuous pursuit of the object and purpose of the treaty can be maintained over the course of time and in the light of ever-changing ‘practical realities, social attitudes and normative demands of the wider legal system’.¹¹⁶ The drafters of the *Vienna Convention* initially intended to limit the boundary of these external¹¹⁷ sources by adding the clause ‘in force at the time of its conclusion’ to general rules of international law. However, the final version overcomes this limitation by dropping this clause. Accordingly, the ILC deliberately omitted a rule about ‘inter-temporality’ from the *Vienna Convention*, as some members of the ILC suggested that to retain it would fail ‘to deal with the problem of the effect of an evolution of the law of interpretation of legal terms in a treaty’ and would be ‘inadequate’. Since international law evolves and develops during the operation of a treaty, this process may influence the meaning of such treaty terms,¹¹⁸ ‘especially where the concepts used in the treaty are open or evolving’.¹¹⁹

Two contrasting approaches can be adopted to interpret treaty terms which possess a potentially evolutionary meaning.¹²⁰ One is the ‘static’ approach, i.e. interpretation in the light of their meaning as understood by the parties at the time of negotiation.¹²¹ The other is the ‘dynamic’ or ‘evolutionary’ approach, i.e. objective revision of meaning. The static approach is based on the subjective understanding of a treaty that its meaning can only change when the parties themselves specifically intended to alter

¹¹⁶ Bowman, ““Normalising””, *supra* n 112, 149.

¹¹⁷ In this context, interpretation of a treaty by reference to external rules can be divided into two parts: i) rules external to the text but internal to the process of treaty, e.g. travaux préparatoires; and ii) external rules deriving from other sources, e.g. treaties, customary rules or general principles of law.

¹¹⁸ Sinclair, *supra* n 39, 139–40.

¹¹⁹ The ILC Report on Fragmentation, *supra* n 3, para. 4(23).

¹²⁰ French, *supra* n 62, 295.

¹²¹ *Island of Palmas Arbitration (Netherlands v US)* (1928) 2 RIAA 829.

it in the light of changing circumstances.¹²² Regarding the evolutionary approach, the ILC describes three characteristics for concepts used in treaties which are considered as being ‘open or evolving’ in nature. They must i) be capable of taking into account subsequent technical, economic and legal developments; ii) set up an obligation for further development for the parties; and iii) have a general nature to evolve in changing circumstances.¹²³

The process of evolutionary interpretation has been explained and applied by the ICJ in a series of high-profile cases.¹²⁴ Interpretation of one norm by reference to another, allegedly conflicting norm may lead to a harmonized reading of both norms, thereby avoiding conflict. However, this process will not work if such interpretation leads to the conclusion that one norm itself, or its implementation by a state, will constitute an actual breach of another norm; then a harmonious interpretation is not feasible, since genuine conflict arises and treaty interpretation alone is incapable of resolving it.

Some other limitations for the application of this approach are as follows. First, this provision enables the rules of interpretation to evolve in a wider spectrum to integrate different treaty, customary and general international law principles. However, whereas an internal source¹²⁵ of treaty interpretation can be used to interpret a treaty independently, and without the help of external sources, an external source can only ever be an addition to the internal source. That is to say, external sources for treaty

¹²² In the *Gabcikovic-Nagymaros* case, the ICJ noted that ‘[b]y inserting these evolving provisions in the Treaty, the parties recognised the potential necessity to adapt the project. Consequently, the Treaty is not static, and is open to adapt to emerging norms of international law’, see *supra* n 38, 67–8.

¹²³ *Ibid.*, para. 4(23).

¹²⁴ In the *Gabcikovic-Nagymaros* case, *supra* n 38; *Aegean Sea Continental Shelf* case, (*Greece v Turkey*) ICJ (1978); *Oil Platforms*, *supra* n 38.

¹²⁵ Internal sources to interpret the treaty include the treaty context, preamble, annexes, any agreement relating to the treaty, any instrument made in connection with the conclusion of the treaty.

interpretation cannot be isolated from the internal sources.¹²⁶ Second, the norm of international law that has to be taken into account in order to interpret a treaty needs to be ‘relevant’ to the subject matter of the treaty under consideration.¹²⁷ That is, the other rule must say something about what the disputed term should mean, demonstrating their mutual relevance for the purposes of interpretation.¹²⁸ Third, applying customary rules or general principles of law to interpret a treaty norm depends on the nature of the term in question, i.e. the treaty term needs to be generic and open textured.¹²⁹ Furthermore, customary norms and general principles of law have only a secondary role here, as they cannot displace treaty norms ‘either partly or wholly’.¹³⁰ Fourth, the external treaty rule cannot introduce any entirely new norms to the treaty through interpretation. Therefore, the treaty interpretation process cannot add anything of substance to the treaty in question ‘that goes either *beyond* or *against* the ‘clear meaning of the terms’’.¹³¹

Article 31(3)(c) requires only that its provisions ‘be taken into account, together with the context’; it is therefore clear that Article 31(3)(c) is only a part of the larger interpretation process, in which the treaty term would be considered initially in the light of its context and the treaty’s overall object and purposes.¹³² Therefore, it is apparent that although Article 31(3)(c) shows lots of potential for the treaty interpretation process, its actual application may prove to be rather limited. In this

¹²⁶ In the *Oil Platform (Merits)* President Higgins in her separate opinion pointed out that in applying Article 31(3)(c) of the *Vienna Convention*, the court requires the ‘context’ of the disputed treaty to be taken into account. ICJ Report (2003), paras. 45–6 [www.icj-cij.org].

¹²⁷ Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 102.

¹²⁸ Pauwelyn, *supra* n 11, 245.

¹²⁹ ‘Open textured’ indicates generality of a term which is flexible in nature and subject to evolutionary interpretation, i.e. can be interpreted in the light of changing political and social situation.

¹³⁰ Sands, ‘Cross-fertilization of International Law’, *supra* n 62, 102–3. This issue will be discussed more fully in the section of ‘evolutionary approach’ of treaty interpretation.

¹³¹ Pauwelyn, *supra* n 11, 245.

¹³² See the contents of treaty interpretation in Articles 31–32 of the *Vienna Convention*.

context, although the ILC took a practical approach in its study on fragmentation of international law, it does not seem willing to go beyond the provisions of the *Vienna Convention*. Above all, there is a relative lack of judicial decisions with respect to this Article, which discourages over-reliance upon it.

(c) Supplementary means of interpretation

Article 32 of the *Vienna Convention* provides that in certain circumstances, in order to confirm the meaning resulting from the application of Article 31, it might be necessary to consider the supplementary elements of a treaty such as the preparatory work (travaux préparatoires, or travaux) in order to find the intention of the negotiators. In addition, wherever application of Article 31 i) leaves the meaning ‘ambiguous or obscure’ or ii) leads to a result which is ‘manifestly absurd or unreasonable’, one can consider the supplementary means for interpretation in order to determine the meaning of a treaty norm.

In the event of apparent conflict between MEAs and various multilateral trade agreements, the relevant preparatory work can serve as a supplementary means to determine the ordinary meaning of the inconsistent norms. Considering the travaux of a treaty to determine the meaning of a norm which is inconsistent with norms from another treaty may sometimes help to avoid conflict between them. For example, if it appears from the travaux of the *GATT* 1947/1994 that the parties intended their rules to be interpreted in the light of or consistently with the environmental norms, then that intention should be reflected in the interpretation of its norms, even if it is different from the ordinary meaning of the WTO norms. However, the ILC did not define what is included in the travaux and the materials considered, as travaux are often

incomplete and misleading. Therefore, the value and relevance of the travaux will commonly have to be determined by the court or other body entrusted with the task of interpretation.¹³³

2.3. Superseding one of the norms to resolve conflict

Whenever the above conflict-avoidance techniques fail, an apparent conflict will then become a genuine conflict. A conflict of norms may take one of two forms: i) where the very creation or existence of one of the two norms constitutes, in and of itself, a breach of the other norm, for example when a norm conflicts with another norm which has the status of *jus cogens*; and ii) compliance with, or the exercise of rights under, one of the two norms constitutes a breach under the other norm.¹³⁴ This part of the chapter discusses the first category of conflict of norms. The ways to resolve a conflict of norms where one of the two norms constitutes a breach of the other is to supersede the invalid norm so that it terminates and ceases to exist.

2.3.1. One of the two norms ceases to exist

In a conflict of norms, one of the two norms may disappear through i) invalidity, as it conflicts with a *jus cogens* norm; or ii) termination, if the emergence of a new and incompatible norm leads to the termination of the earlier norm.

¹³³ *LaGrand Case (Germany v US)*, ICJ Rep. 2001, para. 77.

¹³⁴ Pauwelyn, *supra* n 11, 275.

2.3.1.1. Invalidity of one of the two norms

Any norm will be, or become, invalid if it conflicts with a *jus cogens* norm. In this context, Article 53 of the *Vienna Convention* states that a treaty is void if, at the time of its conclusion, it conflicts with an existing peremptory norm of general international law. In that situation, one of the two conflicting norms (the norm of *jus cogens*) continues and the other one ceases to exist. Consequently, the parties must both eliminate the consequences of actions taken on reliance on the superseded norm, and bring their mutual relations into conformity with the *jus cogens* norm.¹³⁵ Where a treaty is terminated under Article 64 of the *Vienna Convention*, the parties cease to be bound by the norms it contains, but it does not normally affect any rights and obligations created prior to the treaty's termination.

Invalidity may also arise when an act of an international organization conflicts with the constituent instrument of that organization. The competence of international organizations and their organs is limited by the constituent agreement of that organization, so if they exceed this competence, the act in question is invalid.¹³⁶ For example, in the WTO, Articles II and III of the *WTO Agreement* set out the scope and functions of the WTO as an international organization, and of its organs. If the WTO or any one of its organs acts beyond that stated 'scope' and 'function', that *ultra vires* exercise of competence may be considered invalid.

¹³⁵ Article 53 of the *Vienna Convention*.

¹³⁶ Henry Schermers and Neils Blokker, *International Institutional Law: Unity Within Diversity* (4th edn. Martinus Nijhoff Publisher, Leiden 2004) 158.

2.3.1.2. Terminating one of the two norms

The emergence of a new norm by virtue of the conclusion of a later treaty may lead to the termination of an earlier norm with which it is in conflict. Article 59(1) of the *Vienna Convention* provides that a later treaty may terminate an earlier one, either because i) ‘it appears from the later treaty or is otherwise established that the parties intended that the matter should be governed by that treaty’; or ii) ‘the provisions of the later treaty are so far incompatible with those of the earlier one that the two treaties are not capable of being applied at the same time’. The incompatibility or conflict must be of such a nature as to result in the impossibility of applying both treaties at the same time. Article 59(2) adds that ‘[t]he earlier treaty shall be considered as only suspended in operation if it appears from the later treaty or is otherwise established that such was the intention of the parties’.

If the later norm explicitly terminates or suspends the earlier norm, then strictly no conflict of norms arises, as the earlier norm simply ceases to apply. A conflict of norms arises only if the later treaty does not state that it terminates the earlier one and the termination is merely implied from the degree of incompatibility between the two treaties. In this situation, the earlier norm ceases to apply. Furthermore, such termination requires that all parties to the earlier treaty are also parties to the later treaty. If parties are not the same, Articles 30 and 41 of the *Vienna Convention* apply.

2.3.2. *Inter se* modification of a treaty

A later treaty concluded subsequent to the conclusion of a multilateral treaty in order to modify or suspend the earlier treaty between a limited numbers of parties may be in breach of the earlier treaty, if the earlier treaty explicitly prohibits such *inter se*

modification or suspension. In the event of conflict between two multilateral treaties, Article 41 of the *Vienna Convention* provides that two or more of the parties to a multilateral treaty may conclude an *inter se* agreement to modify an earlier treaty as between themselves alone. However, the creation of such *inter se* agreements is not permissible if the possibility of such modification *is prohibited by the treaty*. Again, Article 58 of the *Vienna Convention* states that two or more parties to a multilateral treaty concluding an agreement to suspend the operation of an earlier treaty, temporarily and as between themselves, are allowed to do so if ‘the suspension in question is not prohibited by the treaty’.

In this context, Articles 41 and 58 of the *Vienna Convention* prohibit *inter se* agreement and suspension in the following three circumstances: i) where the multilateral treaty itself prohibits the *inter se* agreement in question; ii) if the agreement affects the right and obligation of third parties; and iii) if the agreement relates to a multilateral treaty provision derogation from which is incompatible with the objective and purposes of the treaty. If any of these three conditions is met, it will be the multilateral treaty which prevails, not the later *inter se* agreement. Consequently, the later *inter se* agreement will be unlawful, as it breaches the conditions of the earlier multilateral treaty. It is evident from Articles 41 and 58 of the *Vienna Convention* that an earlier multilateral treaty limits the contractual freedom of states subsequently to change their bilateral relationships *inter se*.

2.4. Prioritizing between inconsistent norms

The other way to resolve a conflict between inconsistent norms is to establish priority between them. Where overlapping norms from two different treaties are directly

incompatible and it is not possible for a state which is party to both treaties simultaneously to comply with its respective sets of obligations, it becomes necessary to make a choice determining priority between the treaties in question. In that event, both norms will continue to exist, but the specific conflict is resolved in favour of one of them, on account of its greater prominence or importance, or because it expresses the latest intention of the parties. As a result, only one of the two norms ultimately applies to the particular situation, but the other continues to apply elsewhere.

Such questions of inter-relationship between treaties are first and foremost determined by the terms of those treaties.¹³⁷ If neither treaty contains any provision governing its relationship with other treaties, or if such provisions are not adequate to provide any solution, the various rules or techniques provided in the *Vienna Convention* need to be taken into consideration. The following discussion considers the scope of specific provisions determining the relationship between treaties, the rules of the *Vienna Convention* and principles of international law may be applied to directly incompatible norms identified in environmental and trade agreements in order to determine priority between them.

2.4.1. Parties' intention as expressed in the 'conflict clause'

When states negotiate a treaty, they often create rules stating what would happen in the event of a conflict between treaty norms. Such rules can take three forms: i) rules relating to other, pre-existing, treaties; ii) rules relating to other, future, treaties; and iii) rules regulating conflicts of norms within the treaty itself. Such conflict clauses may be straightforward in that they provide that a later treaty is 'subject to' or

¹³⁷ Article 30(2) of the *Vienna Convention*.

‘without prejudice to’ an earlier agreement and the earlier treaty will prevail in any conflict,¹³⁸ for example, the *1995 Fish Stock Agreement* is expressed to be interpreted and implemented in ‘the context and in a manner consistent with the *1982 Law of Sea Convention (UNCLOS)*.¹³⁹ Again, if a new treaty contains a provision stating that it prevails over pre-existing treaties, then the later treaty will prevail in any conflict, for example, Article 311(1) of the UNCLOS and Article 103 of the NAFTA. It is not always the case that a treaty is explicit in its attempt to determine priority over pre-existing treaties. Sometimes there is a requirement to interpret the norms in question to establish this priority, for example, Article 22 of the *CBD*. The *CBD* conflict clauses give priority to earlier treaties on condition that ‘the exercise of ... rights and obligations’ under those treaties ‘would not cause a serious damage or threat to biological diversity’.

These clauses of relationship to other treaties are by no means free of difficulties. Many treaties contain provisions declaring that the treaty is not incompatible with or does not affect the parties’ obligations deriving from any other treaty, convention or international agreement.¹⁴⁰ However, these provisions are of little or no help in resolving actual incompatibility between successive treaties for the lack of thoughtful drafting of treaty provisions.¹⁴¹ In most cases, they have not even troubled to identify the treaties with which they claim not to be in conflict, still less the provisions with which a conflict might arise. By incorporating such provisions, the founders of treaties may imagine that they have created a means to resolve the treaty’s future conflict with

¹³⁸ *Ibid.*, Article 30(2).

¹³⁹ Article 4 of the *1995 UN Agreement relating to the Conservation and Management of Straddling and High Migratory Fish Stocks and Migratory Fish Stocks* (1995) 34 ILM 1542, entered into force 11 November 2001.

¹⁴⁰ For example, Article XIV(2),(3) of the *CITES* declares its relationship with other treaties that it does not interfere other treaties.

¹⁴¹ Karl, *supra* n 66, 935–6. For further discussion see Chapter 8.

other treaties, but in practice they have actually avoided this issue. They may have decided that if a problem should arise, then the parties would have to resolve it in their own way.

2.4.2. Treaty norms later in time get priority

If none of the treaties contain any conflict clauses, or if such provisions are not adequate to provide any solution, the rules provided in Articles 30(3) and (4) of the *Vienna Convention* need to be taken into consideration. Rules in Article 30 of the *Vienna Convention* observe the inter-relationship between successive treaties relating to the same subject matter and, in the event of divergence, they apply the *lex posterior* rule to establish priority between them. Naturally, if the later treaty specifies that it is subject to an earlier treaty or not incompatible with that treaty, then the provision of the earlier treaty will prevail over the later treaty. If there is no such provision, the *lex posterior* principle articulates that if all the parties to the earlier treaty are parties to the later treaty, and the earlier treaty is not terminated or suspended, then the provisions of the later treaty prevail. Therefore, the principle ‘*lex posterior derogat legi priori*’ (*lex posterior*) considers that the later treaty has priority over an earlier treaty, as the later treaty expresses the evolving intent of parties.

When parties to both successive treaties are identical, there should theoretically be no problem, as Article 30(3) of the *Vienna Convention* provides that if the earlier treaty is not terminated or suspended (that is, under Article 59), ‘the earlier treaty applies only to the extent that its items are compatible with those of the later treaty’. However, the practical application of the *lex posterior* rule to determine priority between

‘successive treaties’, as stated in Article 30 of the *Vienna Convention*, is not as simple as it seems, and does not always work at all.

The main reason why the *lex posterior* rule may not work is that by putting a date on a treaty, the *Vienna Convention* is effectively focusing upon the ‘instrument in which an international obligation is exposed not the obligation itself’:¹⁴² i.e. Article 30 of the *Vienna Convention* puts a date on the treaty as an abstract instrument but does not consider ‘when the treaty imposes a particular obligation as between two given states’.¹⁴³ It makes the application of Article 30 complicated, as states can be parties to a particular treaty through accession or re-negotiation subsequent to the date upon which it was originally adopted.¹⁴⁴ According to Article 28 of the *Vienna Convention*, states which have acceded to a multilateral treaty later on through accession become bound by the treaty provisions only from the date of the entry into force of the treaty with respect to that party, unless the treaty has an express provision concerning the temporal expansion of the binding force of the treaty.¹⁴⁵

Regarding re-negotiation, states party to the original treaty can re-negotiate it through subsequent amendments. The rules governing amendment of multilateral treaties in Article 40 of the *Vienna Convention* are residual in nature.¹⁴⁶ All the parties to the original treaty have the right to participate in the treaty-amending process and to become parties to the amendment. But according to Article 40(4) of the *Vienna Convention*, the amending treaty ‘does not bind any state already a party to the treaty’

¹⁴² Shabtai Rosenne, *Breach of Treaty* (Cambridge, Grotius, 1985) 3-4.

¹⁴³ Pauwelyn, *supra* n 11, 368.

¹⁴⁴ It is established that to determine earlier or later treaties, what is needed is to consider the relevant date of adoption, not entry into force. See Aust, *supra* n 39, 229. Also see Sinclair, *supra* n 39, 98.

¹⁴⁵ Hans Kelsen, *Principles of International Law* (Rinehart & Co. Inc, New York 2003) 341.

¹⁴⁶ That is, they apply only in the absence of a contrary intention of the parties.

that ‘does not become a party to the amending agreement’. Since the amended treaty needs to be ratified by states party to the original treaty to bind them, any state which does not ratify the amendment becomes a non-Party to the amended treaty, and Article 30(4)(b) will apply to determine the relationship between the various states involved. As between Parties and non-Parties to the amendment, the original treaty, although earlier in time, will govern their mutual rights and obligations. This approach of putting a time-label on treaties as an instrument only really makes sense in the case of a treaty which is clearly concluded in order to amend an earlier one, and where the parties to both treaties are exactly the same.

2.4.3. More ‘relevant’ rules get priority

In the era of specialist regimes in international law, simple application of Article 30 of the *Vienna Convention* as a mechanism for prioritizing competing treaty norms is unlikely to resolve issues related to the rapid development of the multilateral treaty-making process, as the specialist treaties set out a regulatory framework or system which continuously evolves and is continuously adopted, expanded and interpreted.¹⁴⁷ Article 30 applies only to successive treaties ‘relating to the same subject matter’. What this phrase means is not clear, but most scholars agree that it does not apply only between treaties from the same regime (for example, between environmental treaties) but also to the relationship between treaties from different regimes (for example, between environmental treaties and the *WTO Agreement*). In this context, scholars have attempted to determine priority between successive treaties by distinguishing specific treaty provisions from a general one. It is an accepted principle

¹⁴⁷ Boyle and Chinkin, *The Making of International Law*, *supra* n 34, 241; Joost Pauwelyn. ‘Bridging Fragmentation and Unity: International Law as a Universe of Inter-connected Islands’ (2003–4) 25 *Mich JIL* 903 at 908.

that a *lex specialis* takes precedence over a *lex generalis* regardless of their priority of time. The '*lex specialis derogat legi generali*' principle suggests that whenever two or more norms deal with the same subject matter, priority should be given to the norm that is more specific. This principle is not explicitly incorporated in the *Vienna Convention*. However, the ILC also accepted it as a technique both of interpretation and conflict resolution, supporting its broad application in international law.¹⁴⁸

Thus, the '*lex specialis*' principle can play a significant role in resolving inconsistencies between successive treaties from different regimes. Despite Article 30 of the *Vienna Convention*, in the absence of any contrary wording, the later treaty containing a general rule would not prevail over an earlier treaty containing a specific rule. This principle has explicit support from the ICJ's *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, where the Court found that environmental treaties and customary rules of a later but more general character did not displace specific treaty rules on the use of force and international humanitarian law.¹⁴⁹ However the question as to which rule is more specific between successive treaties may present serious problems of interpretation.¹⁵⁰

It is apparent from the above discussion that the *Vienna Convention* rules for interpretation and the application of treaties are useful to resolve certain inconsistencies and incoherence in treaty relationship. However, these rules tend to leave considerable discretion to individual states, allowing them to depart from conventional practice and prevailing standards in many cases. In this situation, for a coherent system between trade and environmental sectors, the following section

¹⁴⁸ The ILC Report on Fragmentation, *supra* n 3, para 2(5).

¹⁴⁹ *Advisory Opinion on Nuclear Weapons*, *supra* n 38, para. 30.

¹⁵⁰ Sinclair, *supra* n 39, 96.

proposes to interpret and apply specific treaty norms (or lower-level norms) taking into consideration standards of higher and more overarching significance (higher-level norms).

2.5. Resolving conflict by taking into consideration soft law principles and norms

The current system of international law is understood to have begun with Dutch jurist and diplomat Grotius (Hugo de Groot) and with the Peace of Westphalia 1648.¹⁵¹ In the Grotian tradition the international community is composed of states only.¹⁵² The famous ‘Lotus principle’ followed this classical view and also acknowledges that states are only bound by their express consent.¹⁵³ However, this classic international community concept no longer dominates the realm of international affairs, as the structure and norms of international law have changed significantly following two World Wars, which led to the emergence of international organizations as their recognition as subjects of international law.¹⁵⁴

¹⁵¹ See Shaw, *supra* n 2, 13–48; Arthur Nassbaum, *A Concise History of the Law of Nations* (Rev edn, New York 1954).

¹⁵² Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (3rd edn. Palgrave, Basingstoke 2002) 13.

¹⁵³ The Lotus principle would mean that sovereign states are free to collectively establish an international jurisdiction applicable to the nationals of non-party states unless it can be shown that this violates a prohibitive rule of international law. The case of the ‘*S.S. Lotus*’ (*France v Turkey*, 1927 P.C.I.J. (ser. A) No. 9) is one of the most frequently quoted passages of the PCIJ’s jurisprudence, and the predecessor to the International Court of Justice stated, ‘Restrictions upon the independence of [s]tates cannot . . . be presumed’ and that international law leaves to states ‘a wide measure of discretion which is only limited in certain cases by prohibitive rules’. Most recently, the ICJ confirmed the continuing vitality of the Lotus principle in *Advisory Opinion on Nuclear Weapons*, *supra* n 38.

¹⁵⁴ For the historical development of the international community, see George Abi-Saab, ‘Whither the International Community?’ (1998) 9 EJIL 248; George Abi-Saab, ‘International Law and the International Community: the Long Road to Universality’ in R. Macdonald (ed), *Essays in Honour of Wang Tieya* (Martinus Nijhoff Publishers, Leiden 1994) Ch 1; Bruno Simma and Andreas Paulus, ‘The “International Community”: Facing the Challenge of Globalization’ 9(2) EJIL (1998) 266.

A 'true Grotian' view now sees 'the international system on its way to an organized state community' with an emphasis on common interests, the development of common values and the creation of common institutions.¹⁵⁵ The twentieth-century emphasis upon ideas of a reformed or improved international community has led to the recognition first of the League of Nations, and then the United Nations and other general international organizations as the chief instruments of the international community.¹⁵⁶ Such international organizations often play a central role in the creation and shaping of contemporary international law.¹⁵⁷ There, states and other interested groups come together to address important international problems of mutual concern. Sometimes these efforts result in a consensus on solving the problem and express it in normative terms of general application.

Thus, international law is understood as a normative system and a process, rather than merely a set of rules.¹⁵⁸ This insight reminds us that 'all international legal acts, including the making of treaties, form part of a wider legal system'.¹⁵⁹ The international legal system accordingly draws its normative content from a wide range of sources operating at different levels of generality. Article 38(1)(c) of the Statute of the International Court of Justice ascribes no formal order of relative priority amongst those sources. The 'general principles of law recognised by civilised nations'¹⁶⁰ are capable of express exclusion by the detailed rules of a treaty. Such principles might nevertheless be used to set limits, or provide guidelines, or determine how conflicts

¹⁵⁵ Simma and Paulus, *supra* n 154, 271.

¹⁵⁶ Bull, *supra* n 152, 38.

¹⁵⁷ Charney, *supra* n 100, 543.

¹⁵⁸ Rosalyn Higgins, *Problems and Process: International Law and How We Use It?* (OUP, Oxford 1994) 8.

¹⁵⁹ McLanhan, *Supra* n 63, 282.

¹⁶⁰ Article 38(1)(c) of the Statutes of the ICJ.

between primary rules and principles will be resolved.¹⁶¹ However, norms and principles of general application cannot override the express terms of a treaty.¹⁶²

As mentioned earlier, Article 31(3)(c) of the *Vienna Convention* also includes reference to general principles as an aid to treaty interpretation. For example, the sustainable development principle and the precautionary principle are fundamental principles which influence the interpretation, application and development of both MEAs and multilateral trade agreements. The ICJ's reference to sustainable development in the *Gabčíkovo-Nagymaros* case remains perhaps the best example of the role of such principles influencing treaty interpretation. Such principles also influence the interpretation and application of customary law. For example, the precautionary principle has influenced state practice, the negotiation of treaties and the judgments of international courts and tribunals.¹⁶³

Yet, within the international legal system there are also other categories of norms that express the political aspirations or basic values of the community, which may also have an impact on the interpretation and implementation of individual treaty norms. These represent the basic values upon which the international community and international relation are predicted. This thesis argues that when states burden themselves with inconsistent obligations, no real incursion into their sovereignty is entailed by seeking to extricate them from this morass, and so that to resolve the conflict in accordance with widely accepted political goals or community values could be a plausible solution. Such an approach would not only help to resolve tension

¹⁶¹ Boyle and Chinkin, *The Making of International Law*, *supra* n 34, 224.

¹⁶² WTO, *European Communities: Measures Concerning Meat and Meat Products – Report of the Appellate Body* (hereinafter *EC – Hormones*) (13 February 1998) WT/DS26/AB/R and WT/DS48/AB/R, paras. 120–5.

¹⁶³ See Chapters 3–7 of the thesis.

between inconsistent norms but would also advance a coherent system for the international legal order. The following discussion focuses on various external norms that can contribute to the rationalization of the relationship between MEAs and multilateral trade agreements.

2.5.1. Environmental norms and principles of the international community

The origins of international environmental law can be traced back to the second half of the twentieth century, but it has only really assumed its current form and structure, prominence on the international agenda, from the 1970s.¹⁶⁴ Despite attempts by environmentalists to push conservation issues on to agenda, when drafting the UN Charter, it does not include any reference to environmental or nature conservation issues,¹⁶⁵ probably through lack of appreciation by governments of the importance of the issue in 1945. However, Article 1(3) of the UN Charter provides that one of the purposes of the Charter is ‘[T]o achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character’, which is the basis for the subsequent environmental activities of the UN.¹⁶⁶ The UN has convened various conferences and adopted global conventions not only to put in place a system for coordinating responses to international environmental issues, but also to integrate environmental concerns into all activities, including economic development. This suggests that the international community did not accord priority either to protection of the environment or to economic development but intended to balance their relationship.

¹⁶⁴ For historical development of international environmental law, see John McCormick, *Reclaiming Paradise: The Global Environmental Movement* (Indiana University Press 1991); Birnie et al., *supra* n. 11, Ch 1; Philippe Sands, *Principles of International Environmental Law* (Vol. 1 MUP, Manchester 1995), Ch 2.

¹⁶⁵ McCormick, *Reclaiming Paradise*, *supra* n 164, 25–7.

¹⁶⁶ *The 1945 Charter of the United Nations*, 1 UNTS xvi, entered into force 24 October 1945.

2.5.1.1. Environmental principles of general application

The principle of sustainable development and the precautionary principle are principles of general application found in non-binding declarations and resolutions of the United Nations, which can aid the interpretation of competing environmental and trade norms in order to avoid conflict.

(a) The principle of sustainable development

The *Stockholm Declaration* is the first international document that formally recognizes a direct relationship between environment and economic development. It was intended to provide a 'common outlook and common principle to inspire and guide the peoples of the world in the preservation and enhancement of the human environment'.¹⁶⁷ It contains 26 principles and an action plan containing 109 recommendations relevant to the conservation of the human environment and its natural resources. Among its Principles, Principle 1 later became an important element for the *Rio Declaration* and the concept of sustainable development. It states that humans 'bear a solemn responsibility to protect and improve the environment for present and future generations'. Principles 2, 3, 4 and 5 then set forth general guidelines for the natural resources of the earth to be safeguarded for the benefit of the present and future generations, stating that the earth's capacity 'to produce vital renewable resources must be maintained and, wherever practicable, restored or improved', and that humans have a responsibility to 'safeguard and wisely manage the heritage of wildlife and its habitat'. The *Stockholm Declaration* did not mention the

¹⁶⁷ Reports of the Preparatory Committee relevant to the Declaration are in UN Doc. A/CONF.48/PC.9, 13 and 17. The Final Report of the Working Group on the Declaration is in UN Doc. A/CONF.48/14/Rev.1/Annex II. See in particular Louis Sohn, 'The Stockholm Declaration on the Human Environment' (1973) 14 Harv ILJ 423.

term ‘sustainable development’, but through these principles it established the basis for its subsequent emergence.

The International Union for the Conservation of Nature and Natural Resources (IUCN) has promoted the concept of sustainable use of resources since its foundation in 1948, but it was the ‘Brundtland Report’ of 1987 which articulated a new approach to international environmental law, expressed in the language of ‘sustainable development’.¹⁶⁸ Sustainable use of natural resources represents an independent but important element of sustainable development¹⁶⁹ and forms an essential link between conservation and trade. The concept of sustainable use involves applying restrictions to the exploitation of natural resources; it is recognized that the unfettered depletion of such resources will ultimately limit economic growth. Sustainable utilization policies and agreements are intended to create a more rational system of conservation and utilization of natural resources. The concept first appeared as a guiding philosophy in the *World Conservation Strategy (WCS)*, which described sustainable use as ‘analogous to spending the interest whilst keeping the capital’.¹⁷⁰

Principles 8–15 of the *Stockholm Declaration* recognize the relationship between the environment and development, and also support an ‘integrated and coordinated’ approach to rational development planning which ‘is compatible with the need to protect and improve the environment’.¹⁷¹ These Principles acknowledge the importance of conservation and also identify the need to take into account nature

¹⁶⁸ The World Commission on Environment and Development (WCED) was established in 1983 by the UN General Assembly and its report (the Brundtland Report) was published in 1987. For the text of the report, see WECD, *Our Common Future* (Oxford 1987).

¹⁶⁹ Birnie et al., *supra* n. 11, 119.

¹⁷⁰ IUCN, UNEP and WWF, *Caring for the Earth: A Strategy for Sustainable Living* (1991). See *World Conservation Strategy* (1980) 19.

¹⁷¹ Principle 15 defines ‘rational planning’ as a planning aimed to avoid adverse effect on the environment and to obtain maximum social, economic and environmental benefits for all.

conservation and wildlife protection in economic development planning. However, the approach of the *Stockholm Declaration* is primarily anthropocentric, recognizing that ‘man’s environment, the natural and the man-made, are essential to his well-being and to enjoyment of basic human rights’, and that ‘protection and improvement’ of this human environment is important for the ‘well-being of the people and economic development’.¹⁷² In addition, its provisions are ‘more policy oriented than normative in character’,¹⁷³ in the sense that they identify the need to take into account the conservation of nature in economic development planning, without providing specific rules to implement this goal. Nevertheless, the *Stockholm Declaration* laid the foundation for an era of cooperation and treaty making, with numerous conservation and biodiversity agreements concluded between 1972 and 1992.¹⁷⁴ Its defining role in the protection of environmental resources secured near universal endorsement at Rio.¹⁷⁵

This suggests that an appropriate relation between MEAs and the multilateral trading system could be set up on the basis of the sustainable development principle, so as to maintain the coherence of the ecological, social and economic system. Therefore, sustainable development should be the framework within which the whole trade and environment debate, and not only the specific question of the relationship between trade measures in MEAs and the WTO, is pursued.

¹⁷² Part I of the 1972 *Stockholm Declaration*.

¹⁷³ Birnie et al., *supra* n 11, 48.

¹⁷⁴ *Ibid.*, 602.

¹⁷⁵ Since Rio, sustainable development has been adopted as a policy by numerous governments, and by international organizations and treaty bodies such as the International Tropical Timber Organization. For further details of agreements adopting the sustainable development principle, see *Ibid.*, 112–14.

Principles 3–8 of the *Rio Declaration* set out the substantive elements of the sustainable development principle including sustainable use of natural resources, the integration of environmental protection and economic development, the right to development, and intra- and inter-generational equity. Furthermore, Principle 15 sets out the procedural element, i.e. the precautionary approach in the decision-making process. Principle 4 of the *Rio Declaration* states that ‘[I]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it’, thereby for the first time placing environmental considerations at the heart of economic development.¹⁷⁶ Implementation of this principle requires the attachment of environmental considerations to all economic and development activities. The ICJ in the *Case Concerning the Gabčíkovo-Nagymaros Project* acknowledged for the first time that the ‘need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development’.¹⁷⁷ In the *Iron Rhine Arbitration*, Principle 4 was regarded as ‘a principle of general international law’ which ‘applies not only in autonomous activities but also in activities undertaken in implementation of specific treaties between Parties’.¹⁷⁸

Thus, integration of competing environmental and economic values is fundamental to the concept of sustainable development.¹⁷⁹ This integration has a broad range of implications on national and international policy, as can be seen from *Agenda 21*, which refers to the ‘more systematic consideration of the environment when decisions

¹⁷⁶ Philippe Sands, ‘International Law in the Field of Sustainable Development’, (1994) 65 BYIL 324.

¹⁷⁷ *Gabcikovic-Nagymaros case*, *supra* n 38, para. 140.

¹⁷⁸ *Iron Rhine case (Belgium v The Netherlands)* (2005) the PCA. Available at: <http://www.pca-cpa.org/showpage.asp?pag_id=1155>.

¹⁷⁹ Birnie et al., *supra* n 11, 86.

are made about economic, social, fiscal, energy, agriculture, transportation, trade and other policies'.¹⁸⁰ Integration of environmental considerations is also an issue affecting international trade. In this context, Principle 12 of the *Rio Declaration* states that this environmental restriction 'should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade'. However, this principle needs further clarification to explain how an appropriate balance between environmental protection and multilateral trade agreements can be achieved.

Principle 3 provides that '[t]he right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations'. Thus, 'the development right' recognized in this principle is conditioned by the requirement that it 'be fulfilled ... equitably' to 'meet developmental and environmental needs of present and future generations'. A later discussion shows that the *Millennium Declaration* also recognized that it is the collective responsibility of the international community to uphold the 'principle of equity'. This equity is both intra-generational and inter-generational. The principle of intra-generational equity recognizes the special needs of developing countries and addresses inequity within the existing economic system. The *Rio Declaration* does not refer to it by name, but contains several provisions implying that intra-generational concerns are now an element in the contemporary development of international environmental law.¹⁸¹

On the other hand, inter-generational equity is concerned with equity between one generation and the next. For this purpose, humans are recognized as the trustees of

¹⁸⁰ Chapter 8.2 of Agenda 21.

¹⁸¹ Chapter 6 of this thesis shows how the *CBD*, one of the instruments adopted in the *Rio Declaration*, implies intra-generational equity to trade off between conservation and economic equity.

‘the natural and cultural environment of the Earth ... both with other members of the present generation and with other generations, past and future’.¹⁸² This means that we inherit the earth from previous generations and have an obligation to pass it on to future generations in no worse condition than it was received. The Brundtland Commission defines it as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’, emphasizing the centrality of inter-generational equity to the concept of sustainable development.¹⁸³ The *Stockholm Declaration* also endorsed this aspect of the protection of the environment and the earth’s natural resources.¹⁸⁴

Some writers and philosophers argue that inter-generational equity is not only an inherent component of the sustainable development principle but also an established part of international law.¹⁸⁵ Although the implementation of their theory is controversial¹⁸⁶ and the legal exposition before international courts of this issue remains underdeveloped, a national court, the Philippines Supreme Court in the *Monors Oposa v Secretary of the Department of Environment and Natural Resources* case, applied the principle of inter-generational equity to permit representative proceedings on behalf of the unborn.¹⁸⁷ The discussion of the *CBD* in chapter 5 shows that some international agreements had already accommodated the interest of future

¹⁸² Edith Brown Weiss, *In Fairness of Future Generations* (Dobbs Ferry, NY, 1990) 8.

¹⁸³ WECD, *supra* n. 168, 43.

¹⁸⁴ Principles 1 and 2 of the *Stockholm Declaration*, and also see *1968 African Convention on the Conservation of Nature and Natural Resources*, 1001 UNTS 4, entered into force 16 June 1969.

¹⁸⁵ Alexander Gillespie, *International Environmental Law, Policy and Ethics* (OUP, Oxford 1998) Ch 6; Weiss, ‘Future Generation’, *supra* n 182; Anthony D’Amato, ‘Do We Owe a Duty to Future Generations to Preserve the Global Environment?’, 84 AJIL (1990) 190. Also see Judge Weeramantry in *Advisory Opinion on Nuclear Weapons*, *supra* n 38, 266.

¹⁸⁶ Lothar Gundling, ‘Our Responsibility to Future Generations’ (1990) 84 AJIL 207.

¹⁸⁷ *Monors Oposa v Secretary of the Department of Environment and Natural Resources*, 33 ILM (1994) 173.

generations in balancing conservation and economic interests, even as far back as the 1946 *International Convention on Whaling*.¹⁸⁸

From a reading of Principles 3, 4 and 12, it is evident that the concept of sustainable development is not intended to serve environmental values exclusively. A more plausible interpretation of these principles is that sustainable development entails a compromise between environmental protection and economic growth. It intends, moreover, to integrate environmental values not only with development values but also with other social values of the international community. But this view fails to explain exactly how the parameters and the ultimate objective of this process of integration are to be determined.¹⁸⁹

However, the defining role of sustainable use in the protection of environmental resources secured near universal endorsement at Rio.¹⁹⁰ Though the *Rio Declaration* does not explicitly refer to the terms 'natural resources'¹⁹¹ or 'sustainable use', it nevertheless establishes the idea that sustainable development involves limits to the utilization of natural resources; this is expressly employed by many Rio or post-Rio Agreements, which use the terms 'sustainable utilisation' or 'sustainable use'.¹⁹² Sustainable utilization is an important element of the sustainable development principle, but operates as an independent concept. The *CBD* took this concept even further by providing a definition of 'sustainable use': it should be species-and-

¹⁸⁸ In this context, Chapter 6 shows that the *CBD* applies the precautionary principle widely to avoid irreversible harm and founded on the policies of sustainable development.

¹⁸⁹ Birnie et al. *supra* n 11, 55.

¹⁹⁰ For further details, see Chapter 4.

¹⁹¹ Principle 8 of the *Rio Declaration* talks only of the need to 'reduce and eliminate unsustainable patterns of production and consumption'.

¹⁹² The main conservation treaties adopted 'sustainable use' concept include the 1992 *CBD*, the 1995 *Fish Stock Agreement* and the 2006 *ITTA*.

ecosystem oriented and may either be consumptive¹⁹³ or non-consumptive,¹⁹⁴ which is a significant departure from the concept of ‘sustainable yield’.¹⁹⁵ The Convention’s ‘sustainable use’ requires that the use of biological resources does not reduce the future use potential of the target population or impair its long-term viability; it must be compatible with the maintenance of the long-term viability of supporting and dependent ecosystems; and it must not reduce the future use potential or impair the long-term viability of other species.¹⁹⁶

Ten years after Rio, at the World Summit on Sustainable Development in Johannesburg, the international community reaffirmed their commitment to sustainable development ‘to build a humane, equitable and caring global society’.¹⁹⁷ To advance the *Rio Declaration*’s sustainable development goals, at this summit meeting the world community negotiated and adopted the 2002 *Johannesburg Declaration on Sustainable Development*.¹⁹⁸ Although the *Johannesburg Declaration* did not adopt any new principles or policies and has generally been seen as a disappointment,¹⁹⁹ it also made significant progress towards achieving a common path to implement the vision of sustainable development by identifying the three pillars of sustainable development. Paragraph 5 of the *Johannesburg Declaration* states that it is

¹⁹³ Consumptive uses of species include gathering, harvesting or hunting animals and plants for food, medicine, clothing, shelter, timber, fuel and fibre. Consumptive uses of ecosystems include converting a forest to grazing land, draining a wetland for land or discharging pollutants into rivers.

¹⁹⁴ Non-consumptive uses of both species and ecosystems include whale-watching, mountaineering, the use of sacred sites for cultural and religious practices and some recreational uses, etc.

¹⁹⁵ See Article 2 of the *CBD*. ‘Maximum sustainable yield’ means the greatest yield of a renewable resource while keeping steady the stock of that resource. It is a conservation objective widely relied on in conservation treaties. However, it is no longer accepted as a conservation objective, as it fails to take into account the ecological relationships of species.

¹⁹⁶ IUCN, ‘Guidelines for the Ecological Sustainability of Non-consumptive and Consumptive Uses of Wild Species’ (Draft Guideline, 1994).

¹⁹⁷ Paras. 1 and 2 of the *Johannesburg Declaration*.

¹⁹⁸ UN, Report of the WSSD, UN Doc A/Conf 199/20 (2002), Resolution 1.

¹⁹⁹ Paolo Galizzi, ‘From Stockholm to New York, via Rio and Johannesburg: Has the environment lost its way on the global agenda?’ (2006) 29 *Fordham ILJ* 952.

the ‘collective responsibility’ of the international community ‘to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels’.²⁰⁰

The defining role of the sustainable development principle in the evolution of international law and policy on the protection of the environment secured universal endorsement in the *Rio Declaration* and *Agenda 21*, and was further advanced in the *Johannesburg Declaration*. Since Rio, sustainable development has been adopted as a policy by numerous governments and has also influenced the application and development of law and policy of various international organizations, including the WTO and the International Tropical Timber Organization (ITTO).²⁰¹ The *1995 Agreement Relating to the Conservation and Management of Straddling and Highly Migratory Fish Stocks* also includes the sustainable development principle as applied to high sea fisheries.²⁰² However, it is the 1992 *CBD* which, for the first time, provided specific rules for the application of sustainable development by states in order to manage their own domestic environment.²⁰³

As mentioned earlier, there remain fundamental uncertainties about the nature of the sustainable development, which have a direct bearing on the question whether sustainable development can in any sense be considered a formal legal principle.²⁰⁴

²⁰⁰ Para 5 of the *Johannesburg Declaration*.

²⁰¹ See Chapters 3 and 4.

²⁰² Articles 5 and 6.

²⁰³ See Chapter 5.

²⁰⁴ See Günther Handl, ‘Sustainable Development: General Rules versus Specific Obligations’ in Winfried Lang (ed.), *Sustainable Development and International Law* (Martinus Nijhoff, London 1995) 35–43; Judge Kooijmans, ‘The ICJ in the 21st Century: Judicial Restraint, Judicial Activism, or Proactive Judicial Policy’ (2007) 56 ICLQ 751. He has drawn attention to

However, commentators convincingly demonstrate that the sustainable development principle and its components are very relevant when courts or international bodies have to interpret, apply or develop treaties or general international law.²⁰⁵

As Rio Principle 27 calls for the further development of international law in the field of sustainable development, in the *Gabčíkovo-Nagymaros* case, the ICJ modernized existing international law in the light of the concept of sustainable development.

(b) The precautionary approach

The precautionary principle, which is recognized in the *Rio Declaration*, is an important element of the sustainable utilization concept. Having originated in Germany in the 1970s,²⁰⁶ the precautionary approach was first legally recognized in the 1982 *World Charter for Nature*²⁰⁷ and was subsequently incorporated into the 1992 *Rio Declaration* which codified it as a principle.²⁰⁸ Since then, although the legal status of the precautionary principle remains controversial,²⁰⁹ and the EU and the US

the Court's deliberate characterization of sustainable development as a 'concept' rather than a 'principle'.

²⁰⁵ Vaughan Lowe, 'Sustainable Development and Unsustainable Argument', in Alan Boyle and David Freestone (eds.), *International Law and Sustainable Development: Past Achievements and Future Challenges* (OUP, Oxford 1999) Ch 2; Günther Handl, 'Environmental Security and Global Challenge: The Challenge to International Law' (1990) 1 *YbIEL* 1 at 24–8; Philippe Sands, 'International Law in the Field of Sustainable Development: Emerging Legal Principles' in Winfried Lang (ed.), *Sustainable Development and International Law* (Springer, London 1995) 53–66.

²⁰⁶ Boehmer-Christiansen, 'The Precautionary Principle in Germany: Enabling Government' in Dan and Cameron (eds.), *Interpreting the Precautionary Principle* (Earthscan, 1994) 31.

²⁰⁷ Adopted by the UNGA Res 37/7 (28 October 1982) UN Doc A/RES/37/7.

²⁰⁸ Principle 15 of the *Rio Declaration*.

²⁰⁹ The legal status of the precautionary principle in international law continues to be the subject of debate among academics; some law practitioners, regulators, authors and judges are of the view that it is a principle of customary international law. See, for example, Sands, *Principles of International Environmental Law*, *supra* n 164, 212; James Cameron, 'The Status of the Precautionary Principle in International Law' in James Cameron and Timothy O'Riordan (ed.), *Interpreting the Precautionary Principle* (Cameron May, London 1994) Ch 15, 262, 283; James Cameron and J. Abouchar, 'The Status of the Precautionary Principle in International Law', in David Freestone and Ellen Hey (eds.), *The Precautionary Principle in International*

have conflicting views on this issue,²¹⁰ it has come to be considered one of the 'salutary principles which governs the law of the environment'²¹¹ and is referred to by many major MEAs, for example, the 1985 *Vienna Convention for the Protection of the Ozone Layer*,²¹² the 1987 *Montreal Protocol to the Convention for the Protection of the Ozone Layer*,²¹³ the 1992 *Convention on Biological Diversity*,²¹⁴ the 1995 *Agreement on Straddling and High Migratory Fish Stocks*²¹⁵ and the 2000 *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*.²¹⁶

'Precaution' is a strategy of thinking ahead and taking anticipatory action to avoid uncertain future risks. The precautionary principle holds that uncertainty regarding serious potential environmental harm is not a ground for refraining from preventive measures. Thus, the precautionary principle demands regulation in the absence of complete evidence about the particular risk scenario. Although initially recognized as a principle in several multilateral environment agreements (MEAs), the precautionary

Law (Martinus Nijhoff Publisher, The Netherlands 1996) Ch 3, 52. Other authors argue that the precautionary principle has not yet reached the status of a principle of international law, or at least consider such status doubtful, among other reasons, due to the fact that the principle is still subject to a great variety of interpretations. See, for example, Patricia Birnie and Alan Boyle, *International Law and the Environment* (Clarendon Press, 1992) 98.

²¹⁰ The European Communities assert that the precautionary principle has by now become a fully fledged and general principle of international law, and in the 1992 *Maastricht Treaty*, the European Union (EU) expressly provided that EU policy on the environment 'shall be based on the precautionary principle' (Article 130P, now renumbered Article 174). Since then European treaties and EC law generally refer to the precautionary principle. For example, 1992 *Paris Convention for the Protection of the Marine Environment of the Northeast Atlantic*, Article 2; 1992 *UNECE Convention for the Protection of Transboundary Watercourses and Lakes*, Article 2(5); 1992 *Maastricht Treaty on European Union*, Article 174; 1994 *Danube Convention*, Article 2(4); 1999 *Rhine Convention*, Article 4. On the other hand, the United States has also adopted precautions in numerous number-specific US laws, but has not officially adopted the precautionary principle as a general basis for regulation. In addition the US strongly disagrees with EU that 'precaution' has become a rule of international law. According to the United States, the 'precautionary principle' cannot be considered a general principle or norm of international law because it does not have a single, agreed formulation. Thus, the United States considers precaution to be an 'approach', rather than a 'principle' of international law. For more on the US argument see *EC – Biotech Products*, *supra* n 108.

²¹¹ *T. N. Godavarman Thirumalpad v Union of India* (2002) 10 SCC 606.

²¹² Preamble of the Convention. For text see 26 ILM (1987) 1529.

²¹³ Preamble of the Protocol. For text see 26 ILM (1987) 1550.

²¹⁴ Preamble of the Convention. For text see 31 ILM (1992) 818.

²¹⁵ Preamble, Articles 5, 6 and Annex. For text see 34 ILM (1995) 1542.

²¹⁶ Preamble, Articles 10(6) and 11(8) of the Protocol. For text see 39 ILM (2000) 1027.

principle is reflected in a number of international agreements from other regimes including some multilateral trade agreements such as the *Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)*.²¹⁷ Among the MEAs, the *Cartagena Protocol on Biosafety* is marked for its ‘overtly precautionary approach’.²¹⁸

Although the courts and some commentators are reluctant to accept the precautionary principle as a general principle of law, others have a different view.²¹⁹ For example, Brownlie observes that since the application of this principle is based on foreseeable risk to other states, it is ‘encompassed within the existing concepts of state responsibility’.²²⁰ A similar view is manifested in an ILC report on transboundary harm that ‘the precautionary principle is already a component of existing customary rules on prevention of harm and environmental impact assessment, and could not be divorced there from’.²²¹ Thus, the precautionary principle may influence the interpretation and application of ambiguous treaty norms.

2.5.2. Norms of political significance

As mentioned earlier, the international community sometimes adopts instruments in order to establish a peaceful, prosperous and just world, committing themselves to pursue common objectives and goals to uphold the principles of human dignity, equality and equity at the global level. Such objectives and goals are of political

²¹⁷ For the discussion on the *SPS Agreement* precautionary measures see Chapter 3.

²¹⁸ Birnie et al., *supra* n 11, 640.

²¹⁹ See *supra* n 210.

²²⁰ Ian Brownlie, *Principles of Public International Law* (6th edn, Oxford, 2003) 276.

²²¹ ILC special rapporteur, ‘Report on the transboundary harm’ (2000), GAOR A/55/10, para. 716.

significance, as these are the standards the international community has established for itself.

For example, at the Millennium Summit in September 2000 the largest gathering of world leaders in history adopted the UN Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets, with a deadline of 2015, which have become known as the Millennium Development Goals (MDGs).²²² The MDGs are quantified targets for addressing extreme poverty in its many dimensions – income poverty, hunger, disease, lack of adequate shelter and exclusion – while also promoting gender equality, education and environmental sustainability.

In the *Millennium Declaration*, the international community has reaffirmed its support for the principles of sustainable development, including those set out in Agenda 21 and agreed upon at the United Nations Conference on Environment and Development.²²³ Furthermore, Article 6 of the *Millennium Declaration* listed equality, solidarity, tolerance, respect for nature and shared responsibility as the ‘fundamental values’ of the international community in order to determine international relations in the twenty-first century.²²⁴ By recognizing ‘respect for nature’ as one of the fundamental values, it requires the international community to show prudence ‘in the management of all living species and natural resources, in accordance with the precepts of sustainable development’. The key development from the Rio Conference to the *Millennium Declaration* is that by acknowledging ‘respect for nature’ as a

²²² The *United Nations Millennium Declaration (2000)*, UN Doc.A/55/L.2. Text available at: <<http://www.un.org/millennium/declaration/ares552e.htm>>.

²²³ Para IV (22) of *Millennium Declaration*.

²²⁴ Para 6 of the *Millennium Declaration*. Para 22 of the Declaration also reaffirms its support for the principles of sustainable development including Agenda 21.

fundamental value of the international community, it recognizes the intrinsic value of the environment.²²⁵

In order to transfer this value into action, the *Millennium Declaration* identifies ‘protection of the common environment’ as one of the key objectives of the international community.²²⁶ As mentioned earlier, the common environment includes the earth’s biodiversity and atmosphere; in order to achieve the objective to protect biodiversity, it sets a target of integrating the principles of sustainable development into country policies and programmes and of reducing biodiversity loss by 2010, by implementing the *CBD* in its entirety. However, a 2010 report shows that the international community has failed to achieve this goal, as the loss of biodiversity is continuing at an alarming rate.²²⁷

The *Millennium Declaration* has acknowledged the collective responsibility of the international community to uphold the principle of equity in order to perform its duties towards ‘the children of the world, to whom the future belongs’.²²⁸ In this context, Article 22 explicitly reaffirms its support for the principle of sustainable development and Agenda 21, and urges that the international community make every effort ‘to free all the humanity’ and, above all, present and future generations ‘from

²²⁵ The Oxford dictionary defines ‘respect’ as ‘a feeling of admiration for someone or something because of their qualities’; ‘consideration for the feelings and rights of others’; ‘avoid harming or interfering with something’.

²²⁶ See part IV and paras. 21–3 of the *2000 Millennium Declaration*. The *Declaration* adopted eight goals to improve the lives of hundreds of millions of people around the world, to meet by 2015.

²²⁷ The Millennium Development Goals Report 2010 (UN, New York, 2010) 52–4. Available at: <<http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf>> [20 March 2011].

²²⁸ See para 2 of the *Millennium Declaration*.

the threat of living on a planet irredeemably spoilt by human activities, and whose resources would no longer be sufficient for their needs'.²²⁹

2.5.3. Considering the ultimate values of the international community

Some values are universal in nature: for example, the purposes and principles of the Charter of the United Nations, which have proved to be timeless and universal. They include the preservation of peace, sovereign equality, the rule of law and protection of human rights, and all other values founded upon them.

Furthermore, the Rio treaties, the *CBD* and the *Framework Convention on Climate Change (FCCC)* mention climate change and biodiversity as the 'common concern' of humankind and provide rules for their protection and use. By acknowledging climate change and biodiversity as the 'common concern' of humankind, the Rio treaties may intend to include the preservation of the planetary life support system as an ultimate value of the international community. Although the precise legal implications of this type of norm are unsettled, the notion of 'common concern' gives the international community of states both a legitimate interest in resources of global significance and a common responsibility to assist in their protection.²³⁰

In this context, this thesis argues that preserving the life-support systems of the planet is not only an obvious prerequisite to the attainment of all political aspirations and

²²⁹ *Ibid.*, para 21.

²³⁰ Dinah Shelton, 'Common Concern of Humanity' (2009) 39 EPL 83 at 85; Jutta Brunnée, 'Common Areas, Common Heritage and Common Concern' in Jutta Brunnée and Allen Hey (ed), *The Oxford Handbook of International Environmental Law* (OUP, Oxford 2007) Ch 23 at 564-7; UNEP, *Report of the Group of Legal Experts to Examine the Concept of the Common Concern of Mankind in Relation to Global Environmental Issues* (1990); Robin R. Churchill and David Freestone (eds.), *International Law and Global Climate Change* (Martinus Nijhoff Publisher, Leiden 1991).

goals, but also a prerequisite to pursuing the ultimate values of the international community. These values may also contribute to balancing the environment and trade consideration in international legal order.²³¹

2.6. Conclusions

Sections 2.2 to 2.4 of this chapter discussed the techniques and approaches available in international law to resolve inconsistencies between overlapping and conflicting treaties norms. It is apparent from the discussion that which technique or approach will be effective in solving a certain problem depends on the precise nature of the problem. Since dilemmas between treaties may take many forms, several techniques or a blend of techniques may be required to address them. However, any attempt to reconcile inconsistencies between competing or conflicting norms should start with the most simple [but effective] techniques, only moving on to more demanding techniques where necessary.

Section 2.5 shows that responding to treaty conflict may require techniques beyond those provided by the relevant provisions of the *Vienna Convention*. The rules provided by the *Vienna Convention* serve as basic rules, but a practical approach is required following the practical diversification of conflicts. In this context, this thesis proposes that norms and principles external to the treaty can serve as an aid to interpretation and can also contribute to balancing the environmental and trade relationship. This section focuses on the various normative standards for regulating the environmental and trade relationship which have been set up by the international community in various international instruments.

²³¹ For further discussion see Chapter 8.

International instruments like the *Stockholm Declaration*, *Rio Declaration*, *WCS* and *Johannesburg Declaration* provide principles upon which the environmental and trade relationship should be predicated. Such principles can only be given effect if they are expressly included in treaty texts. Certain principles, like sustainable development, have been recognized as meta-principles, which act upon other legal rules and principles and exercise a kind of ‘interstitial normativity’. Others are considered fundamental sectoral principles, for example the precautionary principle.

The other categories of norms discussed in section 2.5 include norms having inherent societal and constitutional importance, for example the preservation of the peace, the eradication of poverty and the protection the environment. These are the fundamental political aspirations and ultimate values of the international community, which have been endorsed by states in order to fulfil its collective responsibility towards humankind. Thus, it has been argued that such norms should find reflection in the international treaty regimes, at least in the circumstances where there is a need to resolve conflicts between individual instruments.

The following chapters set out to examine the extent to which the abovementioned normative standards adopted by the international community of states are appropriately balanced in MEAs and multilateral trade agreements.

3. The protection of environmental interests in the multilateral trading system

3.1. Introduction

The aim of this chapter is to assess how successfully the WTO multilateral trading system has accommodated the protection and preservation of the environment concerns within its basic trade remit. It examines the 1994 *Marrakesh Agreement Establishing the World Trade Organisation* (hereinafter *WTO Agreement*) and its annexed agreements including the 1994 *General Agreement on Tariffs and Trade* (hereinafter *GATT*), the *Agreement on Technical Barriers to Trade* (hereinafter *TBT Agreement*), the *Agreement on the Application of Sanitary and Phytosanitary Measures* (hereinafter *SPS Agreement*), the *Agreement on Trade Related Aspects of Intellectual Property Rights* (hereinafter *TRIPS Agreement*) and the *Agreement on Subsidies and Countervailing Measures* (hereinafter *SCM Agreement*)²³², as trade-related environmental measures can fall for consideration under one or more of these agreements; furthermore, most of them contain specific provisions for environmental exceptions.

This chapter also analyses the practices of the GATT/WTO panels and the WTO Appellate Body with regard to environmental measures which affect free and non-discriminatory trade rules and seek justification under the 'General Exceptions' of Article XX of the *GATT* 1994. The ongoing efforts under the Doha Development Agenda and the regular Trade and Environment Committee (CTE) also contribute to the protection and preservation of the environment. Hence, attention will be drawn to the negotiations launched by the 2001 *Doha Ministerial Declaration (DMD)* and the mandate of the CTE.

²³² For the text of the *WTO Agreement* and its annexed agreements see *supra* n 6.

This chapter argues, that although the multilateral trading system has formally embraced ‘sustainable development’ and ‘protection and preservation of the environment’ as objectives, it has failed to balance environmental and trade concerns in practice. The reasons are: first, WTO treaty institutions’ non-cooperation with MEA institutions; second, the practice of WTO panels and the Appellate Body of interpreting ‘general exceptions’ narrowly; and third, the failure of WTO institutions to search for better ways to balance this relationship. In recent decisions, the WTO Appellate Body has attempted to clarify the balance between trade rules and environmental protection issues. However, the discussion in this chapter shows that where environmental and trade interests overlap, they are yet to be ready to give priority to environmental concerns over trade, if needed.

This chapter consists of two sections. The first section summarizes the multilateral trading system in a nutshell, including a brief historical background, and outlines the fundamental principles and ‘general exceptions’ of the *GATT* and the implementation process of the multilateral trade rules. This discussion also identifies those provisions of the multilateral trade agreements which allow environmental concerns to be addressed in the MTS. Section II examines the extent to which the trade rules and WTO panel and Appellate Body’s decisions allow WTO Members to adopt trade-restrictive measures that provide protection to environmental interests, in circumstances where environmentally inspired rules seek justification under Article XX of the *GATT* 1994, as discussed in section I.

3.2. An overview of the multilateral trading system

In the aftermath of the Second World War, in 1946 the United Nations Economic and Social Council (ECOSOC) adopted a resolution in favour of forming an International Trade Organisation (ITO) to oversee international trade. The negotiations over the ITO had three objectives, namely to draft the *ITO Charter*, prepare schedules for tariff reductions and prepare a multilateral treaty that preserved the tariff concessions and contained general principles of trade, namely the *GATT*. Since work on tariff reduction on the *GATT* was completed, the negotiating countries decided to adopt a *Protocol of Provisional Application (PPA)* to bring the *GATT* into force in order to protect the concessions that had already been made and to boost trade liberalization. Accordingly, the *PPA* and the *GATT 1947* came into force on 1 January 1948. On the other hand, although the drafting of the *ITO Charter* was completed in March 1948, the ITO never entered into force since ratification proved to be impossible for some members, specifically the US, because the US Congress refused to give its approval on several occasions.²³³

The *GATT* was ultimately applied as a provisional agreement for forty-six years (1948–94) and became the permanent institutional basis for the multilateral trading system. In spite of its success in establishing tariff reductions on trade in goods, the *GATT* members felt the necessity for a more ‘sophisticated institutional framework’ than that of the *GATT* to address complex issues related to the reduction of non-tariff barriers.²³⁴ Accordingly, the Uruguay Round negotiations for an international

²³³ For more about the fate of the ITO see William Diebold, *The End of the ITO* (International Finance Section, Department of Economics and Social Institutions, Princeton University, New Jersey 1952) and Andreas Lowenfeld, *International Economic Law* (OUP, Oxford 2002).

²³⁴ For *GATT*'s limitations see Van Den Bossche, *The Law and Policy of the World Trade Organization* (2nd edn, CUP, Cambridge 2008) 80–1; Surya Subedi, ‘The Road from Doha: The Issues for the Development Round of the WTO and the Future of International Trade’

organization for trade extended into several new areas in addition to trade in goods, namely trade in services and intellectual property.²³⁵ After a crucial process of negotiations, the *WTO Agreement* was signed in Marrakesh on 15 April 1994²³⁶ and entered into force on 1 January 1995. From an original membership of just twenty-three states under the *GATT 1947*, the WTO now has 153 members, with about thirty countries currently negotiating to join.²³⁷

The original *GATT 1947* articles were taken up as Annex 1A to the *WTO Agreement* and are referred to as the *GATT 1994*. The WTO is therefore the continuation of the *GATT* system and *GATT* is still the WTO's principal rulebook for trade in goods. The *WTO Agreement* is the founding instrument of the WTO and serves as an 'umbrella agreement' to its annexed agreements.²³⁸ Among the annexed agreements the *TBT Agreement* and the *SPS Agreement*, set out specific rules dealing with technical barriers to trade. The rules of the former agreement (*TBT Agreement*) apply to the general categories of technical barriers to trade, while the rules of the latter agreement (*SPS Agreement*) apply specifically to sanitary and phytosanitary measures. The *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)* is designed to enhance the protection of intellectual property rights, while

(2003) 52 ICLQ 426; and John Jackson, *The World Trade Organisation Constitution and Jurisprudence* (The Royal Institution of International Affairs 1998), 15–20.

²³⁵ For further discussion on the Uruguay Round negotiations see Van Den Bossche, *supra* n 234, 82–4; Terence Stewart, *The GATT Uruguay Round* (Kluwer International Law, the Netherlands 1993), vol. IV; John Jackson, *World Trading System: Law and Policy of International Economic Relations* (2nd edn. MIT Press, Cambridge 1997) Ch 2.

²³⁶ See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, 15 April 1994 (1994), 33 ILM 1140.

²³⁷ For WTO Members and date of their membership, visit <<http://www.wto.org>>(accessed on 28 April 2011).

²³⁸ There are sixteen different multilateral agreements (to which all WTO Members are parties) and two different plurilateral agreements (to which only some WTO Members are parties) under the umbrella of the *WTO Agreement*.

the *Agreement on Subsidies and Countervailing Measures (SCM Agreement)* is designed to regulate the use of subsidies and applies to non-agricultural products.

3.2.1. Objectives and purposes

The objectives of the multilateral trading system as stated in the preamble of the *WTO Agreement* are:²³⁹

raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment...

Hence, the key objectives of the multilateral trading system are the increase in standards of living, the attainment of full employment, economic growth, and the expansion of production of and trade in goods and services. But it is clear from the preamble that these objectives are also conditional upon taking into account 'the objective of sustainable development, seeking both to protect and preserve the environment'.

The 'objective of sustainable development', as mentioned in Chapter 1, includes the integration of environmental protection and economic development; sustainable utilization and conservation of natural resources; the right to development; and inter- and intra-generational equity. It means that utilization of natural resources and

²³⁹ See the preamble of the *WTO Agreement* for the detailed policy objectives of the WTO.

economic policies involving the environment should aim to conserve the environment. The following sections of this chapter aim to review these basic principles, those substantive, procedural and institutional rules of the multilateral trading system which are relevant for the protection of environmental interests and to observe the extent to which the multilateral trading system maintains its 'objective of sustainable development'. Before moving on to the discussion on the rules and principles of the *WTO Agreement* and its annexed agreements, it is vital to understand the *DMD* mandate for negotiations on environment, as they will affect the implementation of the *WTO Agreement* and its annexed agreements.

3.2.2. The Doha Ministerial Mandate (DMD) on the environment

After many failed attempts, developed countries and environmental groups finally succeeded in placing environment issues on the negotiating agenda of the Doha Ministerial Conference held in 2001.²⁴⁰ In the Doha Round, WTO Members adopted the *DMD*, which brought environmental issues within the WTO negotiation. The WTO Members in the *DMD* reaffirmed their commitments to the objectives of the *WTO Agreement*, stating that 'the aim 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'.²⁴¹

²⁴⁰ The First Ministerial Conference after the establishment of the *WTO* took place in Singapore in 1996, the Second in Geneva itself in 1998 and the Third in Seattle in 1999.

²⁴¹ Ministerial Conference, Doha Ministerial Declaration, WT/MIN(01)/DEC/1 (2001) paras. 1, 2 and 6.

Thus, paragraphs 31 and 32 of the *DMD* aim to clarify the inter-relationship between the WTO rules and the MEAs. Paragraph 31 of the *DMD* launched negotiations ‘[W]ith a view to enhancing the mutual supportiveness of trade and environment’ and ‘without prejudging their outcome’, on three main themes. These themes are: i) the relationship between existing WTO rules and specific trade obligations set out in MEAs; ii) the collaboration between the WTO and the MEAs Secretariats and granting observer status; and iii) the reduction or elimination of tariff and non-tariff barriers to environmental goods and services.

The negotiations on the first theme intend to address how WTO rules are to apply to WTO Members that are parties to environmental agreements, in particular to clarify the relationship between trade measures taken under the environmental agreements and WTO rules. The second theme agrees to negotiate two issues: the procedures for regular information exchange between MEAs Secretariats and the relevant WTO committees and the criteria for the granting of observer status to MEA Secretariats. Currently, the CTE holds an information session with different MEA Secretariats once or twice a year to discuss the trade-related provisions in them in order to expand the scope of existing cooperation. Several MEA Secretariats have been granted observership to the CTE in order to implement the second issue, and a number of them are also invited to attend meetings of the committee’s special negotiating sessions (as ‘ad hoc’ observers). However, a later discussion in this thesis shows that WTO practice on granting observer status has proved controversial, as MEA treaty institutions whose work is related to the WTO have been denied such status.²⁴² In the third theme, the ministers agreed to negotiations on the reduction or elimination of

²⁴² For further discussion see Chapter 8.

tariff and non-tariff barriers to environmental goods and services, for example catalytic converters, air filters or consultancy services on wastewater management.

Paragraph 32 of the *DMD* is also relevant to these negotiations, adding that ‘[T]he outcome of ... the negotiations carried out under paragraph 31(i) and (ii) shall be compatible with the open and non-discriminatory nature of the multilateral trading system, shall not add to or diminish the rights and obligations of members under existing *WTO Agreements*’. Under this clause, environmental protection measures must be i) consistent with *WTO* rules; ii) take into account the capabilities of developing countries; and iii) meet the legitimate objectives of the importing country. Paragraph 32 is discussed with the CTE, as it pays particular attention to negotiations of the areas mentioned in this paragraph.

Lack of progress in the Doha Round of negotiations persuaded WTO Members to launch a package negotiation called ‘the July 2008 package’ in order to conclude the Round. The goal of ‘the July 2008 package’ was to agree ‘modalities’²⁴³ in agriculture and non-agricultural market access (NAMA) – i.e. the formulas and other methods to be used to cut tariffs and agricultural subsidies, and a range of related provisions – and to look at the next steps in concluding the Doha Round of negotiations. As part of this programme, a number of ministers started intensive negotiations and managed to produce several drafts. As regard to the environmental concerns, they agreed a draft Ministerial Decision on Paragraphs 31(i) and 31(ii).²⁴⁴ The format is based on the clusters of issues identified from Members’ proposals for negotiation including

²⁴³ ‘Modalities’ are ways or methods of doing something.

²⁴⁴ Draft Ministerial Decision on Trade and Environment, CTESS TN/TE/20, 21 April 2011. Available at: http://www.wto.org/english/tratop_e/dda_e/chair_texts11_e/chair_texts11_e.htm (accessed 1 May 2011).

national coordination; dispute settlement; technical assistance to developing country members; elements on information exchange; and criteria for observers.²⁴⁵

The draft *Ministerial Decision on Trade and Environment* may bring the environmental negotiations launched in the Doha Round near conclusion: but it is too early to say how far it has been successful in accomplishing the values of the *DMD*. However, what is appearing from the draft text is that it consists of general statements about the putative mutual supportiveness of MEAs and trade rules rather than providing specific rules.

As regards the mandate in Paragraph 31(iii), the Trade Negotiation Committee (TNC) must provide a report which contains the reference universe of environmental goods of interest to members based on Members' submissions.²⁴⁶ Nonetheless, the WTO Members are required to negotiate various issues including preambular language; coverage; treatment of tariffs and non-tariff barriers, including special and differential treatment; and cross-cutting and development elements in order to arrive at a draft outcome and modalities.²⁴⁷

3.2.3. Relevant provisions of the multilateral trading system

At the core of the multilateral trading system are two non-discrimination principles: the most-favoured nation (MFN) principle and the national treatment principle. The MFN treatment obligation in Article I of the *GATT* 1994 prohibits a WTO member 'from discriminating *between*' all other WTO Members, while the national treatment

²⁴⁵ WTO CTESS TN/TE/19, 22 March 2010.

²⁴⁶ WTO CTESS, TN/TE/20, Annex II.A, 21 April 2011.

²⁴⁷ WTO CTESS TN/TE/20, 21 April 2011.

obligation in Article III of the *GATT* 1994 prohibits a WTO member ‘from discriminating *against*’ another WTO member inside its territory.²⁴⁸ These ‘non-discrimination mandates’ are essential for the full implementation of the ‘Schedules of Concessions’, which are binding obligations under Article II of the *GATT* 1994, even though the ‘general exceptions’ provision of the *GATT*, Article XX, constitutes conditional exceptions to *GATT* obligations. This Article may be applied to justify certain environmentally inspired rules that affect free trade. In addition to Article XX of the *GATT* 1994, the *TBT*, *SPS*, *SCM* and *TRIPS Agreements* also contain some exceptions for measures protecting environmental interests.

3.2.3.1. The key principles of the MTS

The MFN principle of Article I of the *GATT* 1994 is designed to ensure equality of treatment of ‘like product[s] originating in or destined for the territories of all other contracting parties’.²⁴⁹ Thus, all tariffs for any treatment given to the products of one WTO member must also be given to ‘like’ products of all other WTO Members. This immediate and unconditional equal treatment extends to i) ‘custom charges and duties’, ii) ‘all rules and formalities connected with importation and exportation’ and iii) internal taxes, charges, and domestic regulation of a product’s distribution, sale and use.²⁵⁰ The MFN principle was considered in the earlier *GATT Belgian Family Allowances* case,²⁵¹ which involved a Belgian law that exempted tax on foreign products which had a system of family allowances similar to that of Belgium. On the other hand, countries which had a different family allowance system or no system at

²⁴⁸ Bossche, *supra* n 234, 321.

²⁴⁹ Article I(1) of *GATT*, 1994.

²⁵⁰ *Ibid.*

²⁵¹ *Belgium – Family Allowances* (1952) *GATT* BISD 1S/59.

all were subject to certain conditions before they could be considered for such exemptions. A *GATT* dispute settlement panel concluded that such regulations were inconsistent with the MFN treatment obligation of Article I of the *GATT* 1947, as it discriminates between like products on the basis of distinctions between the social conditions linked with the manufacture of products in different countries.

The other key principle on non-discrimination is the national treatment obligation, which ensures that imported and locally produced goods should be treated equally – at least after the foreign goods have entered the market of the importing WTO member state.²⁵² The purpose of Article III of the *GATT* 1994 ‘is to ensure that internal measures not be applied to imported and domestic products so as to afford protection to domestic production’.²⁵³ Consequently, Article III obliges WTO Members to provide equality of competitive conditions for imported products in relation to domestic products.²⁵⁴

Further, Articles III(2) and III(4) of the *GATT* 1994 contain specific provisions relating to internal charges and taxes, and internal measures. Article III(2) deals with internal taxes of imported and domestic products, more especially those which prevent Members from imposing internal taxes on imported products ‘in excess of those applied ... to like domestic products’. Two types of restrictions are covered by Article III(2), for ‘like’ products and for other products in the matter of internal taxation. When products are ‘like’ products there is no need for additional criteria in determining that the measure is discriminatory: any excess taxation is automatically

²⁵² Article III of the *GATT*.

²⁵³ WTO, *EC: Measures Affecting Asbestos and Asbestos-Containing Products – Report of the Appellate Body* (hereinafter *EC – Asbestos*) (5 April 2001) WT/DS135/AB/R, para. 97.

²⁵⁴ *Japan – Alcoholic Beverages II*, *supra* n 87, para. F.

considered to give protection to domestic products. On the other hand, if the products are not 'like' products, three criteria need to be fulfilled to determine infringement of Article III(2): first, the imported and the domestic product must be 'directly competitive and substitutable'; second, they must be 'not similarly taxed'; and third, the measures must be applied 'so as to afford protection'.²⁵⁵

As mentioned earlier, Article III(4) *GATT* 1994 deals with internal measures, and provides that members cannot have one rule for domestic products and another less favourable rule for foreign products. It is not necessary to show that the regulations concerned actually had the effect of protecting domestic products; it is enough to show that the regulation is less favourable than that afforded to 'like' products of national origin.²⁵⁶ In this connection, 'regulations' not only cover technical regulations concerning the characteristics of products but also other measures which create competitive conditions favouring domestic products.

The *GATT* also contains provisions concerning non-tariff barriers for trade in goods. Article XI of the *GATT* prohibits WTO Members from imposing quantitative restrictions such as 'quotas, import or export licenses or other measures' on products imported from or destined for any other country, except for prohibitions and restrictions imposed under specific, listed circumstances (relating to food shortages, commodity regulation and agricultural or fisheries products). The reference to 'other

²⁵⁵ *Ibid.*, para. H, 116.

²⁵⁶ *US – Gasoline*, *supra* n 36. In this case the panel and Appellate Body both found that the measure treated imported gasoline 'less favourably' than domestic gasoline in violation of Article III(4), as imported gasoline effectively experienced less favourable sales conditions than those afforded to domestic gasoline. In particular, under the regulation, importers had to adapt to an average standard, i.e. 'statutory baseline', that had no connection to the particular gasoline imported, while refiners of domestic gasoline had only to meet a standard linked to their own product in 1990, i.e. individual refinery baseline.

measures' extends Article XI *GATT* 1994 restrictions beyond quotas. It refers not only to laws and regulations but also to non-mandatory government involvement.²⁵⁷

Article XI covers measures which are not covered by Article III. For example, a ban on a foreign product 'produced and harvested in a particular way' is not covered by Article III but is considered to be an import ban under Article XI.²⁵⁸ Article XI *GATT* 1994 therefore regulates measures affecting the importation (or exportation) of a product, while Article III *GATT* 1994 regulates internal requirements affecting imported products.²⁵⁹

If a measure violates the *GATT* principles, in order to be justified in the WTO multilateral trade agreements it must fall under the listed 'general exceptions' provision of Article XX of the *GATT* 1994.

3.2.3.2. The *GATT* 'general exceptions' relevant to environmental protection

Article XX, in paragraphs (a) to (j), sets out specific grounds of justification for measures which are inconsistent with provisions of the *GATT* 1994. Among them, paragraphs (b) and (g) had been addressed in various *GATT*/WTO decisions as exceptions relevant for the protection of environmental interests.²⁶⁰ Along with those

²⁵⁷ *Japan–Trade in Semi-Conductors* (1989) *GATT* BISD 35S/116, paras. 106–9.

²⁵⁸ *US–Restrictions on Imports of Tuna* (hereinafter *Tuna I*) (1991) (Regarding unadopted reports in *Japan – Alcoholic Beverages*, *supra* n 87, the Appellate Body viewed that unadopted panel reports had no binding effects but could nevertheless serve as 'useful guidance'). The same approach was adopted by the panel in *US – Shrimp*, *supra* n 105, para. 7.17. In this case the panel finds that United States measures prohibiting the import of products because of their method of production constituted a restriction fall under Article XI(1) of the *GATT*, 1994.

²⁵⁹ *Canada – Administration of the Foreign Investment Review Act* (1984) *GATT* BISD 30S/140, para. 5.14.

²⁶⁰ Article XX(a) is not particularly relevant for environmental protection, but has the potential to be used to protect animal welfare, an issue which has been addressed in the *CITES*.

two paragraphs, the following discussion includes paragraphs (a) and (d), as they also have the potential to balance the environmental and trade relationship.

The pertinent section of Article XX of the *GATT* 1994 reads as follows:

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

- (a) necessary to protect public morals;
- (b) necessary to protect human, animal or plant life or health;
- (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, ...;
- (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

In deciding whether a measure can be justified under Article XX *GATT* 1994, one first needs to examine whether the measure can provisionally be justified under one of the specific exceptions listed in paragraphs (a) to (j) of Article XX – in this case the paragraphs (a), (b), (d) or (g). If the measure is justified under one of those exceptions, then it must be determined whether the application of the measure meets the requirements of the introductory clause (known as ‘the chapeau’) of Article XX. The

burden of showing that a measure complies with the requirements of the introductory clause of Article XX *GATT* 1994 falls to the respondent party.²⁶¹

(a) Invoking the environmental exceptions

Article XX(b) together with Article XX(g) legitimises environmentally inspired measures that depart from core *GATT* rules. A three-step analysis is required to justify the application of Article XX(b) *GATT* 1994.²⁶² First, the policy in respect of the measure(s) for which the provision was invoked must fall within the range of policies designed *to protect* human, animal or plant life or health. Second, the inconsistent measure(s) for which the exception is being invoked must be *necessary* to fulfil the policy objective. Finally, the measure(s) must be applied in *conformity with the requirements of the introductory clause* of Article XX *GATT* 1994.

The main challenge in adjudicating Article XX(b) is to show that a contested measure is ‘necessary’. In *EC–Asbestos*, the Appellate Body held that a measure is ‘necessary’ under Article XX(b) if *no GATT consistent alternative* is reasonably available and provided that it requires the *least degree of inconsistency* with other *GATT* provisions.²⁶³ In this case, the Appellate Body held that the ‘necessary’ standard is to be judged through a process of weighing and balancing of a series of factors. The factors to be weighed could include: ‘i) the relative importance of the common interests or values pursued by the measure, ii) the contribution made by the measure to

²⁶¹ In *US – Gasoline*, *supra* n 36, the Appellate Body stated ‘The burden of demonstrating that a measure provisionally justified as being within one of the exceptions set out in the individual paragraphs of Article XX does not, in its application, constitute abuse of such exception under the chapeau, rests on the party invoking the exception’.

²⁶² *US – Gasoline*, panel report, adopted on 20 May 1996, WT/DS2/R para. 6.20; *US – Restrictions on Imports of Tuna* (hereinafter *Tuna II*) (1994), unadopted, *GATT* DS29/R444, 33 ILM 839.

²⁶³ *EC–Asbestos*, *supra* n 253, paras. 164–75.

the realization of the ends pursued by it, and iii) the restrictive impact of the measure on the international commerce'.²⁶⁴

In *EC-Asbestos*, the Appellate Body said that 'it is undisputed that WTO Members have the right to determine the level of protection ... that they consider appropriate in a given situation'.²⁶⁵ However, to establish that a trade-restrictive measure is necessary, the defending government bears the burden to prove that there were no other 'reasonable' less trade-restrictive measures available which could have achieved the same end. In justifying its measure, a government may 'rely in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion'.²⁶⁶

Another key element of the analysis of the necessity of a measure under Article XX(b) *GATT* 1994 is the contribution it brings to the achievement of its objective. A contribution exists when there is a genuine relationship of ends and means between the objective pursued and the measure at issue. To be characterized as necessary, a measure does not have to be indispensable. However, its contribution to the achievement of the objective must be material, not merely marginal or insignificant. Thus, the contribution of the measure has to be weighed against its trade restrictiveness, taking into account the importance of the interests or the values

²⁶⁴ WTO, *US: Measures Affecting the Cross-Border Supply of Gambling and Betting Services* (hereinafter *US - Gambling*) – Report of the Appellate Body (20 April 2005) WT/DS285/R and WT/DS285/AB/R, para. 306; WTO, *Brazil: Measures Affecting Imports of Retreaded Tyres* (Hereinafter *Brazil - Retreaded Tyres*) – Report of the Appellate Body (17 December 2007) WT/DS332/R and WT/DS332/AB/R, paras. 176–82; WTO, *Korea: Various Measures in Beef* – Report of the Appellate Body (10 January 2001) WT/DS161/AB/R and WT/DS169/AB/R, para. 142.

²⁶⁵ *EC-Asbestos*, *supra* n 253, para. 168. Also see *Brazil - Retreaded Tyres*, *supra* n 264, para. 210.

²⁶⁶ *EC-Asbestos*, *supra* n 253, para. 178.

underlying the objective pursued by it.²⁶⁷ The more vital the common interests or value pursued, the easier it would be to accept as ‘necessary’ the measures designed to achieve those ends. Some commentators have expressed the view that the Appellate Body’s approach to the application of Article XX(b) *GATT* 1994 as bringing it ‘closer to the proportionality’.²⁶⁸

On the other hand, Article XX(g) *GATT* 1994 concerns measures relating to the ‘conservation of exhaustible natural resources’. In order to justify the application of Article XX(g), the Appellate Body in *US – Gasoline* established a four-step test:²⁶⁹ i) that the measure for which the provision is invoked concerns ‘exhaustible natural resources’; ii) that these measures are related to the ‘conservation’ of those resources; iii) that the measures are made effective in conjunction with restrictions on domestic production or consumption (i.e. the measures concerned impose restrictions not just in respect of imported products, but also with respect to domestic products); and iv) that the measures are applied in conformity with the requirements in the chapeau of Article XX *GATT* 1994.

With respect to the first element of the test, the Appellate Body in *US–Shrimp* adopted an ‘evolutionary’ approach to the interpretation of the term ‘exhaustible natural resources’.²⁷⁰ The Appellate Body held that since this term ‘does not have static content’, it ‘must be read by a treaty interpreter in the light of contemporary concerns of the community of nations about the protection and conservation of the

²⁶⁷ *Brazil–Retreaded Tyres*, *supra* n 264, Appellate Body Report, para. 210.

²⁶⁸ For example, Ilona Cheyne, ‘Proportionality, Proximity and Environmental Labelling in WTO Law’, (2009) 12 *JIEL* 927 at 948–50; Birnie et al., *supra* 11, 774. Others have argued the opposite: see Howse and Elisabeth Türk, ‘The WTO Impact on Internal Regulations’, in Bermann and Mavroidis (eds), *Trade and Human Health and Safety* (CUP, Cambridge 2006), 113.

²⁶⁹ *US–Gasoline*, panel report, *supra* n 262, para. 6.35.

²⁷⁰ *US–Shrimp*, *supra* n 105, paras. 129 and 130.

environment'.²⁷¹ Thus, to determine the present meaning of 'exhaustible natural resources' it referred to the 1973 *CITES*, the 1979 *Convention on Conservation of Migratory Species*, the 1982 *UNCLOS*, the 1992 *Rio Declaration*, and the 1992 *CBD*. However, in a later case of *EC - Biotech*, the Appellate Body considered how agreements external to the WTO-covered agreements could be taken into consideration and concluded that they can be used as an aid to the interpretation of the existing WTO provisions, not as the applicable law between the parties.²⁷²

Regarding the second element, the Appellate Body interpreted the words 'relating to ... the conservation' as meaning 'primarily aimed at conservation'.²⁷³ This interpretation has been questioned, as the two phrases are not synonymous. In *US-Shrimp*, the Appellate Body took a different approach to the 'relating to' element, examining the relationship between the structure of the measure in question and the conservation objectives being sought to be achieved and concluded that the measures should be 'reasonably related' to the conservation objectives.²⁷⁴ The third element of the test under Article XX(g) *GATT* 1994 is a requirement of 'even-handedness' in the imposition of restrictions on imported and domestic products.²⁷⁵ Thus, Article XX(g) does not require imported and domestic products to be treated absolutely equally; it requires treatment in an 'even-handed' manner, which is a loss to the concept of 'fairness'.

²⁷¹ *Ibid.*

²⁷² *EC-Biotech Products*, *supra* n 108, paras. 7.70-7.95; see Margaret Young, 'The WTO's use of relevant rules of international law: An analysis of the *Biotech* case' (2007) 56 *ICLQ* 907.

²⁷³ *Canada - Measures Affecting Exports of Unprocessed Herring and Salmon* (hereinafter *Canada - Salmon and Herring*) (1988) *GATT* BISD 35S/98, paras. 4.5-4.6. In *US - Gasoline*, the Appellate Body accepted this interpretation, *supra* n 36, 17.

²⁷⁴ *US - Shrimp*, *supra* n 105, para. 141.

²⁷⁵ *US - Gasoline*, *supra* n 36, 19.

Article XX(a) *GATT* 1994 concerns measures necessary for the protection of public morals. Article XX(a) has two elements: i) the measure needs to be *necessary*; and ii) the measure must *protect public morals*. Article XX(a) was referred to in *US–Tuna I*, where Australia, a third party to this case, suggested that the measure at issue could be justified under Article XX(a) as a measure against inhuman treatment to animals, i.e. animal welfare.²⁷⁶ However,, the panel did not address this issue in its discussion, arguing that Article XX(a) *GATT* 1994 could be applicable only if Australia ‘could justify measures regarding inhumane treatment of animals, if such measures applied equally to domestic and foreign animal products; a panel could not judge the morals of the party taking the measure but it could judge the necessity of taking measures inconsistent with the General Agreement, and their consistency with the Preamble to Article XX’.²⁷⁷ Since then animal rights activists have been pushing for the inclusion of animal welfare standards in WTO multilateral trade negotiations as a ‘non-trade concern’, arguing it is a moral issue.²⁷⁸

In *US – Gambling*, the panel for the first time attempted to examine the meaning of the term ‘public morals’ in Article XIV of the *GATS*, which almost overlaps with Article XX of the *GATT* 1994. To determine the ordinary meaning of the term ‘public morals’, the panel consulted dictionary definitions for the terms ‘public’ and ‘morals’. Following the dictionary meaning, the panel (also quoted with apparent approval by the Appellate Body) considered that ‘the term “public morals” denotes standards of right and wrong conduct maintained by or on behalf of a community or nation’. Considering the fact that standards of right and wrong change over time, the panel was

²⁷⁶ *Tuna I, supra* n 258, para. 4.4.

²⁷⁷ *Ibid.*

²⁷⁸ For further discussion on the animal welfare issue in the WTO, see section 3.3.5.

of the view that ‘the content ... can vary in time and space, depending upon a range of factors, including prevailing social, cultural, ethical and religious values’.²⁷⁹

Furthermore, the Appellate Body has stated on several occasions in the context of Article XX *GATT* 1994 that Members, in applying similar societal concepts, have the right to determine the level of protection that they consider appropriate. Similarly the panel in *US – Gambling*, when reviewing Article XIV *GATS*, was of the view that Members should be given some scope to define and apply for themselves the concepts of ‘public morals’ in their respective territories, according to their own systems and scales of values.²⁸⁰ Just as Members are free to determine their appropriate level of protection of public health in the context of Article XX(b) *GATT* 1994, they should also be free to determine their public morals. Accordingly, the panel considered that states have discretion in deciding what is regarded as contrary to public morals in their own states.²⁸¹ The Appellate Body also upheld the panels view.²⁸²

The Article XX(d) *GATT* 1994 exception sets out a test for the provisional justification of otherwise *GATT*-inconsistent measures. To be provisionally justified under Article XX(d), a *GATT*-inconsistent measure needs to satisfy two elements:²⁸³ i) the measure must be *designed to secure compliance* with national law; and ii) the measure must be *necessary* to ensure such compliance. In *Mexico – Soft Drinks*, the panel found that Article XX(d) *GATT* 1994 does not provide an exception for measures designed ‘to secure compliance with’ obligations of a WTO member under

²⁷⁹ *US – Gambling, supra n 264*, para. 6.461.

²⁸⁰ *Ibid.*

²⁸¹ *Ibid.*

²⁸² *Ibid.* 94 and 298.

²⁸³ WTO, *Canada: Measures Relating to Exports of Wheat and Treatment of Imported Grain – Report of the Panel* (27 September 2004) WT/DS276/R, para. 6.218.

another international agreement; rather, the phrases circumscribe the scope of Article XX(d) *GATT* 1994.²⁸⁴ In this way, the Appellate Body made it clear that ‘laws and regulations’ refer to domestic rules and not the obligations of another WTO member under an international agreement.²⁸⁵

Thus, the phrase ‘laws and regulations’ is qualified by the phrase ‘not inconsistent with the provisions of this Agreement’,²⁸⁶ i.e. the ‘laws and regulations’ referred to in Article XX(d) have to be *GATT*-consistent. Regarding the second element, the Appellate Body has held in an earlier case, when deciding whether a measure is ‘necessary’ under Article XX(d), that it is necessary to ‘weigh and balance’ four factors: i) the trade impact of the measure; ii) the importance of the interests protected by the measure; iii) the contribution of the measure to the end pursued; and iv) the existence of alternative measures that a member could reasonably be expected to pursue.²⁸⁷

(b) Satisfying the requirements of the chapeau

The function of the chapeau is the prevention of abuse of the exceptions specified in the paragraphs of Article XX *GATT* 1994.²⁸⁸ The chapeau emphasizes the manner in which the measure in question is applied. Specifically, the application of the measure

²⁸⁴ WTO, *Mexico: Tax Measures on Soft Drinks and Other Beverages* (hereinafter *Mexico – Taxes on Soft Drinks*) – Report of the Appellate Body (24 March 2006) WT/DS308/R and WT/DS308/AB/R, para. 8.181.

²⁸⁵ *Ibid.*, para. 69.

²⁸⁶ WTO, *EC: Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs (Australia)* – Report of the Panel (20 April 2005) WT/DS290/R, para. 7.331.

²⁸⁷ *Korea – Various Measures in Beef*, Appellate Body Report, *supra* n 264, para. 165.

²⁸⁸ *US – Gasoline*, *supra* n 36, 14. For discussion on the interpretation of the chapeau by the *GATT*/WTO panel and Appellate Body, see Arwel Davis, ‘Interpreting the Chapeau of *GATT* Article XX in Light of the “New” Approach in *Brazil – Tyres*’ (2009) 43 *Journal of World Trade* 507.

must not constitute a ‘means of arbitrary or unjustifiable discrimination’ or a ‘disguised restriction on international trade’.

In *US – Shrimp*, the Appellate Body stated that for a measure to constitute ‘arbitrary or unjustifiable discrimination between countries where the same conditions prevail’, three elements must exist:²⁸⁹ i) the application of the measure must result in discrimination; ii) the discrimination must be arbitrary or unjustifiable in character; and iii) this discrimination must occur between countries where the same conditions prevail. The Appellate Body in *US – Gasoline* suggested that the terms ‘arbitrary discrimination’, ‘unjustifiable discrimination’ and ‘disguised restriction’ must be read side by side, as they impart meaning to one another, thereby making it clear that ‘disguised restriction’ includes disguised discrimination in international trade.²⁹⁰ In *US – Gambling*, the panel considered that ‘disguised restriction’ should be 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 XIV *GATS*, which is almost analogous to Article XX *GATT* 1994.²⁹¹

US – Gasoline was the first case to provide an authoritative interpretation of the chapeau in relation to the individual sections of Article XX *GATT* 1994.²⁹² In this case, it was held that the measures taken by the US fulfilled the Article XX(g) exceptions but failed to meet the requirements of the chapeau, and accordingly could

²⁸⁹ *US – Shrimp* (Article 21.5), Appellate Body Report, para. 118.

²⁹⁰ *US – Gasoline*, *supra* n 36, 23.

²⁹¹ *US – Gambling*, *supra* n 264, para. 6.579.

²⁹² *US – Gasoline*, *supra* n 36, 44.

not be justified under Article XX.²⁹³ In *US – Shrimp*, the Appellate Body again clarified the relationship of Article XX's introductory clause to the exception from the general *GATT* rules. The Appellate Body found that the US import ban measures were covered by Article XX(g) *GATT* 1994, but nevertheless were not justified under the chapeau due to 'the unilateral character of application' of its import ban, which had a discriminatory influence and was accordingly unjustifiable.

Some were of the view that unlike the *GATT* panels, the Appellate Body in *US – Shrimp* did not totally condemn unilateral action²⁹⁴, as it stated: '[T]he unilateral character ... heightens the disruptive and discriminatory influence of the import prohibition and underscores its unjustifiability'.²⁹⁵ However, at the same time the WTO does not give free rein to unilateral measures, as such measures have to satisfy the chapeau conditions, which leaves open the possibility of finding that they are valid.²⁹⁶

3.2.3.3. Environmental exceptions under the *SPS*, *TBT*, *SCM* and *TRIPS* Agreements

As with Article XX of the *GATT*, most of the annexed WTO agreements contain some form of exception for measures protecting environmental interests. For example, Article 5(2) of the *SPS Agreement* requires WTO Members to take into account 'relevant ecological and environment conditions' as part of the risk assessment

²⁹³ *Ibid.*, 45.

²⁹⁴ Birnie et al., *supra* n 11, 776.

²⁹⁵ *US – Shrimp*, *supra* n 105, para. 172.

²⁹⁶ Nita Ghei, 'Evaluating the WTO's Two-Step Test for Environmental Measures under Article XX' (2007) 18 *Colorado JIELP* 117 at 148.

criteria. Article 2(2) of the *TBT Agreement* also recognizes protection of the environment as its objective. Article 27(2) of the *TRIPS Agreement* permits members to refuse the patenting of an invention where preventing the domestic commercial exploitation of that invention is necessary to protect human, animal or plant life or health, or to avoid serious prejudice to the environment.

The WTO rules on subsidies and subsidized trade are set out in Articles VI and XVI of the *GATT* 1994 and, most importantly, in the *SCM Agreement*. The object and purpose of the *SCM Agreement* is to impose multilateral disciplines on subsidies which distort international trade.²⁹⁷ Article 1(1) of the *SCM Agreement* defines subsidies broadly to include a financial contribution by a government, or any public body, which confers a benefit.²⁹⁸ However, the WTO rules on subsidies do not apply to all ‘financial contributions by the government that confer a benefit’. They apply only to specific subsidies, i.e. those granted to an enterprise or industry, or a group of enterprises or industries.²⁹⁹ The non-actionable subsidies that were provided for under Article 8(2)(c) of the *SCM Agreement* were used to promote the adaptation of existing facilities to new environmental requirements. However, this provision expired in its entirety at the end of 1999 with the intention of allowing Members to capture ‘positive environmental externalities’ when they arose.

3.2.4. Implementation

From the above discussion on environmental exceptions, it is apparent that the complex nature of the multilateral trading system does not provide a straightforward

²⁹⁷ WTO, *Brazil: Export Financing Programme for Aircraft – Report of the Appellate Body* (20 August 1999) WT/DS/46/AB/R, see panel report, para. 7.26.

²⁹⁸ Article 1(1) of the *SCM Agreement*.

²⁹⁹ *Ibid.* Article 1(2).

framework for environmental protection. The protection of environmental interests in the WTO multilateral trade agreements depends significantly on the interpretation of Article XX *GATT* 1994. However, both the interpretation of Article XX and its application to the multilateral trade agreements are difficult in practice, as they overlap with the MEAs. This overlapping relationship has been addressed through two WTO institutions: the CTE and the WTO dispute settlement system.

3.2.4.1. The Committee on Trade and Environment (CTE)

In 1992, the United Nations Conference on Environment and Development (UNCED) recognized that the multilateral trading system could be an important tool to carry forward international efforts for economic growth and poverty elevation, making trade a powerful ally of sustainable development. At that time, the system came under the *GATT*. As discussed earlier, the preamble of the *WTO Agreement* again recognizes sustainable development as a central principle, and it is an objective running through all subjects in current Doha negotiations.

Towards the end of the Uruguay Round in April 1994, a Ministerial Decision was adopted by the *GATT* Contracting Parties to establish a Committee on Trade and Environment (CTE).³⁰⁰ The CTE is a specialized forum for dialogue on trade and the environment. The CTE began work with a 10-point work programme,³⁰¹ including examination of: 1) the relationship between the rules of the multilateral trading system and the trade measures contained in MEAs; 2) the relationship between environmental

³⁰⁰ See Trade and Environment, *GATT* Ministerial Decision of 14 April 1994 (1994) 33 ILM 1267.

³⁰¹ *GATT* Ministerial Decision on Trade and Environment, 15 April 1994. Available at <http://www.wto.org/english/docs_e/legal_e/56-dtenv_e.htm> (accessed on 24 December 2010).

policies relevant to trade and environmental measures with significant trade effects and the provisions of the multilateral trading system; 3) the relationship between the provisions of the multilateral trading system and: (a) charges and taxes for environmental purposes; and (b) requirements for environmental purposes relating to products, such as standards and technical regulations, and packaging, labelling and recycling; 4) the provisions of the multilateral trading system dealing with the transparency of trade measures used for environmental purposes, and environmental measures and requirements, which have significant trade effects; 5) the relationship between the dispute settlement mechanism in the multilateral trading system and those found in MEAs; 6) the effect of environmental measures on market access and the environmental benefits of removing trade restrictions and distortions; 7) the issue of exports of domestically prohibited goods; 8) the relevant provisions of the *TRIPS Agreement*; 9) the work programme envisaged in the Decision on Trade in Services and the Environment; and 10) input to the relevant WTO bodies on appropriate arrangements for relations with intergovernmental and non-governmental organizations (NGOs).

As discussed earlier, since the 2001 Doha Ministerial Conference, items 1, 5 and 10 are now formally included in the Doha negotiations as a result of the *DMD*. While the CTE must pay particular attention to: i) the effect of environmental measures on market access; ii) the relationship between the *TRIPS Agreement* and the *CBD*; and iii) environmental labelling requirements. The effect of environmental measures on market access is particularly important to the work of the CTE because it holds the key to ensuring that sound trade and environmental policies work together. WTO member governments acknowledge the protection of the environment and health as

legitimate policy objectives. But they also acknowledge that measures designed to meet these objectives could hinder exports. Therefore, a balance is needed, between safeguarding market access and protecting the environment.

The CTE's broad mandate has contributed to identifying and understanding the relationship between trade and the environment in order to promote sustainable development. However, the CTE has been unsuccessful in providing any concrete decision in relation to its mandate since its establishment.³⁰² Despite years of discussion, its findings have had no real impact. Moreover, it has proven unable to agree on any recommendations and instead, has settled for playing a primarily analytical role.

CTE's progress has been blocked for various political reasons. First, there is a division between developed and developing Members. For example, on the one hand, developed Members, such as the European Union (EU) and the US, support the introduction of environmental values more explicitly into trade agreements. On the other hand, developing Members are sceptical about doing so, as they see it as a cover for discrimination against their products.³⁰³ Second, there are growing differences between the EU and US over such matters as the precautionary principle, most recently reflected in the *EC – Biotech*³⁰⁴ dispute over GMOs. The WTO's consensus decision-making process also contributes to deadlock in meetings of the Members, delaying the CTE's work in progress. However, some progress has been made in

³⁰² Steve Charnovitz, 'A New WTO Paradigm for Trade and the Environment' (2007) 11 SYBIL 15 at 28.

³⁰³ Report of the CTE, WT/CTE/1(1996).

³⁰⁴ *EC – Biotech Products*, *supra* n 108.

meeting environmental concerns in *GATT*/WTO panels and particularly in Appellate Body's decisions.

3.2.4.2. Dispute settlement

The WTO has a compulsory binding dispute settlement system created by the 1994 *Understanding on Rules and Procedures Governing the Settlement of Dispute (DSU)*.³⁰⁵ The WTO dispute settlement system is administered by the Dispute Settlement Body (DSB) (here the General Council acts as the DSB). Disputes between Members arising under the multilateral trade agreements are first sent for consultations.³⁰⁶ Where consultations fail, the complaining Member can request the DSB to establish a panel.³⁰⁷ If dissatisfied with the panel's verdict, either or both of the parties to the dispute may appeal the panel report.³⁰⁸ The WTO DSB can provide three types of remedy for breaching WTO law: withdrawal of the WTO-inconsistent measure, compensation; and retaliation (suspension of concessions or other obligations).³⁰⁹

The WTO dispute settlement system is limited to Members of the WTO.³¹⁰ No individual, international organization, non-governmental organization or industry association is entitled to initiate proceedings regarding breaches of WTO law. The jurisdiction of the dispute settlement organs extends only to matters arising under the

³⁰⁵ See Articles XXII–XXIII *GATT* and also see Annex 2 of the *WTO Agreement*.

³⁰⁶ Article 4 of the DSU. The provisions on consultation, good offices, conciliation and mediation are designed to encourage this.

³⁰⁷ *Ibid.*, Article 6.

³⁰⁸ *Ibid.*, Article 17.

³⁰⁹ *Ibid.*, Articles 3(7), 21 and 22.

³¹⁰ *US – Shrimp*, *supra* n 105, para. 101.

covered agreements.³¹¹ However, the WTO dispute settlement system is ‘neither self-contained nor static’,³¹² and is open to considering international law rules and principles in order to resolve disputes. In this context, Article 3(2) of the *DSU* provides that the existing provisions of the ‘covered agreements’ are to be clarified ‘in accordance with customary rules of interpretation of public international law’, which has been understood as interpreting the WTO agreements in accordance with Articles 31–33 of the *Vienna Convention*.

The current WTO dispute settlement system is well regarded by Members, but there is always room for further improvement.³¹³ The 1994 Marrakesh Ministerial Conference mandated WTO member governments to conduct a review of the DSU within four years of the entry into force of the *WTO Agreement*, i.e. by 1 January 1999. The DSB started the review in late 1997, and held a series of informal discussions on the basis of proposals and issues that members identified. However, the DSB could not reach a consensus on any amendment to the DSU. Since then discussions on amendments to the DSU continued. Currently, DSU reform negotiations take place in the context of Doha Development Round.³¹⁴ The negotiations were originally set to conclude by May 2003, but to date, Members have not been able to reach agreement on the reform of the DSU.³¹⁵

³¹¹ Article 2 of the DSU.

³¹² Birnie et al., *supra* n 11, 764.

³¹³ For criticism of the WTO DSB see, James Hecht, ‘Operation of WTO Dispute Settlement Panels: Assessing Proposals for Reform’ a paper presented at American Bar Association Section of International Law and Practice, Georgetown University Law Center, 20-21 January, 2000. Available at: <<http://www.law.georgetown.edu/journals/gjil/symp00/documents/hecht.pdf>> (accessed on 20 February 2012).

³¹⁴ *Ibid.* 15, para 30.

³¹⁵ In May 2003, the chair of the DSB circulated a document known as ‘Chairman’s Text’ containing proposals for reform of the DSU. For an amendment version of the ‘Chairman’s Text’ see, Dispute Settlement Body - Special Session - Report by the Chairman, Ambassador

The proposals for DSU reform can be divided into three groups: i) proposals with respect to the proceedings of WTO dispute settlement; ii) proposals with respect to the institutions of WTO dispute settlement; and iii) proposals with respect to systemic issues, such as transparency of WTO dispute settlement, the *amicus curiae* brief issue and special and differential rights for developing country Members.³¹⁶ While further improvement of the WTO dispute settlement system would be useful, such improvement is not the main challenge to the system. The main challenge relates to the genuine danger that Members overburden, and thus undermine, the dispute settlement system as a result of their inability to agree on rules governing politically sensitive issues concerning international trade. Since 1995, the WTO dispute settlement system has been put to the test by politically sensitive disputes on issues touching on public health (e.g. *EC – Hormones*, *EC – Asbestos* and *EC – Biotech*), environmental protection (e.g. *US – Gasoline*, *US – Shrimp* and *Brazil – Retreaded Tyres*), public morals and public order (E.g. *US – Gambling*) etc.

So far, the WTO dispute settlement system has performed well in handling these and other sensitive disputes. However, the task may steadily become more difficult as the WTO is drawn more deeply into politically controversial issues. Some observers fear the system may soon be overwhelmed and suggests governments to settle disputes through negotiations and to improve the ability of the political institutions of the WTO to address the major issues confronting the multilateral trading system.³¹⁷

Péter Balás, to the Trade Negotiations Committee, TN/DS/9, 6 June 2003. Available at: <http://docsonline.wto.org/gen_home.asp?language=1&_=1> (accessed on 18 February 2012).

³¹⁶ Van den Bossche, 'Reform of the WTO Dispute Settlement System: What to expect from the Doha Development Round?', in Steve Charnovitz et al., *Law in the Service of Human Dignity: Essay in Honour of Florentino Feliciano* (CUP: 2005), pp. 103-26.

³¹⁷ Claus-Dieter Ehlermann,, *Some Personal Experiences as Member of the Appellate Body of the WTO*, Policy Papers, RSC No. 02/9 (European University Institution, 2002) p. 14.

(a) Environmental disputes in the GATT/WTO

Since the entry into force of the WTO in 1995, the WTO DSB has had to deal with a number of disputes concerning environment-related trade measures. Under the *GATT*, six panel proceedings involving an examination of environmental measures or human health-related measures under Article XX *GATT 1947* were completed: *US – Canadian Tuna*,³¹⁸ *Canada – Salmon and Herring*,³¹⁹ *Thailand – Cigarettes*,³²⁰ *US – Tuna (Mexico)*,³²¹ *US – Tuna (Mexico) II*,³²² *US – Tuna (EEC)*³²³ and *US – Automobiles*³²⁴. Three of the six *GATT* cases concerned a US ban on imports of tuna brought respectively by Canada, Mexico and EEC. The *Canada – Salmon and Herring* case, brought by the US dealt with Canada's export ban on certain unprocessed herring and salmon. The other two *GATT* cases are *Thailand – Cigarettes* with respect to Thailand's prohibition on imports of cigarettes and other tobacco preparations from foreign countries, and *US – Taxes on Automobiles*, referred by the EC, which dealt with a US regulation giving privileges to domestic products over foreign like products.

So far, under the WTO, six disputes have led to the adoption of panel and Appellate Body reports. They include the following four: *US – Gasoline*,³²⁵ *US – Shrimp*,³²⁶ *EC – Asbestos*,³²⁷ *Brazil – Retreaded Tyres*³²⁸ and *US – Tuna II (Mexico)*³²⁹. Among

³¹⁸ *US – Prohibition of Imports of Tuna and Tuna Products from Canada* (1982) *GATT* BISD 29S/91.

³¹⁹ *Canada – Salmon and Herring*, *supra* n 273.

³²⁰ *Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes (herein Thailand - Cigarettes)*, adopted on 7 November 1990, BISD 37S/200, 30.

³²¹ *Tuna I*, *supra* n 258.

³²² *WTO, US: Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Report of the Panel (Hereinafter US – Tuna II (Mexico))* (15 September 2011) WT/DS381/R.

³²³ *Tuna II*, *supra* n 262.

³²⁴ *US – Taxes on Automobiles* (1994), unadopted, *GATT* DS31/R.

³²⁵ *US – Gasoline*, *supra* n 36.

³²⁶ *US – Shrimp*, *supra* n 105.

³²⁷ *EC – Asbestos*, *supra* n 253.

them, *US – Shrimp* was followed by a procedure under Article 21.5 of the *DSU*.³³⁰ All the cases mentioned above except *US – Tuna (Mexico) II* dealt with the violation of the basic principles of the WTO rules, and the respondents raised the Article XX ‘general exception’ as a defence.³³¹ In these cases, exceptions were used to impose technical regulations to protect consumer safety, animal or plant life or health, exhaustible natural resources and so on.

In general, following an earlier decision of a *GATT* panel, these exceptions have been narrowly construed by WTO panels, making it difficult for Members to rely on them in subsequent disputes.³³² However, the WTO Appellate Body has not necessarily adopted the same approach. Instead, in *US – Gasoline*³³³ it advocated for ‘a kind of balancing between the general rule and the exception’,³³⁴ when it stated:

The context of Article XX(g) includes the provisions of the rest of the General Agreement, including in particular Articles I, III and XI; conversely, the context of Articles I and III and XI includes Article XX. Accordingly, the phrase “relating to the conservation of exhaustible natural resources” may not be read so expansively as seriously to subvert the purpose and object of Article III:4. Nor may Article III:4 be given so broad a reach as effectively to emasculate Article XX(g) and the policies and interests it embodies. The relationship between the affirmative commitments set out in, e.g., Articles I, III and XI, and the policies and

³²⁸ *Brazil – Retreaded Tyres*, *supra* n 264.

³²⁹ *US – Tuna II (Mexico)*, *supra* n 322.

³³⁰ An Article 21.5 panel reviews the existence and consistency of governmental measures taken to implement the DSB recommendations and rulings with a covered agreement.

³³¹ *US – Tuna II (Mexico)*, *supra* n 322, deals with Articles 2, 5, 6 and 8 of the *TBT Agreement* and Articles I and III of the *GATT* 1994.

³³² In the *US – s.337 of the Tariff Act 1930* (1989) *GATT* BISD 36S/345, a *GATT* panel decided that exceptions are to be construed narrowly. See *GATT* panel report, para. 5.9.

³³³ *US – Gasoline*, *supra* n 36, 16–17.

³³⁴ *Bossche*, *supra* n 235, 618.

interests embodied in the “General Exceptions” listed in Article XX, can be given meaning within the framework of the General Agreement and its object and purpose by a treaty interpreter only on a case-to-case basis, by careful scrutiny of the factual and legal context in a given dispute, without disregarding the words actually used by the WTO Members themselves to express their intent and purpose.

It seems that although the Appellate Body has not expressly endorsed a narrow interpretation of the exceptions of Article XX *GATT* 1994, stating that Article XX(g) ‘may not be read so expansively as seriously to subvert the purpose and object of Article III:4’, it provides greater protection to free trade objectives.

This ‘kind of balancing’ approach is noticeable in some other WTO environmental disputes. For example, as discussed earlier, in *US – Gasoline*, the Appellate Body applied the ‘less trade-restrictive’ test in order to permit import restrictions. In this case, the Appellate Body also implied the ‘even-handedness’ test to the measure, seeking justification under Article XX(g) *GATT* 1994.³³⁵ The WTO panels and the Appellate Body have applied ‘weighing and balancing’ in a number of environmental disputes to determine whether or not a measure is ‘necessary’ under paragraphs (b) and (d).³³⁶

From the earlier discussion on *GATT* environmental exceptions, it is irrefutable that the WTO panels, and especially the Appellate Body, have taken a more liberal approach to interpreting the exceptions of Article XX *GATT* 1994 in order to

³³⁵ *US – Gasoline*, *supra* n 36, 21.

³³⁶ *Korea – Various Measures in Beef*, Appellate Body Report, *supra* n 264, para. 162-3; *EC – Asbestos*, *supra* n 253, para. 172.

accommodate non-trade values, especially environmental interests, compared to the former *GATT* panels. The WTO *DSU* provides that the provisions of the ‘covered agreements’ are to be clarified ‘in accordance with the customary rules of interpretation of public international law’.³³⁷ Therefore, in interpreting the *WTO Agreement*, the panels and the Appellate Body must follow international law on the interpretation of treaties as codified in Articles 31–33 of the *Vienna Convention*,³³⁸ not in accordance with specific *GATT/WTO* canons of interpretation.³³⁹ This more ‘consistent and internationally principled approach’ of the Appellate Body in interpreting Article XX *GATT* 1994 might allow for greater tolerance for legitimate measures of environmental protection.³⁴⁰

3.3. Areas of overlap and the balance

In light of the above *GATT/WTO* rules, this section of the chapter analyses the balance between trade and environmental consideration in the WTO and its annexed agreements, focusing on possible overlap with the MEAs.

3.3.1. Trade restrictions to protect resources beyond national jurisdiction

MEAs aiming at conservation of natural resources may authorize Contracting Parties to impose unilateral trade sanctions upon other countries in order to protect resources or the environment in areas beyond their jurisdiction. This raises the question whether

³³⁷ Article 3(2) of the *DSU*.

³³⁸ See Chapter 2 for the text of Articles 31–33 of the *Vienna Convention*.

³³⁹ *US – Gasoline*, *supra* n 36; *Japan – Alcoholic Beverages*, *supra* n 87; *EC – Hormones*, *supra* n 162.

³⁴⁰ Birnie et al., *supra* n 11, 764–5.

there is any scope under WTO multilateral trade agreements for unilateral state action of this kind?

This issue was addressed in both *Tuna I* and *Tuna II* decided by *GATT* panels. In *Tuna I*³⁴¹, the panel had to decide on two issues: i) can one country tell another what its environmental regulations should be; and ii) do trade rules permit action to be taken against the *method* used to produce goods (rather than the quality of the goods themselves)? It concluded: i) that the US could not embargo imports of tuna products from Mexico simply because Mexican regulations on *the way tuna was produced* did not satisfy US regulations; and ii) *GATT* rules did not allow one country to take trade action for the purpose of attempting to enforce its own domestic laws in another country – even if such action was aimed at protecting animal health or exhaustible natural resources. The term used here is ‘extra-territoriality’. In *Tuna II*, the panel had to decide on the legality of a secondary embargo of tuna products from countries that processed tuna caught by the offending country.³⁴² The panel condemned the unilateral boycott.³⁴³

Both *GATT* panels also concluded that such a unilateral measure imposed by US could not be justified under Article XX(b), as it failed the ‘necessary test’, forced other countries to change their conservation standards and did not satisfy the standard of Article XX(g).³⁴⁴ However, the *GATT* panels on *Tuna I* and *Tuna II* came to different conclusions regarding the territorial application of Articles XX(b) and XX(g) *GATT* 1947. The *Tuna I* panel concluded that these provisions only protected natural

³⁴¹ *Tuna I*, *supra* n 258.

³⁴² *Tuna II*, *supra* n 262, para. 5.29.

³⁴³ *Ibid.*, paras. 5.38–5.39.

³⁴⁴ *Ibid.*, para. 5.26 and *Tuna I*, *supra* n 258, para. 5.33.

resources and living things within the territorial jurisdiction of the country's concern.³⁴⁵ In contrast, the *Tuna II* panel could not find any valid reason to support this conclusion.³⁴⁶ Nevertheless, it distinguished between extraterritorial and extra-jurisdiction application of Article XX, and ruled that governments can enforce an Article XX(g) restriction extraterritorially only against their own nations and vessels.³⁴⁷

However, it was the WTO Appellate Body decision in *US – Shrimps* which gave clear extraterritorial scope to Article XX(g), in which it determined that the provision applies to exhaustible resources beyond areas of national jurisdiction as well as to domestic resources.³⁴⁸ As mentioned earlier, the Appellate Body has adopted an expansive interpretation of the term 'exhaustible natural resources', which qualifies as virtually all living and non-living resources. It also takes a more 'nuanced approach' to the 'relating to' element.

3.3.2. Trade restriction to protect the domestic environment

MEAs generally invoke three types of trade restriction in order to protect the domestic environment, namely import restrictions, export restraints and high-level standard setting.

³⁴⁵ *Tuna I*, *supra* n 258, paras. 5.26 and 5.31.

³⁴⁶ *Tuna II*, *supra* n 262, para. 5.20.

³⁴⁷ *Ibid.*, para. 5.20.

³⁴⁸ *US – Shrimp*, *supra* n 105, para. 132.

3.3.2.1. Import and export restrictions

Any import restrictions on products must comply with Articles I, II, III and XI of the *GATT* 1994; those that do not must find an applicable exemption under Article XX. In addition, product restrictions are subject to the *SPS* and *TBT Agreements*, which deal respectively with sanitary and phytosanitary measures and product standards. Both agreements allow Members to set environmental standards but at the same time they balance their autonomy so that the standards they set do not undermine the *GATT*/WTO objectives.

Import restrictions on environmentally harmful products can be justified by applying Article XX(b) *GATT* 1994. This provision can be invoked broadly to protect the domestic environment. However, as mentioned earlier, such trade-restrictive measures must be ‘necessary’ and fulfil the conditions of this sub-provision, i.e. like products produced domestically must be similarly restricted and discrimination among countries similarly situated must be prohibited, besides fulfilling the conditions of the chapeau to Article XX.

Regarding export restriction, the issue arises whether a country may ban or restrict exports of natural resource products on the ground that it is necessary for conservation purposes. Such restriction would have to qualify under Article XX(g) of the *GATT*. As mentioned earlier, to qualify under this provision the export restrictions must be taken into account ‘in conjunction with restrictions on domestic production or consumption’.

Additionally, some trade restrictions may also implicate the *SPS Agreement*, which explicitly requires WTO Members to take ‘necessary’ sanitary or phytosanitary measures to protect human, animal or plant life or health. In this context, Article 5(6) of the *SPS Agreement* specifies that such measures must ‘not be more trade-restrictive than required to achieve their appropriate level of ... protection’. This provision presumes the right of each state to choose its own level of protection unilaterally.

A SPS measure must be based on ‘scientific principles’ and also take into account available ‘scientific evidence’.³⁴⁹ Thus, the *SPS Agreement* uses ‘science’ as a touchstone to justify such measures. A WTO member applying SPS measures must establish that there is ‘sufficient scientific evidence’ available for assessment of risk to human, animal or plant life or health.³⁵⁰ Where scientific evidence is insufficient regarding the risk at issue, Article 5(7) of the *SPS Agreement* permits WTO Members to adopt, under certain conditions, provisional SPS measures.³⁵¹ The precautionary approach finds reflection in Article 5(7) of the *SPS Agreement*³⁵² as a ground for justifying SPS measures that would otherwise be inconsistent with the members’ obligations set out therein although the Appellate Body has refused to accept the precautionary principle as a principle of international law.

As the Appellate Body found in *EC – Hormones*, the ‘precautionary principle, at least outside the field of international environmental law, still awaits authoritative formulation’, and was not specifically written into the relevant covered agreements

³⁴⁹ Article 2(2) of the *SPS Agreement*.

³⁵⁰ *Ibid.*, Article 5(1).

³⁵¹ For the interpretation of Articles 2(2), 5(1), 5(5) 5(6) and 5(7) see WTO, *Australia: Measures Affecting Importing of Salmon – Recourse to Article 21(5)– Report of the Appellate Body* (6 November 1998) WT/DS18/AB/R; WTO, *Japan: Measures Affecting Agricultural Products* (hereinafter *Japan – Agricultural Products*)–*Report of the Appellate Body* (19 March 1999) WT/DS76/R and WT/DS76/AB/R; *EC– Hormones*, *supra* n 162.

³⁵² *EC– Hormones*, *supra* n 162, para. VI.

dealt with in the case, i.e. the *SPS Agreement*.³⁵³ The Appellate Body went so far as to assess whether the principle could override established trade rules, but concluded 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 (i.e. customary international law) principles of treaty interpretation in reading the provisions of the *SPS Agreement*’. It was thus unable to ‘override the provisions of Articles 5(1) and 5(2) of the *SPS Agreement*’.³⁵⁴ Unsurprisingly, with the precautionary principle barred from full consideration, the contested measure was found to be inconsistent with the *SPS Agreement*.

In brief, Article 5(7) of the *SPS Agreement* permits parties to adopt provisional SPS measures when the measure is: i) imposed in respect of a situation where ‘relevant scientific information is insufficient’; and ii) adopted ‘on the basis of available pertinent information’.³⁵⁵ Pursuant to the second sentence of Article 5(7), such a provisional measure may not be maintained unless the Member in question: iii) ‘seek[s] to obtain the additional information necessary for a more objective assessment of risk’; and iv) ‘review[s] the measure accordingly within a reasonable period of time’, as determined in *Japan – Measures Affecting Agricultural Products*.³⁵⁶

In this case, the WTO Appellate Body found that these four requirements are cumulative in nature; therefore, whenever one of these requirements is not met, the measure will be found to be inconsistent with the *SPS Agreement*. Furthermore,

³⁵³ *Ibid.*, with reference to the *Gabcikovic–Nagymaros Case*, *supra* n 38, paras. 111–14, 140.

³⁵⁴ *EC– Hormones*, *supra* n 162, para. 124.

³⁵⁵ *Japan – Agricultural Products*, *supra* n 351, Appellate Body Report, para. 89.

³⁵⁶ *Ibid.*

Article 2(3) of the *SPS Agreement* requires such measures to be consistent with the conditions of the chapeau to that provision.

3.3.2.2. High level of environmental standard setting

Do the WTO multilateral trade agreements permit trade-restrictive measures that set up a high level of environmental protection? As mentioned earlier, WTO Member states are free to choose their own level of protection under the *SPS Agreement*, and a high level of environmental protection can be chosen. In *EC – Hormones*, the Appellate Body clarified the criteria for adopting and applying high level standards under the SPS.³⁵⁷ First, high level protection, which is permitted under Article 3(3) of the *SPS Agreement*, must be based on a ‘risk assessment’ and ‘sufficient scientific evidence’.³⁵⁸ However, the limitations of the application of the precautionary approach need to be taken into consideration in this context, as discussed earlier. Second, since the *SPS Agreement* does not define risk assessment, members are free to consider both ‘available scientific evidence’ and ‘relevant economic factors’.³⁵⁹ However, a ‘rational relationship’ must be established ‘between the trade measure and the risk assessment’, and the scientific reports relied upon must rationally support the import restriction.³⁶⁰ Third, such a measure must not be arbitrary or an unjustifiable discrimination and disguised restriction to international trade.³⁶¹ If the above criteria are fulfilled, a WTO member may choose the level of protection it wants to adopt regarding its own natural resources, environmental quality, and health and safety.

³⁵⁷ *EC – Hormones, supra* n 162.

³⁵⁸ Articles 5(1) and 2(2) of the *SPS Agreement*.

³⁵⁹ *Ibid.*, Articles 5(2) and 5(3).

³⁶⁰ *EC – Hormones, supra* n 162, para. 193.

³⁶¹ Article 5(5) of the *SPS Agreement*.

Another way of raising environmental standards is through eco-labelling. *TBT Agreement* permits members to adopt eco-labelling in order to protect the environment but requires that eco-labelling regulations are not ‘more trade-restrictive than necessary’ to fulfil a legitimate objective.³⁶² The WTO panel in the *US – Tuna (Mexico) II* case decided that two elements ‘must be shown’ for a measure to be considered more trade-restrictive than necessary: (i) the measure must be trade-restrictive; and (ii) the measure must restrict trade more than is *necessary* to fulfil the measure's *legitimate objective*.³⁶³ The preamble to the *TBT Agreement* makes clear that each Member has the right to decide for itself which legitimate objectives to pursue and to take measures to meet those objectives ‘at the levels it considers appropriate’, including with respect to measures to protect animal life or health or the environment and to prevent deceptive practices.³⁶⁴

However, a WTO panel in the *US – Tuna (Mexico) II* case interpreted ‘*necessary*’ to be ‘understood as an enquiry into whether such trade-restrictiveness is required to fulfil the legitimate objectives pursued by the Member at its chosen level of protection’.³⁶⁵ The panel adopted a very broad interpretation of ‘legitimate objective’, and viewed that to be ‘legitimate’ US objective of protecting dolphins requires showing that another measure has been taken to preserve ‘other marine species and the environment of the ETP [Eastern Tropical Pacific Ocean] as a whole’.³⁶⁶

³⁶² Article 2(2) of the *TBT Agreement*.

³⁶³ *US – Tuna II (Mexico)*, *supra* n 322, para. 4.95.

³⁶⁴ Preamble of the *TBT Agreement*.

³⁶⁵ *US - Tuna II (Mexico)*, *supra* n 322, para. 7.460.

³⁶⁶ *US - Tuna II (Mexico)*, *supra* n 322, para. 4.90.

3.3.3. Process and production methods

The *TBT Agreement* applies to any technical regulation that deals with a product characteristic, including ‘packaging, marking and labelling requirements as they apply to a product, process or production method’.³⁶⁷ However, it does not allow mentioning products’ characteristics and/or process and production methods (PPMs) in the label as the GATT 1994 does not discriminate between ‘like products’ based on such PPMs. The WTO PPMs do not constitute part of ‘likeness of products’. In *Tuna I*, the panel stated that products cannot be considered ‘unlike’ for the purpose of Article III(4) of the *GATT* 1947 because they are made by different production processes.³⁶⁸

This principle has since been applied and accepted in other cases. The WTO Appellate Body in *Japan – Taxes on Alcoholic Beverages* suggested that the important factors in determining what constitute ‘likeness’ are the product’s physical characteristics, nature and quality, and its end uses, even though they may have been produced in a very different way.³⁶⁹ In a recent decision the WTO panel viewed that labelling to protect ‘human health and safety, animal or plant life or health, or the environment’ is a positive obligation under Article 2(2) of the *TBT Agreement* and is not formulated as an exception.³⁷⁰ However, the panel refused to include PPMs as part of labelling. It viewed that:³⁷¹

labelling provisions do not require the importing Member to comply with any particular fishing method (these measures do not state, for example, that no tuna may be imported if it originates in a country where tuna is

³⁶⁷ Annex I, para. 1 of the *TBT Agreement*.

³⁶⁸ The decision was unadopted and this conclusion was not necessary for the decision; therefore, some controversy exists over its legal implication.

³⁶⁹ *Japan – Alcoholic Beverages*, *supra* n 87.

³⁷⁰ Para. 2.458.

³⁷¹ *US - Tuna II (Mexico)*, *supra* n 322 para. 7.372

caught by setting on dolphins). Rather, it is the products themselves that need to comply with the requirements of the labelling scheme, if they wish to benefit from the label and make dolphin-safe claims on the US market.

3.3.4. Environmental protection under the *TRIPS Agreement*

The *TRIPS Agreement*³⁷² introduced intellectual property rules into the multilateral trading system. Its preamble reflects two competing goals as the main objectives: ‘to reduce distortions and impediments to international trade, ... taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade’. The *TRIPS Agreement* covers a number of types of intellectual property rights, such as patents, copyrights, trademarks, industrial designs and geographical indications.

Of these, patents are the most important ‘for the development of both beneficial biotechnologies and marketable environmental technologies that generate less waste and pollution’.³⁷³ Article 27(1) of the *TRIPS Agreement* provides patent protection to any invention, ‘whether products or processes’, in all fields of technology, provided that: i) the invention is new; ii) it requires an inventive step; and iii) it is capable of industrial application. However, Article 27(2) of the *TRIPS Agreement* allows WTO Members to exclude from patentability inventions that endanger human, animal or plant life or health, or the environment. It reads:

³⁷² For further discussion on how the Uruguay Round brought intellectual property rights – copyrights, trademarks, patents etc. – into the WTO framework through the *TRIPS Agreement*, Carlos M Correa and Abdulqawia A Yusuf (ed), *Intellectual Property and International Trade: The TRIPS Agreement* (Kluwer Law International, The Netherlands 2008).

³⁷³ Birnie et al., *supra* n 11, 805.

Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

This broad exception authorizes Members to refuse to grant patents to environmentally risky inventions. However, the actual effect of this exception depends on the interpretation of the two qualifying conditions, ‘necessary’ and ‘not made merely because the exploitation is prohibited by their law’. Although it is yet to be clarified,³⁷⁴ it is presumed that the WTO dispute settlement organs will go for a strict interpretation, as it has been the practice of both WTO panels and the Appellate Body to narrowly construe exceptions.³⁷⁵ Thus, a strict interpretation of this article would only allow Members to exclude from patentability inventions ‘when there is a substantial international consensus in favour of non-patentability’³⁷⁶ and only where no other means are available to protect the environment.

Furthermore, Article 27(3)(b) of the *TRIPS Agreement* allows WTO Members to exclude the following products and process from patentability: i) plants and animals, other than microorganisms; and ii) the essential biological processes for the production of plants and animals, other than non-biological or microbiological

³⁷⁴ Bruce Harper, ‘TRIPS Article 27.2: An Argument for Caution’ (1997) 21 *Wm & Mary Envtl L & Pol’y Rev* 381.

³⁷⁵ Ilona Cheyne, ‘Environmental treaties and the GATT’ (1992) 1 *RECIEL* 14 at 17-8; Chris Wold, ‘Multilateral environmental agreements and the GATT: conflict and resolution?’ (1996) 26 *Environmental Law* 841 at 843.

³⁷⁶ Birnie et al., *supra* n 11, 807.

procedures. Although naturally occurring plants cannot be patented, Article 27(3)(b) provides that Members who have excluded plant varieties or even plants in general from patentability must introduce an 'effective *sui generis* system' or a combination of patent and *sui generis* systems domestically. The *sui generis* system refers to the International Union for the Protection of New Varieties of Plants (UPOV), established by the *UPOV Convention* in Paris in 1961 and revised periodically.³⁷⁷ States adhering to UPOV undertake to create a system of granting plant breeder rights (PBRs) under their domestic laws. The *TRIPS Agreement* supplements UPOV by requiring all WTO Members to grant protection to PBRs, either through UPOV or by allowing for their patentability. Thus, the *TRIPS Agreement* requires either patent protection of plant varieties or a *sui generis* system for plant variety protection.

However, it does not provide protection to traditional knowledge as such.³⁷⁸ In this way, *sui generis* provisions could permit forms of statutory exemptions in individual members' territories, whereby they could regulate such matters as bio-prospecting.³⁷⁹ Bio-prospecting is the exploration, extraction and screening of biological diversity and indigenous knowledge for commercially valuable genetic and biochemical resources.³⁸⁰ Article 31 of the *TRIPS Agreement* contains provisions for granting compulsory licensing to allow WTO Members to facilitate bio-prospecting activities,

³⁷⁷ In 1972, 1978 and 1991. On international regimes for plant genetic resources see Gregory Rose, 'International Regime for the Conservation and Control of Plant Genetic Resources' in Michael Bowman and Catherine Redgwell (ed), *International law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) Ch 8, 145.

³⁷⁸ Mary Footer, 'Our Agricultural Heritage: Sustainability, Common Heritage and Intergenerational Equity', in Nico Schrijver and Friedl Weiss (eds.), *International Law and Sustainable Development: Principles and Practice* (Martinus Nijhoff Publishers, Leiden 2004) 433.

³⁷⁹ 'Bio-prospecting' is the exploration or screening of natural biodiversity or agricultural biodiversity in order to identify potential commercial applications from those genetic resources.

³⁸⁰ Walter Reid, Sarah Laird, Rodrigo Gamez et al. (ed), *A New Lease on Life, in Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (World Resources Institution, Washington 1993).

for example, granting compulsory licences to a pharmaceutical company that wishes to access certain genetic resources for pharmaceutical research.³⁸¹ However, the *TRIPS Agreement* places procedural limits on the ability of governments to provide such licensing.³⁸²

3.3.5. Animal welfare issue

The WTO dispute settlement may apply Article XX(a) as a ‘trade concern’. In *China – Audiovisual Services*,³⁸³ the Appellate Body found that China could invoke Article XX(a) of the *GATT* 1994 to justify provisions found to be inconsistent with China’s trading rights commitments under its Accession Protocol and Working Party Report. It also found that a requirement in one of China’s measures could be characterized as ‘necessary’ to protect public morals within the meaning of Article XX(a), but ultimately concluded that China had not demonstrated that the relevant provisions were ‘necessary’ for these purposes. As a result, China had not established that these provisions were justified under Article XX(a) *GATT* 1994,³⁸⁴ and the public morals exception did not prevail as a defence.

Arguably, public morals could be invoked as a ground for justification by a member adopting or maintaining an import or export ban on child labour, alcoholic beverages or pornographic material. Similarly, trade-related animal welfare measures could potentially be recognized under the multilateral trade agreements. Animal rights activists are pushing for the inclusion of animal welfare standards in the WTO

³⁸¹ Carlos Correa, ‘Patent Right’, in *supra* n 372, Chapter 8, 245–9.

³⁸² For more about these limitations, see the text of Article 31 of the *TRIPS Agreement*.

³⁸³ WTO, *China: Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products – Report of the Appellate Body* (19 January 2010) WT/DS363/AB/R, para. 7.

³⁸⁴ *Ibid.*, para. 34.

multilateral trade negotiations, arguing that this is urgently needed to effectively enforce animal standards worldwide, and to improve the appalling condition of slaughterhouses and stop animal cruelty.

Many countries are already adopting trade-related animal welfare measures to prevent animal cruelty. The EU is playing a leading role by adopting animal welfare standards, including new slaughter rules, and revising legislation for the welfare of animals used in scientific procedures. A revised EU legislation, which was first proposed by the European Commission in 2008, aims to strengthen the protection of animals still needed for research and safety testing. A panel has been established by the WTO at the request of Canada on *European Union – Measures Prohibiting the Importation and Marketing of Seal Products*, which is the first full-blown animal welfare case before the WTO DSB, and there is increasing hope that this issue will bring the EU's defence under Article XX(a) to the fore.³⁸⁵

3.4. Conclusions

Over the past decade, the WTO has devoted considerable attention to the relationship between trade and environment, and included it on the agenda of the Doha Round. In parallel, the jurisprudence on trade and the environment has experienced significant advances. There is no denying that the WTO system has matured since *GATT*. However, even today the WTO dispute settlement organs opt for a narrow interpretation of the Article XX 'environmental exceptions' and the *DMD* has moved forward, but has not gone far enough nor in a timely fashion with its environmental

³⁸⁵ The Dispute Settlement Body of the WTO on 21 April agreed to establish a panel, at the request of Norway, to examine measures imposed by the EU prohibiting the importation and marketing of seal products from Norway.

agenda. Additionally, the CTE's achievement has been modest thus far in seeking to balance environmental and trade concerns.

In conclusion, it can be said that recourse to Article XX cannot justify the measures that 'undermine the WTO multilateral trading system'³⁸⁶ as it is evident that these measures have no protectionist effect for the environment. Neither the preamble of the *WTO Agreement* nor the international policy documents gives the trade liberalization objectives priority over the objectives of environmental protection but instead seek to balance these objectives.

However, the interpretation of Article XX by the WTO panels and the Appellate Body in recent rulings demonstrates that the WTO is gradually developing an environmental conscience but this does not amount to full environmental protection nor does it give environmental policy priority over trade. It can only do so much; it cannot change or replace the rules. The WTO itself has been less successful in its search for better ways to integrate both concerns. The draft text of the Committee on Trade and Environment Special Session has shown that the WTO has made some progress to resolve this problem.

It is apparent from the panels' and Appellate Body's interpretation of the various exceptions in Article XX of the *GATT* 1994 that environmental protection is not a primary objective of the multilateral trading system. Instead the multilateral trading system allows environmental measures to the extent that they are consistent with substantive trade rules. In addition, it is the practice of the panels and the Appellate

³⁸⁶ *US – Shrimp, supra* n 105, para. 7.44.

Body to interpret exceptions narrowly, which reduces the scope of environmental protection even further. Exceptions may not be read so expansively or seriously as to subvert the object and purpose of the *GATT* 1994.³⁸⁷ On the other hand, nor may the *GATT* be given so broad a reach as to emasculate the exceptions entirely. It is correct to say that environmental concerns and the arrangements focused on in Articles XX(b) and (g) *GATT* 1994 may ‘justify an *exception* to the principles of trade liberalisation embodied in the WTO system, but are by no means afforded equal footing with the various trade disciplines’.³⁸⁸

The chapeau conditions in Article XX are strictly applied by the panels and the Appellate Body to justify trade-related environmental measures. The Appellate Body agreed that in some cases, ‘discrimination’ could be based on serious concern for the protection of ‘human, animal and plant life’, provided that it is not ‘arbitrary’ or ‘unjustifiable’.³⁸⁹ In this way, the Appellate Body has in principle accepted measures that are ‘necessary to protect human, animal and plant life’ but at the same time required that they be the least inconsistent with the *GATT*/WTO rules.³⁹⁰ However, a question arises as to what would happen in the case of a trade-restrictive measure which was not the least inconsistent with the *GATT*/WTO rule but nonetheless was the most effective to ‘protect human, animal and plant life’? WTO jurisprudence suggests that a trade measure taken under the MEA would have to pass the least-trade-restrictive test in order to meet the requirement under Article XX(b) *GATT* 1994 that the measure be ‘necessary’.

³⁸⁷ *Ibid.*, 16–17.

³⁸⁸ Lindroos and Mehling, ‘From Autonomy to Integration?’ *supra* n 21. 265.

³⁸⁹ *US – Gasoline*, *supra* n 36, 47.

³⁹⁰ *Ibid.*, 49.

The current approach does not give sufficient weight to environmental protection. The *GATT*/WTO regime needs to adopt a 'proportionate approach' to weigh 'the costs' (trade restriction) and 'benefits' (environmental protection) and to disallow measures only if their cost *significantly* exceeded the benefit. It cannot be denied that the WTO Appellate Body has provided a more generous interpretation of environmental exceptions in WTO rules compared to the previous *GATT* panels. Nevertheless, it is feared that if environmental disputes continue to be settled in the WTO dispute settlement system, it will limit the scope and operation of the MEAs. The following chapter discusses the *ITTA* to analyse the extent to which a particular commodity agreement makes allowance for the protection of environmental interests.

4. Protection for the Tropical Timber Forest in the *ITTA*

4.1. Introduction

The aim of this chapter is to analyse the extent to which the 2006 *International Tropical Timber Agreement* (hereinafter the Agreement or the *ITTA*),³⁹¹ successor of the *ITTA* 1983 and *ITTA* 1994,³⁹² manages tropical forests for the production of timber and other products while still maintaining considerable biodiversity values.

The *ITTA* is a commodity agreement³⁹³ dealing with trade in tropical timbers. However, the *ITTA* is not a conventional commodity agreement, as it refers to conservation, sustainable forest management, sustainable utilization and the maintenance of ecological balance in its various provisions.³⁹⁴ The Preamble of the Agreement recalls various leading environmental policy documents related to conservation and sustainable development. It has made a commitment to make its sustainable forest management goals consistent with the sustainable development goals to which the international community has committed in a series of international instruments, such as the 1973 *CITES*, the 1980 *World Conservation Strategy*, the 1992 *Rio Declaration*, the 1992 *CBD* and the 2002 *Johannesburg Declaration*.

The *ITTA* 2006 reaffirms International Tropical Timber Organization's (ITTO) longstanding philosophy of using tropical forests in a sustainable way for economic development. The Agreement also recognizes the contribution of sustainable forest

³⁹¹ The *ITTA* 2006 entered into force on the 7th December 2011 the after ratification of the Agreement by the West African nation of Benin. Through this ratification it reached the ratification threshold required in Article 39 of the Agreement. For ITTO news release see. <http://www.itto.int/news_releases/id=2851> (accessed on 20 January 2012).

³⁹² For the text of the *ITTA*, 1983, 1996 and 2006 see <<http://www.itto.int>> (accessed on 6 January 2011).

³⁹³ Bowman, Davies and Redgwell, *supra* n 8, 18.

³⁹⁴ Preamble (f), (g), Article 1(q) of the 2006 *ITTA*.

management to sustainable development and poverty alleviation, and the achievement of internationally agreed development goals, including those contained in the Millennium Declaration.³⁹⁵ This chapter analyses the extent to which the 2006 *ITTA* provisions are successful in matching its trade objectives with the conservation objectives mentioned in these MEAs, as well as in the *ITTA*'s own preamble. The chapter is divided into two sections. Section I presents an overview of the Agreement, which includes *ITTA*'s institutional arrangements, objectives and purposes, key provisions and implementation procedure. It also analyses the Agreement's provisions to observe the extent to which environmental concerns have been considered in this commodity agreement. In the light of the section I discussion, section II examines the extent to which the *ITTA* impacts upon traditional approaches to exploitation.

4.2. Overview of the *ITTA*

Since the early 1970s there has been widespread public concern about the rate at which tropical forests are being degraded or destroyed. These processes have been going on in certain localities for a long time, but they have accelerated greatly since the 1960s as a result of mechanisation, improved transport, and economic and population growth. Whilst almost everyone was alarmed at the rate of deforestation occurring in many tropical countries, there was also considerable agreement that the tropical timber trade is one of the keys to economic development in those countries. The reconciliation of these two seemingly disparate considerations underpins the entire history of the *ITTA*.

³⁹⁵ Article 1(f) of the *ITTA*, 2006.

The first *ITTA* was adopted on 18 November 1983 and entered into force on 1 April 1985. It remained in force for an initial period of five years and was twice extended for further three-year periods. The Agreement was, however, renegotiated during 1993–94. The successor agreement, the *ITTA* 1994, was adopted on 26 January 1994 and entered into force on 1 January 1997. It contains broader provisions for information sharing, including on non-tropical timber trade data, allows for consideration of non-tropical timber issues as they relate to tropical timber, and includes ‘the ITTO Objective 2000’ for achieving exports of tropical timber and timber products from sustainably managed sources by the year 2000. The *ITTA* 1994 also established the Bali Partnership Fund (BPF) to assist Producer members in achieving the ‘Year 2000 Objective’. Initially intended to last for four years, the *ITTA* 1994 was extended twice for three-year periods and was extended indefinitely in 2007.

In 2003 negotiations began on a successor agreement to the *ITTA* 1994. The *ITTA* 2006 was adopted in Geneva on 27 January 2006, but as mentioned earlier, is yet to enter into force. For the purpose of the Agreement, the members are divided into two categories: Consumers and Producers.³⁹⁶ To date, 57 members have signed the Agreement, of which 54 have ratified; 20 of these are Consumer members and 34 Producer members.³⁹⁷

4.2.1. Institutional arrangements

The *ITTA* 1983 established the International Tropical Timber Organization (ITTO), headquartered in Yokohama, Japan, which provides a framework for tropical timber

³⁹⁶ See Article 4 of *ITTA* 2006.

³⁹⁷ See ITTO official website at: <<http://www.itto.int>> accessed on 6 January 2011.

Producer and Consumer countries to discuss and develop policies on issues relating to international trade in, and utilization of, tropical timber and the sustainable management of its resource base. The ITTO also administers assistance for related projects. ITTO has two categories of membership: producing and consuming.

The governing body of the ITTO is the International Tropical Timber Council (ITTC), which is composed of all the organization's members³⁹⁸, and meets at least once a year³⁹⁹ to take decisions related to ITTO's administrative and programme work and to approve new projects.⁴⁰⁰ The Council is supported by four committees⁴⁰¹, which are open to all members and observers, and provide advice and assistance to the Council on policy and project issues. These committees are supported by the Expert Panel for the Technical Appraisal of Projects and Pre-projects, which reviews project proposals for technical merit and relevance to ITTO objectives.

ITTO's small secretariat of about 35 staff is based in Yokohama, Japan.⁴⁰² It is headed by an Executive Director who is responsible to the Council for the administration and operation of the Agreement in accordance with decisions made by the Council. The organization also has regional offices in Latin America and Africa to assist with project monitoring and other duties.

ITTO occupies an unusual position in the family of intergovernmental organizations. Like all commodity organizations it is concerned with trade and industry, but like an

³⁹⁸ See Article 6(1) of the *ITTA* 2006.

³⁹⁹ *Ibid.* Article 9(1).

⁴⁰⁰ *Ibid.* Article 7(a).

⁴⁰¹ These are the committees on Reforestation and Forest Management; Forest Industry; Economic Information and Market Intelligence; and Finance and Administration. See Article 26(1) of the *ITTA* 2006.

⁴⁰² *Ibid.* Article 3(4).

environmental agreement it also pays considerable attention to the sustainable management of natural resources.

4.2.2. Objectives and purposes of the *ITTA*

More than 1.6 billion people depend to varying degrees on forests for their livelihoods, in particular for fuelwood, medicinal plants and forest foods. Approximately 300 million people depend on forests directly for their survival, including about 60 million people of indigenous and tribal groups, who are almost wholly dependent on forests. Forests play a key role in the economy of many countries. Deforestation and forest degradation, almost entirely in the tropics, also affect 89% of threatened birds, 83% of threatened mammals and more than 90% of threatened plants.⁴⁰³

Consequently, ecologists began to put pressure on the ITTO to enclose some guidelines in the *ITTA* to protect tropical forests from over-utilization and to protect the overall biodiversity of the tropical forests. In response, the *ITTA* 1994 expressly recalled the *Rio Declaration* and the *CBD* in stating its objectives. Furthermore, it adopted Sustainable Forest Management (SFM) as a policy following Principle 12 of the *Rio Declaration*, which guides states to promote a supportive and open economic system that would lead to economic growth and sustainable development in all countries in order to better address the problems of environmental degradation.

⁴⁰³ Data collected from IUCN official website, available at: <http://www.iucn.org/about/work/programmes/forest/iyf/introduction/> (accessed on 12 June 2011).

In this context, the *2002 Johannesburg Declaration* vows to implement sustainable development principles at all levels for a long-term perspective. Accordingly, the *2002 World Summit on Sustainable Development* adopted a plan for the implementation of the sustainable development principle and provided guidelines to change unsustainable patterns of consumption and production. It also influenced the *ITTA 2006* to shift its objectives towards sustainable consumption and production to promote social and economic development. The negotiating parties of the Agreement recognized that a flourishing trade in tropical timber, if based on a well-managed forest resource, could be key to sustainable development, providing valuable foreign exchange and employment while protecting natural forests from destruction and degradation.

The *ITTA 2006* has two main objectives:⁴⁰⁴ i) to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests; and ii) to promote the sustainable management of tropical timber-producing forests. The Agreement sets out the organization's long-standing aims of enhancing the capacity of members to export tropical timber from sustainably managed forests and to improve market transparency, forest-based enterprises and sustainable forest management (SFM).⁴⁰⁵ It also expands the scope of previous agreements to include objectives related to poverty alleviation, forest law enforcement, non-timber forest products and environmental services, voluntary market mechanisms such as certification, and the role of forest-dependent communities.

⁴⁰⁴ Article 1 of the *ITTA 2006*.

⁴⁰⁵ See ITTO Action Plan 2008–2011, ITTO Policy Development Series 18. Available at: <http://www.itto.int/policypapers_guidelines>.

These broad and extended objectives show *ITTA*'s intention to balance both the economic and the environmental concerns and interests. It was correct to understand that without conserving the tropical timber forest it would ultimately become impossible to carry on the timber trade. Therefore, the *ITTA* 2006 included the 'sustainable forest management' concept in its provisions to improve ecosystem services and forest resilience.

4.2.3. Sustainable Forest Management (SFM)

The aim of *ITTA*'s SFM programme is to ensure that the goods and services derived from the forest meet present-day needs without hampering their continued availability and contribution for future generations. The ITTO defines sustainable forest management as:⁴⁰⁶

the process of managing permanent forest land to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products and services without undue reduction of its inherent values and future productivity and without undue undesirable effects on the physical and social environment.

This definition clearly does not show that it is ITTO's intention to preserve all the biodiversity that a tropical forest contains. It tolerates some loss of biodiversity as long as forests continue to provide the required goods and services. It is apparent that the ITTO is clearly giving priority to conserve those forest resources which have

⁴⁰⁶ See ITTC decision 6(XI)/20 (28 November 1991).

instrumental value.⁴⁰⁷ Therefore, some ecologists are of the view that ‘sustainable forest management’ aims for sustainable production and environmental management of forests, which are currently or potentially exploitable for timber.⁴⁰⁸ This view relates to maintaining the forest ecosystem in a certain desired condition and to maintaining the potential of the forest to provide a sustainable yield of a product or products.

In this context, Article 2(2) of the 2006 *ITTA* states that ‘sustainable forest management’ will be understood according to the organization’s relevant policy documents and technical guidelines. Accordingly, the ITTC appears to interpret SFM in a broader context than *ITTA* 1994 when it identified an accurate and up-to-date multipurpose forest inventory (*inter alia* timber, carbon, socio-economic and livelihood issues) as essential to securing sustainable forest management.⁴⁰⁹ The purpose of a forest inventory is to provide information about the state of the forests of a nation or region, designed to guide the planning of future activities by governments, industrialists and forest owners. Forest inventory plans are usually based on area, species and growing volume of trees, but this alone would not suffice to achieve SFM goals. Ideally, forest inventory plans should also incorporate socio-economic and livelihood issues. This approach is also supported by the Agreement, which recognizes ‘the role of the forest dependent indigenous people and local communities’ as a part of sustainable forest management.⁴¹⁰

⁴⁰⁷ See Chapter 5 for various environmental values.

⁴⁰⁸ Duncan Poore, *Changing Landscapes* (Earthscan Publications, London 2003) 16, and Barbier, Burgess et al., *The Economics of the Tropical Timber Trade* (London, Earthscan, 1994) 3.

⁴⁰⁹ See ITTC decision 3(XLII)/17 (12 May 2007).

⁴¹⁰ See Article 1(r) of the *ITTA* 2006.

The SFM has focused on the use of timber and other forest products as renewable and sustainable products, the threat posed by deforestation and the need to strengthen international forest policy towards conserving all forest values. Therefore, SFM national policies must ensure that the productive capacity of the land is not lost and that all relevant environmental and social values are considered. Thus, a country can only be said to be managing its forests truly sustainably when its entire tropical forest area and all of the potential values it generates are managed sustainably.

4.2.4. Implementation

ITTO develops internationally agreed policy documents to promote sustainable forest management and forest conservation, and assists tropical member countries to adapt such policies to local circumstances and to implement them in the field through projects. In addition, ITTO collects, analyses and disseminates data on the production and trade of tropical timber, and funds projects and other actions aimed at developing industries on both community and industrial scales.⁴¹¹

In 1990 ITTO members agreed to strive for an international trade of tropical timber from sustainably managed forests by the year 2000. This commitment became known as the ‘Year 2000 Objective’, and a large part of the ITTO programme of projects and activities was devoted to its achievement.⁴¹² An assessment made in 2000 showed that tropical countries had made significant progress in the formulation and adoption of policies compatible with the Objective, but less evidence was found of progress in

⁴¹¹ See ITTO Action Plan 2008–2011, *supra* n 405.

⁴¹² ITTO decision 10(XXVI) (3 June 1999).

implementing such policies.⁴¹³ Recognizing this lack of progress, ITTO members restated their commitment to moving as rapidly as possible towards achieving exports of tropical timber and timber products from sustainably managed sources, renaming this commitment 'ITTO Objective 2000'. It remains a central goal of the organization.

ITTO has developed a system for assessing the status of production forests in member countries. To aid the assessment, it developed one of the first criteria and indicators (C&I) for SFM in the Tropics in 1992.⁴¹⁴ This was updated in 2005.⁴¹⁵ The C&I provide member countries with a tool for monitoring, assessing and reporting changes and trends in forest conditions and management systems at national and Forest Management Unit (FMU) levels. By identifying the main elements of sustainable forest management, the C&I provide a means of assessing progress towards sustainable forest management and the ITTO Objective 2000, which is 'to enhance the capacity of members to implement a strategy for achieving exports of tropical timber and timber products from sustainably managed sources'.⁴¹⁶ The information generated through the use of these C&I assist producer countries in developing strategies for sustainable forest management.

To improve the implementation of the ITTO mandate and policy, ITTO cooperates closely with other international organizations with forest-related mandates. It is a founding member of the Collaborative Partnership on Forests (CPF),⁴¹⁷ which was

⁴¹³ ITTC, 'Review of progress towards the Year 2000 Objective' (2000). Available at: <<http://www.itto.int/resource01/#reports>>.

⁴¹⁴ ITTO, 'Criteria for the Measurement of the Sustainable Tropical Forest Management' (1993) ITTO Policy Development Series No. 3. Available at: <<http://www.itto.int/resource01/#reports>>.

⁴¹⁵ ITTO, 'Revised ITTO criteria and indicators for the sustainable management of tropical forests including reporting format' (2005), ITTO Policy Development Series No. 15.

⁴¹⁶ ITTO decision 10(XXVI) (3 June 1999).

⁴¹⁷ Members of the CPF are: The Centre for International Forestry Research (CIFOR), the Food and Agriculture Organization of the United Nations (FAO), the Global Environmental Facility

established in 2000 to support the work of the United Nations Forum on Forests (UNFF) and to enhance coordination among the international conventions, organizations and institutions with forest-related mandates.⁴¹⁸ To strengthen collaboration in the pursuit of their common objectives of conserving and sustainably managing tropical forest resources, the ITTO and the *CBD* recently signed a Memorandum of Understanding.⁴¹⁹ ITTO also cooperates with a wide range of regional- and national-level organizations and other civil-society and private-sector stakeholders.

(a) Dispute settlement

Article 31 of the *ITTA* 2006 states:

[A]ny member may bring to the Council any complaint that a member has failed to fulfil its obligations under this Agreement and any dispute concerning the interpretation or application of this Agreement. Decisions by the Council on these matters shall be taken by consensus, notwithstanding any other provision of this Agreement, and be final and binding.

The ITTC, the governing body of the ITTO, accordingly serves as the dispute settlement body. Council members generally take all decisions and all recommendations by consensus.⁴²⁰ If consensus cannot be reached, the ITTC takes

(GEF) Secretariat, the ITTO, the IUCN, the International Union of Forest Research Organizations (IUFRO), the *CBD* Secretariat, the United Nations Convention to Combat Desertification (UNCCD) Secretariat, the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the UNFF Secretariat, the UNFCCC Secretariat, the World Agro-forestry Centre (ICRAF), and the World Bank.

⁴¹⁸ ITTO Action Plan, *supra* n 405.

⁴¹⁹ In October and December 2010, respectively, the governing bodies of *CBD* and ITTC adopted decisions welcoming the ITTO/*CBD* collaboration; see *CBD* decision X/36 and ITTC decision 6(XLVI).

⁴²⁰ See Article 12(1) of the *ITTA* 2006.

decisions and recommendations by a majority vote⁴²¹, unless the *ITTA* provides for a special vote.⁴²² The Council has chosen to interpret the requirement for a ‘special vote’ under Article 7 to be one that only needs to be invoked if the Council cannot reach agreement by consensus. Votes in the Council are distributed in accordance with the share of world trade held by member countries.⁴²³ The producer members shall together hold 1,000 votes and the consumer members shall together hold 1,000 votes.

4.3. *ITTA*’s schemes for the protection of the environment

The Organization of Economic Co-operation and Development (OECD) defines economic instruments as ‘that affect costs and benefits of alternative options open to economic agents, with the effect of influencing behaviour in a way that is favourable to the environment’.⁴²⁴ The use of economic instruments to protect the environment has been criticised for being ‘non-coercive’ and ‘autonomous’.⁴²⁵ Yet, the international community in various policy documents (as discussed in chapter 2) recommended states to use economic instruments to protect the environment as they are powerful social forces to be used and harnessed for the common goals of economic development and environmental protection.⁴²⁶ The *ITTA* and the MEAs discussed in the following chapters use economic instruments such as eco-labelling

⁴²¹ *Ibid.* Article 12(2).

⁴²² Article 2(8) of the *ITTA* 2006 defines Special vote as ‘a vote requiring at least two-thirds of the votes cast by producing members present and voting and at least 60 percent of the votes cast by consuming members present and voting, counted separately, on condition that these votes are cast by at least half of the producing members present and voting and at least half of the consuming members present and voting’.

⁴²³ *Ibid.* Article 10.

⁴²⁴ OECD, *Environmental Policy: How to Apply Economic Instruments* (Paris : 1991) 10.

⁴²⁵ Richard Stewart, ‘Economic, Environmental, and Limits of Legal Control’ (1985) 9 Harv ELR 1.

⁴²⁶ Peter Sand, ‘Sticks, Carrots and Games’ in Michael Bothe and Peter Sand (eds.), *Environmental Policy : From Regulation to Economic Instruments* (Martinus Nijhoff Publishers, the Hague : 2003) 5-6.

schemes (used in *ITTA*, *CBD* and *Biosafety Protocol*), quotas system (used in *CITES*) and subsidies (used in *CBD* and *ITTA*) etc to protect the environment.

As mentioned earlier, the *ITTA* includes the concept of 'sustainable forest management' to protect the environment. The tools it uses for the development of sustainable forest management are eco-labelling and forest certification. ITTO C&I serve as a framework for the development of eco-labelling procedures and national forest certification standards. These are market-based instruments that intend to create an economic incentive for timber companies to improve forest management.

4.3.1. Eco-labelling

One of the economic incentives for forest protection is eco-labelling of timber and other forest products, which involves the provision of information on the environmental impacts of their production, use and disposal. For timber products, the emphasis is generally on the extent to which harm to the ecological integrity of forests, biodiversity and other environmental values is minimized in the production process.

Accordingly, eco-labelling is of interest to environmentalists, consumers and industry as a mechanism to help consumers exercise preferences for products whose production, use and disposal impose a lighter burden on the environment and natural resources compared to competing products. Consumers obtain get better information about the impacts of the products they buy, helping them use their purchasing power to encourage environmental protection. In this context, Agenda 21⁴²⁷ encourages

⁴²⁷ Agenda 21, Chapter 4, 4.21.

‘expansion of environmental labelling and other environmentally-related product information designed to assist consumers to make informed choices’.

However, its practical implication is neither so simple nor as favourable to the environment. Since timber-labelling schemes have primarily been voluntary and non-governmental, producers have not been required to conduct their activities in any particular way. Rather, such schemes merely promote truthful communication from producers to consumers about the environmental impacts of certain products and their production processes. However, to be effective, an eco-labelling initiative must be linked to a system for independent certification of labelled products, so that buyers have assurance of the accuracy and good faith of producers’ representations.

4.3.2. Forest certification

Forest certification is a voluntary process by which the planning and implementation of ‘on-the-ground’ forestry operations are audited by a qualified, independent third party against a predetermined standard designed to ensure that operations are environmentally sustainable and socially acceptable.⁴²⁸ Certificates can be used as a source to send the message to consumers that a particular timber or timber product has been exported from ‘sustainably managed and legally harvested sources and which are legally traded’.⁴²⁹ The ITTC is of the view that certification will improve market transparency and will also help to promote responsible producer and consumer choices in supply and demand for forest products.⁴³⁰ To advance the ‘ITTO Objective 2000’, the ITTC recognized forest certification as ‘an important voluntary market-

⁴²⁸ See ITTO, ‘ITTO/IUCN Guidelines’, *supra* n 27.

⁴²⁹ See Article 1(k) of the *ITTA* 2006.

⁴³⁰ See ITTC decision10 (XXX)/22 (2 June 2001).

based tool to encourage and create incentives for sustainable forest management'.⁴³¹ Subsequently, the *ITTA* 2006 encouraged its members to share information to introduce certification as a voluntary mechanism to promote sustainable management of tropical forests.⁴³²

The forest certification is divided into three main activities of equal importance: standard setting, the certification process and accreditation of certifiers. Standards⁴³³ are documents which set out the requirements that must be met by the forest manager and against which certification assessments are made. Certification is the process of establishing whether or not the standard has been met. Accreditation is the mechanism for ensuring that the organizations which undertake certification are competent and produce credible results. Sometimes this process is described as 'certifying the certifiers'.

The effectiveness of the process of establishing whether or not the standard has been met depends mainly on the people and organizations responsible for managing and implementing the process. There are three types of assessment against a standard:⁴³⁴ i) first-party assessments carried out by an organization on itself, which are often referred to as internal audits; ii) second-party assessments carried out by one organization on another with which it has a relationship of some sort (a common example is a supplier audit); or iii) third-party assessments carried out by an

⁴³¹ See ITTC decision 10 (XXX)/22 (2 June 2001).

⁴³² See Article 1(o) of the *ITTA* 2006.

⁴³³ Standards are documents stating the requirements which must be met by a company, or a product, and against which certification assessments are made. The International Organisation for Standardisation (ISO) defines a standard as 'a document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context' (ISO 1996).

⁴³⁴ Nussbaum, Jenning et al., *Assessing Forest Certification Schemes: A Practical Guide* (ProForst Publications, 2002) 22.

organization which is completely independent of the organization being assessed, and is called a certification body. Although the assessment team does not usually make the final certification, they are responsible for most of the technical process of collecting information to establish compliance with the standard.

Forest certification is a relative newcomer to the world of standards and certification, but is increasingly accepted as an assurance of legality and sustainable forest management, which takes account of both timber and non-timber forest products. At the global level, there are two competing certification schemes with different operating modalities: the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC). The FSC provides all the necessary elements of certification through centralized decision-making on standards and accreditation. The PEFC, on the other hand, operates as a system for mutual recognition between national certification systems. Almost two-thirds (65%) of the world's certified forests (in 22 countries) carry a PEFC certificate, while the FSC's share is 28% (in 78 countries); the remaining forests are certified solely under national systems. Most of the certified forests in the Tropics are FSC-certified.⁴³⁵

The criteria of these certification schemes give attention specifically to the need to conserve biodiversity. For example, Principle 6, Criterion 2 of the FSC, states that:⁴³⁶

Safeguards shall exist which protect rare, threatened and endangered species and their habitats (eg nesting and feeding areas). Conservation zones and protection areas shall be established appropriate to the scale and intensity of

⁴³⁵ ITTO, 'Developing Forest Certification' (2008) ITTO Technical Series No. 29. Available at: <<http://www.itto.int/resource01/#reports>>.

⁴³⁶ FSC 1996.

forest management and the uniqueness of the affected resources.

Inappropriate hunting, trapping and collecting shall be controlled.

Various studies conducted on the impact of the certification process on biodiversity have concluded that certification does improve conservation of biodiversity and has a significant impact on the way that forest managers implement conservation measures.⁴³⁷ However, even accepting the preliminary conclusions of current studies and the apparent beneficial impacts of forest certification on wildlife conservation, the following discussion shows that there is still a long way to go to reach sustainable wildlife management in certified timber production forests.⁴³⁸

4.3.2.1. Effectiveness of the certification and eco-labeling in the protection of the environment

Most of the tropical forest coverage is located in developing countries, and a number of them depend heavily on timber exports for foreign exchange. In developing countries as a whole, about 25% of the wood that is not used for fuel is exported. Malaysia and Indonesia combined account for about 86% of total exports from tropical countries. In some developing countries, logging for export is the largest contributor to deforestation or forest degradation; in the Sarawak state in Malaysia, for example, approximately 80% of logs eventually become exports.⁴³⁹ Consequently, it is

⁴³⁷ See Newsom and Hewdoitt, *The Global Impacts of SmartWood Certification* (Trees Program Rainforest Alliance, 2005); Nussbaum and Simula, *Forest Certification: A Review of Impacts and Assessment Framework* (The Forest Dialogue Yale University, School of Forestry and Environmental Studies, 2004).

⁴³⁸ ITTO, 'Developing Forest Certification', *supra* n 435.

⁴³⁹ Elliott and David, *Certification and Ecolabelling of Timber and Timber Products* (N.d.: n.p. Manuscript on file with CIEL, 1996).

unlikely that these developing countries will give priority to the protection of the environment over the economic benefit achieved from logging.

A recent ITTO study concluded that some progress has been made by ITTO producer countries in the development of forest and timber certification.⁴⁴⁰ However, the rate of achievement still pales in comparison to the advancement gained by developed countries. While certified forests in ITTO producer countries have expanded 2.6 times from 6.4 million hectares in 2002 to 16.3 million hectares in 2007, developing countries' share of the world's certified forests actually fell from 7% in 2002 to 5% in 2006.⁴⁴¹

In addition, the development and implementation of SFM, certification and eco-labelling impose financial costs and require technical expertise, which are less likely to be available to developing country producers than to those in developed countries.⁴⁴² Finally, some commentators also argue that certification and eco-labelling could, if structured identically for all types of producers, work unfairly to the detriment of small producers, each of whom will be obliged to assume the same fixed costs as larger competitors.⁴⁴³

Finally, Article 12 of the *Agreement on Technical Barriers to Trade (TBT)*⁴⁴⁴ clarifies and establishes requirements for special treatment of developing country Members in

⁴⁴⁰ ITTO, 'Developing Forest Certification', *supra* n 435.

⁴⁴¹ *Ibid.*

⁴⁴² *Ibid.*

⁴⁴³ International Experts Working Group: Joint German–Indonesian Initiative, 1996. Report of Meeting on Trade, Labelling of Forest Products and Certification of Sustainable Forest Management, 12–16 August 1996, Bonn.

⁴⁴⁴ The *TBT Agreement* provides for special and differential treatment of developing countries through clauses modifying or softening the requirements in the Article 4 (Code of Good Practice) and the rest of the *TBT Agreement*. Article 4 of the *TBT Agreement* imposes the Code

light of their special circumstances. Some of these obligations could prove beneficial for eco-labelling efforts: for example, provision for technical assistance to developing country Members in order to ‘ensure that the preparation and application of technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to the expansion and diversification of exports from developing country Members’.⁴⁴⁵ However, other provisions could seriously undermine the eco-labelling of products from developing countries by allowing developing countries to avoid complying with measures established by others – including those necessary to eco-labelling programmes – if these measures conflict with their ‘special needs’.⁴⁴⁶ This flexibility could discourage developing country Members from giving priority to the environmental purposes of eco-labelling programmes.

As a result, there is a need for cooperative consultations among relevant international and national institutions to develop policies on eco-labelling and other market-based instruments for environmental policy that consider, but are not completely determined by, global market concerns. Forest certification and eco-labelling will succeed as a tool to promote environmental protection only if programs are based on standards that effectively identify the least environmentally destructive alternatives.⁴⁴⁷

of Good Practice (the Code) on standard-setting bodies (either directly for central government standard-setting bodies or indirectly for other bodies, as discussed above). The obligations imposed in the Code concern the process of creating and implementing standards themselves (as opposed to related processes, such as conformity assessment, discussed below) and the substantive content of these standards.

⁴⁴⁵ Article 12(7) of the *TBT Agreement*.

⁴⁴⁶ For example, Article 12(4) of the *TBT Agreement* exempts developing country Members ‘to use international standards as a basis for their technical regulations or standards, including test methods, which are not appropriate to their development, financial and trade needs’.

⁴⁴⁷ Cook, Downes et al., *Applying Trade Rules to timber Eco-labelling* (CIEL Discussion Paper, 1997) 44

4.3.3. Subsidies

Subsidisation is a government activity which occurs when governments provide certain economic benefits to their producers. Subsidies⁴⁴⁸ often, but not always, result in a reduction in the price of goods produced by those producers, as they usually lower the marginal cost of production. To facilitate international trade in tropical timber the ITTC decided to undertake a study on subsidies affecting tropical timber products,⁴⁴⁹ and subsequently adopted the Action Plan 2008–2011, which was designed to assist tropical member countries to manage and conserve the resource base for tropical timber. Section 3 of the Action Plan identifies specific goals and supporting actions for ITTO's substantive work.⁴⁵⁰ Section 3.1 of the Action plan established two goals,⁴⁵¹ the second of which seeks to promote tropical timbers from sustainably managed sources and provides a forum for discussion on non-discriminatory trade, subsidies for competing products, shortcomings in enforcement of forest law and regulation, and other factors that may affect the marketability and access of tropical timber products.

⁴⁴⁸ Article 1(a)(1) of the Agreement on Subsidies and Countervailing Measures (SCM) defines Subsidy as 'a financial contribution by a government or any public body'. This can include such things as:

- (i) a government practice [involving] a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
- (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);
- (iii) [the provision of] government goods or services other than general infrastructure;
- (iv) a government payment to a funding mechanism ...

⁴⁴⁹ See ITTC decision 2(XXXVII)/20 (18 December 2004).

⁴⁵⁰ The Action Plan identifies three areas of ITTO's substantive work (called goals), i.e. economic information and market intelligence, reforestation and forest management and forest industry. These goals and actions aim to guide the relevant ITTO committees in making policy and project recommendations to the Council and provide a frame of reference for the Council itself in considering issues and in taking decisions on policy initiatives and project activities. See *supra* n 405.

⁴⁵¹ Goal 1: Improve transparency of the international timber market; Goal 2: Promote tropical timber from sustainably managed sources.

Participation in the eco-labelling and certification process does, however, impose costs on participating producers, including compliance with periodic monitoring after certification and application. Subsidies reduce the cost associated with certification and eco-labelling, encouraging producers to manage the tropical forests sustainably. They could be used to differentiate products that are traded internationally, so as to alter patterns of trade. For example, they could be targeted on sustainably produced tropical timber in order to encourage the trade in this timber rather than the trade in timber from unsustainably managed tropical forests.

Nevertheless, as a number of trade-related concerns have been raised regarding the eco-labelling of timber, the WTO might argue that eco-labelling and certification can be used as a disguised protectionist measure and can discriminate against imported products based on process and production methods (PPMs) (as discussed in Chapter 3). There are also concerns that national or regional criteria may work to the advantage of domestic or regional producers, even absent protectionist motivations, because the criteria were developed on the basis of the specific conditions in that region. For example, European standards that penalize harvesting from old growth forests will likely work in favour of European producers and against many foreign producers, because Europe has almost no old-growth forest remaining in contrast to other timber-producing regions.

4.3.4. The *ITTA* in cooperation with relevant environmental institutions

Since the conservation of biodiversity is an integral part of the sustainable forest management, in 1993 the ITTO and International Union for the Conservation of Nature and Natural Resources (IUCN) produced a joint guideline – the ‘Guidelines on

the Conservation of Biological Diversity in Tropical Production Forests’ – for tropical forest conservation and use.⁴⁵² In 2005 the ITTC proposed the updating of the ‘Guideline’ to take into account new developments in conservation and sustainable forest management. In 2009 the ITTC adopted a revised set of ‘ITTO/IUCN Guidelines’.⁴⁵³ These guidelines are designed to assist policymakers and forest managers by bringing together in one place the specific actions that are needed to improve biodiversity conservation in tropical production forests.

ITTO has also been working with other MEAs institutions to create more certainty about its role. *CITES* and *CBD* are the most relevant conservation agreements to the *ITTA*’s mandates, as they both address socio-economic development and conservation issues concurrently. The Preamble of the *CBD* reaffirms that states are responsible for using their ‘biological resources in a sustainable manner’. Most recently, the *CBD* adopted the ‘Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity’ (hereinafter *CBD* Guidelines), which address a number of issues relating to biodiversity in managed systems.⁴⁵⁴ The application of the ITTO/IUCN Guidelines would be an important step for countries in implementing their obligations under the *CBD*. Thus, to ensure cooperation between the ITTO and *CBD* in order to pursue their common objectives, recently the ITTO and the *CBD* have adopted an MoU.⁴⁵⁵ This collaboration specifically focuses cooperation in four areas: enhanced biodiversity conservation in production forests and rehabilitation of secondary forests, including promotion of the ITTO/IUCN Guidelines; improved conservation and management of

⁴⁵² ITTO ‘ITTO/IUCN Guidelines in the Conservation of Biological Diversity in Tropical Production Forest’ (1993) ITTO Policy Development Series No. 5.

⁴⁵³ ‘ITTO/IUCN Guidelines’, *supra* n 27.

⁴⁵⁴ Secretariat of the *CBD*, ‘Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity’ (Montreal 2004). This publication is part of a series of the *CBD* Guidelines. Available at: <<http://www.CBD.int/doc/publications/addis-gdl-en.pdf>>.

⁴⁵⁵ See Chapter 1 of the thesis.

protected areas in relation to SFM, including transboundary conservation areas; enhanced provision of environmental services from tropical forests through SFM; and improved welfare of indigenous and local communities based on the sustainable management and conservation of tropical forests and sustainable use of their biodiversity.

CITES has included tree species (afromosia, bigleaf mahogany and ramin) in its Appendix II.⁴⁵⁶ The *CITES* Secretariat realizes the challenges that range states of these timber species face to implement *CITES* requirements. Thus, the ITTO and the *CITES* Secretariats are collaborating on a programme of activities aimed at ensuring that international trade in *CITES*-listed timber species is consistent with their sustainable management and conservation. The specific objective of the ‘ITTO – *CITES* Program for Implementing *CITES* Listings of Tropical Timber Species’ is to assist national authorities to meet the scientific, administrative and legal requirements for managing and regulating trade in timber species included in the *CITES* Appendix II and, in particular, to develop guidance to ensure that utilization is not detrimental to the survival of these *CITES*-listed timber species.⁴⁵⁷

4.4. Conclusions

For the purpose of the *ITTA*, the term ‘tropical timber’ means ‘tropical wood for industrial uses’, i.e. a tropical timber forest is a ‘supply forest’ for industries.⁴⁵⁸ The uncertainty regarding the balance between sustainable use and the conservation in the

⁴⁵⁶ See Chapter 5 for *CITES* Appendices.

⁴⁵⁷ See *CITES* Conf. Resolution 14.4.

⁴⁵⁸ Defined in Article 2(1) of the *ITTA*. Tropical timber grows or is produced in the countries situated between the Tropic of Cancer and the Tropic of Capricorn. The term covers logs, sawn wood, veneer sheets and plywood.

ITTA starts with the very name of the agreement and from the categorization of membership of the ITTO. The name ‘International Tropical Timber Agreement’ clarifies that this agreement is about tropical *timber*, not tropical forest as a whole. It re-states idea that the *ITTA* considers tropical forest as a source of timber⁴⁵⁹ having considerable economic value for being a tradable resource.

In 2006 the ITTO prepared a report reviewing the status of forest management in all 33 of ITTO’s producer member countries.⁴⁶⁰ Using information submitted by the countries themselves and supplemented by data from a wide range of other sources, it addresses the policy and institutional settings in each country, the approaches taken to the allocation and management of resources, and the status of management of those resources. The data indicate that significant progress has been made since 1988 towards the sustainable management of natural tropical forests, but the extent of such progress remains far from satisfactory.⁴⁶¹ Significant areas of tropical forest are still lost every year, and unsustainable (and often illegal) extraction of tropical forest resources remains widespread.⁴⁶² It is clear from the report that the security of the tropical forest estate is still in jeopardy in many countries.⁴⁶³

It is also apparent from this chapter’s discussion that despite the evolutionary development of the *ITTA* over successive instruments to include the sustainable development principle, its key characteristic as a commodity agreement is undisputed,

⁴⁵⁹ Article 2(1) of the 2006 *ITTA* defines ‘tropical timber’ as: tropical *wood for industrial uses*, [emphasis added] which grows or is produced in the countries situated between the Tropic of Cancer and the Tropic of Capricorn. The term covers logs, sawnwood, veneer sheets and plywood.

⁴⁶⁰ ITTO, ‘2006 Status of tropical forest management’ (2005) ITTO Technical Series No. 24. Available at: <<http://www.itto.int/resource01/#reports>>.

⁴⁶¹ *Ibid.*

⁴⁶² *Ibid.*

⁴⁶³ *Ibid.*

and its ultimate objective, to promote and expand trade, has never changed. It is still effectively little more than a commodity market adjustment among consumer and producer states, with a commitment to increase international trade in tropical timber from sustainably managed and legally harvested forests.⁴⁶⁴

It is also doubtful how far the parties of the ITTA with contrasting economic interests in tropical forest management would consider conservation objectives seriously. For consumers, forest management is essential so that there will be continuity of tropical timber supply. On the other hand, for producers, which are mostly developing countries, forest management is important to balance supply and demand of timber, which ensures a stable economy.

⁴⁶⁴ Bowman, Davies and Redgwell, *supra* n 8, 636.

5. Wildlife trade under *CITES*

5.1. Introduction

The aim of this chapter is to analyse two issues: i) the extent to which the 1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (hereinafter the *CITES* or the Convention)⁴⁶⁵ permits wildlife trade and ii) the compatibilities of the *CITES* trade restrictive measures with the WTO rules. *CITES* is designed to protect specimens of species determined by the Convention to be presently or foreseeably threatened by international trade. Therefore, *CITES* is primarily a conservation treaty, and its long-term conservation goals are to monitor and stop commercial international trade in endangered species; maintain species under international commercial exploitation in an ecological balance; and assist countries towards a sustainable use through international trade.

Despite the fact that *CITES* is a conservation treaty, it by no means prohibits trade in endangered species entirely. However, *CITES*' approach towards trade differs from that of the multilateral trade agreements. The term 'trade' is being used in a broad sense in *CITES*. According to *CITES*, 'trade means export, re-export, import and introduction from the sea' of the specimens of species.⁴⁶⁶ Therefore, any sorts of international movements of specimens of any species mentioned in the Appendices of the Convention are considered to be 'trade' under *CITES*' provisions.

⁴⁶⁵ For *CITES* text see 993 UNTS 243; UKTS 101 (1976) Cmnd. 6647; (1973) 12 ILM 1085. *CITES* came into force on 1 July 1975.

⁴⁶⁶ Article 1(c) of the *CITES*, 1973. According to Article 1(d) and (e) of the *CITES*, 1973, "re-export" means export of any specimen that has previously been imported and "introduction from the sea" means transportation into a state of specimens of any species which were taken in the marine environment not under the jurisdiction of any state.

In economic terms, trade means the exchange of goods and services for commercial purposes.⁴⁶⁷ In *CITES*, commercial trade is generally discouraged, and commercial trade of Appendix I species⁴⁶⁸ is prohibited. Commercial trade for Appendices II and III species is allowed, but is subject to various restrictions provided by *CITES*: for example, trade should not be detrimental to the survival of the species, and living specimens should be prepared and shipped, minimizing the risk of injury, damage to health or cruel treatment, etc.⁴⁶⁹

Since the term '*commercial purposes*' was not defined in *CITES* itself, the Parties were at liberty to interpret it in different ways. Recognizing this, the CITES-COP⁴⁷⁰ has established general principles⁴⁷¹ and provided examples⁴⁷² for the Contracting Parties to help them in assessing the commercial⁴⁷³ aspects of the intended use of Appendix I specimens to be imported. The COP recommends that the term *commercial purposes* should be defined by the country of import as broadly as possible, so that any transaction which is not wholly 'non-commercial' will be regarded as 'commercial'. In transposing this principle to the term '*primarily commercial purposes*', it can be argued that all uses whose non-commercial aspects do not clearly predominate are considered to be primarily commercial in nature, with the result that the importation of specimens of Appendix I species is not permitted.

⁴⁶⁷ Compact Oxford English Dictionary (OUP 2006).

⁴⁶⁸ *CITES* Appendices have been discussed in a latter section.

⁴⁶⁹ Articles IV and V of the *CITES*.

⁴⁷⁰ *CITES* Conf. Resolution 5.10.

⁴⁷¹ It's a repetition of the Fundamental Principles laid down in Article II of *CITES*, i.e. trade in Appendix I species must be subject to particularly strict regulation and authorized only in exceptional circumstances.

⁴⁷² The examples recognize categories of transactions in which the non-commercial aspects may or may not be predominant, depending upon the facts of each situation. The categories are purely private use, scientific purposes, education or training, biomedical industry, captive-breeding programmes and importation via professional dealers.

⁴⁷³ An activity can generally be described as 'commercial' if its purpose is to obtain economic benefit, including profit (whether in cash or in kind) and is directed towards resale, exchange, provision of a service or other form of economic use or benefit.

The burden of proof for showing that the intended use of specimens of Appendix I species is clearly non-commercial rests with the person or entity seeking to import such specimens.

With this approach to trade in endangered species, the application of *CITES*' licensing system restricting wildlife trade has led to concern for the protection of trade interests in the Convention. This chapter seeks to analyse the extent to which *CITES* makes allowances for such interests. It consists of two sections. Section I provides an overview of the Convention, including its objectives, fundamental principles, key provisions and implementation processes. Special attention is given to the institutions established under *CITES* and its reservation procedure. Section II analyses the extent to which the Convention permits trade in endangered species of wild fauna and flora. It also observes the extent to which the Convention authorizes or envisages the implementation or recognition of restrictions upon trade.

5.2. Overview of *CITES*

The origin of *CITES* lies in the global concern over the conservation impact arising from the exploitation of, and international trade in, wild species, expressed at the seventh General Assembly of the International Union for Conservation of Nature and Natural Resources (IUCN).⁴⁷⁴ With the benefit of greater information on the threatened status of many species, delegates urged governments to restrict imports of animals in accordance with export regulations of countries of origin.⁴⁷⁵

⁴⁷⁴ The IUCN is now the World Conservation Union. GA held in Warsaw, Poland, in 1960. Visit: <<http://www.iucn.org>>.

⁴⁷⁵ For an illustration of the volumes of international trade in wildlife during the 1960s, see *International Trade in Animal Products Threatens Wildlife* (US Fish and Wildlife Services, 1982).

As a result of these discussions, IUCN's General Assembly passed a regulation in 1963 calling for 'an international convention on regulation of export, transit and import of rare or threatened wildlife species or their skins and trophies'. Elements of this regulation can be found in *CITES*.

The first draft of *CITES* was circulated in 1964, followed by a second draft in 1971. Progress towards making the Convention a reality accelerated in 1972, when the *United Nations Conference on the Human Environment* adopted its Action Plan for the Human Environment.⁴⁷⁶ A revised draft Convention was then put forward by the US, which served as the basis for discussion at the Plenipotentiary Conference to Conclude an International Convention on Trade in Certain Species of Wildlife, held at the Pentagon from 12 February to 2 March 1973. After ten ratifications⁴⁷⁷, the Convention entered into force on 1 July 1975. For many years *CITES* has been among the conservation agreements with the largest membership, now totalling 175 Parties.⁴⁷⁸

5.2.1. *CITES*' institutional arrangements

CITES' institutional arrangements consist of the COP, a Secretariat, the executive Standing Committee, and three functional committees which were given permanent status in 1987.⁴⁷⁹ Most of the institutional structure of *CITES* emerged only after the

⁴⁷⁶ This plan included Recommendation 99.3, proposing that 'a plenipotentiary conference be convened as soon as possible, under appropriate governmental or intergovernmental auspices, to prepare and adopt a convention on export, import and transit of certain species of wild animals and plants'.

⁴⁷⁷ Canada, Chile, Cyprus, Ecuador, Nigeria, Sweden, Switzerland, Tunisia, the United States of America and Uruguay were the first countries to ratify the Convention.

⁴⁷⁸ See *CITES*' official website <<http://CITES.org>> accessed on 2 December 2010.

⁴⁷⁹ Animal, Plants and Nomenclature Committees were consolidated by the *CITES* Conf. Resolution 9.1.

treaty's entry into force.⁴⁸⁰ The COP is the decision-making body on all matters related to *CITES*, and meets every two to three years.

The COP has a variety of functions: it reviews progress under the Convention; considers proposals to amend the lists of species in Appendices I and II; considers discussion documents and reports from the Parties, the permanent committees, the Secretariat and working groups; recommends measures to improve the effectiveness of the Convention; and makes provisions necessary to allow the Secretariat to function effectively.⁴⁸¹ The COP's recommendations are not generally considered 'hard law', but they have shaped the *CITES* regime and should be regarded as 'soft law in nature'.⁴⁸² Thus, the COP's recommendations for interpreting and elaborating the text of the Convention are not legally binding, but can constitute a 'subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions', which means that they must at least be 'taken into account'.⁴⁸³

The *CITES* Secretariat is administered by UNEP and is located in Geneva, Switzerland. It has a pivotal role, fundamental to the Convention. Its functions are laid down in Article XII of *CITES*. The Secretariat performs many different functions, which include: arranging meetings of the Parties, and preparing reports and draft resolutions. An institutional innovation was the establishment of subsidiary bodies, which operate between meetings and conferences. The Standing Committee was set up in 1979 and provides policy guidance to the Secretariat concerning the

⁴⁸⁰ Peter Sand, 'Whither *CITES*? The Evaluation of a Treaty Regime in the Borderland of Trade and Environment', (1997) 8 EJIL 29 at 35.

⁴⁸¹ *CITES* Article XI.

⁴⁸² Bowman, Davies and Redgwell, *supra* n 8, 488; Sand, 'Whither *CITES*?' *supra* n 480, 35.

⁴⁸³ Article 31(3)(a) of the *Vienna Convention*.

implementation of the Convention, and oversees the management of the Secretariat's budget.

CITES Contracting Parties are also required to designate specific national authorities to administer the Convention's provisions, creating a global network of institutions that cooperate directly with their counterparts in other states. These authorities are known as Management Authorities (MA) and Scientific Authorities (SA).⁴⁸⁴ The Management Authority is an administrative body which grants permits and certificates for wildlife trade, while the Scientific Authority advises the MA on the practical effect of the trade of specimens of Appendix I and Appendix II species.

The establishment of the SA and MA is particularly significant for two reasons.⁴⁸⁵ First, as each Party has two permanent bodies responsible for implementing *CITES* provisions, it is likely that each Party will make at least some effort to enforce the Convention. Second, although *CITES*' mandate is limited to international trade, some Parties have given their MAs and SAs additional responsibilities related to wildlife conservation. Therefore, their establishment has helped to regulate international trade as part of an organized and rational approach to the overall management of wildlife resources in these countries.

5.2.2. Objectives and purposes of the Convention

CITES' purpose is to protect plant and animal species from unregulated international trade. However, *CITES* is regarded as both a 'conservation and trade instrument'.⁴⁸⁶ In

⁴⁸⁴ *CITES* Article IX(1).

⁴⁸⁵ Bowman, Davies and Redgwell, *supra* n 8, 490.

⁴⁸⁶ Hill, 'The Conservation on International Trade in Endangered Species: Fifteen Years Later' (1990) 13 *Loyola of Los Angeles International and Comparative Law Journal*, 245.

this context, conservationists are often placed in two camps for the purposes of wildlife conservation: the so-called 'protectionist group', with its belief that wildlife should be protected for its own sake, and the 'sustainable use group', advocating the consumptive use of wildlife at a sustainable level as a means of conserving. *CITES* reflects both approaches to the conservation of wildlife, recognizing the ever-growing value of wildlife from aesthetic, scientific, cultural, recreational and economic points of view. Accordingly, it prohibits commercial trade in species threatened with extinction (Appendix I species), while allowing the sustainable use of species whose existence is not yet threatened. It is a trade agreement in the sense that it uses trade measures to accomplish its conservation objectives, namely the permit system.

A protectionist approach, based on the intrinsic value of biodiversity, is arguably reflected in the concern for the welfare of live animal specimens prepared and shipped for export. These state that an export permit shall only be granted when the MA is satisfied that conditions of transportation will be such as to 'minimize[s] the risk injury, damage to health or cruel treatment' of such specimens. However, this provision may also be motivated by a 'utilitarian concern' to decrease the high mortality of the specimens during the shipment, which would in time impose further pressure on populations in the wild.

The sustainable utilization of natural resources represents an important component of sustainable development. The preamble of *CITES* states that Contracting Parties must protect wild fauna and flora for both the current generation and 'generations to come'. This part of the preamble adheres to elements of the sustainable development principle. In the context of *CITES*, the sustainable utilization objective forms an

essential element in balancing trade and environmental interests. It recognizes that the unfettered depletion of wild fauna and flora will ultimately limit economic growth, and therefore restricts the trade in endangered species of wild fauna and flora.

In order to establish a notion of integration between *CITES*' procedures and the principles of sustainable use, *CITES*–COP has recommended using the *Convention of Biological Diversity (CBD)*'s *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* in the implementation by *CITES* Parties of Article IV and other relevant provisions of the Convention.⁴⁸⁷ As mentioned in the *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity*,⁴⁸⁸ one of the conditions which need to be taken into consideration during implementation of sustainable use programmes, plans and policies is that:

[T]he supply of biological products and ecological services available for use is limited by intrinsic biological characteristics of both species and ecosystems, including productivity, resilience, and stability. Biological systems, which are dependent on cycling of finite resources, have limits on the goods they can provide and services they can render. Although certain limits can be extended to some degree through technological breakthroughs, there are still limits, and constraints, imposed by the availability and accessibility of endogenous and exogenous resources...

As the vast majority of *CITES* Parties are Parties to the *CBD*, *CITES* has acquired enormous help from the *CBD* in integrating sustainable development principles into its procedures. For example, the Secretariats of *CITES* and *CBD* signed a

⁴⁸⁷ *CITES* Conf. Resolution 13.2. Also see Chapter 6 for the definition of sustainable use as given in the *CBD* and for *Addis Ababa Principles and Guidelines*.

⁴⁸⁸ '*CBD Guidelines*', *supra* n 454.

Memorandum of Understanding, which provides for institutional cooperation between themselves, including the exchange of information, coordination of work programmes and joint conservation action.⁴⁸⁹ Therefore, the *CBD* and its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) will be working on case studies to test these *Sustainable Use Principles and Guidelines*. Thanks to this co-operation from *CBD*, *CITES*' future depends on the effective implementation of sustainable development goals in order to achieve the balance between progressive economic development and the conservation of wildlife for future generations.⁴⁹⁰ At the fourteenth meeting of the *CITES*–COP, former Secretary General Willem Wijnstekers stressed the adaptability of *CITES*, as evident in its success in balancing conservation and sustainable development, but highlighted the need for adequate resources to allow for *CITES*' expansion into new policy areas.⁴⁹¹

Embracing international community values has broadened *CITES*' goals to monitor and stop commercial international trade in endangered species; maintain species under international commercial exploitation in an ecological balance; and assist countries towards sustainable use through international trade.⁴⁹²

⁴⁸⁹ Article 4 of the 'Memorandum of Understanding between the Secretariat and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (*CITES*)' UNEP/CBD/CoP/3/Inf.39 (15 October 1996).

⁴⁹⁰ David Ong, 'The Conservation on International Trade in Endangered Species (*CITES*, 1973): Implications of Recent Developments in International and EC Environmental Law', 10(1) *JEL* (1998) 291 at 292.

⁴⁹¹ 'Fourteenth Conference of the parties to *CITES*' (2007) 21 *Earth Negotiations Bulletin*, published by the International Institute for Sustainable Development (IISD). Available at <<http://www.iisd.ca/vol21/enb2151e.html>> (Accessed on 25 March 2011).

⁴⁹² *CITES* Conf. Resolution 14.2; *CITES* Strategic Vision 2008–13.

5.2.3. The fundamentals of the *CITES* regime

Article II of *CITES* lays down the fundamental principles governing the listing criteria of a species in Appendix I, II or III. Appendix I includes ‘all species threatened with extinction which are or may be affected by trade’. Appendix II covers:

- (a) all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival; and
- (b) other species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.

Appendix III is concerned with species which ‘any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other Parties in the control of trade’.

These principles clearly require more detailed guidelines on the listing, deletion and transfer of species in the Appendices. In 1976 the COP adopted the Berne Criteria for the addition of species to Appendices I and II and for the deletion of species from Appendices I and II.⁴⁹³ These soon came to be seen as outdated and unsatisfactory in certain respects, which led to the adoption of the ‘Fort Lauderdale Criteria’ at the ninth *CITES*–COP meeting.⁴⁹⁴ This new set of criteria replaced the ‘Bern Criteria’ with a comprehensive mechanism for dealing with the inclusion and deletion of species in Appendices I and II. In 2010, at the Doha Conference, the Parties resolved to revise the Fort Lauderdale Criteria because of the inadequacies involved in the

⁴⁹³ Resolution Conf 1.1.

⁴⁹⁴ *CITES* Conf. Resolution 9.24.

procedure for amending the Appendices. This led to the adoption of Resolution 9.24 (Rev. CoP 15), containing a comprehensive set of criteria for the amendment of Appendices I and II and repealing thirteen earlier Resolutions dealing with the inclusion and deletion of species.⁴⁹⁵

5.2.3.1. Criteria for categorizing species

As mentioned earlier, *CITES* attempts to balance legitimate trade interests in renewable resources with the need to protect endangered species.⁴⁹⁶ Accordingly, it allows international trade in endangered species listed in Appendices I, II and III under certain conditions. Furthermore, it is designed as a flexible instrument that would adapt itself to changing circumstances. Consequently, the Contracting Parties are allowed to amend Appendices I and II listings under the Fort Lauderdale criteria discussed above. *CITES* also contains provisions that tolerate a certain degree of deviation from full compliance. For example, *CITES*' reservations provision and certain exceptions mentioned in Article VII allow Contracting Parties to carry on trade in endangered species. The following discussion focuses on the extent to which *CITES* permits trade in endangered species.

(a) Inclusion of species in Appendix I

CITES imposes restrictions on the commercial trade of endangered species. As mentioned earlier, species are listed in three Appendices, with differing levels of protection. Article II(I) of *CITES* provides that:

Appendix I shall include all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be

⁴⁹⁵ *CITES* Conf. Resolution 9.24 (Rev. CoP 15), Annex 1.

⁴⁹⁶ Gwyneth Steward, 'Enforcement Problems in the Endangered Species Convention: Reservations Regarding the Reservations Clauses' (1981) 14 Cornell ILJ 429.

subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.

The Fort Lauderdale criteria recognize that to be included in Appendix I, a species must meet certain biological and trade criteria. They specify that a species 'is or may be affected by trade' if⁴⁹⁷:

- i) it is known to be in trade (using the definition of 'trade' in Article I of the Convention), and that trade has or may have a detrimental impact on the status of the species; or
- ii) it is suspected to be in trade, or there is demonstrable potential international demand for the species, that may be detrimental to its survival in the wild.

A further uncertainty was that the Convention does not define what is meant by 'threatened with extinction', which gave rise to different approaches to interpretation. This lack of uniformity was rectified by the Resolution Conf 9.24 (Rev. CoP15), which provided criteria to determine when species are threatened with extinction. A species is considered to be threatened with extinction if at least one of the two following criteria is met.⁴⁹⁸ First, the wild population is small, as characterized by i) a decline in the number of individuals or the area and quality of habitat; or ii) each sub-population being very small; or iii) large short-term fluctuations in population size; or iv) a high vulnerability to either intrinsic or extrinsic factors. Second, the wild population has a restricted area of distribution and is characterized by i) fragmentation or occurrence at very few locations; or ii) large fluctuations in range or the number of

⁴⁹⁷ CITES Conf. Resolution 9.24 (Rev. CoP14), Annex 5.

⁴⁹⁸ *Ibid.*, Annex 1.

sub-populations; or iii) a high vulnerability; or iv) a decrease in range, number of sub-populations, number of individuals, quality of habitat or species' reproduction capacity.

Commercial trade in Appendix I species is generally prohibited in the Convention.⁴⁹⁹ However, Article III of *CITES* authorizes non-commercial trade in Appendix I species, subject to the grant of import and export permits.⁵⁰⁰ Key conditions to be satisfied include that: i) the specimen to be traded was obtained legally; ii) the exportation will not be detrimental to the survival of the species; and iii) the proposed recipient will be suitably equipped to house and care for any living specimens.

(b) Inclusion of species in Appendix II

A species should be listed in Appendix II if⁵⁰¹:

- i) the species will satisfy one of the Appendix I criteria in the near future unless trade is regulated; or
- ii) exploitation has, or may have, a detrimental impact on the species by either exceeding the level that can be sustained in perpetuity or the harvesting will put the population level at the mercy of threats from extrinsic factors.

The Convention makes no mention of the inclusion of species that are lookalikes of Appendix I species. Thus, COP in its very first meeting addressed this issue and

⁴⁹⁹ See Article II(1) of *CITES* on commercial trade of Appendix I species. *CITES* Appendices have been discussed in the 'Trade measures provided by *CITES*' section.

⁵⁰⁰ *CITES* Article II(2)–(3).

⁵⁰¹ *CITES* Conf. Resolution 9.24 (Rev. CoP 15), Annexes 2a and 2b.

decided that species which looked like Appendix I species should be included in Appendix II.⁵⁰²

Lookalike species should be included in Appendix II if:

- i) the species resembles an Appendix I or II species, such that a non-expert will not be able to distinguish between them;
- ii) the species is a member of a group of which the majority of the species are included in Appendix I or II, and the remaining species must be listed to effectively regulate the trade.

(c) Amending Appendices I and II

There can be circumstances when the Contracting Parties require the consideration of proposals for the amendment of Appendices I and II. The Convention itself is silent on the issue of circumstances justifying the deletion of species from the Appendices or the down-listing of species from Appendix I to Appendix II. The Fort Lauderdale criteria address this issue and recommend the Contracting Parties to apply the precautionary approach, and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, to act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species.⁵⁰³ As there is no established standard available for the application of the precautionary approach, a member state can propose to down-list a specie from Appendix I to Appendix II, arguing that there is not sufficient scientific evidence to believe that that particular

⁵⁰² CITES Conf. Resolution 1.1.

⁵⁰³ CITES Conf. Resolution 9.24 (Rev. CoP 15), Annex 4.

species needs protection under Appendix I. While the truth is, they want to increase trade regardless of the impact on the conservation of species.⁵⁰⁴

Article II(3) of the Convention states that 'Appendix III shall include all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other Parties in the control of trade'. The objective of Appendix III is to permit Contracting Parties to seek international assistance with enforcing its domestic legislation with regard to species not listed in Appendix I or II. Article II(3) provides for the inclusion of species in Appendix III only if the proposing Party requires the co-operation of the other Parties to control trade in the species listed.⁵⁰⁵

It is the responsibility of *CITES*' Contracting Party to implement the Fort Lauderdale criteria in regard to Appendices I, II and III species, while permitting or restricting endangered species trade. How they will implement the Convention's provisions depends on their approach towards the concept of conservation. They can have both a protectionist and a conservationist stance for protecting endangered species or have a sustainable use stance for regulating wildlife trade. Hepworth provides a clear picture of this division in the following terms⁵⁰⁶:

[F]or some countries sustainable use lies at the heart of conservation and development requirements, while others are suspicious that without clear definition the term could be used to justify an increase in trade on economic grounds regardless of the impact on the conservation of species.

⁵⁰⁴ Robert Hepworth, 'The Independent Review of *CITES*' (1998) 1 *JIWLP* 419.

⁵⁰⁵ The criteria for listing species in Appendix III can be found in *CITES* Conf. Resolution 9.25 (Rev. CoP15).

⁵⁰⁶ Robert Hepworth, *supra* n 504, 419.

5.2.3.2. The regulatory system

(a) Trade of Appendix I species

Appendix I includes species threatened with extinction, which are on their account subject to the most stringent regulations. The export of any specimen of Appendix I species requires the prior grant and presentation of a permit. An export permit is only to be granted where: i) a SA of the state of export has advised that such export will not be detrimental to the survival of species; ii) a MA of the state of export is satisfied that the specimen was not obtained in contravention of laws of that state for the protection of fauna and flora; iii) a MA of the state of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and iv) a MA of the state of export is satisfied that an import permit has been granted for the specimen.⁵⁰⁷

Article III of *CITES* provides that an import permit is required before an Appendix I species may be imported. An import permit will only be granted where: i) a SA of the state of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved; ii) a SA of the state of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and iii) a MA of the state of import is satisfied that the specimen is not to be used primarily for commercial purposes.⁵⁰⁸

These exceptions must be read together with the fundamental principle laid down in Article II(1). It is the task of the SA, under Article III(3)(a), to determine whether the purposes, other than primarily commercial purposes, of an importation are detrimental

⁵⁰⁷ *CITES* Article III(2).

⁵⁰⁸ *Ibid.*, Article III(3).

to the survival of the species, and whether trade is beneficial to Appendix I species survival.⁵⁰⁹

(b) Trade of Appendix II species

Trade in Appendix II species is governed in accordance with the provisions of Article IV of *CITES*.⁵¹⁰ International trade in specimens of Appendix II species may be authorized by the granting of an export permit or re-export certificate⁵¹¹; no import permit is required by the Convention (though some countries adopt stricter measures under Article XIV). The export of any specimen of Appendix II species requires a permit. An export permit can only be granted where: i) a SA of the state of export has advised that such export will not be detrimental to the survival of that species; ii) a MA of the state of export is satisfied that the specimen was not obtained in contravention of the laws of that state for the protection of fauna and flora; and iii) a MA of the state of export is satisfied that any living specimen will be prepared or shipped as to minimize the risk of injury, damage to health or cruel treatment.⁵¹²

The import of Appendix II species does not require a permit. Article IV(4) of *CITES* states that '[T]he import of any specimen of a species included in Appendix II shall require the prior presentation of either an export permit or a re-export certificate'. The difference between the import of Appendix I specimens and the import of Appendix II specimens is that Article III(3) requires the prior grant and presentation of an import permit for the former, but Article IV(4) does not prescribe a similar permit for the latter. Clearly, the trade control regulations for Appendix II species are less onerous.

⁵⁰⁹ For further discussion see *CITES* exceptions section.

⁵¹⁰ *Ibid.* Article IV(1).

⁵¹¹ *Ibid.* Article IV.

⁵¹² *Ibid.* Article IV(2).

Although the import of Appendix II species does not require a permit, numerous importing countries have adopted legislation requiring import permits for all *CITES* species, as permitted under Article XIV. They have done this to avoid enforcement difficulties. The presence of an import permit allows the MA of a state to check the validity of export and re-export documents prior to and at the time of importation.

(c) Trade of Appendix III species

International trade in the species listed in Appendix III is allowed only upon the presentation of the appropriate export permits or certificates.⁵¹³ The requirements for the issuance of such an export permit are the same as the requirements, as mentioned above at (ii) and (iii) for Appendix I species.⁵¹⁴

5.2.4. Implementation

Illegal trade in specimens of species listed in the Appendices of the Convention can cause serious damage to wildlife resources, reduce the effectiveness of wildlife management programmes, and undermine and threaten legal and sustainable trade (particularly in the developing economies of many producing countries).⁵¹⁵ Therefore, an effective enforcement mechanism is essential to monitor and prevent illegal trade.

Article VIII (1) of *CITES* concerns the measures to be taken by the Parties to enforce the provisions of the Convention. According to the Article, ‘the Parties shall take appropriate measures to enforce the provisions of the present Convention and to

⁵¹³ *Ibid.* Article V.

⁵¹⁴ *Ibid.* Article V(2).

⁵¹⁵ *CITES* Conf. Resolution 11.3 (Rev. COP 14), Compliance and enforcement, Gigiri (Kenya), 10–20 April 2000.

prohibit trade in specimens in violation thereof'. Since *CITES* is not a self-executing treaty, its Parties have responsibility for enforcing its provisions in each Party state.⁵¹⁶

Self-executing treaties are enforceable by virtue of the agreement itself, whereas non-self-executing treaties are dependent upon enabling legislation by the Parties for their enforcement. As mentioned in the *Rio Declaration*⁵¹⁷, states have the sovereign right to exploit their own resources pursuant to their own environmental policies. Therefore, *CITES* recognizes its Parties' sovereign right to adopt their own conservation legislation within the framework of the *CITES* system. Rather than imposing a supranational regulatory mechanism of its own, *CITES* relies on the reciprocal recognition of national regulatory decisions, provided that these are made in accordance with mutually agreed standards.⁵¹⁸ Therefore, there is no single uniform 'model law' suitable for *CITES*' implementation in all countries.⁵¹⁹

CITES enforcement is left to individual Contracting Parties and each state Party is responsible, through the exercise of its customs controls, for ensuring that listed species and specimens imported and exported are covered by the appropriate permits. Therefore, custom officers need to be properly trained⁵²⁰ and made aware of the *CITES* provisions, including its exceptions. Inefficient customs authorities sometimes provide loopholes for illegal trade. Recognizing this need, the COP recommended that the Secretariat should increase its efforts on capacity building and training of *CITES*

⁵¹⁶ *CITES* Article VIII(I).

⁵¹⁷ Principle 2.

⁵¹⁸ Sand, 'Whither *CITES*', *supra* n 480, 47.

⁵¹⁹ For *CITES* implementation see Emonds, *Guidelines for National Implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora* (Gland, International Union for Conservation of Nature and Natural Resources, 1981) and Bowman, Davies and Redgwell, *supra* n 8, 518–25.

⁵²⁰ The Secretariat arranges enforcement seminars for custom officers and Interpol.

enforcement officers, in particular in developing countries, countries with economies in transition and small island developing states.⁵²¹

CITES' enforcement mechanisms are based on effective cooperation among its Parties to adopt the necessary legislation to implement its provisions. Therefore, the lack of efficient communication can cause *CITES* to fail in achieving its goal. *CITES* has indeed been criticized for its limited success in the practical effectiveness of its enforcement. After considering this limitation, the COP in its eleventh session provided a detailed guideline for the 'compliance and enforcement' procedure, which offers a practical mechanism for tackling a complex and difficult international problem.

Regarding the enforcement activities of the Secretariat, the COP urged its Parties, and intergovernmental and non-governmental organizations to provide additional financial support for the enforcement of the Convention, by providing funds for the enforcement assistance work of the Secretariat. The COP also directed the Secretariat to pursue closer international ties between the Convention's institutions, national enforcement agencies and existing intergovernmental bodies, particularly the World Customs Organization, the UN Office on Drugs and Crime and ICPO-Interpol.⁵²²

Regarding the communication of information and coordination between *CITES* and national legislation, the COP has recommended that MAs should coordinate with governmental agencies responsible for enforcement of *CITES*, including Customs and

⁵²¹ *CITES* Conf. Resolution 13.87.

⁵²² *CITES* Conf. Resolution 11.3 (Rev. COP 14).

Police, and, where appropriate, sectoral NGOs, by arranging training activities and joint meetings, and facilitating the exchange of information.⁵²³

5.2.5. The Convention's reservation procedure

CITES permits Contracting Parties to enter a reservation in relation to species whose inclusion in the Appendices they find objectionable. Reservations may be taken in two situations. First, a new Party may enter a specific reservation with regard to i) a species included in Appendix I, II or III; or ii) any parts or derivatives specified in relation to a species included in Appendix III, when it deposits its instrument of ratification, acceptance, approval or accession.⁵²⁴ Second, Contracting Parties may formulate reservation regarding the subsequent amendments to the Appendices,⁵²⁵ though these must be registered with the depositary government within 90 days of the adoption of the amendment to the Appendix. General reservations concerning the provisions of the Convention are prohibited.⁵²⁶ Reservations may be withdrawn at any time.

Twenty parties had reservations (effective from September 2007) to the listing of species in Appendices I and II.⁵²⁷ Contracting Parties are not obliged to provide reasons for making a reservation. However, in practice, it is the major wildlife importers that frequently enter reservation.⁵²⁸ For example, Japan has a current reservation to the listing of certain whales, as whale meat is regarded as a luxury in

⁵²³ *Ibid.*

⁵²⁴ *CITES* Article XXIII(2).

⁵²⁵ *Ibid.* Articles XV(3) and XVI(2).

⁵²⁶ *Ibid.* Article XXIII(1).

⁵²⁷ Bowman, Davies and Redgwell, *supra* n 8, 516.

⁵²⁸ Gary Meyers and Kyla Bennett, 'Answering "The Call of the Wild": An Examination of US Participation in International Wildlife Law' (1989) 7 PACE ELR 104.

Japan.⁵²⁹ The effect of a reservation is to exempt the reserving Party from the requirements of *CITES* in relation to the species in question.⁵³⁰ Even then, however, when dealing with *CITES* Parties, they would be obliged to produce documentation comparable to that required by the Parties themselves.⁵³¹ That means the effect of reservation is usually minimal on *CITES* objectives.

5.3. Overlap and balance

CITES is one of the few MEAs which use trade measures to achieve their objectives. Nevertheless, a fundamental difference between *CITES* and the multilateral trade agreements is that *CITES* places restrictions on trade in wildlife species in order to protect them, whilst the WTO promotes the elimination of trade restrictions and discriminatory trade measures to liberal trade. Consequently, the application of *CITES* trade-restriction provisions may raise questions about its compatibility with the basic principles of the multilateral trading system.⁵³²

5.3.1. *CITES* permit system to control trade

As mentioned earlier, *CITES* controls international trade in endangered species of wild flora and fauna through a permit system.⁵³³ *CITES* permit system requires that all proposals regarding the import, export, re-export and introduction from the sea⁵³⁴ of specimens covered by the Convention have to be authorized through a licensing system, i.e. based on a system of permits and certificates that may be issued if certain

⁵²⁹ Bowman, Davies and Redgwell, *supra* n 8, 516.

⁵³⁰ *CITES* Article XXIII (3).

⁵³¹ *Ibid.* Article X of *CITES*.

⁵³² See Chapter 3.

⁵³³ Ong, 'The Convention on International Trade in Endangered Species (*CITES*, 1973)' *supra* n 490, 297.

⁵³⁴ According to *CITES* Article 2, 'introduction from the sea' means transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State'.

conditions are met and that have to be presented before consignments of specimens are allowed to leave or enter a country.

It has also been mentioned that trade measures vary according to the Appendices of the Convention in which the relevant species are listed. These measures are also focused on the purpose of the transaction, the conservation impact (determined by a SA), lawful acquisition and, where relevant, humane treatment concerns. Permits and certificates are endorsed (usually by Customs) upon exit, and presented (usually to Customs) on entry. Data collected from permits and certificates contribute to a body of information that allows Parties to follow international trade trends and to adapt their national and international conservation and trade policies as necessary.

CITES permit system has been criticized for not providing a detailed system of rules and for relying on the discretion of its Parties to interpret and implement their own permit procedures.⁵³⁵ The COP has observed that false and invalid permits and certificates are used more and more often for fraudulent purposes and that appropriate measures are needed to prevent such documents from being accepted.⁵³⁶

Therefore, in its 2002 meeting, COP considered the need to improve and standardize permits and certificates⁵³⁷, and recommended that the data contained on permits and certificates must supply maximum information, as much for export as for import, to allow for verification of the conformity between the specimens and the document. At the same time, it recognized that the issuance of *CITES* permits and certificates serves

⁵³⁵ Ong, 'The Convention on International Trade in Endangered Species (*CITES*, 1973)' *supra* n 490, 297.

⁵³⁶ *CITES* Conf. Resolution 12.3.

⁵³⁷ *Ibid.*

as a certification scheme for assuring that trade is not detrimental to the survival of those species included in the Appendices. This was the first step towards the development of one standard form for all *CITES* documents.⁵³⁸

CITES permit system to restrict trade of endangered species itself constitutes a continuous violation of *GATT* Article XI.⁵³⁹ It is unlikely to receive an exemption under Article XX(b) and (g). The function of the Convention's permit system is to conserve wildlife extraterritorially in exporting states, which is only allowed under Article XX(g) if such restriction is extraterritorially enforced against one state's own nations and vessels.⁵⁴⁰ To be justified under Article XX(b), *CITES* permit system need to pass the 'necessity' test. Furthermore, the above permit system is only a minimum standard for Contracting Parties, whereas Article XIV permits them to adopt measures that are 'stricter' than the obligations stipulated under the Convention. Therefore, Contracting Parties are allowed to adopt a more trade-restrictive measure than that required by the above-mentioned permit system.

For example, the Convention requires that import permits be issued only for trade in specimens of Appendix I listed species. Appendix II listing does not require an import permit, but in 1996 EC Regulation No. 338/97 entered into force, which imposed stricter domestic measures than those set forth in *CITES*.⁵⁴¹ Accordingly, EU Member States are under the obligation to require an import permit or import certificate for imports of all species appearing on *CITES* Appendices. Australia requires evidence of

⁵³⁸ See Willem Wijnstekers, *The Evaluation of CITES'* (8th Edn, Published by the *CITES* secretariat, 2005). Available as e-book at cites.org.

⁵³⁹ Article XI prohibits the use of quantitative restrictions; see Chapter 3.

⁵⁴⁰ *Ibid.*

⁵⁴¹ Article 4(2) of the Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein.)

a management plan in exporting countries before it permits imports, and this has led, for example, to its refusal to allow the import of caviar. Among exporting countries, Brazil and Nigeria have banned the export of wildlife for commercial purposes. These export bans are prohibited by Article XI(1) of the *GATT*, but could be saved by Article XX(b) and (g).⁵⁴² There is, therefore, a potential for conflict present between the *CITES* and the *GATT*.

Furthermore, since *CITES* has not provided any definition for the term ‘primarily commercial purposes’, Parties are free to interpret it broadly so as to treat any transaction which is not wholly ‘non-commercial’ as ‘commercial’, resulting in a ban on importation. It is established in the multilateral trading system that members of the multilateral trade agreements must adopt a ‘less trade-restrictive measure’ whenever ‘necessary’ to protect ‘human, animal or plant life and health’. Therefore, *CITES* Parties’ measures to restrict trade, since it interprets ‘commercial purposes’ broadly to include ‘non-commercial purposes’, could be in violation of Article XI of the *GATT* and possibly be difficult to justify under Article XX(b), as they might not pass the *GATT* ‘necessity test’.

5.3.2. *CITES* exceptions pursuing conservation objectives

Some of the *CITES* exceptions are not only intended to achieve *CITES* objectives (i.e. ‘protect’ endangered species ‘against over-exploitation’), but also to promote these objectives, for example, captive breeding⁵⁴³ and artificial propagation of plant species for commercial purposes.⁵⁴⁴

⁵⁴² For discussion on unilateral measures see Chapter 3.

⁵⁴³ The term ‘bred in captivity’ refers to specimens born or otherwise produced in a controlled environment.

⁵⁴⁴ *CITES* Article VII(4).

Captive breeding has two principal purposes: either (i) reintroduction of the species into the wild to increase small existing wild populations; or (ii) for commercial purposes, i.e. for trade. However, the trade in specimens of Appendix I species bred in captivity is permitted only if it is marked in accordance with the provisions on marking in the Resolutions adopted by the COP, and if the types and numbers of the marks are indicated on the documents authorizing the trade.⁵⁴⁵

The term ‘bred in captivity for commercial purposes’, as used in Article VII(4), is interpreted as referring to any specimen of an animal bred to obtain economic benefit, including profit, whether in cash or kind, where the purpose is directed towards the sale, exchange or provision of a service or any other form of economic use or benefit.⁵⁴⁶ As the commercial trade in specimens of Appendix I species is subject to strict regulation and only allowed in exceptional circumstances, captive bred Appendix I animals are artificially propagated, and Appendix I plants are deemed to be specimens of species included in Appendix II and are therefore treated in accordance with the provisions of Article IV of *CITES*.⁵⁴⁷ In accordance with paragraph 5 of that Article, the import of specimens of Appendix I species bred in captivity or plant species artificially propagated for *non-commercial* purposes does not require even an import permit.

Another typical purpose of ‘breeding in captivity’ is to increase small existing wild populations of Appendix I species and plants through reintroduction. Therefore, the

⁵⁴⁵ *CITES* Conf. Resolution 10.16 (Rev.).

⁵⁴⁶ *CITES* Conf. Resolution 12.10 (Rev. CoP14).

⁵⁴⁷ *CITES* Article VII(4).

breeding stock⁵⁴⁸ must be established in a manner that is not detrimental to the survival of the species in the wild. At the same time, it must be managed in a manner ‘capable of reliably producing second generation offspring⁵⁴⁹ in a controlled environment’⁵⁵⁰ so as to ‘maintain the breeding stock indefinitely’.⁵⁵¹ Similar criteria need to be fulfilled before plants can be considered ‘artificially propagated’. This criterion assists Appendix I species to be capable of sustaining themselves without significant replacement from the wild before any international trade for commercial purpose is allowed.⁵⁵²

5.3.3. Relationship with the multilateral trade agreements

CITES uses sanctions, i.e. suspension of trade as a compliance mechanism.⁵⁵³ *CITES* can issue trade sanctions if a state fails to provide the required annual report on illegal trade, fails to implement *CITES* in domestic law and/or continues on significant trade in Appendix II species. In 2009 there were thirty-two trade suspensions in effect under *CITES*, four of which are not Parties to the *CITES* and two of which are WTO Members.⁵⁵⁴ Although such suspension had not been challenged by a WTO Member who is non-Party to the *CITES*, there are possibilities that the compatibilities of *CITES*

⁵⁴⁸ The ‘breeding stock’ means animals that are used for reproduction.

⁵⁴⁹ ‘First-generation offspring (F1)’ are specimens produced in a controlled environment from parents at least one of which was conceived in or taken from the wild; and ‘offspring of second generation (F2) or subsequent generation (F3, F4, etc.)’ are specimens produced in a controlled environment from parents that were also produced in a controlled environment.

⁵⁵⁰ A ‘controlled environment’ is an environment that is manipulated for the purpose of producing animals of a particular species, that has boundaries designed to prevent animals, eggs or gametes of the species from entering or leaving the controlled environment, and the general characteristics of which may include but are not limited to: artificial housing; waste removal; health care; protection from predators; and artificially supplied food.

⁵⁵¹ *CITES* Conf. Resolution 2.12.

⁵⁵² Bowman, Davies and Redgwell, *supra* n 8, 513.

⁵⁵³ Susan Biniaz, ‘Remarks about the *CITES* Compliance Regime’, in Ulrich Beyerlin, Peter-Tobias Stoll and Rüdiger Wolfrum (eds), *Ensuring Compliance with Multilateral Environmental Agreements* (Martinus Nijhoff Publishers, the Netherlands 2006) 89; Malgosia Fitzmaurice and Catherine Redgwell, ‘Environmental Non-compliance Procedures and International Law’ (2000) 31 NYIL 35.

⁵⁵⁴ Bowman, Davies and Redgwell, *supra* n 8, 652.

trade measures with the WTO rules may arise in future.⁵⁵⁵ A non-Party could challenge the import and export restriction that *CITES* applies against non-Parties, as it contravenes Article XI of the *GATT*. In this context, a WTO Panel in *EC – Biotech* decided that to be considered a ‘relevant agreement’ in a dispute, Parties to the both agreements need to be identical.⁵⁵⁶

There are two categories of *CITES* members when it comes to dealing with the subject of *CITES* and WTO obligations. There are (many) WTO Members that are also Parties to *CITES*, and there are (a few) WTO Members that are not Parties to *CITES*. There should be no problem when the Parties to both treaties are identical.⁵⁵⁷ For *GATT* (1947) Parties that are also Parties to *CITES* (1973), the view could be taken that *CITES* provisions should prevail. But it seems that this ‘later in time’ rule has failed to give *CITES* precedence over the *GATT*, as the Uruguay Round resets *GATT*’s date to 1994, arguably allowing it to ‘leapfrog into dominance’ over most environmental treaties that use trade measures.⁵⁵⁸ Although *GATT* 1994 appears to be later in time than *CITES* 1973, *GATT* 1994 is the continuation treaty of *GATT* 1947, as it has been adopted by the WTO without any change.

But this leads to the question that if a new treaty is the continuation of a previous one, then how can its relationship with the in-between treaties be determined? It could be

⁵⁵⁵ Some commentators view such prospect as ‘largely hypothetical’, including Milano, ‘The Outcomes of the Procedure and their Legal Effects’, in Tullio Treves et al. (eds), *Non-compliance Procedures and Mechanisms and the Effectiveness of the International Multilateral Agreements* (TMC Asser Press, 2009) 412–13, Sand, ‘Sanction in Case of Non-compliance and State Responsibility: Pacta Sunt Servanda – Or Else?’ in Beyerlin, Stoll and Wolfrum (eds), *supra* n 553, 267.

⁵⁵⁶ *EC – Biotech Products*, *supra* n 108, para. 7.72. This issue will be discussed fully in Chapter 8.

⁵⁵⁷ According to Article 30(4) of the *Vienna Convention* 1969, when two agreements signed by the same Parties relating to the same subject matter are in conflict, the agreement later in time (*lex posterior*) is presumed to prevail.

⁵⁵⁸ Esty, *supra* n 22, 219.

argued that still *CITES* will prevail over the *GATT* 1994, as it is a specialized agreement. According to the '*lex specialis derogat legi generali*' maxim, whenever two or more norms deal with the same subject matter, priority should be given to the norm that is more specific. *CITES* is more specialized in comparison to *GATT* 1994, as it particularly governs international trade in wildlife.

Article XIV also sets out the Convention's relationship with other international agreements. Paragraph 2 of Article XIV in particular confirms that the Convention does not affect its Parties' obligations deriving from any 'treaty, convention or international agreement relating to other aspects of trade...'. *CITES*' relationship with other international agreements thus depends on what is meant by other aspects of trade.

However, from the discussion of the *CITES* permit system and especially its provisions for 'stricter domestic measures' mentioned in Article XIV(a), it is evident that *CITES* provisions may well conflict with the rules of the multilateral trade agreements. Therefore, a Party to the Convention that is also a Party to the WTO multilateral trade agreements, while implementing its obligations under the *CITES*, might find itself violating its trade obligations.

5.3.4. Precautionary measures to amend Appendices I and II listing

Annex 4 of Resolution Conf. 9.24 (Rev. CoP 15) recognizes the importance of Rio Principle 15 concerning the precautionary approach, for the amendment of Appendices I and II. It reiterates the fact

that, when considering proposals to amend Appendix I or II, the Parties shall, by virtue of the precautionary approach and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species.

Conference Resolution 9.24 (Rev. CoP 15), Annex 4 outlines general and specific precautionary measures for Parties to take into account in the deletion or de-listing of species. For example, an Appendix I species may not be removed from the Appendices without first being transferred to Appendix II, and such a de-listing may only occur when one of the following precautionary safeguards is met.⁵⁵⁹

- a) the species is not in demand for international trade, nor is its transfer to Appendix II likely to stimulate trade in, or cause enforcement problems for, any other species included in Appendix I; or
- b) the species is likely to be in demand for trade, but its management is such that the COP is satisfied with:
 - i) implementation by the range states of the requirements of the Convention, in particular Article IV; and
 - ii) appropriate enforcement controls and compliance with the requirements of the Convention; or
- c) an integral part of the amendment proposal is an export quota or other special measure approved by the Conference of the Parties, based on management measures described in the supporting statement of the

⁵⁵⁹ *CITES* Conf. Resolution 9.24 (Rev. CoP 15), Annex 4.

amendment proposal, provided that effective enforcement controls are in place; or

- d) a ranching proposal is submitted consistent with the applicable Resolutions of the Conference of the Parties and is approved.

However, Annex 4 does not provide any guidance as to when the precautionary approach might apply, or what action might be appropriate under it for the implementation of this provision. This absence of specific guidelines for the application of the precautionary approach allows the Parties to take the precautionary measures they believe to be in '*the best interest of the conservation of the species concerned*'. A number of differing interpretations can be made of this phrase, which can be interpreted either to facilitate or to restrict wildlife trade. It can be argued that in some cases, transferring species from Appendix II to Appendix I, or including previously unlisted species in Appendix I, may act against the best interest of the conservation of the species concerned, even if it meets the criteria for inclusion in Appendix I. This applies most particularly to species in taxa that are of interest to hobbyists (e.g. cacti and orchids amongst plants, and parrots and tortoises amongst animals). In such cases there is a risk that listing the species in Appendix I will attract the attention of traders and collectors, thereby increasing demand and the risk of illegal trade. This is recognized explicitly by the Parties in Resolution Conf. 9.18 (Rev.), concerning regulation of trade in plants.

It was mentioned in Chapter 3 that a risk assessment under the *SPS Agreement* does not permit the consideration of socio-economic factors. Instead, the *SPS Agreement's* risk assessment is based on 'scientific evidence'. Therefore, thinking that this decision

might provide better protection to a particular community's socio-economic situation, such measures might be considered as a disguised restriction under the multilateral trading system.

5.3.5. CITES animal welfare measures and trade

CITES contains various provisions intended to ensure the welfare of species introduced into international trade. *CITES* Articles III, IV and V require that an import permit or an export permit, or a re-export certificate for trade in specimens of species included in Appendices I, II and III, should be granted by the MA only if it is satisfied that 'any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or *cruel treatment*'. The transport of captive bred animals or artificially propagated plants of Appendices II and III species, live specimens that are personal effects/household goods and for pre-Convention specimens is covered by Article VIII, which requires that Parties must ensure the proper care of all living specimens during any period of transit, holding or shipment.

If the above conditions are not met, a MA can refuse the trade of species listed in the Appendices. Such refusal can be considered as 'disguised restriction to trade' by a WTO Member, since animal welfare issues are not recognized in Article XX(a) of the *GATT*.⁵⁶⁰

5.4. Conclusions

CITES is an international treaty for the conservation of wildlife. However, it is not designed directly to conserve migratory or other species in their habitats or to protect

⁵⁶⁰ For further discussion on trade and animal welfare issues see Chapter 3. Also see Michael Bowman, 'Conflict or Compatibility? The Trade, Conservation and Animal Welfare Dimensions of *CITES*' (1998) 1 *JIWLP*.

them from threats to their existence such as pollution, over-exploitation or by-catches.⁵⁶¹ Its sole aim is to prevent international commercial trade in endangered species (not only species of animals but also of plants) or their products.⁵⁶² *CITES* strictly limits international trade in species in genuine need of protection and also allows a controlled trade in species that are able to sustain some exploitation.

There are signs that *CITES* may indeed have reached its outer limits. *CITES* brought together the concepts of trade regulation and conservation found in the earlier agreements and also, innovatively, faced the challenges which came with globalization. *CITES* was deliberately designed as a flexible instrument to adapt itself to changing circumstances.⁵⁶³ Therefore, it was committed to working in cooperation with *CBD* and accepted the *Addis Ababa Principles and Guidelines*. Although its exceptions and enforcement mechanisms have been criticized, *CITES* is perhaps the most successful of all the international treaties concerned with the conservation of wildlife.

Furthermore, *CITES* is a trading treaty in the sense that it allows a controlled international trade in species whose survival is not yet threatened but may become so. Therefore, it attempts to establish a balance between its environmental and trade considerations. However, some trade restrictions seem to be incompatible with WTO provisions, although no state has yet challenged the compatibility of *CITES'* trade restriction with those of the *GATT/WTO*. Since the number of Parties in both Agreements is increasing, the potential for a conflict between the *CITES* and the WTO is 'real' and growing.

⁵⁶¹ Birnie et al., *supra* n 11, 685.

⁵⁶² *Ibid.*

⁵⁶³ Sand, 'Whither *CITES*?' *supra* n 480, 30.

6. CBD and its relationship with the multilateral trade agreements

6.1. Introduction

This chapter sets out to study two issues: i) the extent to which the *1992 Convention on Biological Diversity* (hereafter *CBD* or the Convention)⁵⁶⁴ allows trade in biological resources⁵⁶⁵ while conserving biological diversity⁵⁶⁶; and ii) the compatibility between the Convention's trade-related environmental measures and the rules of the multilateral trade agreements.

The Convention aims primarily to conserve Earth's biological diversity; however, it is not a 'preservationist' agreement. The preamble of the Convention identifies instrumental values of biodiversity and its components, along with their intrinsic values.⁵⁶⁷ Thus, the objectives of the Convention go well beyond conservation of biological diversity *per se* and comprehend such diverse issues as sustainable use of biological resources, access to genetic resources, the sharing of benefits derived from the use of genetic resources and access to technology.⁵⁶⁸ It is evident from these broad-ranging objectives that the Convention does not intend to bring the utilization of

⁵⁶⁴ The *Convention on Biological Diversity* was adopted in Nairobi on 22 May 1992. For the full text see (1992) 31 ILM 822.

⁵⁶⁵ According to Article 2 of the Convention, 'biological resources' include genes, species and ecosystems that have actual or potential value to people.

⁵⁶⁶ Article 2 of the Convention defines the term 'biological diversity' broadly to include the viability of life in all forms, levels and combinations. For further details of the term, see Michael Bowman, 'The Nature, Development and Philosophical Foundation of the Biodiversity Concept in International Law' in Michael Bowman and Catherine Redgwell (ed), *International law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) 5–6; Jeffrey McNeely, Kenton Miller and Walter Reid, *Conserving the World's Biological Diversity* (IUCN, 1990) 17–9.

⁵⁶⁷ The 'instrumental value' of biodiversity is based on the idea that human use and benefit are the fundamental purposes for conserving biodiversity. On the other hand, 'intrinsic value' is based on the theory that nature has its own worth, unrelated to its usefulness for humankind. A species should therefore be protected for its own sake. This approach means that biodiversity and its components deserve preservation because of their own value. For more about different kinds of value of biodiversity and its components, see Bowman, *supra* n 566, 15–28; F Mathews, *The Ecological Self* (Routledge, 1991) Ch 4, 117–47; J Alder and D Wilkinson, *Environmental Law and Ethics* (Macmillan, 1999) Ch 2, 37–71; Gillespie, *supra* n 185, Ch 6.

⁵⁶⁸ Article 1 of the *CBD*.

the biodiversity resources to an end. Yet, in order to avoid or minimize the adverse impact on biodiversity that may arise from resource utilization, the Contracting Parties are required to take a comprehensive set of actions in accordance with the relevant provisions of the Convention.

The *CBD* is a framework agreement which lays down various guiding principles for Contracting Parties in order to develop national laws and policies to implement the Convention's objectives. Thus, although the Convention does not contain any specific trade-restrictive measures, the Contracting Parties, while implementing the Convention, may develop and adopt specific measures restricting trade in biological resources in pursuit of its objectives. Such measures are likely to run the risk of overlapping with obligations set out in the WTO multilateral trade agreements while dealing with the same subject matter. In addition to the discussion of the balance and overlap between the Convention and the multilateral trade agreements, special attention will be given to the *CBD* bodies' endeavours to coordinate with other convention bodies to facilitate a harmonious relationship between them.

Accordingly, this chapter is divided into three sections. Section I aims to locate the environmental and trade balance in the Convention. In order to identify the extent to which the Convention allows scope for trade interests, it is necessary to consider the objectives, institutional arrangements, implementation procedures and provisions of the Convention whose implementation might have an effect on the trade of biological resources. This discussion is also important to understand the intention of the treaty maker, the scope of the Convention's provisions and their operation in practice, as well as the remedies provided by the Convention in case of a dispute concerning its

‘interpretation and application’. Section II focuses on those provisions of the Convention that overlap with trade rules and also examines the extent to which these provisions are compatible with the multilateral trading system. Finally, Section III discusses the Convention bodies’ endeavours to coordinate with other convention bodies.

6.2. Overview of the Convention

The *Convention on Biological Diversity* is one of the two Rio instruments⁵⁶⁹ opened for signature at the 1992 United Nations Conference on Environment and Development (UNCED). The Convention gained rapid and widespread acceptance, and entered into force on 29th December 1993; at present, 193 states and the European Community are parties.⁵⁷⁰

The Convention expressly recognizes the conservation of biodiversity as the ‘common concern of humankind’, while including ‘state sovereignty’ as a legally binding principle.⁵⁷¹ It implies that states no longer have unfettered freedoms over their natural resources; while exercising such rights, states have to take into account legitimate concerns of the community of states with regard to the preservation of these resources.⁵⁷² In this context, the notion of ‘common concern’ gives the international community of states both a legitimate interest in resources of global significance and a

⁵⁶⁹ The Rio Conference produced a number of instruments, of which only two comprised formal treaties: the 1992 *United Nations Framework Convention on Climate Change* and the 1992 *Convention on Biodiversity*.

⁵⁷⁰ The *CBD* official website <<http://www.CBD.int/convention/parties/list/>> (accessed 24 September 2011).

⁵⁷¹ See the preamble and Articles 3 and 15 of the Convention.

⁵⁷² Bilderbeek, Wijgerde et al., *Biodiversity and International Law: The Effectiveness of International Environmental Law* (IOS Press 1992) 87.

common responsibility to assist in their preservation.⁵⁷³ States' sovereign rights over their natural resources are balanced by duties deriving both from sovereignty itself and from biological diversity as a common concern of the entire international community.⁵⁷⁴

6.2.1. Objectives and purposes

The purpose of the Convention is to provide a framework for reversing biodiversity loss and for ensuring that biodiversity is used sustainably and that its benefits are equitably shared. To achieve this purpose, the Convention embraces three broad objectives, namely: i) the conservation of biological diversity; ii) the sustainable use of its components; and iii) the fair and equitable sharing of the benefits arising from the use of genetic resources.⁵⁷⁵ These objectives are to be pursued in accordance with the relevant provisions of the Convention.

6.2.1.1. Conservation of biological diversity

The conservation of biological diversity is the core objective of the Convention. The preamble of the Convention not only explicitly recognizes the 'intrinsic value of biological diversity', but also 'sets it apart as if to rank it equally' with all the various forms of value which follow.⁵⁷⁶ The Convention has no further explicit elaboration of 'intrinsic value of biological diversity' in the text, but its conservation obligations

⁵⁷³ UNEP, Report of the Group of Legal Experts to Examine the Concept of the Common Concern of Mankind in Relation to Global Environmental Issues (1990).

⁵⁷⁴ Burhenne-Guilmin and Casey-Lefkowitz, 'The Convention on Biological Diversity: A Hard Won Global Achievement', 3 YbIEL (1992) 43 at 48.

⁵⁷⁵ Article 1 of the Convention.

⁵⁷⁶ Bowman, *supra* n 566, 20.

apply to all ‘biological diversity’, not merely to ‘biological resources’.⁵⁷⁷ Furthermore, Article 22(1) of the Convention asserts that the Convention does not affect parties’ rights and obligations deriving from other international agreements to which they are party, unless their exercise would damage or threaten biodiversity. This provision clearly shows that protection of biological diversity is an uncompromising objective of the Convention.

The Convention does not define the term conservation; but contains provisions that address all three of its key pillars: preservation of biological diversity, maintaining essential ecological processes and sustainable utilization of biodiversity components.⁵⁷⁸ The concept of conservation as used in the Convention recognizes that the sustainable use of living resources, and the ecosystems of which they are a part, is a prerequisite for biological diversity conservation, and at the same time acknowledges the necessity for certain elements to be given special care and treatment.

6.2.1.2. Sustainable use of biodiversity components

Sustainable use of components of biodiversity is another of the three objectives of the Convention. It is the key to achieving the broader goal of sustainable development and is a cross-cutting issue relevant to all themes and areas addressed by the Convention and to all biological resources. Article 2 of the Convention provides the key legal definition of the concept of ‘sustainable use’ as ‘the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological

⁵⁷⁷ Gillespie, *supra* n 185; Bowman, *supra* n 566, 15-28.

⁵⁷⁸ McNeely et al., *supra* n 566, 19.

diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations'.⁵⁷⁹

The definition suggests that the use of the components of biological diversity should neither cause any significant decline in biodiversity resources nor harm any other components of biodiversity. The definition of 'sustainable use' is species- and ecosystem-oriented and can be consumptive⁵⁸⁰ or non-consumptive,⁵⁸¹ which is a significant departure from the concept of 'sustainable yield'.⁵⁸² Thus, the Convention's conception of 'sustainable use' requires that the exploitation of biological resources does not reduce the future use potential of the target population or impair its long-term viability; it must be compatible with the maintenance of the long-term viability of supporting and dependent ecosystems; and it must not reduce the future use potential or impair the long-term viability of other species.⁵⁸³

In this context, the preamble of the Convention notes that 'where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat'. Thus, the precautionary approach is subsumed within the Convention as a tool

⁵⁷⁹ Article 2 of the *CBD*.

⁵⁸⁰ Consumptive uses of species include gathering, harvesting or hunting animals and plants for food, medicine, clothing, shelter, timber, fuel and fibre. Consumptive uses of ecosystems include converting a forest to grazing land, draining a wetland for land or discharging pollutants into rivers.

⁵⁸¹ Non-consumptive uses of both species and ecosystems, the use of sacred sites for cultural and religious practices and some recreational uses.

⁵⁸² 'Maximum sustainable yield' means the greatest yield of a renewable resource while keeping steady the stock of that resource. It is a conservation objective widely relied on in conservation treaties. However, it is no longer accepted as a conservation objective, as it fails to take into account not only economic objectives but also the ecological relationships of species.

⁵⁸³ IUCN, *Guidelines for the Ecological Sustainability of Non-consumptive and Consumptive Uses of Wild Species* (Draft Guideline: 1994).

to deal with uncertainty related to the use of biodiversity.⁵⁸⁴ However, the preamble does not refer to the term ‘precautionary principle’ explicitly, but nonetheless reflects a precautionary approach, which closely parallels Principle 15 of the *Rio Declaration*, which states:

‘In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation’.

The COP at its eighth meeting also acknowledges the precautionary approach as a tool to deal with uncertainty related to the use of biodiversity.⁵⁸⁵ Thus, the precautionary principle plays a vital role in the concept of sustainable utilization because it recognizes that action is needed when threats of biodiversity become apparent, and international bodies should not wait until exhaustive studies have been completed.

6.2.1.3. Fair and equitable sharing of benefits

The fair and equitable sharing of benefits arising from the use of genetic resources is the third objective of the Convention. Benefit sharing is an exceedingly broad concept, which includes appropriate access to genetic resources, transfer of related

⁵⁸⁴ Eighth Ordinary Meeting of the COP to the Convention, Curitiba, Brazil, 20–31 March (2006), see COP decision VIII/28, Annex 3(30).

⁵⁸⁵ *Ibid.*

technologies and funding, each of which has been pursued in accordance with the relevant provisions of the Convention.⁵⁸⁶

6.2.2. Provisions of the Convention relevant to trade interests

The preamble of the Convention expresses the parties' 'determination' 'to conserve and sustainably use biological diversity for the benefit of present and future generations'. In order to achieve the conservation and sustainable use objectives of the Convention, the Contracting Parties are required to develop and adopt specific measures in accordance with the relevant provisions of the Convention. Implementation of the Convention's provisions concerning measures and incentives for conservation and sustainable use of biodiversity, regulating access to resources, and access to and transfer of technology by the Contracting Parties are liable to affect trade interests, since trade is often an underlying cause of the activities that threaten biodiversity.⁵⁸⁷ The following section analyses the above provisions of the Convention to observe the extent to which trade interests are accommodated under them.

6.2.2.1. Measures for conservation and sustainable use of biodiversity

Contracting Parties are required to develop and adopt national plans, programmes and strategies for conservation and sustainable use, integrate these into relevant sectoral and cross-sectoral plans and policies,⁵⁸⁸ monitor identified components of biodiversity

⁵⁸⁶ Article 1 of the Convention.

⁵⁸⁷ Downes, *Integrating Implementation of the Convention on Biological Diversity and the Rules of the World Trade Organization* (IUCN, 1999) 19.

⁵⁸⁸ Article 6(a) and (b) of the Convention.

and identify ‘processes and categories of activities’⁵⁸⁹ which are having an adverse impact on the conservation and sustainable use of biological diversity.⁵⁹⁰

The most significant obligations placed on parties concerning conservation are dealt with under Articles 8 and 9 of the Convention. These Articles contain a series of obligations concerning two interrelated approaches for biological diversity conservation: in-situ conservation and ex-situ conservation. ‘In-situ conservation’ means, according to Article 2 of the Convention, ‘the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties’. The in-situ conservation measures taken under the Convention can be divided into three groups: i) protection measures, ii) restoration measures and iii) preservation measures.

Protection measures require: i) protected areas; ii) regulation and management of biological resources both inside and outside protected areas; iii) protection of ecosystems and natural habitats, and populations of species; and iv) environmentally sound and sustainable development in areas adjacent to protected areas.⁵⁹¹ The primary objective of a protection measure is the conservation of biodiversity; however, an area can be protected either for biodiversity conservation or for sustainable use, or both. Protection measures also require i) the controlled use and release of modified living organisms when they are likely to have adverse environmental impacts; ii) the prevention of the introduction of control or eradication

⁵⁸⁹ For example deforestation, over-use, unsustainable agriculture, drainage or filling of wetlands, urbanization, pollution, etc. are harmful activities and processes posing threat to biological diversity.

⁵⁹⁰ Article 7, in particular paragraphs (a) and (c).

⁵⁹¹ See Article 8 (a)–(e) of the convention for protection measures.

of those alien species which threaten the environment; and iii) the regulation or management of processes and activities that threaten biodiversity. As discussed in Section II, such measures may restrict the import of products or species which have, or are likely to have, adverse environmental impacts.

The in-situ conservation measures under the Convention go beyond protecting specific areas, and include measures to ‘rehabilitate’ and ‘restore’ degraded ecosystems and to promote the recovery of threatened species. The IUCN has proposed a broad understanding of the terms ‘rehabilitate’ and ‘restore’, meaning ‘so far as possible, bring disturbed and damaged systems back towards their natural conditions, or at least to the condition in which they are capable of sustained productive use’.⁵⁹² Thus, a restoration measure requires the development and implementation of recovery plans and management strategies.⁵⁹³ As part of their in-situ conservation, parties are also required ‘to preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity’.⁵⁹⁴

‘Ex-situ conservation’, according to Article 2 of the Convention, means ‘the conservation of components of biological diversity outside their natural habitat’. Contracting Parties are required to adopt appropriate measures, including the establishment of collections of plant and animal specimens and the possible reintroduction of species into their natural habitats in appropriate circumstances,⁵⁹⁵ to conserve components of biological diversity ex-situ. However, measures under Article

⁵⁹² Lyle Glowka, Françoise Burhenne-Guilmin and Hugh Synge, *A Guide to the Convention on Biological Diversity* (IUCN Environmental Policy and Law Papers No. 30, 1994) 44.

⁵⁹³ Article 8(f) of the Convention.

⁵⁹⁴ *Ibid.*, Article 8(j).

⁵⁹⁵ *Ibid.*, Article 9(c).

9(c) include reintroduction, and go beyond the recovery and rehabilitation of threatened species.

The Convention states various obligations relating to the sustainable use of biological resources, which is interwoven into a number of articles. Among them, specific provisions relating to sustainable use are mentioned in Article 10(b), which requires parties ‘to adopt measures relating to the use of biological resources in order to avoid or minimize adverse impacts on biological diversity’. It is evident from this paragraph that sustainable use measures need to take into consideration the impact of utilization not only on a particular resource, but on biological diversity as a whole.

The above conservation and sustainable use measures must be taken in accordance with the Environmental Impact Assessment (EIA)⁵⁹⁶ procedure stipulated in Article 14 of the Convention. Each Party must ‘introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account’. EIA covers all programmes and policies of governments such as trade, agriculture, fisheries, environment and transport, or indeed any programme and policy that could have environmental consequences.

It is difficult to predict what impact the above conservation and sustainable use measures would have on trade, as the language of the Convention provisions is broad and somewhat obscure. Furthermore, since these measures are implemented by parties depending on their particular circumstances, the impact might vary in different

⁵⁹⁶ Environmental impact assessment is a procedure typically used to identify the environmental effects of a proposed project and to plan appropriate measures to reduce or eliminate its adverse impacts.

countries. However, there is no doubt that the Convention's provisions are intended to create a more rational system of conservation and use of natural resources. It allows utilization of biodiversity components, if such utilization does not impact adversely on biodiversity. In this context, the Contracting Parties apply the precautionary approach in order to determine the existence of 'a threat of significant reduction or loss of biological diversity'. The application of the precautionary approach to justify a trade restriction is a controversial issue. Section II of this chapter will discuss this issue in greater detail.

6.2.2.2. Incentive measures to achieve *CBD* objectives

An incentive measure is a specific inducement designed and implemented to influence societal actors to conserve biological diversity or to use its components in a sustainable manner.⁵⁹⁷ Article 11 of the Convention requires Parties to adopt economically and socially sound measures that would act as incentives to encourage the conservation and sustainable use of components of biological diversity. This short article does not provide any further guidelines regarding its implementation. Incentive measures can be either positive or perverse. The Convention encourages incentive measures that are positive for conservation and sustainable use, but removes or mitigates incentive measures which are adverse to the Convention's objectives.

A positive incentive measure is an economic, legal or institutional measure which influences decision-making by recognizing and rewarding activities that are carried out for the conservation and sustainable use of biological diversity.⁵⁹⁸ There is a wide range of positive incentive measures available to encourage such action. Some of

⁵⁹⁷ See Note by the Executive Secretary, 'Sharing of experience on incentive Measures for Conservation and sustainable Use', UNEP/CBD/COP/3/24 (1996).

⁵⁹⁸ COP Decision VIII/26, para. 4.

them are direct,⁵⁹⁹ such as payment for ecosystem services, which are sometimes depicted as conditional subsidies, and some indirect,⁶⁰⁰ such as eco-labelling initiatives. A later discussion shows that eco-labelling can restrict the import of goods, requiring them to meet a certain environmental standard fixed by a nation state. After realizing this connection, the CBD–COP in its sixth meeting endorsed a proposal for the design and implementation of incentive measures in order to attain the objectives of the Convention, especially in regard to the sustainable use of biological diversity.⁶⁰¹ The COP also recognized that further work needed to be undertaken on positive incentives and their performance.

On the other hand, perverse incentive measures induce unsustainable behaviour that reduces biodiversity. For example, subsidies to fishermen to improve their vessels could be disastrous and put the stocks of increasing numbers of fish species under increasing pressure. Thus, the CBD–COP suggested a three-phase process of removing policies or practices that generate perverse incentives or in mitigating their perverse effects on biological diversity: i) the identification of policies or practices that generate perverse incentives and their impacts; ii) the design and implementation of appropriate reforms; and iii) the monitoring, enforcement and evaluation of these reforms.⁶⁰²

The removal or mitigation of perverse incentives undeniably has positive impacts on the conservation and sustainable use of biodiversity, but might have negative impacts

⁵⁹⁹ These incentives require direct cash to conserve biological diversity; also known as positive monetary incentives.

⁶⁰⁰ These incentives require no direct or specific budgetary appropriation for conservation and can be fiscal, or service or socially based; they are also known as non-monetary positive incentive measures.

⁶⁰¹ COP Decision VI/15.

⁶⁰² COP Decision VII/18.

on trade at least in the short term.⁶⁰³ Therefore, the COP stresses that these incentives and mitigation measures should be applied in a manner consistent with international law.⁶⁰⁴ To pursue these objectives, the COP requested the *CBD* Executive Secretary to compile and analyse the relevant information on the impacts of perverse incentive measures.⁶⁰⁵

6.2.2.3. Measures to ensure fair and equitable sharing of benefits

Genetic resources are ‘genetic material of actual and potential value’.⁶⁰⁶ Thus, for the third objective of the Convention, i.e. the fair and equitable sharing of benefits arising from the use of genetic resources, intellectual property concerns are of primary relevance.⁶⁰⁷ One possible way of sharing benefits arising from the use of genetic resources is to grant an intellectual property interest for a constituency within the country of origin, e.g. ‘farmer’s rights’ for those that have developed plant resources over the centuries. As mentioned in Chapter 3, this type of intellectual property right has been included in the *UPOV Convention*, which directs its parties to grant plant breeders’ right, a *sui generis* intellectual property right.

Another way of sharing benefits arising from the use of genetic resources is to allow countries of origin a share in the proceeds of any subsequent intellectual property right exploitation of genetic resources by outsiders. With regards to this latter, the Convention requires its Parties to take measures to determine access their genetic

⁶⁰³ Furthermore, the Agreement on Agriculture aims to reduce trade-distorting domestic support, which may also qualify as a perverse incentive measure under the *CBD*.

⁶⁰⁴ COP Decision VII/18.

⁶⁰⁵ COP Decision IX/6, para. 7.

⁶⁰⁶ Article 2 of the Convention.

⁶⁰⁷ Timothy Swanson, ‘Economics of a Biodiversity Convention’, (1992) 21 *Ambio: A Journal of the Human Environment*, 250–7.

resources and also to share benefits arising from such use ‘fairly and equitably’ and upon ‘mutually agreed terms’ with the provider of genetic resources.

A framework for the implementation of this objective is provided in Article 15 of the Convention. Whilst confirming, in Article 15(1), states’ sovereign rights to natural resources and their authority to determine access to genetic resources in areas within their jurisdiction,⁶⁰⁸ the Convention requires parties to take appropriate measures to ensure that the use of genetic resources and the benefits arising from their utilization, as well as the traditional knowledge associated with genetic resources and the benefits arising from the utilization of such knowledge, are shared equitably between the resource provider and the party using it for commercial or other purposes.⁶⁰⁹

This exceedingly broad Article leaves the balancing to further negotiation.⁶¹⁰ Provider parties are also required: i) to create conditions to facilitate access to genetic resources for environmentally sound uses; and ii) not to impose restrictions that run counter to the objectives of the Convention.⁶¹¹ Paragraphs 4 and 5 of Article 15 specifying these conditions provide that any agreement for access to genetic resources has to be subject to ‘prior informed consent’ from the country of origin, and also has to be reached on ‘mutually agreed terms’ between the Contracting Party providing access to genetic resources and a private entity (often a commercial enterprise).⁶¹² In addition, Article 8(j) contains provision to encourage the equitable sharing of the benefits arising from the utilization of knowledge, innovations and practices of indigenous and local

⁶⁰⁸ This issue has been mentioned in the preamble and Article 3 of the Convention.

⁶⁰⁹ Article 15(7) of the Convention.

⁶¹⁰ Birnie et al., *supra* n 11, 630.

⁶¹¹ Article 15(1), (2) and (3) of the Convention.

⁶¹² Glowka et al., *A Guide to the Convention on Biological Diversity*, *supra* n 592, 82–3.

communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.

These provisions are also linked to the provisions on access to, and transfer of, technology. Article 16 of the Convention requires Parties to provide and/or facilitate the transfer to other Parties of technologies, including biotechnologies, 'that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment'.⁶¹³ Furthermore, such transfer is required to be i) on 'fair and most favourable terms' and in other cases on 'mutually agreed' terms; ii) on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. Article 16(3) of the Convention requires Parties to take measures 'with the aim that' Parties which provide genetic resources have access to and transfer of technology which makes use of these resources. In addition, Article 16(4) enables Parties to enact compulsory licensing regimes. It provides that '[e]ach Contracting Party shall take legislative, administrative or policy measures ... with the aim that the private sector facilitates access to joint development and transfer of technology ... for the benefit of both governmental institutions and the private sector of developing countries'.

To assist Parties with the implementation of the access and benefit-sharing provisions of the Convention, the COP, at its meeting in Nagoya, in 2010, adopted the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity*

⁶¹³ Article 16(1) of the *CBD*.

(hereinafter the *Nagoya Protocol*),⁶¹⁴ replacing the ‘Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization’.⁶¹⁵ The *Nagoya Protocol* creates a legal framework to regulate access to the genetic resources of countries and to provide for fair and equitable sharing of benefits from the utilization of those resources that contribute to the conservation and sustainable use of biodiversity.⁶¹⁶ The key aspects of the Nagoya Protocol are as follows:

- i) it obliges Parties to share benefits on mutually agreed terms between the provider and user of genetic resources.⁶¹⁷ Article 6 of the *Nagoya Protocol* emphasizes the ‘prior informed consent of the Party providing such resources’ as a precondition to the approval of access. This provision is most significant, as the success of the Protocol will depend on its successful implementation. Successful implementation in turn depends on legal certainty, clarity and transparency in systems regulating access and benefit sharing.⁶¹⁸ It also allows Parties providing resources to set out criteria and/or processes for obtaining prior informed consent or approval.

- ii) it also requires Parties to ‘[P]ay due regard to cases of present or imminent emergencies that threaten or damage human, animal or plant health, as determined

⁶¹⁴ The *Nagoya Protocol* was adopted at the tenth Conference of the Parties on 29th October 2010 in Nagoya, Japan. Fifty ratifications are needed for the Protocol to enter into force. Parties to the *CBD* have one year from February 2011 to sign the Protocol and then begin the implementation process. It is worth noting that the United States is not party to the *CBD*, so is unable to sign the Protocol. The text is available on the UN Treaty Section’s website at: <http://treaties.un.org/doc/Treaties/2010/11/20101127%2002-08%20PM/Ch-XXVII-8-b.pdf> [accessed on 30 December 2010].

⁶¹⁵ For the text of the Bonn Guideline see Appendix I and II, COP Decision VI/24.

⁶¹⁶ Article 1 of the *Nagoya Protocol*.

⁶¹⁷ *Ibid.*, Article 5.

⁶¹⁸ *Ibid.*, Article 6.

nationally or internationally' in the development and implementation of its access and benefit-sharing legislation or regulatory requirements.⁶¹⁹

It is critical to determine the impact of the successful implementation of the *Nagoya Protocol*. The Protocol obliges its parties to establish clear rules and procedures for requiring 'prior informed consent' and the establishment of 'mutually agreed terms'. Parties have to develop their own national systems for the implementation of the Protocol consistently with its provisions. However, measures for fair and equitable sharing are conditional to contribute to the conservation of biological diversity and the sustainable use of its components.⁶²⁰ Although the Protocol provides requirements to prior informed consent and mutually agreed terms, Parties can still develop a system restricting access which would threaten or damage human, animal or plant health.

6.2.3. Institutional arrangements

The Convention creates an international structure which includes a Conference of Parties (COP), a permanent Secretariat, a Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and a Clearing House Mechanism (CHM) to exchange and share information in support of scientific and technical cooperation to support national implementation of the Convention's obligations and to promote continued international cooperation.⁶²¹

⁶¹⁹ *Ibid.*, Article 8.

⁶²⁰ *Ibid.*, Article 1.

⁶²¹ Downes, *Integrating Implementation of the Convention on Biological Diversity and the Rules of the World Trade Organization* (IUCN, 1999) 7.

The COP is the governing body of the Convention, as established under Article 23. Its key function is to keep the Convention's implementation under review. Other functions include reviewing scientific and other sources of advice, adopting protocols and amendments to the Convention and its annexes, and considering further amendments. The COP can also establish such subsidiary bodies as are deemed necessary to implement the Convention.⁶²² The Secretariat of the Convention on Biological Diversity, based in Montreal, Canada, was established under Article 24 to support the goals of the Convention. The Secretariat's key task is to arrange and service meetings of the COP.⁶²³

In addition to these bodies, the Convention establishes an open-ended intergovernmental scientific advisory body known as the SBSTTA to provide the COP and, as appropriate, its other subsidiary bodies with timely advice relating to the implementation of the Convention.⁶²⁴ The meetings of the SBSTTA take place every year.⁶²⁵ As a subsidiary body of the COP, SBSTTA is to report regularly to the COP on all aspects of its work.⁶²⁶ The SBSTTA carries out its work through ad hoc open-ended technical expert groups under the guidance of the COP.

6.2.4. Implementation

The *CBD* is a framework agreement.⁶²⁷ It provides guidelines for the conservation of biodiversity and sustainable use of its components, but it is the Contracting Parties' prerogative to adopt or to develop specific measures to implement the Convention's

⁶²² Article 23(4) of the Convention.

⁶²³ *Ibid.*, Article 24(1)(b).

⁶²⁴ *Ibid.*, Article 25(1).

⁶²⁵ COP Decision V/20, Canada, 22–23 February 1999 and 24–28 January 2000.

⁶²⁶ Article 25(2) of the Convention.

⁶²⁷ A framework agreement lays down various guiding principles which state parties are required to take into account in developing national law and policy to implement the agreement.

provisions. Implementation of the Convention is overwhelmingly the responsibility of individual Parties and most action for implementation needs to be taken at the national level. In this connection, the preamble of the Convention stresses the importance of, and the need to promote, international, regional and global cooperation among states and intergovernmental organizations and the non-governmental sector for the implementation of the Convention's objectives.

Each Party has autonomy to decide how to go about implementing the general provisions of the Convention and the specific guidance provided by the COP. The task of assessing the state of overall implementation of the Convention is therefore dependent upon the submission of information by all Parties on the measures each has taken to implement the provisions of the Convention and the effectiveness of these measures. Article 26 of the Convention contains the obligation for each Party to provide this information. Without comprehensive compliance with this requirement, the COP is unable to operate effectively.

On the other hand, a large number of other international and regional agreements address issues of relevance to the Convention. In this regard, the COP calls on the Executive Secretary to cooperate with relevant international organizations and processes in any work to be carried out. The Executive Secretary has signed a number of memoranda of cooperation with other relevant organizations. Section III of this chapter discusses how the CBD-COP is cooperating with the WIPO and the TRIPS Council to develop a common understanding of the relationship between Intellectual Property Rights and the relevant provisions of the *TRIPS Agreement* and the

Convention, particularly as it relates to the knowledge, innovations and practices of indigenous and local communities.

6.2.4.1. Dispute settlement

Article 27 of the Convention provides means for disputes concerning ‘interpretation and application’ of the Convention and its protocols, and Annex II sets out arbitration procedures. However, according to Article 27(1), the only compulsory method of settlement is negotiation. Other methods, such as resorting to arbitration or the ICJ, are optional, although Parties may declare acceptance of one or both of these methods as compulsory.⁶²⁸ However, such a declaration must be made in advance of failure to resolve the dispute by negotiation, by good office or by mediation.⁶²⁹

This type of dispute settlement clause is a common feature in MEAs, which generally make no provision for binding compulsory settlements of disputes.⁶³⁰ In addition, while international organizations, NGOs and companies can all be party to an arbitration,⁶³¹ only states can be party to the contentious proceedings before the ICJ, which offers little or no assurance that unresolved matters of ‘interpretation or application’ can be settled by any third-party process. But in environmental dispute settlements the involvement of a third party is significant because of the multilateral

⁶²⁸ Article 27(3) of the Convention.

⁶²⁹ *Ibid.*

⁶³⁰ One exception of this claim is the *United Nations Convention on the Law of the Sea (UNCLOS)*, which creates a binding system of adjudication and dispute resolution.

⁶³¹ In 2001 the Administrative Council of the Permanent Court of Arbitration (PCA) adopted by consensus the *Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment* (‘Environmental Arbitration Rules’). For the text of the Rules, <<http://www.pca-cpa.org/upload/files/ENV%20CONC.pdf>> accessed 17 June 2009.

character of many environmental problems.⁶³² Thus, litigation plays a limited role in environmental dispute settlements.

By virtue of these characteristics, dispute settlement in MEAs differs markedly from the *WTO Agreement*, which establishes its own system of specialized panels, an Appellate Body and arbitration for the purpose of settling trade disputes.⁶³³ As a result of the WTO's sophisticated dispute settlement system, questions concerning the relationship between the WTO trade agreements and MEAs occasionally come before it.⁶³⁴

6.3. Areas of overlap and possibility of conflict

In the light of section I, this section of the chapter examines the effect of the implementation of the Convention's provisions on the multilateral trade agreements, focusing on overlap between the Convention's provisions and the rules of the multilateral trade agreements. Three specific areas of overlap are identified: application of the precautionary approach by the Convention and the *SPS Agreement*; incentive measures adopted by *CBD Parties* who are also members of the *TBT Agreement* and the *Agreement on Subsidies and Countervailing Measures (SCM)* to encourage biodiversity-friendly activities; and the Convention's access and benefit-sharing measures in relation to the *TRIPS Agreement*. Each area of overlap focuses on the extent to which the Convention's rules are compatible with those of the multilateral trade agreements. Since the *CBD-COP* plays an important role in providing guidance to Parties on the measures necessary to fulfil their obligations

⁶³² Birnie et al., *supra* n 11, 251–3.

⁶³³ The WTO dispute settlement system has been discussed at length in Chapter 3.

⁶³⁴ For example, *US – Shrimp*, *supra* n 105. For discussion see Chapter 3.

under the Convention, the decisions taken by it in relation to the implementation of the Convention's provisions are also important to comprehend. For this purpose, relevant CBD–COP decisions, which elaborate upon the above provisions, will be taken into consideration.

6.3.1. Overlapping precautionary measures

The Convention Parties are '[c]oncerned that biological diversity is being significantly reduced by certain human activities'.⁶³⁵ Hence, in order to minimize or avoid adverse impacts upon biodiversity arising from the use of its components, the Convention requires the Contracting Parties to apply the precautionary approach in cases of scientific uncertainty related to such use.

The precautionary approach recognizes that action is needed when threats of biodiversity become apparent, with the result that international bodies should not wait until exhaustive studies have been completed. The Convention's precautionary measures to avoid or minimize adverse impact on biological diversity overlap with the *SPS Agreement*, which, under certain conditions, also permits provisional SPS measures in order to protect human, animal or plant life or health.⁶³⁶

6.3.1.1. Precaution in the Convention

There are various situations in which a precautionary approach has been adopted under the *CBD*. For example, Article 8(h) of the Convention requires each Party to prevent the introduction of, or to control or eradicate, those alien species that threaten

⁶³⁵ Preamble of the Convention.

⁶³⁶ For a discussion of the *SPS Agreement's* precautionary approach see Chapter 3.

ecosystems, habitats or species. As strangers to a particular ecosystem, invasive alien species have the capacity to inflict severe or catastrophic damage to the biodiversity of their hosts.⁶³⁷ The IUCN has identified it as one of the major threats to biodiversity.⁶³⁸

Considering the severity of the threat arising from the introduction of alien species, the CBD–COP adopted the *CBD* Guiding Principles for the implementation of Article 8(h) of the Convention.⁶³⁹ It maintained a three-tiered approach to invasive alien species regulation – first, prevention, followed by eradication and control.⁶⁴⁰ Furthermore, the COP recommended that states should implement broader controls and quarantine measures for alien species that were, or could become, invasive.⁶⁴¹ In this context, the *CBD* Guiding Principles endorse the use of the precautionary and ecosystem approaches as an appropriate standard in the context of invasive alien species.⁶⁴²

Articles 10(b) and 7(c) of the Convention are also relevant to the precautionary approach. Article 10(b) of the Convention permits Parties to adopt measures relating to the use of biological resources to minimize or avoid adverse impacts on biodiversity. Such measures are founded on the Convention’s identification and monitoring processes under Article 7(c). If ‘processes and categories of activities’⁶⁴³

⁶³⁷ SBSTTA report, *Adverse Impacts of Invasive Alien Species*, Annex, UNEP/CBD/SBSTTA/6/7 Dec 2000.

⁶³⁸ IUCN Guidelines for the Prevention of Biodiversity Loss Caused by Alien Invasive Species (Species Survival Commission of IUCN).

⁶³⁹ The SBSTTA considered alien species at both its fourth and fifth meetings and proposed that the COP adopt a set of guiding principles on the introduction of alien species. For detail see SBSTTA recommendations IV/4 and V/4.

⁶⁴⁰ Principle 2 of the *CBD* Guiding Principles.

⁶⁴¹ Sixth meeting of the COP to the Convention, the Hague, Netherlands, 7–19 April (2002), see COP Decision VI/23, Annex, Guiding Principle 7.

⁶⁴² *Ibid.*, Guiding Principle 1.

⁶⁴³ For instance, deforestation, over-use, unsustainable agriculture, drainage or filling of wetlands, urbanization, pollution, etc. are harmful activities and processes posing a threat to biological diversity.

have had or *are likely to have significant adverse impacts* on biological diversity, the CBD Parties are required to ‘*regulate or manage*’ such ‘*processes and categories of activities*’⁶⁴⁴ in order to minimize or avoid such impacts.

The following analysis focuses on whether the overlapping precautionary provisions under the Convention and the *SPS Agreement* are fully compatible.

6.3.1.2. The Convention’s precautionary approach in relation to the *SPS Agreement*

A ‘precautionary approach’ is apparent in the general international obligation upon states to control and regulate foreseeable risks. In this regard, the *Trail Smelter Arbitration*⁶⁴⁵ suggests that this obligation arises if there is a possibility for actual and serious harm. The *Corfu Channel Case*⁶⁴⁶ suggests that it also arises when there is a known risk to other states. Therefore, foreseeing harm, in the sense of an objectively determined risk, is usually sufficient to engage the state’s duty of regulation and control.⁶⁴⁷ However, risk is a complex concept and there is no universally agreed definition or standard for determining its existence, nor any agreed general rules or guidelines to regulate responses. Thus, international agreements often apply different standards to determine the existence of risk while incorporating or reflecting precautionary measures. These different standards lead to different scopes for application of the principle, which may create tension between agreements addressing the same subject matter.

⁶⁴⁴ Article 8(1) of the *CBD*.

⁶⁴⁵ *Trail Smelter Arbitration* (United States/Canada) (1939) 33 AJIL 182 and (1941) 35 AJIL 684.

⁶⁴⁶ *Corfu Channel (UK v Albania) (Merits)*, ICJ Rep. 1949, 18–22.

⁶⁴⁷ Birnie et al., *supra* n 11, 153.

The *CBD* and the *SPS Agreement* ostensibly employ different wording for the application of the precautionary approach: the former uses ‘lack of *full scientific certainty*’ while the latter uses ‘lack of *sufficient scientific evidence*’. Both mention science in the formulation of their precautionary approach, but the variation of language establishes different requirements for the application of the precautionary approach. It could be argued that the *scientific uncertainty* standard used by the *CBD* covers two situations: (i) where risk assessment concludes that there remains a lack of certainty about the extent of potential adverse effects on biological diversity, and (ii) where there is insufficient information even to carry out a risk assessment. This formulation of the precautionary principle permits Contracting Parties to adopt precautionary measures in the absence of complete evidence of the harm that could occur from the use of components of biodiversity. Higher risks and/or greater potential harm to biodiversity require more reliability and certainty of information. Conversely, in case of minimal risk, a greater level of uncertainty of information can be accepted.⁶⁴⁸

The *CBD* precautionary approach has lowered the standard of scientific proof of risk, requiring that where there is some evidence of risk of serious or irreversible harm, (even where uncertainty exists) appropriate action may be called for, and ‘lack of full scientific certainty shall not prevent the proposal from proceeding’.⁶⁴⁹ The tests to deal with uncertainty and risk assessment are stated in extremely abstract terms in the Convention, giving little guidance as to concrete application. Thus, in order to take a trade-restrictive measure to prevent the incursion of an exotic species, it is sufficient

⁶⁴⁸ Eighth Ordinary Meeting of the COP to the Convention, Curitiba, Brazil, 20–31 March (2006), see COP Decision VIII/28, Annex 3(30).

⁶⁴⁹ See Article 8(7)(a) of the 2001 *POPS Convention*, which deals with listing harmful chemicals. See also Article 11(8) of the 2000 *Biosafety Protocol*.

to show that alien species generally carry risks, or it can be shown that similar species in similar circumstances have been known to cause harm.

The *SPS Agreement*, by contrast, provides a particular formulation of the precautionary approach, emphasizing the need for the collection of sufficient *scientific evidence* for conclusive proof of risk. Where prompt action is needed to avoid possible harm, Article 5(7) of the *SPS Agreement* permits a WTO Member to adopt provisional SPS measures in the absence of sufficient scientific evidence regarding the existence and extent of the relevant risk. However, the Member taking such precautionary measures is then required to search for more scientific information in order to assess the risk conclusively. In the *SPS Agreement*, the state in question is required to constantly seek further information. Yet this is surprising formulation, because if the evidence is sufficiently conclusive to leave little or no room for uncertainty in the calculation of risk, then there is no need for the precautionary principle to be applied at all.⁶⁵⁰

Being an annexed agreement to the *WTO Agreement*, the purpose of the *SPS Agreement* is to minimize the negative effects of SPS measures, adopted or enforced by the Member states, on trade. Thus, SPS measures adopted or enforced by Member states must fulfil of two core principles of the *GATT*, i.e. the most-favoured-nation (MFN) and the national treatment principle, which are designed to exclude discrimination and protectionism respectively. The preamble of the *SPS Agreement* reaffirms that Members are not allowed to apply SPS measures ‘which would

⁶⁵⁰ *Mox Plant Case (Provisional Measures)* ITLOS No 10 (2001), paras 71–81. See also Uruguay’s argument in *the Pulp Mills case*.

constitute a means of arbitrary or unjustifiable discrimination between Members' or 'a disguised restriction on international trade'.⁶⁵¹

Despite the understanding of the reason behind the *SPS Agreement's* specific formulation of the precautionary approach, it is indisputable that this particular formulation of the precautionary approach under the *SPS Agreement* places its relationship with the *CBD* under stress. For example, the *CBD* Contracting Parties are required to adopt mitigation and preventive measures in order to prevent the introduction of alien species 'which threaten ecosystems, habitat or species'. Since the Contracting Parties apply the precautionary approach as the standard for their decision, the proof of *scientific uncertainty* is enough for them to prevent the transboundary movement of alien species or to adopt quarantine measures restricting trade of alien species. As mentioned above, they do not require conclusive proof of the existence of risk, and are not obliged to search for more evidence or carry out any future review of their decision. Hence, *CBD* parties applying SPS measures so as to restrict the trade in alien species, while performing their obligations of environmental protection and sustainable use of natural resources, may find themselves in breach of the rules of the *SPS Agreement*. The Members of the *WTO Agreement* may treat such measures as a disguised restriction to trade, as the conditions for SPS measures as mentioned in Article 5(7) of the *SPS Agreement* are not satisfied.

The situation may therefore be complicated for a state which is party to the *CBD* and also a Member of the *WTO Agreement*, since in performing its obligation under the *CBD* it may find itself breaching its obligation under the *SPS Agreement*. There is a

⁶⁵¹ Preamble of the *SPS Agreement*.

potential conflict in the international regulatory framework in relation to invasive alien species owing to the lack of coordination between the *CBD* and the Committee on Sanitary and Phytosanitary Measures (SPS Committee). The precautionary approaches under the *SPS Agreement* and the Convention are not inevitably incompatible, but undeniably have important different standards of proof in relation to risk assessment. The *CBD-COP* and the SPS Committee need to strengthen institutional coordination at international, regional and national levels on invasive alien species as a trade-related issue in order to develop a uniform international standard in the international regulatory framework in relation to invasive alien species.

6.3.2. Incentive measures for conservation and sustainable use

As mentioned in section I, Article 11 of the *CBD* obliges Parties to adopt economically and socially sound measures which act as incentives to conserve biological diversity and sustainable use of its components.⁶⁵² Often, *CBD* Contracting Parties adopt subsidies and eco-labelling measures as an incentive for conservation and sustainable use. These issues are also addressed in the multilateral trade agreements. For example, the subsidies measures overlap with the *1995 WTO Agreement on Subsidies and Countervailing Measures* (hereinafter *SCM*), which also uses subsidies to pursue and promote economic and social policy objectives. The eco-labelling schemes overlap with the *TBT Agreement*, which also addresses the issues relating to the labelling and packaging of products in international trade. The following discussion focuses on the extent to which the *CBD*'s subsidies and eco-

⁶⁵² See Note by the Executive Secretary, 'Sharing of Experience on Incentive Measures for Conservation and Sustainable Use', *UNEP/CBD/COP/3/24* (1996).

labelling incentive measures are compatible with those of the *SCM* and *TBT Agreements*.

6.3.2.1. Subsidies and eco-labeling measures to pursue the Convention's objectives

Subsidies are measures that may take the form either of positive or perverse economic incentives with regards to biodiversity. Subsidies such as payment for ecosystem services are positive incentive measures encouraged by the COP.⁶⁵³ On the other hand, subsidies in sectors such as fisheries, agriculture and forestry may encourage over-investment in exploitative equipment and expansion of harvesting operations, thereby significantly intensifying the adverse impacts on biodiversity and serving as perverse incentive measures. The Convention encourages subsidies for positive incentive measures that are carried out for the conservation and sustainable use of natural resources.⁶⁵⁴ On the other hand, it discourages subsidies that create perverse incentives leading to the degradation and loss of biological diversity.⁶⁵⁵

The Convention requires Contracting Parties to adopt 'economically' sound measures that act as incentives for conservation and sustainable use. Nevertheless, in order to adopt 'economically sound measures' it is necessary to put a price on ecosystem services, as sometimes protecting biodiversity is economically more beneficial than allowing its exploitation. For instance, in 2000 global benefits from coral reefs including tourism, fisheries and coastal protection were estimated at around US\$30 billion per year, and insect pollination of over forty commercial crops in the United

⁶⁵³ COP Decision VIII/26, para. 4.

⁶⁵⁴ *Ibid.*

⁶⁵⁵ COP Decision IV/10, para. 1(f), COP Decision VII/18.

States alone at US\$30 billion per year.⁶⁵⁶ Putting prices on ecosystem services helps governments make sound decisions as to whether to subsidize the utilization or the protection of biodiversity. For example, subsidies in sectors such as fisheries, agriculture and forestry are not always detrimental for sustainability: subsidies paid to fishermen to work in other industries, rather than buying boats for fishing, may actually help to regenerate fisheries.⁶⁵⁷

Another positive incentive measure is eco-labelling, which notifies the environmental impacts of producing or using a product and service. Eco-labelling is explicitly referred to in the *CBD* programme of work on incentive measures.⁶⁵⁸ The following discussion examines the extent to which the *CBD* rules allowing subsidies and eco-labelling affect the *SCM* and *TBT Agreements* and also their compatibility.

6.3.2.2. The *CBD* incentive measures in relation to the multilateral trade agreements

To ensure that incentive measures adopted by the Contracting Parties advance the objectives of the Convention and remain compatible with obligations derived from other international agreements, the COP has demarcated boundaries for them. The COP, at its ninth meeting, decided that incentive measures should:⁶⁵⁹ i) contribute to the conservation of biological diversity and the sustainable use of its components, and not negatively affect the biodiversity and livelihood of other countries; ii) contribute

⁶⁵⁶ See *CBD* official website <<http://www.CBD.int/incentives/>> (accessed on 25 April 2011).

⁶⁵⁷ Margaret Young, 'Fragmentation or Interaction: The WTO, Fisheries Subsidies and International Law' (2009) 8 *World Trade Review*, 477.

⁶⁵⁸ 'The development of methods to promote information on biodiversity in consumer decisions, for example through eco-labelling', in COP Decision V/15, para. 2(b).

⁶⁵⁹ Ninth meeting of the COP to the Convention, Bonn, Germany, 19–30 May 2008, see COP Decision IX/6.

to sustainable development and the eradication of poverty; iii) take into account national and local conditions and circumstances; and iv) be consistent and in harmony with the Convention and other relevant international obligations. Despite the COP's attempts to regulate the adoption of incentive measures, the following analysis focuses on how they can be trade-restrictive and therefore in disharmony with trade rules.

The *SCM Agreement* distinguishes between prohibited, actionable and non-actionable subsidies. Article 3 of the *SCM Agreement* prohibits export subsidies and import substitution subsidies. Apart from non-actionable and prohibited subsidies, all other subsidies are actionable if they are 'specific' and their use causes 'adverse effects'.⁶⁶⁰ This system of categorization of subsidies does not make any reference to issues related to environmental sensibility. In this context, the *SCM* defines 'subsidy' broadly as any financial contribution by a government or any public body conferring a benefit.⁶⁶¹ Here, 'benefit' implies some kind of financial advantage to the recipient to pursue economic objectives. If a government gives a sum of money, it seems clear that this financial contribution would 'confer a benefit' to the 'recipient'.⁶⁶² On the other hand, the *CBD* refers to subsidies which also confer a benefit upon the recipient, but with a view to the conservation and sustainable use of biodiversity. As mentioned above, if a price has been put on an ecosystem service, protecting biodiversity is sometimes economically more beneficial than allowing its exploitation. However, the question arises, how is the WTO, which has expertise in tariff quotas and quantitative restrictions, supposed to come to terms with the complexity involved in the sustainability issue?

⁶⁶⁰ Article 5 of the *SCM Agreement*.

⁶⁶¹ *Ibid.*, Article 1(1).

⁶⁶² Appellate Body in *Canada – Measures Affecting the Export of Civilian Aircraft* case was of the view that a 'benefit' focuses on the recipient and not on the government providing the financial contribution. Appellate Body Report, WT/DS70/AB/R (1997), para. 154.

The only way to understand this complexity is by learning from others, and yet it is not possible without interacting with other relevant treaty institutions which are addressing the same subject matter. For example, issues related to the sustainable utilization of fisheries are addressed by the *SCM*, along with numerous other international legal regimes.⁶⁶³ In recent years, as part of the Doha Round negotiations WTO Members have agreed to clarify and improve WTO disciplines on fisheries subsidies.⁶⁶⁴ This mandate was further elaborated in the Hong Kong Ministerial Conference in 2005, which called especially for the prohibition of certain fisheries subsidies that contribute to overcapacity and over-fishing.⁶⁶⁵ However, in the negotiations concerning the prohibition of subsidies to the fishing sector, none of the environmental treaty bodies were invited. Instead, a coalition of WTO Members grouped together in the negotiations, with the self-appointed label of 'Friends of the Fish'. WTO's unwillingness to establish institutional coordination with other relevant treaty bodies causes tension between the WTO and other agreements addressing the same subject matter. For example, subsidies provided to fishermen to work in other industries can be treated as subsidies distorting trade flow, and therefore are prohibited under the *SCM*.

Other incentive measures of the *CBD*, i.e. the eco-labelling scheme, may also conflict with the *TBT Agreement's* labelling and packaging requirements. The Convention's eco-labelling schemes identify product characteristics and/or process and production methods (PPMs)⁶⁶⁶ that can differentiate between 'like' products by labelling some

⁶⁶³ Two other instruments, the Food and Agricultural Organization (FAO) and the *CITES*, have addressed this issue.

⁶⁶⁴ The Doha Declaration 2001, para. 28. Also see Young, 'Fragmentation or Interaction', *supra* n 657, 477.

⁶⁶⁵ The sixth WTO Ministerial Conference was held in Hong Kong, China, 13–18 December 2005.

⁶⁶⁶ Birnie et al., *supra* n 11, 785.

products as ‘green’. But, in the *TBT Agreement*, the product process and production method (PPM) is irrelevant in determining whether products are ‘like’ unless the PPM by which a product is made affects the physical characteristics of the product.

However, recognizing the tensions between the Convention’s positive incentive measures and multilateral trading agreements, the COP has encouraged its Parties to carry out their analysis and evaluation of the relevant economic, social and cultural impacts of individual positive incentive measures at different levels and to communicate the results of this research to the Parties and to the Executive Secretary.⁶⁶⁷

6.3.3. The Convention’s IP provisions in relation to the *TRIPS Agreement*

The issue of access to genetic resources is also dealt with by the *TRIPS Agreement*, which lays down mandatory minimum standards of intellectual property protection and enforcement.⁶⁶⁸ The following analysis explores the extent to which the intellectual property provisions of the *CBD* and the *Nagoya Protocol* are compatible with that of the *TRIPS Agreement*.

First, the *CBD* and the *TRIPS Agreement* plainly derive from two different regimes of international law and aim to achieve two very different objectives. Although some of their provisions relating to intellectual property rights overlap, they are grounded on different principles. The Convention refers to intellectual property rights to achieve its

⁶⁶⁷ Eighth Ordinary Meeting of the COP to the Convention, Curitiba, Brazil, 20–31 March (2006), see COP Decision VIII/L/26, para. 6(e).

⁶⁶⁸ The 1883 *Paris Convention for the Protection of Industrial Property* (last amended on 1979), the 1886 *Bern Convention for the Protection of Literary and Artistic Works* (last revised in 1971 and amended in 1979).

objective of equitable benefit sharing. On the other hand, the *TRIPS Agreement* provides intellectual property protection to ensure that measures and procedures to enforce intellectual property rights do not themselves become a barrier to trade.

Second, the *CBD* protects indigenous people's traditional knowledge relating to genetic resources, which is mostly informal and passed from generation to generation. On the other hand, the *TRIPS Agreement* makes no mention of indigenous people's traditional knowledge protection and grants patents only to inventions based on new knowledge. Article 27(3)(b) extends patent protection for new products of biotechnology, without recognizing the existing knowledge of genetic resources which may have been exploited for such invention.⁶⁶⁹

The much debated US patent for turmeric is an instance of granting patents based on existing knowledge rather than new knowledge, as envisaged in the *TRIPS Agreement*.⁶⁷⁰ In this case, a US patent on turmeric was awarded to the University of Mississippi Medical Center in 1995, specifically for the 'use of turmeric in wound healing'. This patent also granted them the exclusive right to sell and distribute turmeric. Two years later, a complaint was filed challenging the novelty of the University's 'discovery', as in India, turmeric has been used medicinally for thousands of years. In 1997 the patent was revoked. This case shows that the *TRIPS Agreement* does not provide effective protection for traditional knowledge as such.

⁶⁶⁹ For discussion on the *TRIPS Agreement* see Chapter 3.

⁶⁷⁰ In the mid-1990s this product became the subject of a patent dispute with important ramifications for international trade law. For details see Prakash, 'Trade and Development Case Studies: Country Studied: India', Trade and Development Centre, <<http://www.itd.org/issues/india6.htm#Turmeric>> accessed 20 May 2009; and Dutfield, 'Is Novelty Still Required for Patents in the United States? The Case of Turmeric', Bulletin of the Working Group on Traditional Resources Rights, 4.

The *Doha Declaration* has considered this issue and instructed the Council for TRIPS to look at the relationship between the *TRIPS Agreement* and the *CBD*, the protection of traditional knowledge and folklore.⁶⁷¹ It adds that the TRIPS Council's work on these topics is to be guided by the *TRIPS Agreement*'s objectives and principles.⁶⁷² As discussed in Chapter 3, the application of Articles 7 and 8 of the *TRIPS Agreement* needs to be consistent with that of Article 27(3)(b), and they do not provide any exception for traditional knowledge.

Third, the *CBD* requires that the benefits arising from the utilization of genetic resources and related traditional knowledge be shared in a 'fair and equitable' manner with Parties providing such resources and with the holders of traditional biodiversity-related knowledge. However, the *TRIPS Agreement* is primarily concerned with ensuring adequate protection and enforcement of intellectual property rights and has no provisions for the sharing of benefits arising out of the use of the traditional knowledge in the new invention protected through patents. Furthermore, equity issues are not a central consideration.

The Convention's IP provisions are flexible, general and elaborate, whereas the *TRIPS Agreement*'s IP provisions are specific and limited to the boundary of the multilateral trading system. As a result, the *CBD*'s access and benefit-sharing arrangements may pose a challenge to the objectives and principles of the *TRIPS Agreement*. In addition, in implementing the Convention's *Nagoya Protocol* a country of origin may enter into different arrangements with different countries, whereby different IP standards are agreed for the same end products.

⁶⁷¹ Paragraph 19 of the 2001 Doha Ministerial Declaration.

⁶⁷² Articles 7 and 8 of the *TRIPS Agreement*.

6.4. Coordination with other convention bodies

6.4.1. The *CBD* and other convention bodies

From the above discussion, the tension between the Convention and the multilateral trade agreements is apparent. To resolve such tension, Article 22(1) of the Convention provides a ‘conflict clause’ which is concerned with its relationship with other international agreements. It reads:

[T]he provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, *except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity.*⁶⁷³

A nearly identical ‘conflict clause’ is included in the *Nagoya Protocol*:

[T]he provisions of this Protocol shall not affect the rights and obligations of any Party deriving from any existing international agreement, *except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity.* This paragraph is not intended to create a hierarchy between this Protocol and other international instruments.⁶⁷⁴

The first clause in both provisions suggests that the *CBD* and the *Nagoya Protocol* do not ignore their parties’ rights and obligations deriving from other agreements, including multilateral trade agreements. But the second clause limits the application of

⁶⁷³ Article 22(1) of the *CBD*.

⁶⁷⁴ Article 4(1) of the *Nagoya Protocol*.

such rights and obligations by requiring them not to damage or threaten biodiversity. The *CBD* conflict clauses are very general and brief. Perhaps at the time the *CBD* was adopted, a more specific ‘conflict clause’ might have prejudiced the negotiation process. Yet, this provision inevitably permits the *CBD* Parties much greater latitude to adopt policies and measures restricting trade of components of biodiversity in order to avoid or minimize ‘*a serious damage or threat to biological diversity*’.

However, a significant development is apparent in the *Nagoya Protocol*’s conflict clause compared to those of the *CBD* and *Biosafety Protocol*.⁶⁷⁵ In particular, the *Nagoya Protocol*’s conflict clauses are more specific and elaborate. In particular, its concern is not confined to the Protocol Parties’ rights and obligations deriving from other existing international agreements, as the above-mentioned conflict clauses are. Rather, it specifies the Parties rights and obligations even further, by allowing them to develop and implement other relevant agreements including specialized access and benefit-sharing agreements, ‘*provided that they are supportive of and do not run counter to the objectives of the Convention and this Protocol*’.⁶⁷⁶ This conflict clause may not claim absolute hierarchy over other international agreements, but it is nevertheless clear to declare its priority over future international agreements, including other access and benefit-sharing agreements by ensuring that they do not oppose the objectives of the Convention and the Protocol.

Nevertheless, the third paragraph of the conflict clause emphasizes that the *Nagoya Protocol* ‘should be implemented in a mutually supportive manner with other international instruments relevant to this Protocol’. The CBD–COP, in its various

⁶⁷⁵ For discussion of the *Biosafety Protocol*’s conflict clause see Chapter 7.

⁶⁷⁶ Article 4(2) of the *Nagoya Protocol*.

decisions, has also attempted to establish cooperation with other international agreements, realizing the importance of ‘mutual supportiveness’ among the relevant international agreements for the implementation of the *CBD*. The CBD–COP has, moreover, expressly recognized the fact that ‘the provisions of the *TRIPS Agreement* and the *CBD* are interrelated.’⁶⁷⁷ Therefore, efforts are needed to develop further cooperation between the *CBD* and other relevant international fora, with the aim to retain mutual supportiveness between the *CBD* and international intellectual property law for the questions which could affect the implementation of the Convention or which are closely related to it. Those questions include the issues of the possible impacts of IP rights on the conservation and sustainable use of biological diversity, as well as their relationship with access and benefit sharing (ABS) and with the valuation and protection of traditional knowledge of indigenous communities.

To ensure consistency in implementation, the *CBD* Secretariat keeps the WTO informed of the decisions of the COP that are of relevance to the work of the WTO and its committees.⁶⁷⁸ At the same time, the COP requested the Executive Secretary of the Convention to apply for observer status in the CTE, for the purpose of representing the Convention in meetings whose agendas have a relationship with the Convention.⁶⁷⁹ Further to the request of the CBD–COP, the Executive Secretary was granted observer status for the Committee on Trade and Environment in Regular Session.⁶⁸⁰

⁶⁷⁷ CBD–COP decision V/26 (section B, para. 2).

⁶⁷⁸ Decision III/17.

⁶⁷⁹ Decision III/17 para. 6, Argentina (1996).

⁶⁸⁰ For the current situation regarding the participation of MEAs Secretariats in relevant WTO committees see WT/CTE/W/41/Rev.8 (2001). A list of the international intergovernmental organizations granted observer status to WTO bodies at:
<http://www.wto.org/english/thewto_e/igo_obs_e.htm> (accessed 16 June 2009).

The CBD–COP has repeatedly emphasized the need to further explore the interrelationship between the Convention and the provisions of the relevant bodies of the WTO, especially the *TRIPS Agreement*, the *TBT Agreement* and the *SPS Agreement*, and stressed the need to ensure mutual supportiveness of the Convention and the provisions of these Agreements.⁶⁸¹ Hence, the CBD–COP requested the Executive Secretary to apply to the WTO for observer status in the meetings of the Committee on Sanitary and Phytosanitary Measures and the Committee on Technical Barriers to Trade, and also to renew the application for observer status in the Council for the Agreement on Trade-related Aspects of Intellectual Property Rights.⁶⁸² However, the Convention Secretariat has still not been granted observer status in the TRIPS Council,⁶⁸³ the SPS Committee or the TBT Committee.

The US continues to oppose granting observer status to the Secretariat of the *CBD*, arguing that the *CBD* did not have a broad interest in TRIPS issues. The EU, Peru, Brazil and India, however, pointed out that the *CBD* Secretariat should be an observer given that the Doha mandate explicitly instructs the TRIPS Council to look at the relationship between TRIPS and *CBD*. The CBD–COP, at its tenth meeting in Japan in 2010, further requested the Executive Secretary to renew the Convention’s pending applications for observer status in relevant bodies of the WTO.⁶⁸⁴

6.4.1.1. Collaboration with WIPO

Article 16(5) of the Convention states:

⁶⁸¹ Decisions III/17, IV/15, V/26 B, VI/20, VII/26, VIII/16 and XI/27.

⁶⁸² Decision VI/20, paras 29 and 30, Netherlands (2002).

⁶⁸³ See Charnovitz, ‘A New WTO Paradigm’ *supra* n 302, 27.

⁶⁸⁴ Decision X/20, para. 18.

[C]ontracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law *in order to ensure that such rights are supportive of and do not run counter to its objectives* [emphasis added].⁶⁸⁵

To this effect, the COP, from its second meeting, has addressed certain intellectual property-related issues pertaining to the implementation of the Convention.⁶⁸⁶ Since 2002, these have been addressed in cooperation with the World Intellectual Property Organization (WIPO)⁶⁸⁷ in the context of the MoU between the Secretariat of the *CBD* and WIPO, and ongoing coordination between WIPO and the Secretariat of the *CBD*.⁶⁸⁸

The *CBD*–COP invited WIPO to investigate and analyse issues such as the impact of intellectual property rights on the access/use of genetic resources and scientific research, the role of customary law, the relationship between disclosure requirements and international legal obligations, the efficacy of disclosure requirements, the feasibility of an internationally recognized certificate of origin system, monitoring, compliance and enforcement, and the role of oral evidence of prior art in granting

⁶⁸⁵ Article 16(5) of the *CBD*.

⁶⁸⁶ See, for instance, Decisions II/12, III/15, IV/8, IV/9, IV/15, V/16, V/26, VI/10, VI/24 and VI/28.

⁶⁸⁷ WIPO is an intergovernmental organization that became, in 1974, one of the specialized agencies of the United Nations system of organizations. WIPO is established to promote the protection of intellectual property worldwide through cooperation among states, and to administer various treaties dealing with legal and administrative aspects of intellectual property.

⁶⁸⁸ Decisions VI/24 D, VII/19, VIII/4, VIII/12, IX/13 and IX/14.

intellectual property rights.⁶⁸⁹ The COP further elaborated on these issues and invited WIPO to prepare a technical study on methods consistent with obligations in treaties administered by WIPO for requiring disclosure within patent applications.⁶⁹⁰ It also invited WIPO to take into account the *CBD*'s work on these topics and called for WIPO's work to be supportive of the *CBD*, to address issues on model provisions on disclosure requirements and to devise options for incentive measures for applicants.⁶⁹¹

In response to the COP's invitation, WIPO consulted a wide range of stakeholders, such as indigenous peoples and local communities, NGOs, governmental representatives, academics and the private sector, to identify their intellectual property needs and the expectations of the holders of traditional knowledge and the cultural expressions. Thereafter, it established the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC).⁶⁹² The mandate of the IGC was to facilitate discussion on intellectual property issues that arise in the context of: i) access to genetic resources and benefit sharing; ii) the protection of traditional knowledge, innovation and creativity; and iii) the protection of the expression of folklore. To implement these mandates, the work of the IGC has led to the development of two sets of draft provisions: one for the protection of traditional cultural expressions/folklore (TCEs) and another for the protection of

⁶⁸⁹ 'Role of intellectual property rights in the implementation of access and benefit-sharing arrangements', COP Decision VI/24, Annex C (3).

⁶⁹⁰ *Ibid.*, Annex C (4).

⁶⁹¹ See Decision VII/19, Access and benefit sharing as related to genetic resources (Article 15) <<http://www.biodiv.org/decisions/default.aspx>> accessed 6 June 2009. This Decision, along with the *CBD* Decision on Article 8(j), Decision VII/6, were sent to the IGC in order to develop positive and defensive protection of TK see WIPO Doc. WIPO/GRTKF/IC/6/13, 15 March 2004.

⁶⁹² The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was established by the WIPO General Assembly in October 2000 at its twenty-sixth session as an international forum for debate and dialogue concerning the interplay between intellectual property (IP), and traditional knowledge (TK), genetic resources and traditional cultural expressions (TCEs)/(folklore).

traditional knowledge (TK) against misappropriation and misuse, and the intellectual property aspects of access to and benefit sharing in genetic resources.⁶⁹³ The draft provisions are formally published as working documents for the IGC but have not yet been adopted or endorsed by the IGC, as the IGC is still reviewing them.

While the draft objectives and principles have no formal status, they illustrate some of the perspectives and approaches that are guiding work in this area, and could suggest possible frameworks for the protection of TCEs and TK against misappropriation and misuse. These draft materials are being used as points of reference in a range of national, regional and international policy discussions and standard-setting processes.⁶⁹⁴

This institutional collaboration between the CBD–COP and WIPO may bring new hope to future negotiations on the Convention and *TRIPS Agreement*'s inconsistencies. However, such collaboration is only possible if the *CBD* Secretariat is given observer status in different WTO committees, and especially in the TRIPS Council.

6.4.1.2. CBD–COP and WIPO coordinating with the WTO

To facilitate the implementation of the *TRIPS Agreement*, the TRIPS Council concluded with WIPO an agreement on cooperation between WIPO and the WTO.

⁶⁹³ For the most recent version of draft provisions, <<http://www.wipo.int/tk/en/>> (accessed 5 January 2011).

⁶⁹⁴ For the international standards emerging from WIPO and the *CBD* collaboration for the protection of TCEs and TK against misappropriation and misuse, see WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources: Traditional Knowledge and Folklore, 'The Protection of Traditional Knowledge: Revised Objective and Principles' prepared by the Secretariat, WIPO/GRTKF/IC/9/5, Geneva, 24–26 April (2006) <http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=55136> accessed 8 May 2009.

which came into force on 1 January 1996. As explicitly set out in the preamble to the *TRIPS Agreement*, the WTO desires a mutually supportive relationship with WIPO. For this purpose, the WTO is reviewing the *TRIPS Agreement*, particularly with respect to Article 27(3)(b).

Article 27(3)(b) of the *TRIPS Agreement*, which deals with patentability or non-patentability of plant and animal inventions and the protection of plant varieties, was due for review four years after the *WTO Agreement* came into force, i.e. in 1999. This issue was first raised at the WTO's Third Ministerial Conference⁶⁹⁵, but the Conference was 'suspended' without any agreement on where negotiations stood or how they would proceed. The WTO's Fourth and Fifth Ministerial Conferences⁶⁹⁶ failed to modify Article 27(3)(b) in any manner or form. However, paragraph 19 of the Doha mandate has broadened the discussion by instructing the TRIPS Council to consider the relationship between the *TRIPS Agreement* and the *CBD*, and the protection of traditional knowledge and folklore.⁶⁹⁷

The relationship between the *TRIPS Agreement* and the *CBD* was subject to heated discussions at the Hong Kong WTO Ministerial Conference when calls were made for the requirement to disclose the origin of genetic resources in patent applications.⁶⁹⁸ At the TRIPS Council meeting in October 2007, WTO Members from developed and developing countries continued to be divided on biodiversity issues. Members from the Least Developed Countries (LDCs) announced their support for the biodiversity-

⁶⁹⁵ Seattle (30 November–3 December 1999).

⁶⁹⁶ Doha (9–14 November 2001) and Cancun (10–14 September 2003) respectively.

⁶⁹⁷ Under the reviews Article 27.3(b) or the whole of the *TRIPS Agreement* under Article 71.1 <http://www.wto.org/english/tratop_e/trips_e/art27_3b_background_e.htm> (accessed 20 May 2009).

⁶⁹⁸ WTO Ministerial Conference, December 2005.

related TRIPS proposed amendment.⁶⁹⁹ While most developing countries proposed ‘disclosure’ requirements as an obligation under the *TRIPS Agreement*, developed nations largely wanted these requirements to stay outside the purview of the *TRIPS Agreement*, with Switzerland proposing the WIPO Patent Cooperation Treaty as a solution, the EU proposing enforcement issues ‘outside patent law’ and the US proposing use of national legislation, including contracts rather than a disclosure obligation.

The disagreement over the *TRIPS Agreement* has continued into the Mini-Ministerial⁷⁰⁰ talks. The TRIPS Council has not announced further support for the proposed amendment to the *TRIPS Agreement*, which would require disclosure of origin on genetic resources and traditional knowledge. A Norwegian proposal for amending the *TRIPS Agreement* to make it mandatory for patent applicants to disclose any biological resources or associated traditional knowledge used in their inventions, has given a new push to the demand from developing countries⁷⁰¹ and for the facilitation of coordination among *CBD*, WIPO and the TRIPS convention bodies.

6.5. Conclusions

The discussion in Section I revealed that the modern concept of conservation is sufficiently broad to include not only the classic elements of protection and preservation of biodiversity, but also the sustainable utilization of the components of biodiversity. The Convention is based on the rationale that sustainable use can be a

⁶⁹⁹ For proposals and relevant documents circulated during the ministerial process, <http://www.wto.org/english/tratop_e/trips_e/art27_3b_background_e.htm> accessed 25 May 2009.

⁷⁰⁰ An informal meeting of selected trade ministers. They meet outside of the Ministerial Conferences.

⁷⁰¹ For the proposed text see <http://docsonline.wto.org/gen_searchResult> accessed 5 January 2011.

valuable tool to promote conservation of biological diversity, since in many instances it provides incentives for conservation and restoration because of the social, cultural and economic benefits that people derive from that use.⁷⁰² In turn, sustainable use cannot be achieved without effective conservation measures. To this end, the Convention acknowledges the necessity for certain elements to be given special care and treatment.

In addition, monetary benefit gained from such utilization also needs to be shared with the resource providers to encourage conservation of biodiversity. Section II explained how the framework agreement itself does not prescribe any specific measures to fulfil its obligations, but provides guidelines for its implementation, which permit Parties to adopt or develop specific measures. It also demonstrates how measures taken by Parties to comply with the Convention's provisions overlap with the rules set out in the multilateral trade agreements, which address the same subject matter.

It is evident from the chapter's discussion that the *CBD* puts trade of biological resources in an ecological context. Hence, the Convention's overlapping provisions on access to genetic resources, its precautionary approach, eco-labelling and the transfer of technology are not wholly compatible with the rules set out in the multilateral trading systems. It is not the case that the Convention's provisions are inevitably in conflict or disagreement with the multilateral trade agreements rules. Nevertheless, standards established by the *CBD-COP* in relation to the precautionary approach, eco-labelling and intellectual property rights are not necessarily compatible with those under the *SPS*, the *TBT* and the *TRIPS Agreements* in the same subject matter.

⁷⁰² 'Addis Ababa Principles and Guidelines' *supra* n 454.

The CBD–COP is trying to coordinate with WTO institutions under the annexed agreements, but such attempt is hindered by the USA’s politically motivated actions in not granting the *CBD* Secretary observer status in the TRIPS Council, the CTESS and/or the SPS Committee. However, to ensure mutual supportiveness of environmental protection and trade, it is significant that the Convention Secretary has been given observer status in all those institutional bodies which would permit him to participate in those trade council meetings when they are discussing issues relevant to the Convention provisions.

7. The *Biosafety Protocol* balancing environmental and trade interests

7.1. Introduction

This chapter analyses how environmental and trade interests are balanced in the *Cartagena Protocol on Biosafety to the Convention on Biological Diversity* (hereinafter the *Biosafety Protocol*),⁷⁰³ which provides an international regulatory framework to reconcile the respective needs for trade and environmental protection with respect to biotechnology. Hence, this chapter particularly examines the extent to which the *Biosafety Protocol* permits international trade in living modified organisms (LMOs)⁷⁰⁴ while protecting biodiversity and human health from its adverse effects. Since some multilateral trade agreements also address issues related to the transboundary movement of LMOs, there is a possibility that some of the Protocol's provisions may overlap with them.⁷⁰⁵ Thus, the chapter further analyses the extent to which the Protocol's permitted trade-restrictive measures are compatible with the multilateral trade agreements that deal with the same subject matter.

In this context, the preamble of the *Biosafety Protocol* has identified two key facets of modern biotechnology: on the one hand, the transfer of LMOs from one country to

⁷⁰³ The *Cartagena Protocol on Biosafety to the Convention on Biological Diversity* (adopted 29 January 2000, entered into force 11 September 2003) (2000) 39 ILM 1027, also available at <<http://www.biodiv.org>>.

⁷⁰⁴ LMOs encompass all products obtained through the use of modern biotechnology except pharmaceuticals for humans (Article 3(g) and Article 5 of the Protocol).

⁷⁰⁵ See the following, in which the authors have analysed the Protocol and have addressed the possibility of conflict with the multilateral trade agreements: Olivette Torres, 'The Biosafety Protocol and the WTO' (2003) 26 Boston CILJ 263; Sean Murphy, 'Biotechnology and International Law' (2001) 42 Harv ILJ 42; Cosby and Burgiel, 'The Cartagena Protocol on Biosafety: An Analysis of Results' (2000) An IISD Briefing Note <<http://iisd.org/pdf/biosafety.pdf>> accessed 25 June 2005; Aarti Gupta, 'Creating a Global Biosafety Regime' (2000) 2 International Journal of Biotechnology 205; Thomas Cors, 'Biosafety and International Trade: Conflict or Convergence?' (2000) 2 International Journal of Biotechnology 27; Paul Hagen and John Weiner, 'The Cartagena Protocol on Biosafety: New Rules for International Trade in Living Modified Organisms' (2000) 12 Georgetown IELR 697; Gretchen Gaston and Randall Abate, 'The Biosafety Protocol and the World Trade Organization: Can the Two Coexist?' (2000) 12 PACE ILR 107.

another has ‘great potential for human well-being’, while on the other, modern biotechnology possesses potential threats to the environment and human health.⁷⁰⁶ Proponents of biotechnology argue that it promises remarkable advances in medicine, agriculture and other fields, which may include new medical treatments and vaccines, new industrial products, and improved fibres and fuels. They also argue that biotechnology has the potential to lead to increases in food security, decreased pressure on land use, increase in marginal lands or inhospitable environments, and reduced use of water and agrochemicals in agriculture.⁷⁰⁷

Opponents, by contrast, express their concern about the potential adverse effects of this new technology on biological diversity, and the potential risks to human health. The threats identified include: unintended changes in the competitiveness, virulence or other characteristics of the target species; the possibility of adverse impacts on non-target species (such as beneficial insects) and ecosystems; the potential for weediness in genetically modified crops (where a plant becomes more invasive than the original, perhaps by transferring its genes to wild relatives); and the possible instability of inserted genes (the possibility that a gene will lose its effectiveness or will be re-transferred to another host).⁷⁰⁸

These diverse opinions on biotechnology have led to a consensus that, while modern biotechnology has great potential for generating improvements in human well-being, it must be developed and used with adequate safety measures for the environment and

⁷⁰⁶ For the arguments in favour of and against both aspects see Mackenzie et al., *An Explanatory Guide to the Cartagena Protocol on Biosafety* (2003) IUCN Environmental Policy and Law Paper No. 46, 7–10; Marsha Echols, *Food Safety and the WTO: The Interplay of Culture, Science and Technology* (Kluwer 2001) 67–75.

⁷⁰⁷ *Ibid.*; Robert Paarlberg, ‘The Global Food Fights’ *Foreign Affairs*, May/June 2000, 24–5.

⁷⁰⁸ Cyril Kormos and Layla Hughes, *Regulating Genetically Modified Organisms: Striking a Balance between Progress and Safety* (Conservation International, 2000) 7–8. Available at <<http://www.conservation.org>>.

human health. In this regard, this chapter analyses the Protocol's regulatory requirements, such as the provisions on Advanced Informed Agreement (AIA), notification, documentation, non-Party obligation and liability and redress, in order to examine the extent to which the *Biosafety Protocol* regime permits international trade of LMOs while protecting biodiversity and human health from its adverse effects.

This chapter is divided into two sections. The first section briefly illustrates the background and objectives of the Protocol, key provisions which have the potential to cause tension with the multilateral trade agreements, and finally the institutional arrangements and implementation process of the Protocol. The second section considers how and to what extent the Protocol provisions discussed in the preceding part, actually affect international trade in LMOs. In particular, it examines how the Protocol's provisions overlap with the WTO agreements, such as the *SPS Agreement* and the *TBT Agreement*, and to what extent these overlapping provisions conflict or, conversely, may be compatible.

7.2. Overview of the Protocol

The *Biosafety Protocol* governs the movements of LMOs resulting from modern biotechnology that may have an adverse effect on the conservation and sustainable use of biological diversity and human health.⁷⁰⁹

Articles 8(g) and 19(3) of the *CBD*, the Protocol's parent convention, seek to ensure that the development of appropriate procedures enhances the safety of biotechnology

⁷⁰⁹ Article 1 of the Protocol.

in the context of the Convention's overall goals,⁷¹⁰ and reduces all potential threats to biological diversity, also taking into account the risk to human health. Article 8(g) deals with the measures that Parties should take at the national level, while Article 19(3) sets the stage for the development of an international legally binding instrument to address the issues of biosafety. A few years later, the *Biosafety Protocol* was accordingly adopted within the framework of the *CBD*, setting out for the first time a comprehensive regulatory system for ensuring the safe transfer, handling and use of LMOs subject to transboundary movement.

The role of the US in the negotiation of the Protocol deserves special attention here. The US is not a Party to the *CBD*, but played an active role in the Protocol's negotiation process by virtue of being the major producer and exporter of LMOs. Initially, the US was reluctant to accept the CBD-COP's decision to set up a Protocol to regulate international trade in LMOs for biosafety. It insisted that there was no scientific evidence to establish that biotechnology products present any significant threat to the environment.⁷¹¹ The US's view did not receive endorsement from developing countries or European nations.

Additionally, an increasing number of European nations were already enacting protective measures regarding LMOs.⁷¹² In an attempt to reach a middle ground, the US introduced the concept of LMOs as a substitute for the previously established terminology of Genetically Modified Organisms (GMOs), and the concept of

⁷¹⁰ For example, Article 16(1) and Article 19(1) and (2) of the *CBD* recognize that access to and transfer of technologies, including biotechnology, are essential to achieve the Convention's conservation and sustainable use objectives.

⁷¹¹ For the US's view on the Protocol see Gupta, 'Creating a Global Biosafety Regime' *supra* n 705, 206–9; Rafe Pomerance, 'The Biosafety Protocol: Cartagena and Beyond' (2000) 8 *New York UELJ* 614 at 615–19.

⁷¹² *Ibid.*, 208.

‘advanced informed agreement’ (AIA) as an alternative language for the concept of ‘prior informed consent’.⁷¹³ The US was still not satisfied with the issue that the Protocol’s obligations extended to commodities intended for food or feed, or for processing, and therefore did not become a Party to the Protocol.⁷¹⁴

7.2.1. Objectives and purposes

Article 1 of the *Biosafety Protocol* states its objective as follows:

[I]n accordance with the precautionary approach contained in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Protocol is to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements.⁷¹⁵

This statement clearly expresses concern about the potential ‘adverse effects’ resulting from international trade of LMOs, but at the same time does not intend to prevent their transboundary movement, considering the benefits humankind can receive from it. Rather, it relies on the precautionary approach to assess risks related to the transboundary movement of LMOs. Thus, the Protocol encompasses a range of measures, policies and procedures based on the precautionary principle for minimizing the potential risks that biotechnology may pose to the environment and

⁷¹³ Gupta viewed this shift from GMOs to LMOs as an effort by the US to divert the focus away from the genetically engineered aspect of the organisms and towards the fact that they are living organisms. See *Ibid* 208, 209.

⁷¹⁴ As a final point, it would have had to become a Party to the *CBD* before it could become a Party to the *Biosafety Protocol*. See Article 32 of the *CBD*.

⁷¹⁵ Article 1 of the Protocol.

human health.⁷¹⁶ Elements of the precautionary approach find reflection in the Protocol in various places, including the preamble and, as noted above, Article 1, and also in Articles 10(6) and 11(8) and Annex III. By this means, the Protocol aims to achieve a balance between international trade of LMOs and biosafety. How far this goal has been achieved is a controversial matter. This issue will be discussed in detail in the second section of this chapter.

7.2.2. The Protocol's key provisions

The *Biosafety Protocol* is the only international instrument that deals exclusively with LMOs by establishing practical rules and procedures for their safe transfer, handling and use, with a specific focus on regulating the movements of these organisms from one country to another. The Protocol operates through two separate sets of procedures: one for LMOs that are to be intentionally introduced into the environment (such as seeds for cultivation, or animal breeding stock), and another for LMOs that are to be used directly as food or feed or for processing (such as corn and grain used for food, animal feed or processing). Both sets of procedures are designed to ensure that importing countries are provided with the information they need for taking decisions regarding a particular LMO import.

7.2.2.1. AIA procedure for LMOs intended for release into the environment

The transboundary movement of LMOs that are intended to be introduced into the environment is subject to an AIA procedure, under which the movement may proceed only after advance written consent has been given by the competent national authority

⁷¹⁶ For the literature on the precautionary principle see *supra* n 205, 209 and 210.

of the importing state.⁷¹⁷ The AIA procedure is considered to be the ‘backbone’ of the Protocol, as it represents its main objective.⁷¹⁸ The AIA procedure can be traced back to the *CBD*,⁷¹⁹ but Article 7 of the Protocol sets out the procedure in detail. According to this Article, the purpose of the AIA procedure is to provide Parties with the information necessary to make informed decisions before agreeing to the import of LMOs into their territory.

The AIA procedure applies to the first intentional transboundary movement of LMOs for intentional introduction into the environment of the Party of import.⁷²⁰ It includes four components: notification by the Party of export or the exporter; acknowledgement of receipt of notification by the Party of import; the decision procedure; and review of decisions.⁷²¹ The Party of export must notify the Party of import by providing a detailed written description of the LMO in advance of the shipment. The Party of import is to acknowledge receipt of this information within 90 days. Then, within 270 days of the date of receipt of notification, the Party of import must communicate its decision: (i) approving the import; (ii) prohibiting the import; (iii) requesting additional relevant information; or (iv) extending the 270 days by a defined period of time. The Party of import must indicate the reasons upon which its decisions are based, except in a case in which consent is unconditional.

A Party of import may at any time, in light of new scientific information, review and change a decision. A Party of export or a notifier may also request the Party of import to review its decisions. However, decisions must be taken in accordance with the risk-

⁷¹⁷ Article 10 of the Protocol.

⁷¹⁸ Hagen and Weiner, *supra* n 705, 704.

⁷¹⁹ Article 19(3) of the *CBD*.

⁷²⁰ Article 7(1) of the Protocol.

⁷²¹ *Ibid.* Articles 8, 9, 10 and 12 respectively.

assessment procedure stipulated in Protocol Article 15 and Annex III. The AIA procedure explicitly recognizes the right of Parties of import to make decisions that would avoid or reduce potential adverse effects in the face of scientific uncertainty due to insufficient scientific information and knowledge. This precautionary approach overlaps to some extent with the *SPS Agreement*. Further discussion in the next section considers this issue, analysing the extent to which the Protocol's precautionary approach is comparable with the relevant provision of the *SPS Agreement*.

The Protocol's AIA procedure does not apply to certain categories of LMOs, i.e. those in transit (Article 6); destined for contained use (Article 6); or intended for direct use as food or feed, or for processing (Article 7(3)). It should be noted that, while the Protocol's AIA procedure does not apply to certain categories of LMOs, Parties retain the right to regulate their importation on the basis of their own domestic legislation. This could lead to division among states, where different measures are taken by individual states regarding the same LMOs, leading to tension in environmental and trade relationships. In addition, the Party of import may also specify in advance to the Biosafety Clearing-House that it will exempt certain imports of LMOs from the AIA procedure.⁷²² Finally, the COP-MOP may in future decide to exempt additional LMOs from application of the AIA procedure.⁷²³

7.2.2.2. LMOs intended for use as food or feed, or for processing

The transboundary movement of LMOs intended for direct use as food or feed, or for processing (LMOs-FFP) is subject to a 'less onerous regime' than the AIA

⁷²² Article 13 of the Protocol.

⁷²³ *Ibid.* Article 7(4).

procedure.⁷²⁴ Under this procedure, a Party may make a decision to ban or limit imports under its ‘domestic-regulatory framework’ as long as it is ‘consistent with the objective of the Protocol’.⁷²⁵ Generally, the Party must inform other Parties through the Biosafety Clearing-House, within 15 days, of its decision regarding domestic use of LMOs that may be subject to transboundary movement.⁷²⁶ In addition, Parties must make copies of applicable national laws, regulations and guidelines available to the Clearing-House.⁷²⁷

Developing country Parties and those Parties with economies in transition may, in the absence of a domestic regulatory framework, declare through the Biosafety Clearing-House that their decisions on the first import of LMOs–FFP will be taken in accordance with a risk assessment, as set out in the Protocol, and a specified timeframe for decision-making.⁷²⁸ In case of insufficient relevant scientific information and knowledge, the Party of import may use a precaution, i.e. apply the precautionary principle, in making their decisions on the import of LMOs–FFP.⁷²⁹

7.2.2.3. Documentation requirement for different types of LMOs

The documentation requires a declaration of the presence of LMOs in the content of shipments. Article 18 of the Protocol sets forth different requirements for different types of LMOs. Documentation accompanying shipments of LMOs meant for intentional release into the environment, such as seeds for planting, must identify the shipment as containing LMOs, as well as indicate the identity and relevant traits of the

⁷²⁴ Birnie et al., *supra* n 11, 640.

⁷²⁵ Article 11 of the Protocol.

⁷²⁶ *Ibid.* Article 11(1).

⁷²⁷ *Ibid.* Article 11(5).

⁷²⁸ *Ibid.* Article 11(6).

⁷²⁹ *Ibid.* Article 11(8).

LMOs.⁷³⁰ Documentation accompanying shipments of LMOs destined for contained use, such as vials of the organisms for scientific or commercial research, simply identify the shipment as containing LMOs.⁷³¹ The second section of this chapter shows how this documentation requirement may conflict with the *GATT* 1994 and the *TBT Agreement*.

7.2.2.4. Trade with non-Parties

A state cannot become Party to the Protocol unless it also becomes a Party to the parent Convention, the *CBD*.⁷³² Article 24 of the Protocol addresses the obligations of Parties in relation to the transboundary movements of LMOs to and from non-Parties to the Protocol. It provides that transboundary movements of LMOs between Parties and non-Parties must be carried out in a manner that is ‘consistent with’ the objective of the Protocol.⁷³³ Parties may enter into agreements and arrangements with non-Parties regarding such transboundary movements.⁷³⁴ Moreover, Parties are required to encourage non-Parties to join the Protocol and to contribute information to the Biosafety Clearing-House.⁷³⁵

The first meeting of the COP–MOP adopted a decision providing further guidance on transboundary movements of LMOs between Parties and non-Parties.⁷³⁶ In this meeting the COP–MOP went beyond Article 24 of the Protocol by encouraging non-

⁷³⁰ Article 18(2)(c) of the Protocol.

⁷³¹ *Ibid.* Article 18(2)(b).

⁷³² Article 32 of the Convention provides that only states that are Parties to the Convention may become Parties to the Protocol. Thus, the Protocol begins with the qualifiers that ‘The Parties to the Protocol, Being Parties to the Convention on Biological Diversity...’.

⁷³³ Article 24(1) of the Protocol.

⁷³⁴ *Ibid.*

⁷³⁵ *Ibid.* Article 24 (2).

⁷³⁶ Decision BS-I/11. For discussion on COP–MOP first meeting see Ruth MacKenzie, ‘The Cartagena Protocol After the First Meeting of the Parties’, (2004) 13 *RECIEL* 270 at 275–6.

Parties to adhere to the Protocol's requirements on a voluntary basis, particularly those regarding the AIA procedure, risk assessment, packaging and identification of LMOs. Although this decision cannot directly create obligations for non-Parties, the Parties to the Protocol have an obligation to ensure that they conduct any transboundary movement of LMOs involving non-Parties in a manner that fully reflects their own obligations. It therefore operates in a similar fashion to *CITES*.⁷³⁷

However, Article 24 is not applicable where those involved in the trade are all, or both, non-Parties, but only where one party to the transaction is bound by the Protocol. It is to be remembered, however, that any non-Party to the Protocol which is at least a signatory would be obliged to refrain from acts that would be contrary to the objective and purpose of the Protocol.⁷³⁸

7.2.2.5. The Supplementary Protocol on Liability and Redress to the *Biosafety Protocol*

In the light of the fact that biotechnology is a new technology and the uncertainty about the impact of the international commercial trade of LMOs on the environment and human health, the Protocol's liability and redress regime concerns the question of what would happen if the transboundary movement of LMOs were to cause damage.

Article 27 of the Protocol required the COP-MOP at its first meeting to adopt a process with respect to the appropriate elaboration of international rules and procedures in the field of liability and redress for damage resulting from

⁷³⁷ For *CITES* non-Party obligation see Chapter 5.

⁷³⁸ Article 18(a) of the 1969 *Vienna Convention*.

transboundary movements of LMOs.⁷³⁹ At its first meeting, the COP–MOP duly established an Ad Hoc Open-Ended Working Group of Legal and Technical Experts on Liability and Redress to elaborate options for elements of international rules and procedures on liability and redress under the Protocol. This led to a draft text being negotiated at the second and fourth meetings of the Group for a supplementary Protocol on liability and redress to the *Biosafety Protocol*.

The fourth meeting of the Group was held in Nagoya, and a new international treaty, the *Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety* (hereinafter the *Liability and Redress Protocol*), was adopted on 16 October 2010.⁷⁴⁰ The new treaty was opened for signature from 7 March 2011 to 6 March 2012 and will enter into force 90 days after being ratified by at least 40 Parties to the *Biosafety Protocol*. The next section of this chapter focuses on the possible effect of the *Liability and Redress Protocol* on the multilateral trade agreements.

7.2.3. Institutional arrangements of the Protocol

The Protocol's institutional arrangement is closely linked with the Convention's institutions: for example, the CBD–COP serves as the meeting of the Parties to the Protocol (COP–MOP).⁷⁴¹ The rules and procedures for the CBD–COP apply, *mutatis mutandis*, to meetings of the Intergovernmental Committee for the *Cartagena Protocol on Biosafety* (ICCP)⁷⁴² if not otherwise decided by consensus by the COP–

⁷³⁹ Article 27 of the Protocol.

⁷⁴⁰ The *Liability and Redress Protocol* text is available at: http://bch.CBD.int/Protocol/NKL_text.shtml (accessed 1 December 2010).

⁷⁴¹ Article 29(1) of the Protocol. This provision is also mentioned in the first meeting of the COP–MOP, decision BS-I/1, Kuala Lumpur, Malaysia, 23–27 February (2004).

⁷⁴² Article 29(5) of the Protocol and also see decision EM-I/3, para. 7 (2000).

MOP.⁷⁴³ The main function of this body is to review the implementation of the Protocol and to make decisions necessary to promote its effective operation.⁷⁴⁴ Decisions under the Protocol can only be taken by Parties to it.⁷⁴⁵ Furthermore, Parties to the Convention that are not Parties to the Protocol may only participate as observers in the proceedings of meetings of the COP–MOP.⁷⁴⁶

The Bureau of the CBD–COP serves as the Bureau of the COP–MOP.⁷⁴⁷ However, any member of the COP Bureau representing a Party to the Convention that is not also a Party to the Protocol is substituted by a member to be elected by and from among the Parties to the Protocol.⁷⁴⁸ The Bureau provides administrative and general operational guidance to the Secretariat between meetings of the COP–MOP and performs functions requested by it. Like the Convention, the Protocol also has clearing-house requirements. However, the Protocol’s clearing-house requirements differ considerably from those of the Convention.⁷⁴⁹ Crucial information on risk assessment, import decisions, national authorisations and national legislation, all central to the Protocol’s effective functioning, are primarily available through the Biosafety Clearing-House. The Biosafety Clearing-House mechanism also includes information required under the AIA procedure, summarizes risk assessments and environmental review, bilateral and multilateral agreements, and reports on efforts to

⁷⁴³ First meeting of the COP–MOP, decision BS-I/1, Kuala Lumpur, Malaysia, 23–27 February (2004).

⁷⁴⁴ The *Cartagena Protocol on Biosafety*, Article 29(4).

⁷⁴⁵ *Ibid.* Article 29(2).

⁷⁴⁶ *Ibid.*

⁷⁴⁷ *Ibid.* Article 30(2).

⁷⁴⁸ *Ibid.*

⁷⁴⁹ For the Convention’s clearing-house requirements see the chapter on the *Convention on Biological Diversity*.

implement the Protocol and other scientific, legal, environmental and technical information.⁷⁵⁰

7.2.4. Implementation

The Contracting Parties to the *Biosafety Protocol* are required to ‘take necessary and appropriate legal, administrative and other measures’ to ensure ‘an adequate level of protection in the field of the safe transfer, handling and use of’ LMOs ‘that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health’.⁷⁵¹ In order to establish an adequate level of protection, the Protocol authorizes national, regional and international implementation.

A number of Articles of the Protocol provide guidance, tools and instruments for its implementation. For example, Article 2(4) of the Protocol not only authorizes national and regional governments to impose restrictions on the movement and use of LMOs, but also permits them to take measures that are more protective of the conservation and sustainable use of biological diversity than that called for in the Protocol itself.⁷⁵² Article 14 of the Protocol fulfils those roles where it states that Contracting Parties ‘may enter into bilateral, regional and multilateral agreements and arrangements regarding intentional transboundary movements of living modified organisms, consistent with the objective of this Protocol ... provided that such agreements and

⁷⁵⁰ Article 20(2)(3) of the Protocol.

⁷⁵¹ *Ibid.*, Articles 1, and 2(1), (2).

⁷⁵² *Ibid.* Article 2(4).

arrangements do not result in a lower level of protection than that provided for by the Protocol'.⁷⁵³

Nevertheless, such implementation needs to be in accordance with Party's other obligations under international law. In this context, the Protocol's preamble emphasizes 'that this Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements'. Article 26 of the Protocol also provides a similar provision. It states that import decisions made by a Party 'under this Protocol or under its domestic measures implementing the Protocol', must be consistency with its international obligations, along with the Protocol's other considerations.⁷⁵⁴ The Protocol also insists on cooperation among Parties to develop and/or strengthen human resources and institutional capacities in biosafety, for the purpose of its effective implementation.⁷⁵⁵

Furthermore, the Biosafety Clearing-House mechanism is designed to facilitate the exchange of scientific, technical, environmental and legal information on, and experience with, living modified organisms among the Parties of the Protocol.⁷⁵⁶ In addition to information-sharing, it also assists Parties to implement the Protocol, taking into account the special needs of developing and least-developing country Parties.

⁷⁵³ *Ibid.* Article 14(1).

⁷⁵⁴ For further discussion of the Protocol's 'saving clauses' see section 7.3.5 of this chapter.

⁷⁵⁵ Article 22(1) of the *Biosafety Protocol*.

⁷⁵⁶ *Ibid.* Article 20.

For implementation at the national level, Contracting Parties must develop their national biosafety frameworks (NBFs).⁷⁵⁷ NBFs are expected to define national biosafety policies, regulatory regimes (laws, regulations and guidelines), systems for handling applications, mechanisms for enforcement and field monitoring, and systems for information-sharing and public participation. As mentioned above, the COP–MOP also provides decisions containing guidance, tools and institutional mechanisms to assist Parties to meet their obligations under the Protocol.⁷⁵⁸

7.3. Areas of overlap and possibility of conflict

The *Biosafety Protocol* is the first MEA that encompasses significant trade and economic interests. It attempts to establish a balance between environmental and trade interests, and emphasizes their mutual supportiveness while regulating the transboundary movement of LMOs. This part of the chapter examines the extent to which the Protocol's provisions, as outlined in the previous section, have been successful in striking a balance between its two diverse objectives: the protection of the environment and the permissible trade of the LMOs. This discussion is founded on the overlapping environmental and trade provisions, focusing particularly on the extent to which the Protocol provisions are compatible with those of multilateral trade agreements.

⁷⁵⁷ *Ibid.* Article 19(1).

⁷⁵⁸ *Ibid.* Article 29(4).

7.3.1. The Protocol's precautionary approach in relation to the SPS Agreement

Among the MEAs, the *Biosafety Protocol* is notable for its 'overtly precautionary approach'.⁷⁵⁹ Given the lack of scientific certainty and consensus as to the potential impacts of the LMOs on the environment and human health,⁷⁶⁰ the precautionary principle plays a significant role in the Protocol's whole decision-making process. The Protocol refers to or reflects the concept of precaution in its preamble, objective and operative parts.⁷⁶¹ Articles 10(6) and 11(8) of the Protocol set out a specific framework and operational guidance for the implementation of the precautionary principle. These articles provide that lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a LMO on biodiversity, and taking into account risks to human health, shall not prevent a Party of import from taking a decision, as appropriate, with regard to the import of the LMO in question.

Having carried out a risk assessment based on information provided in accordance with Annex I, and on the basis of Article 15 and Annex III of the Protocol, Articles 10(6) and 11(8) permit a Party of import to prohibit or restrict a proposed import where uncertainty remains regarding the extent of potential adverse effects. In such circumstances, a Party of import is entitled under the Protocol to establish whatever level of health and environmental protection it deems 'appropriate',⁷⁶² within its own

⁷⁵⁹ Birnie et al., *supra* n 11, 640.

⁷⁶⁰ Mackenzie and Sands, 'Prospects for International Environmental Law' in Christoph Bail, Robert Falkner and Helen Marquard (eds), *The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development?* (Earthscan Publications Ltd, London 2002) 461.

⁷⁶¹ Articles, 1, 10(6) and 11(8), and Annex III(4) of the Protocol.

⁷⁶² Article 2(4) of the Protocol provides that this right is conditioned to be 'consistent with' a Party's other obligations under the international law, a controversial issue discussed elaborately as a separate topic later on in this part of the chapter.

borders and to decide what action to take.⁷⁶³ A Party has no obligation to seek further information to enable a more objective, informed assessment of the risk and to review the precautionary measures unless requested to do so by the Party of export.⁷⁶⁴ Thus, an import restriction under the Protocol may be for unlimited duration, or until the importing party decides that scientific certainty exists.

Furthermore, Article 26 of the Protocol allows Parties to take into consideration socio-economic factors arising from the impact of LMOs on biodiversity when reaching a decision on their importation and any domestic measures when implementing the Protocol.⁷⁶⁵ However, Article 26 does not provide any explanation of what constitutes a socio-economic factor, and only identifies one particular socio-economic consideration that Parties are expected to take into account, i.e. the value of biological diversity to indigenous and local communities. The following discussion sheds light on how the different formulations of the precautionary approach under the Protocol and the *SPS Agreement* generate inconsistencies in their application by Contracting Parties.

⁷⁶³ This proposition was accepted by the CFI in *Pfizer Animal Health v Council of EU* [2002] ECR 3305 Case T-13/99, para. 151.

⁷⁶⁴ Article 12 of the Protocol requires the Party of import to review its decision upon request, where the Party of export or notifier considers that there has been a change of circumstances or where additional relevant scientific or technical information has become available. For further discussion see Simonetta Zarilli, 'International Trade in Genetically Modified Organisms and Multilateral Negotiations: A New Dilemma for Developing Countries' in Francesco Francioni (ed), *Environment, Human Rights and International Trade* (OUP, Oxford 2001) Ch 3, 57–64; Hagan and Weiner, *supra* n 705, 697; Gaston and Abate, 'The Biosafety Protocol and the World Trade Organization', *supra* n 705, 107.

⁷⁶⁵ Article 26(1) of the Protocol reads:
[T]he Parties, in reaching a decision on import under this Protocol or under its domestic measures implementing the Protocol, may take into account, consistent with their international obligations, socio-economic considerations arising from the impact of living modified organisms on the conservation and sustainable use of biological diversity, especially with regard to the value of biological diversity to indigenous and local communities.

First, the standard for the application of the precautionary principle in the Protocol is the presence of ‘scientific uncertainty’. The Protocol permits a Party of import to restrict transboundary movement of LMOs because of scientific uncertainty,⁷⁶⁶ which, according to the Protocol, occurs in two situations that indicate ‘scientific uncertainty’. One is where there is insufficient information even to carry out a risk assessment. The other is where the risk assessment concludes that there remains a lack of certainty about the extent of the potential adverse effects of the LMO on the conservation and sustainable use of biological diversity, taking into account risks to human health.⁷⁶⁷

The formulation of the precautionary principle in the Protocol is general, permitting precautionary measures in the absence of complete evidence of the harm that could occur from the importation of the LMOs. On the other hand, the *SPS Agreement* has a specific form of precautionary approach. A Member of the *WTO Agreement*, taking a SPS measure on the ground of precaution, requires ‘sufficient scientific evidence’ to justify such an action. If there is a lack of sufficient scientific evidence regarding the risk at issue,⁷⁶⁸ rendering a risk assessment impossible,⁷⁶⁹ a Member can adopt provisional SPS measures on the basis of available pertinent information.⁷⁷⁰ However, that Member must (i) seek further information for its risk assessment and (ii) review the SPS measures within a reasonable timeframe. Both are prerequisites for the

⁷⁶⁶ Articles 10(6) and 11(8) of the Protocol. Such decisions must be taken in accordance with the risk assessment procedure stipulated in Article 15 and Annex III of the Protocol.

⁷⁶⁷ Articles 10(6) and 11(8) of the Protocol.

⁷⁶⁸ Either due to the small amount of evidence on new risks, or due to the fact that accumulated evidence is inconclusive or unreliable.

⁷⁶⁹ *Japan – Measures Affecting the Importation of Apples*, Appellate Body Report, WT/DS245/AB/R (2003), Report adopted on 10 December 2003, para. 179.

⁷⁷⁰ Article 5(7) of the *SPS Agreement*.

adoption of provisional precautionary SPS measures.⁷⁷¹ The Protocol, by contrast, permits Parties to impose import restriction on LMOs on the ground of precaution for unlimited duration. In this regard, the Protocol's Parties are neither obliged to seek further information for an objective risk assessment nor to review their import restriction decision within a reasonable timeframe.

Second, Article 26 of the Protocol obliges its Parties to consider 'socio-economic' conditions, especially the value of biological diversity to indigenous and local communities in making import decisions on LMOs. However, it does not provide any guidance on how socio-economic considerations can be 'taken into account' when implementing the Protocol provisions relating to LMOs import decision-making. Thus, this provision has the potential to become a tool for trade protectionism, providing a basis for restricting imports on LMOs on the ground that these products may lead to the loss of cultural traditions, knowledge and practices, particularly amongst indigenous and local communities.⁷⁷²

For example, the Party of import has the discretion to refuse the import of a particular LMO seed based on concerns that it may affect the livelihood of domestic agricultural interests.⁷⁷³ This decision is legitimate under the Protocol, but could be regarded as discriminatory, or as a disguised restriction on trade, according to Article I of the *GATT*, which requires 'most-favoured nation treatment' among *GATT* members, such that members cannot discriminate according to the country of origin; Articles 2(2) and

⁷⁷¹ That is why the WTO Appellate Body has suggested a case-by-case basis review depending on the specific circumstances of the case and the characteristics of the SPS measure. See *Japan – Agricultural Products*, *supra* n 351, Appellate Body Report, para. 93. In this case, the WTO Panel and Appellate Body found that a period of three years exceeded a reasonable period of time for a provisional measure to be in place.

⁷⁷² See Mackenzie et al., *An Explanatory Guide to the Cartagena Protocol on Biosafety*, *supra* n 706, 238.

⁷⁷³ Hagen and Weiner, *supra* n 705, 709.

5(5) of the *SPS Agreement*, Article 2(1) of the *TBT Agreement* and the chapeau of Article XX of the *GATT*, all prohibit discrimination. By incorporating socio-economic considerations in the making of import decisions Article 26 also acknowledges the limitations of traditional scientific inquiry. It opens the door for Parties to the Protocol to apply ‘sustainability science’ to make import decisions, which can operate as a disguised restriction on trade and thereby conflict with the trade rules, which do not take into consideration non-scientific factors while assessing risk.

Article 5(1) of the *SPS Agreement*, according to WTO jurisprudence, does recognize that a risk assessment ‘is not only risk ascertainable in a science laboratory operating under strictly controlled conditions, but also ... the actual potential for adverse effects on human health in the real world...’.⁷⁷⁴ However, Article 5(3) of the *SPS Agreement* permits Members to assess risks to animal and plant health, taking into account ‘relevant economic factors: the 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 alternative approaches to limiting risks’. Although the WTO Appellate Body’s decision in *EC – Hormones* is broad enough to allow social elements of risk to be taken into consideration, Article 5(3) of the *SPS Agreement* only considers the economic factors listed above. Hence, an import ban decision taken by the Protocol Parties based on purely socio-economic considerations could be considered discriminatory by Parties to multilateral trade agreements, such as the WTO Uruguay Round Acts.

⁷⁷⁴ *EC – Hormones*, *supra* n 162, paras 179–86.

Finally, the Protocol and the *SPS Agreement* establish two different paradigms for the burden of proof for risk assessment. The Protocol states that the importing country may carry out the risk assessment, or request the potential exporting country to do so.⁷⁷⁵ If the risk assessment is performed by the importer, it can recover the cost from the potential exporter.⁷⁷⁶ On the other hand, in the *SPS Agreement*, the importing country has to ensure that its decision is based on a proper risk assessment. It obliges the exporting country neither to carry out a risk assessment nor to pay for the cost of a risk assessment carried out by the importing country. Instead, the importing country bears this burden.

Hence, although the precautionary approach finds some reflection in Article 5(7) of the *SPS Agreement*, the above discussion shows that the two agreements are incompatible in the sense that the Protocol's provisions concerning the rights and obligations regarding the use of scientific and socio-economic criteria in making import decisions, the duration of such restrictions and the burden of risk assessment, differ from the rights and obligations of WTO Members established under the *SPS Agreement*.⁷⁷⁷

7.3.2. The effect of the Protocol's documentation requirements on trade agreements

As mentioned earlier, Parties to the Protocol require accompanying documentation for all transboundary movements of LMOs⁷⁷⁸, including those intended for food or feed,

⁷⁷⁵ Article 15(2) of the Protocol.

⁷⁷⁶ *Ibid.* Article 15(3).

⁷⁷⁷ For the discussion on relevant provisions of the *SPS Agreement* see chapter on the *Convention on Biological Diversity*. This discussion focuses on inconsistencies between the Protocol and the *SPS Agreement*.

⁷⁷⁸ *Ibid.* Article 18 of the Protocol.

or for processing.⁷⁷⁹ For documentation purposes, the Protocol distinguishes between various categories of LMOs, primarily on the basis of their intended use.⁷⁸⁰ Each of these categories is subject to different treatment under the Protocol. These differences in treatment have the result that LMOs, or certain LMOs, are not like their non-LMO counterparts:⁷⁸¹ a distinction which is not recognized in the multilateral trade agreements.

The concept of like products has not been defined in the *GATT* 1994, although it has been used in several articles including Articles I(1), II (2)(a), III(2), III(4), VI(1)(a), IX(1), XI(2)(c), XIII(1), XVI(4) and XIX(1) of the *GATT*. The Appellate Body in *EC – Asbestos* observed that there is no ‘one precise and absolute definition’ available for ‘like’. It considered the dictionary definition of ‘like’, suggesting that ‘like products’ are products that share a number of identical or similar characteristics.⁷⁸² After realizing that such dictionary meanings ‘leave many interpretive questions open’, the Appellate Body in *EC – Hormones* construed the term ‘like’ ‘narrowly’ in the context of Articles II(2) and III(4) of the *GATT* 1994.⁷⁸³ The Appellate Body in *Japan – Taxes on Alcoholic Beverages* suggested that the important factors in determining what constitutes ‘likeness’ are the products’ physical characteristics, nature and quality, and their end uses, even though they may have been produced in a very different way.⁷⁸⁴ If

⁷⁷⁹ *Ibid.* Article 18(2)(a).

⁷⁸⁰ LMO for Pharmaceuticals; for food, feed, or processes; for contained use; for international introduction into the environment.

⁷⁸¹ There is controversy on this issue amongst academics and between the EU and US. The EU is of the view that the only like product to a given imported LMO product is the same LMO product processed or produced domestically. On the other hand, the US considers that LMO products and their non-LMO conventional counterparts are like products. For more on this debate see *EC – Biotech Products*, *supra* n 108. Laurence Chazournes and Makane Mbengue, ‘GMOs and Trade: Issues at Stake in the EC Biotech Dispute’, (2004) 13 *RECIEL* 289 at 291–7; Ved Nanda, ‘Genetically Modified Food and International Law – the Biosafety Protocol and Regulations in Europe’ (2000) 28 *Den JILP* 235.

⁷⁸² *EC – Asbestos*, *supra* n 253, paras 88 and 90.

⁷⁸³ *EC – Asbestos*, *supra* n 253, para. 92.

⁷⁸⁴ *Japan – Alcoholic Beverages*, *supra* n 87.

products have identical physical characteristics or appearance but are produced using two different methods, the products will still be considered as 'like' products under the *GATT* 1994. This conclusion arguably makes LMO products potentially 'like' non-LMO products.

Article III(4) of the *GATT* 1994 applies to imported LMOs, which when dealing with internal measures provides that Members cannot have one rule for domestic products and another less favourable rule for foreign 'like' products. It is not necessary to show that the regulations concerned actually had the actual effect of protecting domestic products. It is enough to show that the regulation is less favourable than that afforded to 'like' products of national origin.⁷⁸⁵ In this connection, the term 'regulations' not only covers technical regulations concerning the characteristics of products but also other measures which create competitive conditions favouring domestic products. Since there has been no explicit determination by the WTO as to whether a particular LMO product should be considered a 'like product' to their conventional counterpart, the Protocol's documentation requirements could be challenged by an exporting country, which is a WTO Member,⁷⁸⁶ on the ground that imported LMOs are 'like products' to those produced nationally. Moreover, it could be argued that the Protocol's requirements on documentation for the import of LMOs impose an unjustifiable barrier to trade and violate the *GATT* national treatment principle. However, this would come into play only if both states are WTO Members and Parties to the *CBD*, in which case the Protocol could be relevant.⁷⁸⁷

⁷⁸⁵ *US – Gasoline*, *supra* n 36. Also see footnote 256.

⁷⁸⁶ For discussion on the relevant provisions in the *TBT Agreement* and the *WTO Agreement* see chapter on the *Convention on Biological Diversity*.

⁷⁸⁷ *EC – Biotech Products*, *supra* n 108.

Again, labelling regulations for LMO shipments that are not based on food safety or other SPS grounds are likely to fall under the *TBT Agreement*.⁷⁸⁸ The objective of the *TBT Agreement* is to ensure that technical regulations and standards, including packaging, marking and labelling requirements, do not create unnecessary obstacles to international trade. This *Agreement* would very likely be applied to any technical barriers to the import of LMOs, which are imposed not to protect the environment or human health as such but to inform consumers or to protect a state's economy.⁷⁸⁹ Although the *TBT Agreement* recognizes countries' right to take measures through technical regulations and standards to fulfil legitimate national policy objectives, which include environmental objectives,⁷⁹⁰ it contains important qualifications to protect trade interests.⁷⁹¹ In addition, technical regulations may not 'be more trade-restrictive than necessary to fulfil a legitimate objective'.⁷⁹² Thus, the Protocol's documentation requirements for various LMOs might be considered unjustifiably or arbitrarily discriminatory against the import of LMOs, as the *TBT Agreement* does not differentiate between LMO and non-LMO products.⁷⁹³

⁷⁸⁸ In the *EC – Biotech Products*, *supra* n 108, the Panel ruled that labelling requirement related to the safety (or safe use) of a product falls within the scope of the *SPS Agreement*. The application of the *SPS* or *TBT Agreement* to LMO labelling depends on the nature and purpose of the measure under consideration. For further discussion see David Morgan and Gavin Goh, 'Genetically Modified Food Labelling and the *WTO Agreements*', (2004) 13 *RECIEL* 306 at 309–12.

⁷⁸⁹ Sean Murphy, 'Biotechnology and International Law' (2001) 42 *Harvard International Law Journal* 48.

⁷⁹⁰ Article 2 para. 2.2 of the *TBT Agreement*.

⁷⁹¹ *Ibid.* preamble and Article 2. As discussed in Chapter 3, such measures must be based on available scientific and technical information; should not create unnecessary obstacles to trade; shall not be more trade-restrictive than necessary to fulfil a legitimate objective; and are not to be 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 to international trade.

⁷⁹² Article 2(3) of the *TBT Agreement*.

⁷⁹³ See Chapter 3 for the *Tuna – Dolphin* case.

7.3.3. The Protocol's non-Party obligation

As mentioned in the preceding section, the Parties to the Protocol follow two separate procedures for transboundary movements of LMOs. These two procedures establish some practical rules for the Parties to follow, including the AIA procedure, risk assessment, notification, documentation and exchange of information through the Biosafety Clearing-House mechanism. Like other MEAs,⁷⁹⁴ the *Biosafety Protocol* also requires that transboundary movements of LMOs between Parties and non-Parties are undertaken in a manner 'consistent with the objective of this Protocol'.⁷⁹⁵ It also explicitly obliges Parties 'to encourage non-Parties to adhere to this Protocol' and particularly to release LMO-related information through the Biosafety Clearing-House mechanism of the Protocol.⁷⁹⁶ Hence, although it is voluntary for non-Parties to comply with the Protocol's relevant provisions,⁷⁹⁷ it is a binding obligation for the Protocol's Parties to conduct any LMO trade in accordance with the Protocol's regulations, even if that trade involves a non-Party to the Protocol. Since a number of major exporters of LMOs are non-Parties to the Protocol, this provision may be significant for them, as it has the potential to affect their rights and obligations.

For example, Article 8 of the Protocol obliges the Party of export to provide written notification to the Party of import prior to the intentional transboundary movement of a LMO. Where the Party of export is a non-Party but notifies 'in writing' the Party of import prior to the intentional transboundary movement of an LMO, it will have acted

⁷⁹⁴ The following MEAs have restricted the rights of Parties to them to trade in covered products or wastes with non-Parties, to encourage non-Parties to become Parties to the MEA, or at least to comply with the obligations imposed under the MEA: the *1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora* (1973) 993 UNTS 243, Article X; the *Protocol on Substances that Deplete the Ozone Layer* (1987) 26 ILM 1541, Article 4; the *1989 Basel Convention on the Transboundary Movement of Hazardous Wastes* (1989) 28 ILM 649, Articles 4, 11.

⁷⁹⁵ Article 24 of the Protocol.

⁷⁹⁶ *Ibid.* Article 24(2).

⁷⁹⁷ BS-I/11 of the COP-MOP decision, Kuala Lumpur (2004).

like a Party in following the Protocol's provisions. However, if the non-Party exporter does not do this, a Party will not be able to insist. Nevertheless, the Party would almost certainly be in breach of its obligations on the basis of Article 24 if it accepts imports from that non-Party without any form of notification. In this situation, the non-Party's ability to export LMOs to the Party, which is the importer, will be affected, and it could argue that it had been treated in a discriminatory manner by the Party of import. This could lead to a significant challenge by a non-Party to the Protocol, which is a Party to the *WTO Agreement*, as has been demonstrated in the case of *EC – Biotech*.

7.3.4. The Supplementary Protocol on Liability and Redress

Liability and redress in the context of the *Biosafety Protocol* concerns the question of what would happen if the transboundary movement of LMOs caused damage.⁷⁹⁸ The *Supplementary Protocol on Liability and Redress* provides international rules and procedures on liability and redress for damage to biodiversity resulting from LMO. Its broad application includes: damage resulting from any movement of LMOs, whether intentional or unintentional, legal or illegal, national or transboundary, and damages resulting from transboundary movement of LMOs by Parties and non-Parties.⁷⁹⁹ The Protocol is called 'supplementary', as its rules are supplementary to general rules and procedures on civil liability.⁸⁰⁰

Article 5 of the Protocol provides specific response measures for the operation of the Protocol's liability and redress regime. It also establishes the right of the competent

⁷⁹⁸ Article 27 of the *Biosafety Protocol*.

⁷⁹⁹ Article 3 of the *Liability and Redress Protocol*.

⁸⁰⁰ *Ibid.* Article 12.

authority ‘to recover the costs and expenses of, and incidental to, the evaluation of the damage and the implementation of any such appropriate response measures’.⁸⁰¹ The competent authority reasons its decision based on the precautionary approach, since the *Liability and Redress Protocol* is based on the spirit of the *Biosafety Protocol* and promotes compliance with the Protocol’s policies and standards.

However, it is evident from the earlier discussion that the Protocol’s precautionary approach, as a basis for risk assessment prior to an import decision, is not consistent with the *SPS Agreement*. The Protocol permits Parties to restrict imports of LMOs even in cases where full scientific certainty of the ‘damage’ is lacking. However, there is no uniform definition available for ‘damage’. For the purpose of the *Liability and Redress Protocol*, ‘damage’ means ‘an adverse or negative effect on biological diversity’ which is measurable or observable and significant.⁸⁰² But the standard for what constitutes an ‘adverse or negative effect’ is not clear, since full scientific certainty is not necessary to determine ‘damage’. The threat of incurring liability and the potential burden of redress measures may act as an incentive for Parties to the Protocol to adopt a more precautionary approach to economic activities, resulting in the avoidance of environmental risk and damage.

The implementation of the *Liability and Redress Protocol* also covers damage resulting from the transboundary movements of LMOs from non-Parties. This non-Party liability and redress obligation reinforces Article 24 of the Protocol. Where the WTO is also empowered to resolve such disputes, it seems that the non-Party can seek refuge in the WTO dispute settlement organs. In this situation, if damage has been

⁸⁰¹ *Ibid.* Article 5(5).

⁸⁰² *Ibid.* Article 2(2)(b).

caused by the LMO exporting state, which is a non-Party to the Protocol but a Party to the *WTO Agreement*, that non-Party will not be bound by the Protocol's liability and redress regime.⁸⁰³

The Protocol makes a claim for 'mutual supportiveness', but establishes a certain authority of environmental norms and standards over the norms and standards established under the multilateral trade agreements. The major exporters of LMOs, like the US, since they are not Parties to the Protocol, can keep their options open to seek remedies under the WTO Dispute Settlement system. We have already witnessed in *EC – Biotech* what could happen when an environmental dispute is resolved by one of the trade dispute settlement organs such as a WTO panel.⁸⁰⁴

7.3.5. The effectiveness of the Protocol's 'savings clause'

This section focuses on the Protocol's 'savings clause' provision to explain the extent to which this provision has sought to establish a balance with the multilateral trade agreements. In the Protocol's negotiation process, the 'relationship' issue was a major source of disagreement among the negotiating groups. The Protocol's final negotiation placed a politically compromised 'savings clause' in the preamble of the Protocol. The tension, politics and emotion surrounding the savings clause issue increased with the WTO Dispute Settlement Body's decision on *EC – Hormones*, which fuelled the presumption that environmental agreements were being treated as less important than

⁸⁰³ See *EC – Biotech Products*, *supra* n 108, para. 7.68.

⁸⁰⁴ For more about the *EC – Biotech Product* see Chapter 3.

trade agreements.⁸⁰⁵ A later discussion shows that this emotion is reflected in the language of the Protocol's savings clause. It reads:⁸⁰⁶

...that trade and environment agreements should be mutually supportive with a view to achieving sustainable development,

...that this Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements,

...that the above recital is not intended to subordinate this Protocol to other international agreements,

A savings clause is a declaratory statement reflecting the intention of the Parties, and therefore can be expressed either in a treaty's preamble or in its text. However, a suspicion arises that placing the savings clause in the preamble has the effect of weakening its application. Sinclair argues that although preambular language carries less weight than the operative language in the body of the text, as it does not state any obligation; nonetheless, the preamble determines the object and purpose of an agreement.⁸⁰⁷ The latter point leads to a further argument that '[O]ne must look at the treaty as a whole, including the preamble and any annexes', for the purpose of determining successive treaties' relationship or its interpretation.⁸⁰⁸ In this connection, Article 31 of the *Vienna Convention* reflects the principle that a treaty's preamble and

⁸⁰⁵ In this case, the WTO Panel and Appellate Body found that the EC's ban on the import of meat from cattle treated with certain growth-promoting hormones violated Articles 3(3), 5(1) and 5(2) of the *SPS Agreement*.

⁸⁰⁶ Preamble of the *Biosafety Protocol*.

⁸⁰⁷ See Sinclair, *supra* n 39, p 127-8; Charney, *supra* n 100, 127-8. Also see Gerald Fitzmaurice, 'The Law and Procedure of the International Court of Justice 1951-4: Treaty Interpretation and Other Treaty Points' (1957) 33 BYIL 223.

⁸⁰⁸ Aust, *supra* n 39, 235. Article 31 of the *Vienna Convention* reflects the principle that a treaty's preamble and annexes are part of a treaty's text rather than ancillary or subsidiary portions.

annexes are part of a treaty's text rather than ancillary or subsidiary portions, and therefore is equally authoritative for the purposes it is intended to serve.

Furthermore, according to Article 30(2) of the *Vienna Convention*, '[w]hen a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail'. In this case, it may not matter too much where such a declaratory statement is placed, i.e. in the preamble or the body of the treaty text. However, in the absence of such an indication, the saving clause may create an obligation to give priority to one set of treaty provisions over another, in which case they are better not being placed in the preamble.

Apart from its position in the text, it has been argued that the language of the Protocol's savings clause, rather than clarifying the Protocol's relationship with other agreements, especially with trade agreements simply causes confusion.⁸⁰⁹

The first paragraph captures the Protocol's aspiration that trade and environmental policies and agreements should support each other. It reflects the Protocol's objective of protecting the environment without overburdening trade. The second paragraph, formulated in general terms, determines not to hinder the Contracting Parties' obligations under any international agreement to which they are also Party. Since many Parties to the Protocol are also Parties to the multilateral trade agreements, the second paragraph specifies that the Protocol does not change Parties' rights and obligations under 'any existing international agreements'. One possible interpretation of this paragraph is that the Protocol is not intended actually to amend the trade

⁸⁰⁹ Birnie et al. *supra* n 11, 794.

treaties, but that in the event of a conflict, the Protocol nonetheless prevails, consistently with the *Vienna Convention*.

Nevertheless, it is the last paragraph which generates greater controversy and has been criticized for significantly weakening the effect of the previous two paragraphs.⁸¹⁰ Some have even argued that this paragraph is the vanishing point of the savings clause, as it reaffirms Article 30(3) of the *Vienna Convention*. Birnie et al. view these preambular paragraphs as simply a ‘repetition’ of ‘the exhortation to balance trade and environmental concern’⁸¹¹, having more politically palatable value⁸¹² than practical application. They argue that this paragraph not only weakens paragraph two, but also establishes relative priority for other international agreements.⁸¹³ The effectiveness of the Protocol’s saving clause as a conflict-resolving technique, which establishes priority between successive treaties relating to the same subject matter, may be controversial; nevertheless, its significance as part of an interpretative process that seeks to resolve incompatibilities arising from overlapping treaty norms is undeniable.⁸¹⁴

7.4. Conclusions

The *Biosafety Protocol* is the first MEA that encompasses significant trade and economic interests in the transboundary movement of LMOs. It attempts to establish a

⁸¹⁰ *Ibid.* 755.

⁸¹¹ *Ibid.*

⁸¹² Aarti Gupta, ‘Governing Trade in Genetically Modified Organisms: The Cartagena Protocol on Biosafety’ (2000) 42 *Environment* 22 at 31. Also see Safrin, ‘The relationship with other agreements: much ado about a savings clause’, in Christoph Bail, Robert Falkner and Helen Marquard (eds), *The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development?* (Earthscan Publications Ltd, London 2002) 449.

⁸¹³ Birnie et al., *supra* n 11, 794. Also see Safrin, *ibid.*

⁸¹⁴ This issue has been discussed in great detail in Chapter 8.

balance between environmental and trade interests, and emphasizes their mutual supportiveness while regulating the transboundary movement of LMOs. However, the discussion in this chapter demonstrates that a suitable balance does not appear to have been achieved. The Protocol's regulatory provisions, such as the AIA procedures, documentation requirements, liability and redress regime, saving clauses and non-Parties obligations, have the potential to inhibit trade in LMOs in order to protect environmental interests.

The core aspect of the Protocol, the precautionary approach, has a different formulation and weight from that in the *SPS Agreement*. The Protocol Parties can take decisions to prohibit or restrict the import of LMOs by applying this approach, which includes not only 'scientific uncertainty' and 'socio-economic' concerns as reasons for such refusal, but also permits measures that are more protective of the conservation and sustainable use of biological diversity. With the mandate of the precautionary approach, a Party of import that is a Party to both the Protocol and the *WTO Agreement* can take a decision to allow the import of a given LMO from one WTO Member but not from another, or permit the domestic production but not the import of a given LMO, violating core WTO principles.

In addition, the Protocol's risk assessment, which is based on information provided in accordance with Annex I and Annex III, and on the basis of Article 15 of the Protocol, requires that it 'should be carried out in a scientifically sound and transparent manner'.⁸¹⁵ It does not provide any definition for the term 'scientifically sound

⁸¹⁵ See Article 15 and Annex III(3) of the Protocol.

manner', though similar language can be found in other agreements.⁸¹⁶ The absence of an internationally agreed definition of 'scientifically sound manner' may give rise to disagreements between states, both as to the meaning of the phrase and the validity of inevitably divergent scientific views 'about the manner in which an inserted gene is likely to modify characteristics of the organism other than the intended changes, about the interpretation of data, and about the ecological and environmental effects of LMOs'.⁸¹⁷

On the other hand, the precautionary approach, as applied by the *SPS Agreement*, is a secondary aspect of the regime, to be applied according to multilateral standards⁸¹⁸ preserving the interest of the exporting countries.⁸¹⁹ These different formulations of the precautionary approach under the Protocol and the *SPS Agreement* permit both the trade and environmental regimes to fulfil their respective diverse objectives, but thereby cause tension between them.

Recognizing this tension between the Protocol provisions and the rules of the multilateral trade agreements, the Protocol has incorporated a 'savings clause' provision in its preamble. However, from the discussion in the preceding section, it is evident that this 'savings clause' has not been worded in such a way as to resolve inconsistencies between trade and the environment.

⁸¹⁶ See also the *SPS Agreement* – 'scientific principles' (Article 2(2)); 'scientific justification' (Article 3(3)); and 'scientific evidence' (Articles 2(2) and 5(2)).

⁸¹⁷ See Mackenzie et al., *An Explanatory Guide to the Cartagena Protocol on Biosafety*, *supra* n 706, 108.

⁸¹⁸ According to the preamble of the *SPS Agreement*, SPS measures must be adopted 'on the basis of international standards, guidelines and recommendations developed by the relevant international organizations, including the Codex Alimentarius Commission, the International Office of Epizootics, and the relevant international and regional organizations operating within the framework of the International Plant Protection Convention...'.⁸¹⁹

⁸¹⁹ Sydnes, 'Overlapping regimes: The SPS Agreement and the Cartagena Biosafety Protocol' in Young and others (eds), *Institutional interplay: Biosafety and trade* (United Nations University Press, 2008) 87, 88.

Finally, based on the above discussion, it can be argued that, although the Protocol attempts to establish a balance between environmental and trade interests in the regulation of the transboundary movement of LMOs, the Protocol's primary objective is not to encourage or expand LMOs trade, but to ensure biosafety. The Protocol permits international trade of LMOs to the extent that it is consistent with the rules, principles and standards of the Protocol and its parent convention, the *CBD*. Thus, although the Protocol's preamble and operative texts restate the mutual supportiveness of trade and environmental agreements, the Protocol's broad precautionary approach, treatment of non-Parties, savings clause and liability and redress regime, and establish a form of normative priority of environmental rules and standards over trade, they are not absolute in their application.

8. Balancing MEAs and the multilateral trade agreements

8.1. Introduction

The aim of this thesis has been to explore the balance between trade and environmental considerations in international law. Chapter 2 illustrates various techniques used to resolve inconsistencies and to establish a coherent system in the relationship between trade and environment, advancing the specific approach introduced in Chapter 1. This illustration is followed by the analysis of the 1995 *WTO Agreement* and its annexed agreements, the 2006 *International Tropical Timber Agreement (ITTA)*, the 1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*, the 1992 *Convention on Biological Diversity (CBD)* and the 2000 *Cartagena Protocol on Biosafety (Biosafety Protocol)*, considering the balance which has been struck in both environmental and trade fora.

This discussion reveals that the multilateral trade agreements contain specific provisions protecting the environment, including: Article XX(b) and (g) of the *GATT*, Article 5(2) of the *SPS Agreement*, Article 2(2) of the *TBT Agreement*, Article 27(2) of the *TRIPS Agreement* and the provisions for ‘sustainable forest management’ in the *ITTA*.⁸²⁰ Simultaneously, the MEAs discussed in this thesis provide provisions allowing for trade restriction, or provisions that have the potential to restrict trade in order to protect the environment. *CITES*, for example, contains specific rules restricting international trade in specimens of selected species.

By contrast, the *CBD* does not contain any specific trade restrictive measures, but provides various guiding principles for the Contracting Parties, allowing them to

⁸²⁰ These Articles have been discussed extensively in Chapters 3 and 4.

develop and adopt specific measures restricting the trade in biological resources to pursue the Convention's conservation and sustainable use objectives. The other MEA, the *Biosafety Protocol*, has in various provisions made an effort to balance both trade and environmental concerns while regulating the transboundary movement of LMOs.

MEAs and the multilateral trade agreements are treaties from different sectors of international law, but both address the issue of protection of the environment. In these circumstances, rules of MEAs and the multilateral trade agreements inevitably overlap by addressing the same subject matter but from different perspectives. For example, both the MEAs and the multilateral trade agreements provide rules for the application of the precautionary approaches, processes and production methods and intellectual property rights. Chapters 3 to 7 have focused on how MEAs and multilateral trade agreements have balanced environmental and trade concerns in the event of such overlap, and identified several inconsistencies between the rules established in the respective contexts.

This chapter compares and contrasts the various solutions provided in these various agreements, and argues that environmental considerations are currently undervalued in comparison with trade considerations within the international legal order. Consequently, it aims to introduce formal legal mechanisms through which the inconsistencies and incoherence in overlapping treaty relationships can be addressed, and a better balance thereby achieved.

For this purpose, it follows the approach outlined in Chapter 1 and applies the techniques identified in Chapter 2. It argues that environmental objectives are

inherently of equal or even higher priority, as is evident from current circumstances. Thus, balancing trade and environmental concerns in the international legal order requires better harmonization, or actual prioritization of the environmental interests in the event of conflict between trade and environmental interests. At this stage, this chapter analyses mechanisms through which the importance of the environmental objectives can be recognized more effectively within the international legal system.

This chapter is divided into three sections. Section 8.2 compares the solutions provided in the multilateral trade agreements in the protection of environmental interests with the solutions provided in the MEAs in order to justify the claim that environmental interests are undervalued. In this context, section 8.3 focuses on the significance of the protection of the environment. It argues that environmental objectives are inherently equal or even of higher priority, at least in current circumstances. With that in mind, section 8.4 attempts to redress the trade and environmental balance in international law.

8.2. Comparison of the trade and environmental balance

Chapters 3 and 4 focused on how successfully the WTO multilateral trading system and the *ITTA* have accommodated concerns about the protection and preservation of the environment within their basic trade regimes. This section compares and contrasts the various solutions provided in the MEAs and multilateral trade agreements that are seen to balance trade and environmental concerns with solutions provided by the MEAs, and argues that environmental considerations are currently undervalued in comparison with trade considerations within the international legal order, causing an imbalance in their relationship.

8.2.1. Undervalued environmental objectives in the *WTO Agreement*

The key objectives of the WTO multilateral trading system discussed in Chapter 3 are the achievement of economic growth and the expansion and liberalization of trade in goods and services. The *WTO Agreement* has also identified ‘sustainable development’ and ‘protection and preservation of the environment’ as its objectives. However, the structure and punctuation of the preamble make it difficult to work out the precise relationship between these various objectives: the words ‘*while allowing for the optimal use of the world’s resources*’⁸²¹ might be read as treating sustainable development as a subordinate goal, but it is then unclear how the phrase ‘*seeking both*’ to protect and preserve the environment⁸²² and to enhance the means for doing so fits in with that. Grammatically speaking, ‘seeking’ looks to be on a par with the word ‘recognizing’ at the very beginning of the first recital rather than with ‘raising’, ‘ensuring’ and ‘expanding’ or ‘allowing’ in lines 2 to 4,⁸²³ which would seem to give environmental protection a very high priority, and a status separate from that of sustainable development for the purpose of this treaty. This section argues that despite its explicit reference to sustainable development and protection and preservation of the environment, the WTO has shown a reluctance to give sufficient effect to environmental concerns.

To begin with, it is the practice of the WTO dispute settlement organs to interpret ‘exceptions’ narrowly on the ground that a restrictive interpretation of exceptions upholds the treaty’s objectives. However, it is not always the case that a narrow interpretation of exceptions will give effect to the purposes and objects of a treaty. Indeed, in some cases a *broad* interpretation of exceptions will be required to advance

⁸²¹ See preamble of the *WTO Agreement* [emphasis added].

⁸²² *Ibid.* [emphasis added].

⁸²³ *Ibid.*, lines 2–4.

a treaty's objectives and purposes, as in the case of *CITES*, which permits exceptions for captive breeding and artificial propagation, and scientific research.⁸²⁴ This is because the exceptions are designed specifically to advance the treaty's objectives rather than to detract from them. In the present context, the narrow interpretation of the so-called 'environmental exceptions' undermines the 'sustainable development' and 'protection and preservation' objectives of the *WTO Agreement*, resulting in an imbalance between the trade and environmental concerns.

Furthermore, the WTO dispute settlement organs actually go beyond the *GATT/WTO* requirements in interpreting the exceptions in order to protect trade interests. For example, Article XX(b) of the *GATT* provides that trade-restrictive measures are allowed if such measures: i) are *necessary* to fulfil the policy objectives; ii) *protect* human, animal or plant life or health; and iii) are in *conformity with the requirements of the introductory clause* of Article XX, i.e. they do not allow arbitrary or unjustifiable discrimination and/or a disguised restriction on international trade.⁸²⁵ In several cases, the WTO Panels have interpreted 'necessary' to mean that in order to qualify under Article XX(b), a measure must be the 'least trade restrictive',⁸²⁶ which neither takes into account the ordinary or general international law meaning of 'necessary',⁸²⁷ nor adequately reflects the 'sustainable development' or 'protection and preservation' objectives of the *WTO Agreement*.

In more recent cases, the Appellate Body has applied a 'weighing and balancing' approach to determine whether a measure is 'necessary' to protect human, animal or

⁸²⁴ See Chapter 2.

⁸²⁵ *US – Gasoline*, Panel Report, *supra* n 262; *Tuna II*, *supra* n 262, 839.

⁸²⁶ *US – Section 337 of the Tariff Act*, *supra* n 332, para. 5.26; *Thailand - Cigarettes*, *supra* n 320, 1122; *Ibid.*, *Tuna II*.

⁸²⁷ See the discussion in section 8.4.1.1. (a).

plant life or health under Article XX(b) of the *GATT*. The Appellate Body has considered a series of factors in this ‘weighing and balancing’ process, including the contribution made by the environmental measure to the policy objective, the importance of the common interests or values protected by the measure, and the impact of the measure on international trade.⁸²⁸ The above interpretation by the Appellate Body is a significant improvement on the Panel’s interpretation, but as usual, the Appellate Body has still chosen to follow a strict interpretation of the word ‘necessary’. The Appellate Body held that if the ‘weighing and balancing’ process concludes that the measure is *prima facie* necessary, this result must be confirmed by comparing the measure with possible alternatives, which might be *less trade restrictive*, while providing an equivalent contribution to the achievement of the objective pursued.⁸²⁹

In conclusion, the interpretations of Article XX(b) and (g) of the *GATT* do not adequately reflect the preambular objectives of ‘sustainable development’ and ‘the protection and preservation of the environment’, and have little real protectionist effect on the environment. An assumption of ‘the superiority of economic interests’ is manifest in this interpretation.⁸³⁰

8.2.2. Trade-oriented ‘sustainable forest management’

The preamble (c) of the 2006 *ITTA* recalls all the leading environmental agreements and policy documents in the international community relating to conservation and sustainable development. Therefore, sustainable forest management goals are

⁸²⁸ *Korea – Various Measures in Beef*, Appellate Body Report, *supra* n 264, para. 164; *Brazil – Retreaded Tyres*, *supra* n 264, Appellate Body Report.

⁸²⁹ *Brazil – Retreaded Tyres*, *supra* n 264, Appellate Body Report, para. 211.

⁸³⁰ Jagdish Bhagwati, ‘Trade and the Environment: The False Conflict?’, in Durwood Zaelke (ed). *Trade and the Environment: Law, Economics, and Policy* (1993), 159–90, see 179.

expected to be consistent with the goal of these conservation agreements and policy documents because they reflect the notion of sustainable development. Among them, *CITES* and the *CBD* are the most relevant to the *ITTA*'s mandates, as they address development and conservation issues simultaneously.

The *ITTA* introduces a 'sustainable forest management' (SFM) approach to balancing conservation and sustainable utilization objectives. The SFM approach encompasses the environmental, economic and socio-cultural objectives of forest management,⁸³¹ and also includes recognition that forest-related activities should not damage the forest to the extent that its capacity to deliver products and services – such as timber, water and biodiversity conservation – is significantly reduced. Forest management should also aim to balance the needs of different forest users so that its benefits and costs are shared equitably. Furthermore, the 2006 *ITTA* recognizes 'the role of the forest dependent indigenous people and local communities' as part of sustainable forest management.⁸³²

However, the definition of 'sustainable forest management' given by the ITTO differs considerably from the concept of 'sustainable use' by the *CBD*. The definition of the SFM clearly does not show that it is the ITTO's intention to preserve all the biodiversity that a tropical forest contains. It tolerates some loss of biodiversity as long as forests continue to provide the required goods and services. It is apparent that the ITTO is clearly giving priority to the conservation of those forest resources that have instrumental value.⁸³³

⁸³¹ For the definition of 'sustainable forest management' see Chapter 4, section 4.2.3.

⁸³² See Art. 1(r) of the *ITTA*, 2006.

⁸³³ See Chapters 2, 5 and 6 for various environmental values.

The pursuit of sustainable use on the one hand permits utilization of the natural resources for economic development, but on the other hand restricts such use so as to protect and preserve the environment. Therefore, sustainable use of natural resources, which is an important element of sustainable development,⁸³⁴ forms an essential link between conservation and trade. Sustainable use is integrated into the modern concept of conservation, which recognizes that the sustainable use of living resources, and the ecosystems of which they are a part, is a prerequisite for biological diversity conservation and at the same time acknowledges the necessity for certain elements to be given special care and treatment. In other words, the current concept of conservation includes both the classic elements of protection and sustainable utilization.⁸³⁵

‘Sustainable use’ requires that the use of biological resources does not reduce the future use potential of the target population or impair its long-term viability. It must also be compatible with the maintenance of the long-term viability of supporting and dependent ecosystems, and must not reduce the future use potential or impair the long-term viability of other species.⁸³⁶ Thus, ‘sustainable use’ is species- and ecosystem-oriented and can be either consumptive or non-consumptive. Arguably, the ‘sustainable use’ approach acknowledges both intrinsic and utilitarian values⁸³⁷ of natural resources and establishes a more integrated system of trade and conservation. However, the SFM approach is trade-oriented and does not protect biodiversity, which appears to lack instrumental value. It does not consider the fact that species are part of

⁸³⁴ Birnie et al., *supra* n 11, 119.

⁸³⁵ Van Heijnsbergen, *International Legal Protection of Wild Flora and Fauna* (Amsterdam: 1997), 51–2.

⁸³⁶ IUCN, *Guidelines for the Ecological Sustainability of Non-consumptive and Consumptive Uses of Wild Species* (Draft Guideline: 1994).

⁸³⁷ See ‘Addis Ababa Principles and Guidelines’, *supra* n 454 para. 8(e).

the ecosystem, and therefore need protection if a healthy environment is to be maintained.

8.2.3. Higher standards for the precautionary approach

The precautionary approach is a tool to deal with uncertainty related to the use of biodiversity.⁸³⁸ Thus, the precautionary principle plays a vital role in the concept of sustainable utilization because it recognizes that action is needed when threats of biodiversity become apparent, and international bodies should not wait until exhaustive studies have been completed. The precautionary approach is subsumed within *CITES*, the *CBD* and the *Cartagena Protocol* as a tool to deal with uncertainty related to the trade of endangered species, the use of biodiversity and the transboundary movement of LMOs. A flexible approach in formulating the precautionary approach is significant to protect the environment.

The MEAs' precautionary approach has lowered the standard of scientific proof of risk by requiring that, where there is some evidence of risk of serious or irreversible harm, albeit inconclusive, appropriate action may be called for and the 'lack of full scientific certainty shall not prevent the proposal from proceeding'.⁸³⁹ In contrast, the *SPS Agreement* has formulated the precautionary approach in such a way that the application of precautionary measures requires conclusive proof of a risk, which is a higher standard compared to the common formulation of the precautionary approach stated in principle 15 of the *Rio Declaration*. The main concern of the *SPS Agreement* should be that the precautionary measure is not a 'disguised restriction to trade': as

⁸³⁸ Principle 15 of the *Rio Declaration* and *Ibid.*, para. 8(f) and practical principle 5.

⁸³⁹ See Article 8(7)(a) of the 2001 *POPS Convention*, which deals with listing harmful chemicals. See also Article 11(8) of the 2000 *Biosafety Protocol*.

long as this is not the case, such measures should be treated as justifiable in order to protect environmental and human health and to reduce unnecessary exposure to risks.

In *EC – Biotech*, the *SPS Agreement* came into conflict with the *Biosafety Protocol* on the issue of the precautionary approach. In this case, the WTO Panel had the opportunity to clarify Article 5(7) of the *SPS Agreement*, but it avoided this issue on the ground that all Parties to the *SPS Agreement* were not necessarily Parties to the *Biosafety Protocol*.⁸⁴⁰ It also made clear that the precautionary approach is not a principle of customary international law and therefore it cannot override the specific provision of the *SPS Agreement*.

Arguably, the reason why the Panel was so cautious was that if the precautionary approach were to be viewed as an established principle of international law, the interpretation and application of treaties would be affected, since general principles of law are of particular relevance to the interpretation of an unclear treaty rule. This would have a significant effect, because the precautionary approach is arguably already part of the international law of sustainable use of natural resources, including endangered species, biological diversity and forests, and is the basis for comprehensive environmental protection both nationally and internationally.⁸⁴¹

8.2.4. Technical regulations and standards to protect the environment

As discussed in previous chapters, MEAs and multilateral trade agreements contain provisions allowing member states to adopt technical regulations obstructing international trade to protect ‘human health or safety, animal or plant life or health, or

⁸⁴⁰ *EC – Biotech Products*, *supra* n 108, para. 7.68.

⁸⁴¹ Arie Trouwborst, *Evolution and Status of the Precautionary Principle in International Law*, 62 *International Environmental Law and Policy Series* (Kluwer Law International: 2002), 284.

the environment'.⁸⁴² Such regulations might take the form of eco-labelling or certification.

Eco-labelling notifies consumers of the environmental impacts of producing or using a product and service. Such information helps customers to make choices regarding the products that are environment-friendly. Since eco-labelling is a voluntary measure, if a country fails to act to protect its own environment, other countries have no trade leverage to promote better environmental practices under the WTO. The WTO rules permit eco-labelling, but do not allow including information related to process and production methods. Modern customers are aware of the impact that the production of goods may have on the environment and their health, and are keen to make the right choices based on the information attached to products with different characteristics. However, the WTO does not only take customer preferences into account.

Furthermore, WTO Members are not authorized to discriminate between products with the same physical characteristics based upon PPMs. Under *GATT* and WTO rules, the process by which a product is produced is not an acceptable cause for trade restrictions. Only if the product itself is harmful can a country impose controls. The PPM is an important potential weapon for international environmental protection. If the WTO does not change its approach towards the interpretation of 'like products' so as to include PPMs, *CBD* Contracting Parties requiring foreign products to be eco-labelled will *prima facie* violate Article III(4) of the *GATT* 1994, even if the same restrictions are applied to domestic products.

⁸⁴² See Chapters 3, 6 and 7.

8.2.5. The *TRIPS Agreement*'s limited environmental protection

The *TRIPS Agreement* provides for the protection of plant varieties either through patent protection or a *sui generis* system. However, it does not provide protection for traditional knowledge as such.⁸⁴³ *Sui generis* provisions could permit forms of statutory exemptions in individual members' territories, whereby they could regulate such matters as bio-prospecting.⁸⁴⁴ Article 31 of the *TRIPS Agreement* contains provisions for granting compulsory licensing to allow WTO Members to facilitate bio-prospecting activities.⁸⁴⁵ However, the *TRIPS Agreement* places procedural limits on the ability of governments to provide such licensing to ensure that measures and procedures to enforce intellectual property rights do not themselves become a barrier to trade.⁸⁴⁶

Furthermore, the *TRIPS Agreement* is primarily concerned with ensuring adequate protection and enforcement of intellectual property rights and has no provisions for the sharing of benefits arising out of the use of traditional knowledge in the new inventions, which are protected through patents. By granting patents only to inventions that are based on new knowledge, it protects the interests of commercial companies and deprives traditional knowledge holders from the 'fair and equitable' sharing of the benefits of utilizing such knowledge.⁸⁴⁷

It is vital to preserve, protect and promote indigenous people's traditional knowledge relating to genetic resources, as such knowledge is valuable in protecting species, ecosystems and landscapes. The *CBD* has recognized these values of traditional

⁸⁴³ Footer, 'Our Agricultural Heritage', *supra* n 378, 433.

⁸⁴⁴ See Chapter 3.

⁸⁴⁵ Correa, 'Patent Right', *supra* n 372, 245–9.

⁸⁴⁶ For more about these limitations, see the text of Article 31 of the *TRIPS Agreement*.

⁸⁴⁷ Article 27(3)(b) of the *TRIPS Agreement*. For discussion see Chapter 3.

knowledge and includes provisions protecting and promoting them.⁸⁴⁸ It also requires that the benefits arising from the utilization of genetic resources and related traditional knowledge be shared in a ‘fair and equitable’ manner with Parties providing such resources and with the holders of traditional biodiversity-related knowledge. The Convention’s IP provisions are flexible, general and elaborate, whereas the *TRIPS Agreement*’s IP provisions are specific and limited to the boundary of the multilateral trading system.

8.3. Significance of environmental protection

During the last few centuries – and the last five decades in particular – the global population has risen exponentially. With 6.8 billion people all seeking to secure the resources believed to be necessary for comfortable survival, the planet’s finite natural resources and its ecology have suffered tremendously.⁸⁴⁹ This has given rise to accelerated species extinction rates,⁸⁵⁰ depletion of critically renewable and non-renewable resources, and increased pollution. For our survival we depend entirely on natural resources. If the environment becomes polluted or damaged, our own survival will be threatened, as ‘biodiversity and human well-being just cannot be separated’.⁸⁵¹

8.3.1. Environment is a means and an end in itself

Trade is seen as one of the important means to achieving economic and social development. By contrast, protection of the environment might be seen both as a

⁸⁴⁸ Article 8(j) of the *CBD*. For discussion see Chapter 6.

⁸⁴⁹ WorldWatch Institute, *State of the World: Innovations for a Sustainable Economy* (New York: W. W. Norton and Company, Inc.: 2008).

⁸⁵⁰ Wilson, *The Future of Life* (New York: Alfred A. Knopf Publishing 2002).

⁸⁵¹ Millennium Ecosystem Assessment (2005), ‘Ecosystem and Human Well-being’ Vol II, Ch 10. Available at: <<http://www.maweb.org/en/Scenarios.aspx#download>>.

means of securing sustainable economic development and other key values, such as protection of human rights and preservation of peace, and as an end in itself.

In order to secure more robust development, researchers have recently been working to develop new ways of assessing and valuing 'ecosystem services'. Applying economic thinking to the use of biodiversity and ecosystem services can help clarify two critical points: first, why prosperity and poverty reduction depend on maintaining the flow of benefits from ecosystems, and second, why successful environmental protection needs to be grounded in sound economics, including explicit recognition, efficient allocation, and fair distribution of the costs and benefits of conservation and sustainable use of natural resources.

Humans rely on the way 'ecosystem services'⁸⁵² control our climate, regulate pollution and secure pollination; however, these benefits gained from the natural world, which are essential for our survival, are not always fully appreciated because we get them for free. In the UK's first National Ecosystem Assessment report, Ian Bateman concludes that, '[W]ithout the environment, we're all dead – so the total value is infinite'.⁸⁵³ The invisibility of biodiversity values has often encouraged inefficient use or even destruction of the natural capital that is the foundation of our economies. In this context, two international studies – the Millennium Ecosystem Assessment (MEA)⁸⁵⁴ and the Economics of Ecosystems and Biodiversity (TEEB)⁸⁵⁵

⁸⁵² Ecosystem services are the benefits people obtain from ecosystems. These are the products such as goods and services that come out of the ecosystem, for example food, water purification, spiritual experience, etc. The combination of these goods and services contributes to human well-being in terms of health, wealth and happiness.

⁸⁵³ The UK National Ecosystem Assessment (UK NEA) is the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. The report was published in March 2011 and is available in full at <<http://uknea.unep-wcmc.org/Resources/tabid/82/Default.asp>>.

⁸⁵⁴ Millennium Ecosystem Assessment, *supra* n 851.

– have given broader views of society’s environmental trajectory, and the costs and benefits of the protection of the environment.

The Millennium Ecosystem Assessment was carried out between 2001 and 2005 to assess the consequences of ecosystem change for human well-being and to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems and their contributions to human well-being.⁸⁵⁶ The assessment focuses on the linkages between ecosystems and human well-being and, in particular, on ‘ecosystem services’. These include *provisioning services* such as food, water, timber and fibre; *regulating services* that affect climate, floods, disease, waste and water quality; *cultural services* that provide recreational, aesthetic and spiritual benefits; and *supporting services* such as soil formation, photosynthesis and nutrient cycling. The findings of the Millennium Ecosystem Assessment have made explicit the contribution of ecosystem services to human well-being. Arguably, a safe and healthy environment is the prerequisite for the enjoyment of human rights.

The TEEB synthesis shows how economic concepts and tools can help equip society with the means to incorporate the values of nature into decision-making at all levels. TEEB presents an approach that can help decision-makers recognize, demonstrate and, where appropriate, capture the values of ecosystems and biodiversity. The traditional view of economic growth is based on chasing GDP, which does not take into account the true value of nature. The concepts of ecosystem services and natural capital can help us recognize the many benefits that nature provides. For example, the

⁸⁵⁵ TEEB (2010), *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB*. Available at <http://www.teebweb.org/InformationMaterial/TEEBReports/tabid/1278/Default.aspx>

⁸⁵⁶ Millennium Ecosystem Assessment, *supra* n 851.

total economic value of insect pollination worldwide is estimated at \$153 billion, representing 9.5% of world agricultural output in 2005.⁸⁵⁷

Of course, it is not possible to put a price on everything in nature, but equally we cannot ignore the importance of looking after it when we are striving for economic growth. Future economic growth will be undermined unless we understand the full value of the natural world on which our wealth, health and well-being depend.⁸⁵⁸ Recognizing value in ecosystems, landscapes, species and other aspects of biodiversity is a feature of all human societies and communities, and is sometimes sufficient to ensure conservation and sustainable use. Thus, arguably, the preservation of the environment on the basis that a healthy environment can ensure a healthy society is a means to an end.

8.3.2. Biodiversity under threat

Despite the ongoing conservation efforts of the international community, the most recent assessments of global biodiversity find that species are continuing to decline and that the risk of extinction is growing; that natural habitats are continuing to be lost and becoming increasingly degraded and fragmented; and that the principal direct drivers of biodiversity loss (habitat disturbance, pollution (especially nutrient load), invasive alien species, over-exploitation and, increasingly, climate change) are either constant or intensifying.⁸⁵⁹ A third of all amphibians, a fifth of all mammals and an

⁸⁵⁷ N Gallai, J Salles, J Settele et al., 'Economic Valuation of the Vulnerability of World Agriculture Confronted with Pollinator Decline', (2009) 68 *Ecological Economics*, 810–21.

⁸⁵⁸ The UK National Ecosystem Assessment (UK NEA), *supra* n 853.

⁸⁵⁹ SHM Butchart, M Walpole, B Collen et al., 'Global Biodiversity: Indicators of Recent Declines' (2010) *Science*, 328 at 1164–8.

eighth of all birds are now threatened with extinction.⁸⁶⁰ It is thought that 90% of the large predatory fish in the oceans have gone since the beginning of industrial trawling.

Writing in the science journal *Nature*, a multidisciplinary group of scientists identified nine key safe-use planetary resource boundaries, three of which, they conclude, have already been transgressed (i.e. those relating to climate change, biodiversity and the operation of the nitrogen cycle). We are on the cusp of several others.⁸⁶¹ The report warns of serious consequences for human societies as ecosystems become incapable of providing the goods and services on which hundreds of millions of people depend.⁸⁶² Such thresholds have already been passed in certain coastal areas where ‘dead zones’ now exist, for a range of coral reefs and lakes that are no longer able to sustain aquatic species, and for some dryland areas that have been effectively transformed into deserts. Similarly, thresholds have been passed for some fish stocks.

Global biodiversity changes are important because they are irreversible; species that go extinct globally will never reappear. Losses of global biodiversity affect the provisioning of both types of ecosystem services – those that depend on abundance and those that depend on the maintenance of unique genetic combinations. The failure to account for the full economic values of ecosystems and biodiversity has been a significant factor in their continuing loss and degradation.⁸⁶³

⁸⁶⁰ Millennium Ecosystem Assessment, *supra* n 851.

⁸⁶¹ Rockström et al., *supra* n 55, 461.

⁸⁶² *Ibid.*, at 472–5.

⁸⁶³ GBO3 (2010) ‘Global Biodiversity Outlook 3’, SCBD – Secretariat of the Convention on Biological Diversity, Montreal.

8.3.3. Environment as the ‘common concern of humankind’

The notion of ‘common concern of humankind’ refers to ‘humanity as a whole’ whose concerns are at issue.⁸⁶⁴ Justice Weeramantry speculated that:⁸⁶⁵

We have entered an era of international law in which international law subserves not only the interests of individual States, but looks beyond them and their parochial concerns to the greater interests of humanity and planetary welfare ... International environmental law will need to proceed beyond weighing the rights and obligations of parties within a closed compartment of individual State self-interest, unrelated to the global concerns of humanity as a whole.

Environmental issues are common to all humanity, and environmental benefits and burdens are shared by all. Thus, the *CBD* explicitly proclaims that ‘the conservation of biological diversity is a common concern of humankind’.⁸⁶⁶ Such recognition does not impose specific rules and obligations on society as a whole, or on each individual member of the community, but establishes the general basis upon which the concerned community should act.⁸⁶⁷

The ILC in its 1996 Draft Articles on Responsibility of States for Internationally Wrongful Acts, featured harm to the environment in the list of possible crimes and suggested compensation for damage caused by an internationally wrongful act that

⁸⁶⁴ Shelton, ‘Common Concern’, *supra* n 230, 83.

⁸⁶⁵ Justice Weeramantry’s separate opinion in the *Gabcikovic – Nagymaros* case, *supra* n 38, 115.

⁸⁶⁶ Preamble of the *CBD*.

⁸⁶⁷ Shelton, ‘Common Concern’, *supra* n 230, 85.

causes or threatens environmental damage.⁸⁶⁸ This notion of state criminality proved unacceptable to governments and was eventually omitted from the final draft.⁸⁶⁹ However, arguably, the inclusion of large-scale harm to the environment as an example of possible criminal liability by states demonstrates the fundamentality of environmental interests to the international community. Furthermore, compensation claims for pollution costs have been dealt with by UNCC in the context of assessing Iraq's liability under international law 'for any direct loss, damage – including environmental damage and the depletion of natural resources ... as a result of its unlawful invasion and occupation of Kuwait'.⁸⁷⁰

The ICJ in its advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons* is of the view that treaties relating to the protection of the environment could not deprive a state of the exercise of its right of self-defence under international law because of its obligations to protect the environment. Nonetheless,

States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality.⁸⁷¹

⁸⁶⁸ Article 19 of the Draft articles on State Responsibility as adopted on first reading in 1996. For the text of the Draft articles adopted in first reading see ILC, *Yearbook of the International Law Commission 1996*, vol. II (Part 2), pp. 58-65.

⁸⁶⁹ The 2001 *Responsibility of States for Internationally Wrongful Acts*, A/56/49(Vol. 1)/Corr.4. Available at: <http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/9_6_2001.pdf>.

⁸⁷⁰ UNEP, *Protecting the Environment During Armed Conflict* (2009) 27.

⁸⁷¹ *Advisory Opinion on Nuclear Weapons*, *supra* n 38, para. 30.

Indeed, this approach is also supported by the *Millennium Declaration*, which has included *respect for nature* as one of the fundamental values.⁸⁷² By placing this attributed *respect for nature*, it recognizes the intrinsic value of the environment, and requires the international community to protect the ‘common environment’ in order to preserve the life-support system of the planet.⁸⁷³

The above discussion shows that the protection of the environment is a fundamental value of the international community, and like other fundamental values it should be protected through law, especially high-level norms of constitutional or international law.

8.4. Striking a balance between trade and the environment

This section proposes a series of systematic methods or techniques to resolve inconsistencies or tension identified between MEAs and multilateral trade agreements in this thesis and to improve coherence in this relationship. Sections 8.2 and 8.3 demonstrated that, despite the fundamental significance of the protection of the environment, the multilateral trading system has systematically undervalued environmental considerations in the event of their overlap with trade concerns. Accordingly, this proposal for developing a coherent system of regulation of the trade and environmental relationship addresses approaches that will secure a better balance between them in the international legal order.

In the light of the discussion of Chapter 2 and the methodology introduced in Chapter 1, this section proposes three key approaches to balance trade and environmental

⁸⁷² See Chapter 2, section 2.5.2.

⁸⁷³ *Ibid.*

considerations in the international legal order: first, harmonizing the apparently inconsistent norms from the environmental and trade treaty regimes in order to reach a compatible obligation between them; second, prioritizing the conflicting norms where it is necessary to balance the relationship; and third, an institutional approach for a coherent system of law.

8.4.1. Harmonizing apparent inconsistent norms

In the event of inconsistencies between trade and environmental norms, an attempt should first be made to harmonize them. Interpretation is an established process to harmonize two or more apparently inconsistent norms. Where the interpretation technique is insufficient in achieving this objective,⁸⁷⁴ other techniques as identified in Chapter 3 need to be taken into consideration: for example, amendment, modification or the adoption of new legislation. The following discussion focuses on methods to achieve a coherent and balanced system in the trade and environmental relationship by applying the harmonization approach.

8.4.1.1. Re-interpretation to integration

As discussed in section 8.2, the multilateral trading system undermines environmental considerations by interpreting the Article XX *GATT* ‘environmental exceptions’ too narrowly. Such interpretation does not properly reflect the objectives and purposes of the *WTO Agreement* and its annexed multilateral trade agreements. This section therefore proposes that to balance trade and environmental concerns more effectively in the international legal order, the WTO dispute settlement system must interpret the Article XX *GATT* ‘environmental exceptions’ more broadly, giving effect to the

⁸⁷⁴ See Chapter 3.

preambular objectives of the *WTO Agreement*. However, in order to achieve a coherent system of law it might also be necessary to consider along with specific treaty norms the additional norms identified in Chapter 2, which include: applicable external norms, fundamental trans-sectoral principles, general trans-/cross-sectoral meta norms, and norms deriving from political aspirations and fundamental values of the international community.

(a) Broad interpretation of ‘environmental exceptions’

It was the practice under the former *GATT* panels to interpret Article XX exceptions narrowly to preserve ‘the basic objectives and principles’ of the *GATT*.⁸⁷⁵ The Appellate Body in *US – Gasoline* also suggested that the Article XX exceptions should not have been read so expansively that they subverted the purpose and objective of the *GATT*.⁸⁷⁶ The WTO Panel took the same view in *EC – Biotech Products*.⁸⁷⁷ But, the WTO objectives are more diverse than those of the *GATT* 1947 and specifically include ‘protection and preservation of the environment’. This permits decision-makers in the WTO dispute settlement mechanism to interpret the Article XX *GATT* exceptions in such a way as to give effect to the preambular objectives balancing trade and environmental concerns. This section of the chapter argues that to achieve this balance the WTO dispute settlement mechanism should look into the Article XX *GATT* exceptions individually, as it is not always the case that a narrow interpretation of exceptions protects the objective and purposes of a treaty.⁸⁷⁸

⁸⁷⁵ See chapter 3. Footnote 330.

⁸⁷⁶ *US – Gasoline*, *supra* n 36, 18.

⁸⁷⁷ For the discussion on *EC – Biotech Products* case see chapter 3.

⁸⁷⁸ See the example of the *CITES* exceptions.

For example, a broad interpretation of Article XX(b) and (g) of the *GATT* might help to achieve the overall objectives and purposes of the *WTO Agreement* more effectively. As discussed in Chapter 3, the WTO dispute settlement system interprets the word ‘necessary’ in Article XX(b) narrowly in order to protect the fundamental principles of the *GATT*,⁸⁷⁹ thereby causing tension within the trade and environmental relationship.

However, tensions within a particular treaty might be resolved by finding the ordinary meaning of the individual words when read together, and in the light of the objective and purposes of that individual treaty.⁸⁸⁰ For example, the tension between Articles III and XX of the *GATT* can be resolved by giving effect to the ordinary meaning of each provision. The term ‘necessary’ used in Article XX(b) of the *GATT* has also occurred in a great many international agreements, including the European Convention on Human Rights (ECHR).

In an ordinary meaning, ‘necessary’ may carry a range of meanings or strengths, all the way from ‘absolutely indispensable’ down to ‘corresponding to a need’. The European Court of Human Rights used the latter meaning for the word ‘necessary’ and held that the term ‘necessary’ goes beyond what is merely ‘admissible’, ‘useful’, ‘reasonable’ or ‘desirable’, and is not synonymous with ‘indispensable’.⁸⁸¹ It implies that to be ‘necessary’, the measure in question must ‘correspond to a pressing social need’ and be ‘proportionate to the legitimate aim pursued’.⁸⁸² The WTO dispute

⁸⁷⁹ Articles I and III of the *GATT*.

⁸⁸⁰ Article 31(1) of the *Vienna Convention*.

⁸⁸¹ European Court of Human Rights, *The Sunday Times v United Kingdom*, Judgment of 26 April 1979, Series A no. 30, 35–6, para. 59.

⁸⁸² *Ibid.* European Court of Human Rights, *Silver and Others v United Kingdom*, Judgment of 25 March 1983, Series. A no. 61, para. 97.

settlement organs should follow this practice of the ECHR, and adopt the least rigorous meaning of the term ‘necessary’ in order to interpret Article XX(b) of the *GATT*. Such interpretation would justify a trade-restrictive unilateral measure under Article XX(b) of the *GATT* which ‘correspond[s] to a pressing social need’, is ‘proportionate to the legitimate aim pursued’ and is ‘not a disguised restriction on trade’. A broad interpretation of the word ‘necessary’ protects the overall objectives and purposes of the *WTO Agreement* and would also be within the context of the *Agreement*.

However, the WTO Panel adopted the former meaning of the term ‘necessary’ and requires a measure to be ‘least trade restrictive’⁸⁸³, and thus neither takes into account the ordinary meaning of ‘necessary’ nor reflects the preambular objectives of the *WTO Agreement*. The approach applied by the WTO dispute settlement system to determine whether a measure is ‘necessary’ requires that the ‘weighing and balancing’ result be confirmed by comparing the measure with possible alternatives, which might be *less trade restrictive*, while providing an equivalent contribution to the achievement of the objective pursued.⁸⁸⁴

However, the standard for determining what is ‘necessary’ should not be based on demonstrating that the measure in question is the ‘least trade restrictive’. A trade-restrictive measure should be accepted as ‘necessary’ if it is a reasonable and proportionate response to a proven need ‘to protect human, animal or plant life or health’ and not be ‘arbitrary or unjustifiably discriminatory’ towards international trade. As mentioned previously, the former interpretation manifests priority of trade

⁸⁸³ *United States – Section 337 of the Tariff Act*, supra n 332 para. 5.26; *Thailand – Cigarettes*, supra n 320, 1122; *Tuna I*, supra n 258, 839.

⁸⁸⁴ *Brazil – Retreaded Tyres*, supra n 264, Appellate Body Report, para. 211.

interests,⁸⁸⁵ whereas the latter interpretation balances trade and environmental concerns. Such interpretation might justify a unilateral measure taken by a WTO Member in order to protect its domestic environment.

Again, the original interpretation of another environmental exception in Article XX(g) ‘relating to ... the conservation’ as meaning ‘primarily aimed at conservation’⁸⁸⁶ has also failed to give due weight to sustainable development considerations. In *US – Shrimp*, the Appellate Body took a different approach to the ‘relating to’ element, examining the relationship between the structure of the measure in question and the conservation objectives being sought to be achieved, and concluded that the measures should be ‘reasonably related’ to the conservation objectives.⁸⁸⁷ This broad interpretation of the phrase ‘relating to’ authorizes a WTO Member to adopt measures applicable to ‘exhaustible natural resources’ beyond its national jurisdiction.

Regarding Article XX(d) of the *GATT*, the Appellate Body made it clear that ‘laws and regulations’ refer to domestic rules and not the obligations of another WTO Member under an international agreement.⁸⁸⁸ Thus, the term ‘laws and regulations’ is qualified by the phrase ‘not inconsistent with the provisions of this Agreement’,⁸⁸⁹ i.e. the ‘laws and regulations’ referred to in Article XX(d) have to be *GATT*-consistent.⁸⁹⁰ Yet, a broad interpretation of Article XX(d) to include other international agreements

⁸⁸⁵ See section 8.2.1.

⁸⁸⁶ *Canada – Salmon and Herring*, *supra* n 273, paras 4.5–4.6. In *US – Gasoline*, the Appellate Body accepted this interpretation, *supra* n 36, 17.

⁸⁸⁷ *US – Shrimp*, *supra* n 105, para. 141.

⁸⁸⁸ *Mexico – Taxes on Soft Drinks*, Appellate Body Report, *supra* n 284, para. 69.

⁸⁸⁹ *EC – Protection of Trademarks*, *supra* n 286, para. 7.331 and *EC – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs – Complaint (US)*, Panel Report (2005), WT/DS174/R, para. 7.296.

⁸⁹⁰ See Chapter 3, section 3.2.3.2. (a).

whose provisions are *GATT*-consistent would authorize WTO Members to secure better compliance.

It is apparent from the above discussion that a less restrictive interpretation of the Article XX *GATT* 'environmental exceptions' might authorize WTO Members to take more effective measures to protect the environment even without transcending the objectives and purposes of the *WTO Agreement*, taking into consideration relevant external treaty norms.

(b) Interpreting WTO rules by reference to sources external to the *Agreement*

As discussed in Chapter 2, the systemic integration objective of Article 31(3)(c) acknowledges treaties as living instruments and permits the 'evolutionary interpretation' of a treaty norm in the light of changing values of the international community. 'Open and evolving' concepts, such as 'sustainable use' and the 'precautionary approach', are included both in the MEAs and the *WTO Agreements*. Interpreting these concepts and principles only in the light of, and within the context of, an individual treaty might render the objective and purpose of the treaty obsolete or cause inconsistency with relevant rules of other treaties, customary rules or general principles of international law. Recognizing systemic integration as a legitimate goal of interpretation will help these concepts and principles to be applied coherently and to establish a balance between different interests.

In *EC – Biotech*, the WTO Panel analysed the operation and application of its regime by the European Communities for the approval of biotech products and certain

measures adopted and maintained by EC member states prohibiting or restricting their marketing.⁸⁹¹ In this case, the Panel accepted that the *Cartagena Protocol* is potentially relevant to the interpretation of the *SPS Agreement*. However, it chose not to explore whether the EC trade-restriction measures could be defended under the precautionary approach by reference to the *Cartagena Protocol* on the ground that all Parties to the latter instrument are not Parties to the *SPS Agreement*. The Panel made an oblique reference to the issue of whether non-WTO law could be applied by the WTO dispute settlement organs as ‘applicable law between the disputing parties’.⁸⁹² While mentioning Article 31(3)(c) of the *Vienna Convention* in relation to this issue, the Panel decided that Article 31(3)(c) indicates that it is only those rules of international law which are ‘applicable in the relations between the parties’ that are to be taken into account in interpreting a treaty.⁸⁹³ According to the Panel, this means that a WTO norm can only be interpreted by reference to a non-*WTO Agreement*, in this case the *Cartagena Protocol*, if all the WTO Members are Parties to that MEA. It found:⁸⁹⁴

This understanding of the term “the parties” leads logically to the view that the rules of international law to be taken into account in interpreting the *WTO Agreements* at issue in this dispute are those which are applicable in the relations between the WTO Members.

⁸⁹¹ *EC – Biotech Products*, *supra* n 108.

⁸⁹² *Ibid.*, para. 7.72. The Panel stated:

It is important to note that the present case is not one in which relevant rules of international law are applicable in the relations between all parties to the dispute, but not between all WTO Members, and in which all parties to the dispute argue that a multilateral *WTO Agreement* should be interpreted in the light of these other rules of international law. Therefore, we need not, and do not, take a position on whether in such a situation we would be entitled to take the relevant other rules [Article 31(3)(c) of the *Vienna Convention*] of international law into account.

⁸⁹³ *Ibid.*

⁸⁹⁴ *Ibid.*, para. 7.68.

It is not clear what the Panel meant here; is it that all the Parties to the treaty under interpretation are required to be identical to the treaties relied upon, or only that the Parties to the dispute are required to be Parties to both the treaty under interpretation and treaties relied upon? The former interpretation not only risks frustrating the purpose of Article 31(3)(c) but is also unrealistic, because it is unlikely in practice that all WTO Members will be Parties to any particular MEA. A WTO Member that is not party to an environmental agreement does not bear the cost of requisite environmental protection, but would nonetheless benefit from 'the environmentally protective measures' that it creates; as such it would be a 'free rider of the system'.⁸⁹⁵ That is why the US is not a Party to the *CBD* or the *Cartagena Protocol*, despite being the biggest economy in the world and the largest producer of biotechnology goods and products. In addition, the 'parties to the *WTO Agreement*' include customs territories, which are simply unable to be Parties to MEAs,⁸⁹⁶ thus neutralizing the effect of Article 31(3)(c) if it is only applicable to treaties of identical membership.

However, this interpretation precludes reliance upon treaties, such as the *CBD*, which have very wide, albeit not universal, acceptance in the international community. It also precludes reference to more specialized treaties such as the *Cartagena Protocol*, which is a protocol to the *CBD*, on the basis that it has not been ratified by all the Parties to the treaty under interpretation.

⁸⁹⁵ Charney, *supra* n 99, 529–30.

⁸⁹⁶ Article XII (1) of the *WTO Agreement* reads 'Any State or separate customs territory possessing full autonomy in the conduct of its external commercial relations and of the other matters provided for in this Agreement and the Multilateral Trade Agreements may accede to this Agreement, on terms to be agreed between it and the WTO'.

An all acceptable interpretation of an overlapping treaty norm requires to be applied by reference to 'relevant rules of international law applicable in the relation between the parties'. Such rules are included in international agreements which have the general support of the international community. International agreements having nearly universal endorsement have great persuasive force as a basis for evolutionary interpretation, and therefore need to be taken into consideration as 'relevant rules'. The *CBD* is an almost universally endorsed agreement. Thus, interpretation of the WTO rules needs to take into consideration relevant rules of the *CBD* for subtle, evolutionary and policy-driven changes in its existing regime. The WTO dispute settlement organs can play an active role in this context by being interpreters of a body of formal legal rules.

It is important to note that Article 31(3)(c) of the *Vienna Convention* provides only that these relevant external rules be 'taken into account', without specifying what the precise effect should be. To 'take into account' means to include something when making a decision or judgment: this provision accordingly provides an extremely flexible and open-ended mechanism for 'systemic integration' of treaties. It also applies in a wider context of a systemic vision of international law and is not restricted to cases of outright conflict. However, there still remains conceptual doubt as to the exact nature, purpose and scope of Article 31(3)(c). There is a need for further interpretation by the Court, as the ICJ in the *Oil Platform* case did not give guidance as to when and how Article 31(3)(c) should be applied.

Above all, in the WTO context Article 31(3)(c) does not allow decision-makers to interpret rules having law-making effect, as Article 3(2) of the DSU provides that

‘[R]ecommendations and rulings of the DSB cannot add to or diminish the rights and obligations provided in the covered agreements’. In this way the parties have asserted their own competence to interpret *WTO Agreements*, ‘thereby prioritizing their own political determinations over potential judicial decisions’.⁸⁹⁷ Furthermore, Article 31(3)(c) requires that a treaty be interpreted in the light of other rules of international law applicable to states’ parties to that treaty, and thereby ensures or enhances the consistency of the rules of international law and contributes to the avoidance of conflict between them.

It might be overly hopeful to consider such references as a sign that ‘[n]o longer can trade disputes be settled on the basis of trade rules alone’.⁸⁹⁸ External rules of international environmental law have, so far, only been applied as factors guiding the *interpretation* of precepts within the trading system, such as Article XX(b) and (g) of the *GATT*. But mere mention of existing environmental arrangements is hardly evidence for the independent and equal consideration of international law beyond the agreements on free trade.⁸⁹⁹

(c) Harmonizing divergent standards

As pointed out in Chapters 6 and 7, the precautionary language of the *Cartagena Protocol* and *CBD* is different from, though not necessarily incompatible with, that of the *SPS Agreement*. The *Cartagena Protocol* and the *SPS Agreement* have adopted two different formulations of the same precautionary approach. Since these different formulations are not inherently conflicting, they should to the greatest extent possible

⁸⁹⁷ Boyle and Chinkin, *The Making of International Law*, *supra* n 34, 275.

⁸⁹⁸ Mark Halle, ‘Trade and Environment: Looking Beneath the Sands of Doha?’ (2006) 3 *JEEPL* 107 at 115.

⁸⁹⁹ Lindroos and Mehling, ‘From Autonomy to Integration?’ *supra* n 21, 264.

be interpreted to give rise to a set of compatible obligations. Such interpretation may require the interpreter of a treaty to take into account ‘any relevant rules of international law applicable in relation between the parties’.

In *EC – Biotech*, the Panel’s interpretation of ‘applicable in the relations between the parties’ is based on the classical concept of state sovereignty and a state’s voluntary consent to be governed by international law. The Panel did not consider the contemporary development of the concept of state sovereignty, especially in conservation agreements.⁹⁰⁰ In these agreements, states no longer have unfettered freedom over their natural resources. Instead, while exercising such right, they have to take into account the legitimate concerns of the community of states with regard to the preservation of these resources.⁹⁰¹ In addition, as mentioned above, it is unlikely that environmental and trade agreements will ever have identical members. Therefore, treaties like the *Cartagena Protocol*, which has nearly universal membership, should be considered as a relevant rule while interpreting the *SPS Agreement*.

As pointed out by President Higgins in the *Oil Platform* case, in applying Article 31(3)(c) the court should consider the context of the treaty. The Protocol and the *SPS Agreement* both contain rules that govern the international trade in LMOs. The context of the *Cartagena Protocol* is not only relevant to the *SPS Agreement* but is also more specific, i.e. *lex specialis*. This means that the *Cartagena Protocol* may well be used to clarify the rules of the *SPS Agreement*. Therefore, the Panel in *EC – Biotech* could have interpreted the *SPS Agreement*’s precautionary approach by reference to the approach adopted in the *Cartagena Protocol*. Such interpretation would not go against

⁹⁰⁰ Handl, ‘Environmental Security and Global Challenge’, *supra* n 205, 31.

⁹⁰¹ Bilderbeek, Wijgerde et al., *Biodiversity and International Law: The Effectiveness of International Environmental Law* (IOS Press, 1992) 87.

the context of the *SPS Agreement*, as the preamble of the *WTO Agreement* has stated that ‘sustainable development’ and ‘protection and preservation of the environment’ are its objectives.

In addition, such an interpretation would serve to balance both trade and environmental interests, as the precautionary approach has been developed considerably under the *Cartagena Protocol*. The Protocol considers ‘socio-economic’ conditions, i.e. non-scientific factors, especially the value of indigenous people, while assessing the risk of importing an LMO. In recent scientific development, a dynamic ‘sustainability science’ approach is emerging which encompasses scientific, legal, economic and other disciplinary understanding and knowledge.⁹⁰² This approach is gaining acceptability, as recognized in Principle 6 of the CBD’s *Addis Abba Principles*, and reflected in the IUCN’s 2004 Report on GMOs and Biosafety.⁹⁰³ By incorporating socio-economic considerations in the making of import decisions, Article 26 also acknowledges the limitation of traditional scientific inquiry, and opens the door for the Parties to apply ‘sustainability science’ to import decisions. The precautionary approach adopted under the Protocol reflects the changing social values and developments in international law in this approach and establishes an appropriate balance between trade and environmental concerns.

The precautionary principle provides critical interpretative guidance for decision-makers in cases where scientific uncertainty is a prominent factor in addressing invasive alien species risks. In *EC – Hormones*, the Appellate Body pointed out that

⁹⁰² See Birnie et al., *supra* n 11, 646.

⁹⁰³ *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* was adopted at the 7th Conference of the Parties to the *CBD* in 2004. IUCN-WCU, ‘Genetically Modified Organisms and Biosafety: A Background Paper for Decision-Makers and Others to Assist in Consideration of GMO Issue’ (Gland, 2004) 5.

the precautionary principle provides a common-sense model of decision-making in framing SPS measures.⁹⁰⁴

[a] panel charged with determining, for instance, whether “sufficient scientific evidence” exists to warrant the maintenance by a Member of a particular SPS measure may, of course, and should, bear in mind that responsible, representative governments commonly act from perspectives of prudence and precaution . . .

The precautionary principle is directly embodied in key components of *WTO Agreements*. For example, the Appellate Body has pointed out that the precautionary principle is reflected in the right of members, under Article 3(3) of the *SPS Agreement*, to determine that an appropriate level of protection may be higher (i.e. more cautious) than provided for by international standards.⁹⁰⁵

Merely pointing out that the precautionary principle cannot override specific SPS obligations,⁹⁰⁶ such as the need to prepare a risk assessment, does not limit its guiding role in its elaboration. Although undoubtedly the precautionary principle has not been written as an ‘exception’ to SPS disciplines, it may nevertheless be relevant if a conflict of norms arises.⁹⁰⁷ Likewise, it is not problematic that the precautionary principle cannot itself trump principles of treaty interpretation. The precautionary principle itself informs the context and other aspects of treaty interpretation, and for this reason it is highly relevant to the interpretation of WTO law. Thus, since scientific uncertainty is often a looming presence in the invasive alien species setting, the

⁹⁰⁴ *EC – Hormones, supra* n 163, para. VI.

⁹⁰⁵ *Ibid.*

⁹⁰⁶ *Ibid.*, para. II.

⁹⁰⁷ *Ibid.*

precautionary principle has a prominent role in guiding decision-makers to appropriate outcomes.

Another environmental standard that might come into conflict with multilateral trade agreement is eco-labelling. The labelling standards set up in the *TBT Agreement* are apparently inconsistent with those of the *CBD* and the *Biosafety Protocol*. The WTO Panel in *US – Tuna (Mexico) II* decided that labelling regulations should not be ‘more trade-restrictive than necessary’ to fulfil a legitimate objective.⁹⁰⁸ But, the Panel adopted a very broad interpretation of ‘legitimate objective’, and decided that to be ‘legitimate’ a trade-restrictive measure is required to be part of wider conservation measures.⁹⁰⁹ An interpretation of the phrase ‘legitimate objectives’ reflects the preamble of the *TBT Agreement*, which authorizes Members to decide for themselves which legitimate objectives to pursue and to take measures to meet those objectives ‘at the levels [they consider] appropriate’, thereby better balancing trade and environmental concerns.

Furthermore, the WTO Panel in *US – Tuna (Mexico) II* have interpreted Article 2(2) of the *TBT Agreement* to include PPMs as part of the labelling requirement⁹¹⁰, since PPMs are not disguised restrictions to trade but established ways to protect the environment.

8.4.1.2. Amending the *WTO Agreement*

The other way to harmonize inconsistent norms from different sectors is to amend the treaty to change its substantive provisions. As discussed in Chapter 3, the *WTO*

⁹⁰⁸ *US – Tuna II (Mexico)*, *supra* n 322, para. 4.95.

⁹⁰⁹ *Ibid.*, para. 4.90.

⁹¹⁰ *US – Tuna II (Mexico)*, *supra* n 322, para. 7.372.

Agreement does not contain any specific conflict clause. It could, however, follow the NAFTA example. Article 104 of the NAFTA expressly permits the use of trade measures to pursue extraterritorial environmental goals, where such measures have been authorized by an international environmental agreement and the NAFTA Parties have agreed that the trade obligations of such an agreement are to prevail over inconsistent NAFTA obligations.

NAFTA Article 104(1) does apply the same 'least trade-restrictive' test as WTO dispute settlement mechanisms to the implementation of environmental policies.⁹¹¹ Nevertheless, Article 104 represents a codification of what the likely outcome would be if any of the listed agreements were challenged before a WTO Panel. Article 104 implies that, where there is a conflict between trade obligations under NAFTA and environmental obligations under other agreements, the NAFTA obligations prevail unless the competing agreement is listed in Article 104 or Annex 104(1).

The NAFTA adopts a consensual approach to environmental protection which could refine or redefine the relationship between MEAs and multilateral trade agreements. The *WTO Agreement* could add a conflict clause by identifying a number of MEAs with whom its provisions frequently overlap, agreeing that they will trump the *WTO Agreement* and its annexed agreements in the case of disharmony. However, such a conflicts clause may ultimately be inappropriate for the *GATT*, or other WTO Agreements. In the case of NAFTA, its Parties are all signatories to these agreements, and much of the WTO controversy is over disputes between Parties and non-Parties.

⁹¹¹ Condon, *supra* n 25, 559.

8.4.1.3. Modification of apparent inconsistent norm

As discussed in Chapter 2, Article 41 of the *Vienna Convention* permits two or more Parties to a multilateral treaty to conclude an *inter se* agreement to modify an earlier treaty between themselves. Such agreements are treated as subsequent agreements and form part of the treaty context. For the purposes of interpreting a treaty, ‘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’ also comprises the treaty context, in addition to the treaty text itself.⁹¹² In other words, where a state has made a reservation on ‘signing, ratifying ... or acceding to’ a multilateral treaty, such instruments also form part of the context of the treaty.

In addition, Article 31(3)(a) of the *Vienna Convention* provides that together with the context, the interpreter shall take into account any subsequent agreement between the Parties regarding the interpretation of the treaty or the application of its provisions. This provision allows the Parties to modify the treaty and permits the COP to an MEA to adopt an authoritative interpretation of the treaty terms, which can amount in effect to an amendment. Most modern multilateral treaties have a formal amending procedure, but this process can be lengthy and uncertain. Yet, a subsequent agreement may modify the original treaty by inserting a new rule or amending an existing one without going through a formal ratification process.⁹¹³ This technique is particularly useful if there is a need to ‘fill a lacuna, to update a term, or postpone the operation of a provision’.⁹¹⁴ For example, despite having a built-in amendment procedure, *CITES* was effectively modified by a resolution of the COP in 1987.⁹¹⁵ Resolution Conf. 6.7,

⁹¹² Article 31(2)(b) of the *Vienna Convention*.

⁹¹³ Any amendment is subject to ratification.

⁹¹⁴ Aust, *supra* n 39, 241.

⁹¹⁵ *CITES* Conf Resolution 6.7.

adopted at the sixth meeting of the *CITES–COP*, required Parties to consult with a range of states prior to taking stricter domestic measures pursuant to Article XIV that might interfere with the trade in wild animals and plants. But such subsequent agreements have limited scope, as (strictly) they have to be consistent with the treaty context and are only designed to resolve inconsistencies within a treaty.

Harmonization is only possible where the norms are divergent but compatible. Two or more treaties dealing with the same subject matter from different points of view do not necessarily create outright inconsistencies, although they may do. An interpretative approach alone cannot resolve true conflicts of norms of international law. It may, however, be part of a wider set of approaches which can resolve treaty inconsistencies by choosing between two rival norms.

8.4.2. Prioritizing environmental protection

Two norms addressing the same subject matter are in conflict where compliance with, or the exercise of, rights under one of the two norms constitutes a breach under the other norm.⁹¹⁶ Where the overlapping norms from two different treaties are directly incompatible and it is not possible for a state which is a Party to both treaties simultaneously to comply with its respective sets of obligations, it becomes necessary to make a choice determining priority between the treaties in question.

Such inter-relationship of treaties is first and foremost determined by the terms of those treaties.⁹¹⁷ If neither treaty contains any provision governing its relationship with other treaties or such provisions are not adequate to provide any solution, the

⁹¹⁶ Pauwelyn, *supra* n 11, 274.

⁹¹⁷ Article 30(2) of the *Vienna Convention*.

various rules or techniques provided in the *Vienna Convention* need to be taken into consideration. The following discussion considers the extent to which specific provisions determine the relationship between treaties: in particular, the rules of the *Vienna Convention* and the principles of international law may be applied to directly incompatible norms, identified in environmental and trade agreements in order to determine priority between them.

8.4.2.1. Treaty provisions determining relationship with other agreements

Treaty conflict clauses describe how their relationship with other treaties will be regulated where both treaties deal with the same subject matter. *CITES* (Article XIV), the *CBD* (Article 22), the *Nagoya Protocol* (Article 4) and the *Biosafety Protocol* (Preamble) all contain provisions governing their relationship with other treaties. The preamble of the *WTO Agreement* reflects assumptions about the interrelationship between trade and the environment, though neither the 1947/1994 *GATT* nor the *WTO Agreement* itself contains any specific provision governing its relationship with non-WTO treaties.⁹¹⁸

(a) *CBD* and the *Nagoya Protocol* conflict clauses

As discussed in Chapter 6, Article 22(1) of the *CBD* and Article 4 of the *Nagoya Protocol* do not subvert the Parties' rights and obligations deriving from other international agreements, but limit its application by reference to the condition that their exercise should not damage or threaten biodiversity. These conflict clauses could be interpreted in such a way that the *CBD* and the *Nagoya Protocol* provisions do not gain priority over other international agreements ordinarily, including the multilateral

⁹¹⁸ This controversial omission is seen as the reflection of the self-contained character of the WTO law. For the argument why WTO is not a 'self-contained' regime, see Pauwelyn, *supra* n 11, 35–40.

trade agreements, but whenever the ‘exercise of those rights’ would have the possibility to ‘cause serious damage or threat to biodiversity’ the *CBD* and the *Nagoya Protocol* provisions gain priority.

The above interpretation of the *CBD* and the *Nagoya Protocol* conflict clauses would have a definite beneficial effect on the protection of the environment. Arguably, such interpretation would also be consistent with the *WTO Agreement*, as the preamble to the latter recognizes that trade should ‘protect and preserve the environment’ in a manner consistent with Members’ different levels of economic development. The WTO has also recognized that not only is there no inherent policy contradiction between an open, equitable and non-discriminatory multilateral trading system and the protection of the environment, but also that sustainable development positively requires the two systems to be mutually supportive.⁹¹⁹

Specifically, in paragraph 6 of the Doha Mandate, WTO Members noted 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’. This objective is also reflected in WTO’s Director-General Pascal Lamy’s speech on World Environment Day, that the WTO ‘cannot proceed with business as usual – if our planet is to be preserved for future generations, we must protect our resources, our planet’s biodiversity and our environment at large’.⁹²⁰ Therefore, although the *CBD* and the *Nagoya Protocol* conflict clauses do not claim hierarchy over the trade rules

⁹¹⁹ See, for example, the Declaration of the Doha Ministerial Conference, 20 November 2001, WT/MIN(01)/DEC/1 and the CTE Singapore Report.

⁹²⁰ On the occasion of World Environment Day on 5 June 2010, http://www.wto.org/english/news_e/news10_e/dgpl_05jun10_e.htm.

specifically, they should be interpreted as giving priority to environmental concerns over trade.

(b) The preamble of the *Biosafety Protocol*

As discussed in Chapter 7, the conflict clause of the *Cartagena Protocol* does not appear incompatible with those of the *WTO Agreements*,⁹²¹ but its second and third conflict clauses are apparently so. It starts with the aspiration that trade and environmental policies and agreements should support each other, and proceeds to achieve the goal that the Protocol provisions do not hinder the Contracting Parties' obligations under any international agreement to which they are also Party. The third paragraph clarifies that although the Protocol does not change the Parties' rights and obligations under earlier agreements, it is also not intended to subordinate the Protocol to other international agreements.

However, to ensure 'an adequate level of protection in the field of the safe transfer, handling and use of' LMOs 'that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health',⁹²² the Protocol not only authorizes national and regional governments to impose restrictions on the movement and use of LMOs, but also permits them to take measures that are more protective of the conservation and sustainable use of biological diversity than those called for in the Protocol itself.⁹²³ In addition, the socio-economic impact of LMOs on biodiversity, especially their value to indigenous and local

⁹²¹ Steve Charnovitz, 'The Supervision of Health and Biosafety Regulation of World Trade Rules' (2000) 13 *Tulane ELJ* 271 at 300 (stating that the *Biosafety Protocol* appears compatible with the *SPS Agreement*); Gaston and Abate, 'The *Biosafety Protocol* and the World Trade Organization' *supra* n 705, 109 (concluding that trade measures contained in the *Biosafety Protocol* are compatible with WTO principles).

⁹²² Articles 2(1), (2) and 1 of the Protocol.

⁹²³ *Ibid.*, Article 2(4).

communities, may also be taken into account by Parties when taking any decision to permit the import of LMOs.⁹²⁴ In both instances, such measures are generally considered to be consistent both with the Protocol and with a Party's other obligations under international law, for example, international trade obligations.

However, the discussion in Chapter 7 on Articles 2(4), 10(6), 11(8) and 26 of the Protocol reveals that Contracting Parties are permitted to take measures which can in fact be inconsistent with their obligations under other international agreements, especially with the multilateral trade agreements. As discussed earlier, Article 2(4) of the Protocol permits Parties to take action that is more protective than that called for in the Protocol, but clarifies that the application of this right needs to be 'in accordance' with Parties' other obligations under international law. This provision appears to guard against the adoption of unilateral discriminatory trade measures that contravene the multilateral trade agreements. However, Article 26(1) of the Protocol undermines this trade protection reference by authorizing Parties to take into account socio-economic considerations while taking decisions on import permission of LMOs.

The Protocol's primary objective is not to encourage or expand the trade in LMOs but to ensure biosafety. The Protocol permits international trade of LMOs only to the extent that it is consistent with the rules, standards and norms of the Protocol and its parent convention, the *CBD*. Thus, although the Protocol's preamble and operative texts restate the mutual supportiveness of trade and environmental agreements, the Protocol's broad precautionary approach, non-party obligations and its liability and redress regime have the potential to slow or stop the flow of trade in LMOs.

⁹²⁴ *Ibid.*, Article 26(1).

(c) Article XIV of the *CITES*

As discussed in Chapter 5, Article XIV of the *CITES* also contains provisions governing its relationship with other agreements. Among these provisions, Article XIV(2) contains a broad statement clarifying the limits of the legal requirements in the *CITES* in the face of other domestic or international obligations:

[T]he provisions of the present Convention shall in no way affect the provisions of any domestic measures or the obligations of Parties deriving from any treaty, convention, or international agreement...

This Article clarifies the point that the existence of a *CITES* permit system would not affect Parties' obligations arising from other domestic measures or international agreements. However, trade-restrictive measures taken by *CITES* Parties in the implementation of the power to create 'stricter domestic measures' and non-Party obligations have the potential to clash with multilateral trade agreements. *CITES* is not a self-executing treaty and its implementation requires domestic action by Contracting Parties. MEAs apply specific trade obligations to non-Parties' obligations. They can do so in two ways. The first is to apply the same measure to a non-Party as the MEA applies to a Party (as in the case of *CITES*), and the second is to apply a discriminatory measure against the non-Party.⁹²⁵ Both aspects are controversial within the WTO.

Article VIII(1) of the *CITES* contains the key provisions for its implementation, providing that '[T]he Parties shall take appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof'.

⁹²⁵ Charnovitz, 'A New WTO Paradigm' *supra* n 302, 33.

Furthermore, *CITES* Parties are not limited to adopting ‘appropriate measures’, and Article XIV(a) of the *CITES* provides Parties with the right to take ‘stricter domestic measures’ restricting or prohibiting trade in specimens of species included in the Appendices. It is important to remember that *CITES* applies the term ‘trade’ in a much broader sense than just buying and selling,⁹²⁶ effectively embracing the international movement of any specimens of species.

Thus, the application of ‘stricter domestic measures’⁹²⁷ by *CITES* Parties raises questions over the compatibility of *CITES* provisions with the *GATT/WTO Agreements*.⁹²⁸ Such measures may include unilateral action by *CITES* Parties, which could lead to discrimination in trade. Article 1 of *GATT* 1994 requires the WTO Members to treat ‘like’ products at the border in the same way, irrespective of their origin or method of production. However, the stricter domestic measures allow *CITES* Parties to adopt new requirements in national legislation for trade, which could discriminate between like products based on their origin or method of production once the products are within the territory of a WTO Member.

Hence, it seems that although most of the treaties incorporate provisions regarding their relationship with other treaties, they do not really establish any clear hierarchy between them. Therefore, these provisions are of little help in resolving incompatibility between successive treaties.

⁹²⁶ See Chapter 5 for discussion on how *CITES* defines trade.

⁹²⁷ *Ibid.*, for discussion on ‘stricter domestic measures’.

⁹²⁸ Environmental Resources Management, *Study on How to Improve the Effectiveness of CITES* (ERM, London 1996).

8.4.2.2. Priorities of environmental norms

From the discussion of this thesis it is plausible to claim that protection of biodiversity has achieved a special status in international law. The definition and characteristics of *jus cogens* discussed in Chapter 3 could, in theory, be applied to the notion of environmental protection, though there is no real evidence in international law as yet to show that protection of the environment has actually achieved the status of *jus cogens*.⁹²⁹ However, considering the special status of the protection of the environment in international law, this section more modestly argues that in the event of conflict between trade and environmental norms, an environmental norm should normally be given priority over a trade norm where the application of the trade norm would seriously threaten environmental interests.

A number of overlapping MEA and multilateral trade agreement norms might be resolved by giving priority to *lex specialis* environmental treaty norms over *lex generalis* rules of the multilateral trade agreements. Furthermore, *lex specialis* may take precedence over *lex generalis* regardless of its priority in time. As regards temporal priority, Article 30(3) of the *Vienna Convention* provides that when not terminated under Article 59 of the *Vienna Convention*, 'the earlier treaty applies only to the extent that its provisions are compatible with those of the later treaty'.

However, as discussed in Chapter 2, it is not permissible that an environmental agreement, making specific provision for trade restrictions, would displace the more general rules of the *GATT/WTO Agreements*.⁹³⁰ It is a matter of treaty interpretation, and in any event, the Parties for the two treaties arguably need to be the same. Thus,

⁹²⁹ For further discussion see Chapter 2, section 2.3.1.1.

⁹³⁰ For example, the 1973 *CITES*, the 1987 *Ozon Protocol* and the 1989 *Basel Convention*.

simply by staying out of the environmental agreements, for example the *CBD* or the *Biosafety Protocol*, any WTO Member can ensure that it retains its trade rights under the multilateral trade agreements regardless of the *lex specialis* character of environmental agreements.

8.4.2.3. Trade institutions prioritizing environmental norms

Another way of achieving the suggested systemic priority of environmental protection over trade is through some internal action taken by the WTO and other trade institutions. In this context, the CTE and ITTO could play a positive role. However, such potential seems largely unrealistic at present, even though the trade institutions should take sustainable development principles more seriously. Moreover, it is unlikely that trade institutions would recognize themselves as formally subordinate to the environment, especially when they already have the upper hand in this relationship.

Thus, the following sections argue that a radical change of outlook seems to be required in order to balance the trade and environmental concerns in the international law. It proposes that the treaty institution could play a more active role in innovating ways to establish collaboration between both sectors' institutions in order to advance a coherent system between them.

8.4.3. Institutional innovation

In order to achieve a more coherent relationship between trade and environmental concerns, this section considers the use of institutional innovation to amend, reconstruct or replace specific treaty norms to more faithfully reflect the political

aspirations and basic values of the international community. It is obvious that a reconstruction of this sort requires a great deal of effort or commitment from governments, as it involves legislative reform. Consequently, it is better used only as a last resort.

With that in mind, this section proposes to begin with the easiest but most effective types of coordination, and only to move on to more complex processes where essential to achieve the desired reform. A useful first step would involve treaty institutions collaborating with others of their kind to exercise their powers in such a way as to enhance the systemic integration of different bodies of law. MEAs and the multilateral trade agreements discussed in this thesis contain provisions allowing such collaboration between treaty institutions.⁹³¹

8.4.3.1. Bilateral coordination

The coordination between the *CBD* and the *CITES* Secretariats is a good example of bilateral coordination. As the vast majority of *CITES* Parties are Parties to the *CBD*, *CITES* has acquired enormous help from the *CBD* in integrating sustainable development principles into its procedures. For example, the Secretariats of *CITES* and the *CBD* have signed a Memorandum of Understanding which provides for institutional cooperation between the two Secretariats, the exchange of information, coordination of work programmes and joint conservation action.⁹³² Therefore, the *CBD* and its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) are working on case studies to test the *Sustainable Use Principles and*

⁹³¹ For example, the preamble of the *Biosafety Protocol* and Article 15(5) of the *CBD*.

⁹³² Article 4 of the 'Memorandum of Understanding between the Secretariat and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (*CITES*)' UNEP/*CBD*/CoP/3/Inf.39 (15 Oct. 1996)

Guidelines. This cooperation between *CITES* and *CBD* facilitates the effective implementation of sustainable development goals in order to achieve the balance between progressive economic development and the conservation of wildlife for future generations.⁹³³

Another example is the Memorandum of Understanding (MoU) between the *CITES* Secretariat and FAO. When the *CITES*–COP included certain commercially exploited marine species within its framework, it did not have the data or technical expertise on marine species to prove scientifically that such species are endangered – but the FAO does. As a result, the two institutions have formed a ‘Memorandum of Understanding’ on joint work programmes.

But such MoUs can be politically controversial, take a long time to develop⁹³⁴ and need adequate resources as they expand the policy area covered by particular agreements. For example, some of the major fishing states have argued that *CITES* has no mandate to deal with fisheries, and that any role for the *CITES* would constitute an incursion on the jurisdiction of the FAO.

8.4.3.2. Broader intra-sectoral collaboration

Institutional collaboration between treaties from within the same sector and addressing similar subject matter can enhance coherence and cooperation in implementation. For example, a Liaison Group of Biodiversity-related Conventions (BLG) has been established between the heads of the Secretariats of the six biodiversity-related

⁹³³ Ong, ‘The Convention on International Trade in Endangered Species (*CITES*, 1973)’, *supra* n 490, 292.

⁹³⁴ The development of the MOU took over three years of FAO and *CITES* meetings.

conventions.⁹³⁵ This Group plays an important role in exploring options for enhancing synergies, avoiding duplication of efforts and improving the coherent implementation of biodiversity-related conventions.

The BLG has developed an interactive CD-ROM on the application of the *Addis Ababa Principles and Guidelines (AAPG) for the Sustainable Use of Biodiversity*.⁹³⁶ It explains the AAPG and their relevance in the context of each of the biodiversity-related conventions. In addition to providing information on the application of the AAPG, it contains the full text of the principles and guidelines, relevant decisions, recommendations and resolutions, background documents, as well as other materials, including links to relevant websites. This joint collaboration between the biodiversity-related conventions leads to the consistent application of treaty provisions.

8.4.3.3. MoUs between treaty institutions from different sectors

A Memorandum of Understanding concluded between treaty Secretariats may similarly define the relationship between treaties from different sectors. For example, the 2006 *ITTA* recognizes the importance of cooperation and coordination between the *ITTA* and other organizations to pursue its conservation and sustainable use objectives. Recently, the *ITTO* and the Secretariat of the *CBD* signed a MoU with the objective of developing and implementing joint activities for the conservation and sustainable use

⁹³⁵ COP 7 Decision VII/26. In response to a call from the Conference of the Parties (Decision IX/27) of the *CBD* to enhance cooperation among the five biodiversity-related conventions the Liaison Group of the Biodiversity-Related Conventions ('the Biodiversity Liaison Group', BLG) was formed in June 2004. This group brings together the heads of the Secretariats of the five biodiversity-related conventions, namely: *CBD*; *CITES*; *Convention on Migratory Species of Wild Animals (CMS)*; *Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)*; and *Convention concerning the Protection of World Cultural and Natural Heritage (WHC)*. The BLG meets regularly to explore opportunities for synergistic activities and increased coordination, as well as to exchange information.

⁹³⁶ The CD content is available to download from <<http://www.cbd.int/blg/>>.

of forest biodiversity in the tropics.⁹³⁷ The MoU is aimed at facilitating the implementation of the *ITTO Work Program and Action Plan* as well as the *CBD* programme of work on forest biodiversity.⁹³⁸ The MoU is designed for a timeframe of at least four years, and identifies activities on forests and biodiversity between the *ITTO* and *CBD* with the involvement of other relevant organizations.

The COP has recognized *CITES*' role in promoting the conservation of timber species through trade, and welcomes the increase in cooperation between *CITES* and *ITTO*. The *CITES*–COP has recognized that *CITES* can play a positive role in promoting the conservation of animals and plants, including timber species, through trade in accordance with the requirements of Articles III, IV and V of the Convention and through improving trade monitoring for evaluation of biological status and effective enforcement.⁹³⁹ Therefore, it has directed the *CITES* Secretariat to cooperate closely with the Secretariat of the *ITTO* on matters related to tropical timber species threatened by international trade and the sustainable management of tropical timber producing forests.⁹⁴⁰ The *ITTO*'s collaboration with the *CBD* and *CITES* enhances consistent application of their rules, as these MEAs have a single standard for 'sustainable use' of biological resources since they follow the standards of the *Addis Ababa Principles*.

The *CITES*' Secretariat is to report at the 15th meeting of the COP on those discussions and on the progress made in implementing the MoU between *FAO* and the

⁹³⁷ During a Special Event on Biodiversity on Tuesday, 2 March 2010 in Tokyo.

⁹³⁸ Article 2 of the Memorandum of Understanding between the Secretariat of the International Tropical Timber Organization (*ITTO*) and the Secretariat of the Convention on Biological Diversity (*CBD*) (2010–14).

⁹³⁹ *CITES* Conf. Resolution 10.13 (9–20 June 1997).

⁹⁴⁰ Resolutions of the Conference of the Parties 14.4, 14th meeting of COP (3–15 June 2007).

CITES Secretariat.⁹⁴¹ As discussed in Chapter 6, the collaboration between the *CBD* Secretariat and the World Intellectual Property Organization (WIPO) is in progress to adopt a MoU. However, such collaboration is not possible if the treaty institutions are not granted observer status in each other's meetings.

8.4.3.4. Reciprocal cooperation

This objective was recognized in the Plan of Implementation of the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, which calls for efforts to 'strengthen cooperation among UNEP and other United Nations bodies and specialized agencies, the Bretton Woods institutions and WTO, within their mandates'.⁹⁴² As mentioned earlier, in paragraph 31(ii) of the Doha Ministerial Declaration (DMD), Ministers also agreed to negotiations on 'procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status'.⁹⁴³ In the Preamble of the DMD, Ministers welcomed 'the WTO's continued cooperation with UNEP and other inter-governmental environmental organizations. [They encouraged] efforts to promote cooperation between the WTO and relevant international environmental and developmental organizations, especially in the lead-up to the World Summit on Sustainable Development to be held in Johannesburg...'⁹⁴⁴

On 29 November 1999, a cooperation arrangement between the WTO and UNEP Secretariats was concluded to improve efforts towards the objective of sustainable development. This cooperation between the WTO and UNEP Secretariats aims to

⁹⁴¹ Decision 14.17 of the CITES-COP.

⁹⁴² *Supra* n 198.

⁹⁴³ *Supra* n 15.

⁹⁴⁴ *Ibid.*

encompass practical measures which could assist in the smooth and efficient functioning of both organizations in areas where interaction could be of mutual benefit.⁹⁴⁵ The goal is to improve the working relationship at all levels in the two Secretariats, with respect to technical cooperation and research initiatives.

The WTO Secretariat is an observer of the Governing Council of UNEP, and UNEP is an observer of the WTO Committee on Trade and Environment. Such collaboration between UNEP and the WTO secretariats enables them to exchange relevant non-confidential information, including access to trade-related environmental databases, and reciprocal representation at meetings of a non-confidential nature, in accordance with the decisions of the competent bodies of the respective organizations.⁹⁴⁶

With a view to enhancing coordination between the provisions of the *CBD* and those of the relevant bodies of the WTO, especially the *TRIPS Agreement*, the *TBT Agreement* and the *SPS Agreement*, the CBD–COP has stressed the need to ensure mutual supportiveness of the two systems.⁹⁴⁷ Hence, the CBD–COP requested the Executive Secretary to apply to the WTO for observer status in the meetings of the Committee on Sanitary and Phytosanitary Measures and the Committee on Technical Barriers to Trade, and also to renew its application for observer status in the Council for the Agreement on Trade-related Aspects of Intellectual Property Rights.⁹⁴⁸

Yet, the *CBD* Secretariat has still not been granted observer status in the TRIPS Council on account of continued opposition from the US. The US argues that the *CBD*

⁹⁴⁵ WTO CTESS, 'Existing Forms of Cooperation and Information Exchange between UNEP/MEA and the WTO' (16 January 2007) TN/TE/S/2/Rev.2. Available at: <http://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm> (accessed on 14 February 2012)

⁹⁴⁶ *Ibid.*

⁹⁴⁷ CBD–COP Decisions III/17, IV/15, V/26 B, VI/20, VII/26, VIII/16, XI/27.

⁹⁴⁸ CBD–COP Decision VI/20, paras 29 and 30, the Netherlands (2002).

does not have a broad interest in TRIPS issues. The EU, Peru, Brazil and India, however, have pointed out that the *CBD* Secretariat should be an observer given that the Doha mandate explicitly instructs the TRIPS Council to look at the relationship between TRIPS and *CBD*.⁹⁴⁹ The *CBD-COP*, in its ninth meeting, in Germany in 2008, further requested the Executive Secretary to renew the Convention's pending applications for observer status in relevant bodies of the WTO.⁹⁵⁰ This restrictive attitude leads to a lack of understanding and is likely to affect the rules adopted by the WTO. It can also affect other regimes of international law dealing with the same subject matter.

By contrast, most MEAs have permitted IGOs, NGOs and 'epistemic communities' to participate both in their treaty negotiation process and in their institutional decision-making process later on. Once again, more effort is needed in the multilateral trade regime, as the *WTO Agreements* leave external bodies out of the negotiations, whether as participants or observers. In addition, its process for granting observer status is highly political and self-serving, which is why in the negotiation of measures prohibiting subsidies to the fishing sector, none of the environmental treaty bodies was invited. Instead, a coalition of WTO Members has grouped together in the negotiations with the self-appointed label of 'Friends of the Fish'.⁹⁵¹

⁹⁴⁹ The US continues to oppose granting observer status to the Secretariat of the *CBD*, arguing that the *CBD* did not have a broad interest in TRIPS issues. The EU, Peru, Brazil and India, however, pointed out that the *CBD* Secretariat should be an observer given that the Doha mandate explicitly instructs the TRIPS Council to look at the relationship between TRIPS and *CBD*. Available at <<http://ictsd.net/i/library/39214/>> (accessed on 15.05.09).

⁹⁵⁰ *CBD-COP* Decision IX/27, para. 10.

⁹⁵¹ Young, 'Fragmentation or Interaction', *supra* n 657, 490–1.

8.4.3.5. Development of liaison groups

Another technique to pursue inter-institutional coordination is to follow the model of the existing liaison groups already operative within a certain field, for example, the CTE and WIPO and WTO liaison group. The *GATT* Contracting Parties adopted a Ministerial Decision to establish the WTO CTE. The major task of this committee is to examine the relationship between the *WTO Agreement* and MEAs. Although the CTE has so far failed to formulate concrete recommendations for reconciling this relationship, its report to the WTO Ministerial Conference⁹⁵² may provide a foundation for future progress through its confirmation of the need for transparency and cooperation, and the determination to accommodate environment values in trade fora.⁹⁵³ Since the *ITTA* preamble refers to various conservation agreements in connection with its sustainable use objective, it could observe the BLG for guidance on interpreting relevant rules and thereby establish a better balance in its application.

There is no doubt that such coordination can in principle be achieved. For example, to facilitate the implementation of the *TRIPS Agreement*, the TRIPS Council concluded with WIPO an agreement on cooperation between WIPO and the WTO,⁹⁵⁴ which could serve as a model for the governance of other linkage areas. Another example is the Liaison Group of Biodiversity-related Conventions referred to above, which ensures coordination among the biodiversity-related Conventions. These liaison groups can serve as a model to establish a complementary and cooperative

⁹⁵² The first WTO Ministerial Conference, which was held in Singapore in December 1996.

⁹⁵³ WTO Doc. WT/CTE/1 (1996).

⁹⁵⁴ 'Agreement between the World Intellectual Property Organisation and the World Trade Organisation (1995) of 22 Dec. 1995' – Communication from the International Bureau of the WIPO and WTO Secretariat. The agreement entered into force on 1 January 2006. The text is available at

<www.wipo.int/export/sites/www/treaties/en/agreement/pdf/trtdocs_wo030.pdf>.

relationship between MEAs and trade agreements, by fostering, for example, a consistent and coordinated approach to interpretation.

From the perspective of general international law, these treaty bodies are neither intergovernmental conferences nor traditional international organizations. The limitation of such interpretation is that it interprets the treaties in their narrow sense.⁹⁵⁵ An important question arises as to the binding effect of this type of authoritative interpretation by a treaty body, which is not expressly authorized by the agreement. In this connection, an interpretation adopted by the COP could be considered as a subsequent agreement or subsequent practice by the Parties of a treaty, which, according to Article 31(3) (a) and (b) of the *Vienna Convention*, is an element that may be taken into account in interpreting the treaty. Most of the multilateral agreements contain provisions for cooperation between treaty institutions. Such cooperation extends the possibility to ensure wider interpretation across different sectors.

8.4.3.6. A global organization

Human beings can hardly fail to be aware of the consequences of environmental degradation. But it is unlikely that they will easily abandon their exploitative behaviour to save the environment, as they seem temperamentally inclined to give way to their innate exploitative tendencies rather than to curb them, even when it is not in their best interests. An excellent example is provided by the recent global recession, which shocked the entire world financial system. The banks made borrowing cheap for countries and individuals by lowering interest rates. Everyone

⁹⁵⁵ For example, *CITES* Conf. Resolution 4.25 stated that Parties should interpret the Convention in a uniform manner and *CITES* Conf. Resolution 4.27 stated that 'the Convention should be interpreted in its narrow sense'.

was busy fulfilling their immediate needs and failed to foresee how out-of-kilter the world economy had become beneath the surface. This failure to foresee the timing, extent and severity of the crisis has caused the severe collapse of the world financial system.⁹⁵⁶ Another example is the failure of the international community to reach a climate deal.

Thus, if it is left to individual states or sectoral treaty institutions, it is likely that they are going to give priority to immediate, narrowly conceived self-interest. In addition, the existing international legal system leaves it vulnerable to exploitation in situations where universal compliance may be crucial. In this context, this chapter proposes that a global mechanism that efficiently safeguards the basic values of the international community as well as solving treaty problems and thereby establishing order in the international legal system could be a way forward.

Where the threat is grave, consensus is strong and the consequences of exemptions are severe, universal law is needed to protect the ultimate values of the international community, for example, the protection of biodiversity and climate change. The classic understanding of the universality of international law recognizes that there exists on a global scale an international law which is valid for and binding on all states.⁹⁵⁷ This understanding does not exclude treaty regimes or customary norms but embeds them in a universal and coherent legal system. It should include an executive function, i.e. machinery to translate concrete normative standards into law, and a function concerning settlement of disputes, i.e. the application of these rules so as to

⁹⁵⁶ For a detailed analysis of the present financial crisis and its causes, see Gillian Tett, *Fool's Gold* (Abacus, London 2009).

⁹⁵⁷ Jennings, 'Universal International Law in a Multicultural World', in M Bos and I Brownlie (eds), *Liber Amicorum for the Rt. Hon. Lord Wilberforce* (1987), at 39, 40–1.

resolve conflicts. This institution could give direction for interpretation, further research and political proposals. A global institution legislating a broad set of rules and their enforcement would ensure a coherent system in international law.

This global institution might incorporate a broad array of expertise from different specialized regimes, assist and proffer advice to small coordination groups, and ultimately assume responsibility for the codification and legislative reconstruction of norms so that they seamlessly reflect the underlying political aspirations and values of the international community. This idea of a utopian system of law may seem visionary, but not absurd. The detailed formulation of the remit of such a body is a task for another thesis. This thesis is limited to the less dramatic devices available in international law, as illustrated above.

8.5. Conclusions

From the above discussion, the following conclusions can be drawn:

First, reconciling trade and environmental interests opens up the possibility of a richer, more sustainable, more profitable and fairer world. Thus, neither conflict nor fragmentation is expected in trade and environment relationship. International courts and tribunals have usually found ways to apply international law as an integrated whole. This approach needs to be reflected in the attitude of the Parties to international treaty regimes. Most of the time, however, Parties make treaty integration difficult through the Balkanization of dispute settlement and the selective choice of applicable law. However, the discussion of this thesis showed that if Parties

work with good faith and integrity it is possible to find ways to apply inconsistent trade and environmental norms in a coherent manner.

Second, there will always be uncertainty about how different legal regimes or different bodies of law interact. This examination of the interrelationship of international environmental and trade law showed that there is still room for balanced treaty integrations which require difficult judgments to be made, and entail complex legal arguments. These may only be achieved through a process of reasoning that makes trade and environmental regimes appear as parts of a coherent whole. However, to resolve any inconsistencies identified one should start with the simplest, least demanding techniques and only move to the next phase once it has become apparent that a solution is not available via a less intense or demanding mechanism.

Based on the above methodology this thesis proposed a series of systematic methods or techniques to resolve inconsistencies or tension identified between MEAs and multilateral trade agreements in order to improve coherence in the environmental and trade relationship. It proposed three key approaches to balance trade and environmental considerations in the international legal order: first, harmonizing the apparently inconsistent norms from the environmental and trade treaty regimes in order to reach a compatible obligation between them; second, prioritizing the conflicting norms where it is necessary to balance the relationship; and third, an institutional approach for a coherent system of law. Which approach to follow depends on the nature of the conflict and the level of coherence intended to achieve.

Third, the WTO dispute settlement process should take into account global policy formulation in environment and trade while interpreting WTO provisions. They should interpret GATT XX environmental exceptions more broadly, giving effect to its objectives of ‘sustainable development’ and ‘protection and preservation of the environment’. As discussed in the thesis Article 31(3)(c) of the *Vienna Convention* permits evolutionary interpretation of WTO rules by reference to sources external to the Agreement. Furthermore, the protection and preservation of the environment is a necessary prerequisite to the very operation of the multilateral trading system, since all commerce – indeed human survival itself depends on it.

Fourth, the institutional implications of fragmentation have not been fully addressed by the ILC in its Report on Fragmentation. By taking into consideration only the substantive perspectives of treaty relationships, this report has failed to show the complete picture of the difficulties arising from the diversification and expansion of international law. Consequently, the study group’s recommendations are also inadequate to provide a solution to the problem of fragmentation of international law. Since treaty institutions play a vital role in treaty operation and interpretation, coordination of treaty bodies from specialized regimes may play a vital role in balancing or coordinating overlapping rules. It is easy to achieve bilateral collaboration of treaty institutions especially treaty institutions dealing with similar issues from the same sectors. However, a global organization protecting ultimate values of the international community may require new legislation, which may prove difficult to agree on.

Fifth, the MEAs have achieved a better balance compared to the multilateral trade agreements. Their soft and flexible rules allow Parties to take measures suitable for individual situations. On the other hand, the trade rules are unduly rigid and tend to give excessive priority to trade interests undervaluing environmental interests. The discussion of this thesis demonstrated that environmental concerns are inherently of equal or even higher priority by comparison to trade interests. International legal system offers rules for harmonization of trade and environmental interests, or actual prioritization of the latter. However, a more realistic approach might be to concentrate on achieving a better harmonization of the two regimes through the various mechanisms considered in this thesis.

From the above discussion, it is evident that no particular technique is sufficient on its own to establish an appropriate balance between MEAs and multilateral trade agreements. Which technique to adopt and which process to apply depends on the nature of the conflict. However, it is undeniable that both sets of bodies must endeavour to accommodate each other's legitimate interests while adopting, implementing or interpreting individual provisions. It seems that the MEAs have been more successful in accommodating these interests in a balanced manner. One of the reasons for this is their modern environmental treaty-making process, which is flexible enough to accommodate diverse and changing circumstances. In addition, it has ensured participation of different bodies including NGOs, which has provided the scope to reflect everyone's interest.

On the other hand, although the WTO has made significant progress in its attitude towards environmental issues, there is still a long way to go. At present, WTO rules

are 'closed-circuit' and intrinsically superior. Since they are dominated by hard law, it may be difficult to accommodate soft rules. They have opened up to environmental concerns, but have yet to integrate them fully within their rules.

Bibliography

Cases

GATT Decisions

Belgium – Family Allowances (1952) GATT BISD 1S/59.

Canada – Administration of the Foreign Investment Review Act (1984) GATT BISD 30S/140.

Canada – Import Restrictions on Ice Cream and Yogurt (1989) GATT BISD 36S/68.

Canada – Measures Affecting Exports of Unprocessed Herring and Salmon (1988) GATT BISD 35S/98.

Japan - Trade in Semi- Conductors (1989) GATT BISD 35S/116.

Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes (1990) GATT BISD 37S/200.

US – s.337 of the Tariff Act 1930 (1989) GATT BISD 36S/345.

US - Countervailing Duties on Fresh, Chilled and Frozen Pork from Canada (1991) GATT BISD 38S/30.

US – Prohibition of Imports of Tuna and Tuna Products from Canada (1982) GATT BISD 29S/91.

US – Restrictions on Imports of Tuna (1994), unadopted, GATT DS29/R444.

US – Taxes on Automobiles (1994), unadopted, GATT DS31/R.

US – Restrictions on Imports of Tuna (1991), unadopted, GATT BISD 39S/155.

WTO Decisions

WTO, *Australia: Measures Affecting Importing of Salmon - Recourse to Article 21(5) – Report of the Appellate Body* (6 November 1998) WT/DS18/AB/R.

WTO, *Brazil: Export Financing Programme for Aircraft – Report of the Appellate Body* (20 August 1999) WT/DS/46/AB/R.

WTO, *Brazil: Measures Affecting Imports of Retreaded Tyres – Report of the Appellate Body* (17 December 2007) WT/DS332/R and WT/DS332/AB/R.

WTO, *Canada: Measures Affecting the Export of Civilian Aircraft – Report of the Appellate Body* (20 August 1999) WT/DS70/AB/R.

WTO, *Canada: Measures Relating to Exports of Wheat and Treatment of Imported Grain – Report of the Panel* (27 September 2004) WT/DS276/R.

WTO, *China: Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products - Report of the Appellate Body* (19 January 2010) WT/DS363/AB/R.

WTO, *EC: Measures Affecting Asbestos and Asbestos-Containing Products – Report of the Appellate Body* (5 April 2001) WT/DS135/AB/R.

WTO, *EC: Measures Affecting the Approval and Marketing of Biotech Products – Report of the Panel* (29 September 2006) WT/DS291/AB/R, WT/DS292/AB/R and WT/DS293/AB/R.

WTO, *EC: Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs (Australia) – Report of the Panel* (20 April 2005) WT/DS290/R.

WTO, *European Communities: Measures Concerning Meat and Meat Products-Report of the Appellate Body* (13 February 1998) WT/DS26/AB/R and WT/DS48/AB/R.

WTO, *India: Patent Protection for Pharmaceutical and Agricultural Chemical Products – Report of the Appellate Body* (19 December 1997) WT/DS50/AB/R.

WTO, *Japan: Measures Affecting Agricultural Products - Report of the Appellate Body* (19 March 1999) WT/DS76/R and WT/DS76/AB/R.

WTO, *Japan: Measures Affecting the Importation of Apples – Report of the Appellate Body* (10 December 2003) WT/DS245/AB/R.

WTO, *Japan: Taxes on Alcoholic Beverages II – Report of the Appellate Body* (4 October 1996) WT/DS10/AB/R and WT/DS11/AB/R.

WTO, *Korea: Various Measures in Beef – Report of the Appellate Body Report* (10 January 2001) WT/DS161/AB/R and WT/DS169/AB/R.

WTO, *Korea: Various Measures in Beef – Report of the Appellate Body* (10 January 2001) WT/DS161/AB/R and WT/DS169/AB/R.

WTO, *Mexico: Tax Measures on Soft Drinks and Other Beverages – Report of the Appellate Body* (24 March 2006) WT/DS308/R and WT/DS308/AB/R.

WTO, *Mexico: Tax Measures on Soft Drinks and Other Beverages – Report of the Panel* (24 March 2006) WT/DS308/R.

WTO, *US: Import Prohibition of Certain Shrimp and Shrimp Products – Report of the Appellate Body* (6 November 1998) WT/DS58/AB/R.

WTO, *US: Measures Affecting the Cross-Border Supply of Gambling and Betting Services – Report of the Appellate Body* (20 April 2005) WT/DS285/R and WT/DS285/AB/R.

WTO, *US: Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Report of the Panel* (15 September 2011) WT/DS381/R.

WTO, *US: Standards for Reformulated and Conventional Gasoline – Report of the Appellate Body* (20 May 1996) WT/DS2/R and WT/DS2/AB/R.

International Court of Justice

Advisory Opinion on the Legality of the Use or Threat of the Nuclear Weapons (UNGA), Advisory Opinion, ICJ Rep. 1996, 66.

Aegean Sea Continental Shelf (Greece v. Turkey), ICJ Rep. 1978, 3.

Case Concerning Oil Platforms (Islamic Republic of Iran v. US), ICJ Rep. 6 November 2003, 161.

Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v. Slovakia), ICJ Rep. 1997, 7.

Corfu Channel (UK v. Albania) (Merits), ICJ Rep. 1949, 4.

ICAO Council Case, ICJ Rep. 1972. 46.

LaGrand Case (Germany v US), ICJ Rep. 2001.

Mavrommatis Palestine Concessions (Greece v. Great Britain) (Merits), 1924, PCIJ Series A, no. 2, 31.

Namibia Advisory Opinion, ICJ Rep. 1971, 16.

Pulp Mills on the River Uruguay Case (Argentina v. Uruguay) ICJ Rep. 2006.

European Court of Human Rights

Al-Adsani v. UK (App no 35763/97) ECHR 21 November 2001.

Bankovic v. Belgium (App no 52207/99) ECHR 19 December 2001.

Forgarty v. UK (App no 37112/97) ECHR 21 November 2001.

Golder v UK (App no 4451/70) ECHR 21 February 1975.

Loizidou v. Turkey (App no 15318/89) ECHR 18 December 1996.

Mc Elhinney v. Ireland (App no 31253/96) ECHR 21 November 2001.

Soering v. UK (App no 14038/88) ECHR 7 July 1989.

Tyrer v. UK (App no 5856/72) ECHR 25 April 1978.

Other Courts, Tribunals and Arbitrations

Dispute Concerning Access to Information Under Article 9 of the OSPAR Convention, Final Award (Ireland v. UK) (2003) the PCA <http://www.pca-cpa.org/showpage.asp?pag_id=1158>.

Espahanian v Bank Tejarat (29 March 1983) 2 Iran-US CTR 157.

Iron Rhine Case (Belgium v the Netherlands) (2005) the PCA <http://www.pca-cpa.org/showpage.asp?pag_id=1155>.

Island of Palmas Arbitration (Netherlands v US) (1928) 2 RIAA 829.

ITLOS Press Release. ‘*The MOX Plant Case (Ireland v. United Kingdom)/Request for provisional measures submitted by Ireland*’ (3 December 2001) ITLOS/Press 59.

Monors Oposa v Secretary of the Department of Environment and Natural Resources (1994) 33 ILM.

Petroleum Development Ltd v. Sheikh of Abu Dhabi (1951) 18 ILR.

Pfizer Animal Health v Council of EU [2002] ECR 3305 Case T-13/99.

Prosecutor v. Furundzija (Judgment) ICTR-95-17/1 (10 December 1998).

Southern Bluefin Tuna Arbitration (New Zealand-Japan/Australia-Japan) (2000) 39 ILM 1359.

T.N. Godavarman Thirumalpad v. Union of India (2002) 10 SCC 606.

Trail Smelter Arbitration (United States/Canada) (1939) 33 AJIL 182 and (1941) 35 AJIL 684.

Conventions, Protocols and Treaties

1887 *Protocol on Substances that Deplete the Ozone Layer*, 1522 UNTS 3, entered into force 1 January 1989.

1945 *Charter of the United Nations*, 1 UNTS xvi, entered into force 24 October 1945.

1968 *African Convention on the Conservation of Nature and Natural Resources*, 1001 UNTS 4, entered into force 16 June 1969.

1969 *Vienna Convention on the Law of Treaties*, 1155 UNTS 331, entered into force 27 January 1980.

1971 *Convention on Wetlands of International Importance (Ramsar)*, 996 UNTS 245, entered into force 21 December 1975.

1972 *UNESCO Convention Concerning the Protection of World Cultural and Natural Heritage*, UNTS 2, entered into force 17 December 1975.

1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, 993 UNTS 243, entered into force 1 July 1975.

1979 *Convention on the Conservation of Migratory Species of Wild Animals*, 1651 UNTS, entered into force 1 November 1983.

1982 *United Nations Convention on the Law of the Sea*, 1833 UNTS 3, entered into force 16 November 1994.

1989 *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, 1673 UNTS 57, entered into force 5 May 1992.

1992 *Framework Convention on Climate Change* (1992) 31 ILM 851, entered into force 21 March 1994.

1992 *Paris Convention for the Protection of the Marine Environment of the Northeast Atlantic*, (1993) 32 ILM 1072, entered into force 25 March 1998.

1992 *Convention on Biological Diversity*, 1760 UNTS 79, entered into force 29 December 1993.

1992 *Convention on the Protection and Use of Transboundary Watercourses and Lakes (Helsinki)*, entered into force 6 October 1996.

1993 *North American Free Trade Agreement* (1993) 32 ILM 682, entered into force 1 January 1994.

1994 *Agreement Establishing the World Trade Organisation (Marrakesh)*, WTO legal Texts, 3, entered into force 1 January 1995.

1994 *Convention on Co-operation for the Protection and Sustainable Use of the Danube River* (1994), entered into force 22 October 1998.

1995 *UN Agreement relating to the Conservation and Management of Straddling and High Migratory Fish Stocks and Migratory Fish Stocks*, (1995) 34 ILM 1542, entered into force 11 November 2001.

2000 *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*, 2226 UNTS 208, entered into force 11 September 2003.

2001 *Stockholm Convention on Persistent Organic Pollutants* (2001) 40 ILM 532, entered into force 17 May 2004.

2001 *International Treaty on Plant Genetic Resources for Food and Agriculture*, <www.planttreaty.org> entered into force 29 June 2004.

2006 *International Tropical Timber Agreement*, Doc. TD/TIMBER.3/12, 27 January 2006 (not yet in force).

2010 *Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety*, UNEP/CBD/BS/COP-MOP/5/17 of 15 October 2010 (not yet in force).

2010 *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity*, UNEP/CBD/COP/DEC/X/1 of 29 October 2010 (not yet in force).

EU Legislation

Convention on the Protection of the Rhine, Council Decision 2000/706/EC of 7 November 2000, entered into force 1 January 2003.

Treaty on the European Union (Maastricht Treaty), (2010) 53 Official Journal of the EU <<http://eur-lex.europa.eu/>>.

Documents of the General Assembly

Declaration of the United Nations Conference on the Human Environment (1972), UN Doc.A/CONF/48/14/REV.1.

World Charter of Nature UNGA Res 37/7 (28 October 1982) UN Doc A/RES/37/7.

Rio Declaration on Environment and Development (1992), UN Doc.A/CONF.151/26/Rev.

United Nations Millennium Declaration (2000), UN Doc.A/55/L.2.

Johannesburg Declaration on Sustainable Development (2002), UN Doc.A/CONF.199/L.6/Rev.2.

UN Report of the World Summit on Sustainable Development, UN Doc A/Conf 199/20 (2002).

United Nations Conference on the Law of Treaties, First Session, Doc. A/CONF. 39/11.

CBD-COP Decisions

CBD-COP decision VIII/28. .

CBD-COP decision VIII/26.

CBD-COP decision VI/15.

CBD-COP decision VII/18.

CBD-COP decision IX/6.

CBD-COP decision V/20.

CBD-COP decision VI/23.

CBD-COP decision VIII/28.

CBD-COP decision VIII/26.

CBD-COP decision IV/10.

CBD-COP decision VII/18.

CBD-COP decision V/15.

CBD-COP decision IX/6.

CBD-COP decision VIII/26.

CBD-COP decision V/26.

CBD-COP decision III/17.

CBD-COP decision III/17.

CBD-COP decision III/17.

CBD-COP decision IV/15.

CBD-COP decision V/26.

CBD-COP decision VI/20.

CBD-COP decision VII/26.

CBD-COP decision VIII/16.

CBD-COP decision XI/27.

CBD-COP decision II/12.

CBD-COP decision III/15.

CBD-COP decision IV/8.

CBD-COP decision IV/9.

CBD-COP decision IV/15.

CBD-COP decision V/16.

CBD-COP decision V/26.

CBD-COP decision VI/10.

CBD-COP decision VI/24.

CBD-COP decision VI/28.

CBD-COP decision VI/24.

CBD-COP decision VII/19.
CBD-COP decision VIII/4.
CBD-COP decision VIII/12.
CBD-COP decision IX/13.
CBD-COP decision IX/14.
CBD-COP decision VI/24.
CBD-COP decision VII/19.
CBD Conf. Resolution VII/26.
CBD Conf. Resolution III/17.
CBD Conf. Resolution IV/15.
CBD-COP decision V/26.
CBD-COP decision VI/20.
CBD-COP decision VII/26.
CBD-COP decision VIII/16.
CBD-COP decision XI/27.
CBD-COP decision VI/20.
CBD-COP decision XLVI/6
CBD-COP decision IX/27
CBD- COP decision VIII/27.
CBD-COP decision IX/4.
CBD- COP decision V/15
CBD-COP decision XLVI/6

SBSTTA Recommendations

SBSTTA recommendations IV/4.
SBSTTA recommendations V/4.

ITTC Resolutions

ITTC decision 6(XI)/20.

ITTC decision (XLII)/17.

ITTC decision XI/20.

ITTC decision 3(XLII)/17.

ITTC decision 10(XXX)/22.

ITTC decision 2(XXXVII)/20.

WTO Decisions

WTO CTESS TN/TE/19 (22 March 2010)

WTO CTESS, TN/TE/20 (21 April 2011)

WTO CTE WT/CTE/1(1996)

WTO CTE WT/CTE/W/41/Rev.8 (2001)

CITES Resolutions

CITES Conf. Resolution 14.17.

CITES Conf. Resolution 10.13.

CITES Conf. Resolution 14.4.

CITES Conf. Resolution 4.25.

CITES Conf. Resolution 4.27.

CITES Conference Resolution 9.1.

CITES Conf. Resolution 9.24.

CITES Conf. Resolution 1.1.

CITES Conf. Resolution 8.20.

CITES Conf. Resolution 9.24 (Rev. CoP 15).

CITES Conf. Resolution 9.24 (Rev. CoP14).

CITES Conf. Resolution 11.3 (Rev. CoP 14).

CITES Conf. Resolution 9.7 (Rev. CoP 13).

CITES Conf. Resolution 5.11.

CITES Conf. Resolution 13.6.

CITES Conf. Resolution 13.7 (Rev. CoP 14)

CITES Conf. Resolution 11.15 (Rev. CoP 12).

CITES Conf. Resolution 2.10(Rev.).

CITES Conf. Resolution 12.3 (Rev. COP13).

CITES Conf. Resolution 13.87.

CITES Conf. Resolution 12.3.

CITES Conf. Resolution 10.16(Rev.).

CITES Conf. Resolution 12.10 (Rev. CoP14).

CITES Conf. Resolution 2.12.

COP-MOP decisions

COP-MOP decision BS-V/6.

COP-MOP decision BS-V/11.

COP-MOP decision BS-V/12.

COP-MOP decision BS-IV/6.

COP-MOP decision BS-IV/12.

COP-MOP decision BS-IV/8.

COP-MOP decision BS-IV/9.

COP-MOP decision BS-IV/10.

COP-MOP decision BS-III/12.

COP-MOP decision BS-III/8.

COP-MOP decision BS-III/9.

COP-MOP decision BS-III/10.

COP-MOP decision BS-II/6.

WIPO decisions

WIPO Secretariat, WIPO/GRTKF/IC/9/5.

WIPO Doc. WIPO/GRTKF/IC/6/13.

Books

Alan Boyle, and Christine Chinkin, *The Making of International Law* (OUP, Oxford 2007).

Alexander Gillespie, *International Environmental Law, Policy and Ethics* (OUP, Oxford 1998).

Andreas F. Lowenfeld, *International Economic Law* (OUP, Oxford 2002).

Andreas Zimmermann, Hanna Goeters and Rainer Hofmann (ed), *Unity and Diversity in International Law* (Berlin, 2006).

Anthony Aust, *Modern Treaty law and Practice* (CUP, Cambridge 2007).

Antonio Cassese, *International Law in a Divided World* (Oxford, Clarendon Press 1986).

Anupam Goyal, *The WTO and International Environmental Law* (OUP, Oxford 2006).

Arie Trouwborst, *Evolution and Status of the Precautionary Principle in International Law* (International Environmental Law and Policy Series, Kluwer Law International 2002).

Arnold McNair, *The Law of Treaties* (Clarendon Press, Oxford 1961).

Bass, M. S., Aviram, R., & Parker, K., *Timber Certification: Prospects and Progress in Addressing Wildlife Issues in Central Africa* (The Bushmeat Crisis Task Force, 2003) <<http://www.bushmeat.org/node/1969>>.

Bilderbeek, Wijgerde et al., *Biodiversity and International Law: The Effectiveness of International Environmental Law* (IOS Press, Amsterdam 1992).

Christian Tomuschat, *International Law: Ensuring the Survival of Mankind on the Eve of a New Century* (Recueil des Cours , 2001).

Daniel Esty, *Greening the GATT: Trade, Environment and the Future* (Institute for International Economics, Washington DC 1994).

Deanna Newsom & Hewdoitt, *The Global Impacts of SmartWood Certification* (Trees Program Rainforest Alliance, 2005).

Donella Meadows, Jorgen Randers and Dennis Meadows, *The Limits to Growth: 30-Year update* (3rd revision, Earthscan, London 2005).

Duncan Poore, *Changing Landscapes* (Earthscan publications, London 2003).

Edith Weiss, *In Fairness of Future Generations* (Dobbs Ferry, NY 1990).

Edward Barbier et. al., *The Economics of the Tropical Timber Trade* (Earthscan, London 1994).

Ernst-Ulrich Petersmann, *International and European Trade and Environmental Law after the Uruguay Round* (Kluwer Law International, Boston 1995).

Freya Mathews, *The Ecological Self* (Routledge, London 1991).

Gary Cook, David Downes et. al., *Applying Trade Rules to Timber Eco-labeling* (CIEL Discussion Paper 1997)

<<http://www.ciel.org/Publications/ApplyingTradeRulesTE.pdf>>.

Gary Sampson, *The WTO and Sustainable Development* (United Nations University Press, Tokyo 2005).

György Haraszti, *Some Fundamental Problems of the Law of Treaties*, translated by J. Decsenyi (Akademiai Kiado, Budapest 1973).

Hans Blix and Jirina Emerson (ed), *The Treaty Makers Handbook* (Oceana Publications, Dag Hammarskjold Foundation, Dobbs Ferry, New York 1973).

Hans Kelsen, *General Theory of Norms* (Clarendon Press, Oxford 1991).

Hans Kelsen, *Introduction to the Problem of Legal Theory* (Clarendon Press, Oxford 2001).

Hans Kelsen, *Principles of International Law* (Rinehart & Co. Inc, New York 2003).

Hedley Bull, *The Anarchical Society: a study of order in world politics* (3rd edn. Palgrave, Basingstoke 2002).

Henry Schermers and Neils Blokker, *International Institutional Law: Unity Within Diversity* (4th edn. Martinus Nijhoff Publisher, Leiden 2004).

Herbert Hart, *The Concept of Law* (OUP, Oxford 1997).

Hilaire McCoubrey, Nigel White and J.E. Penner, *Textbook on Jurisprudence* (4th edn, OUP, Oxford 2008).

Ian Brownlie, *Principles of Public International Law* (6th edn. OUP, Oxford 2003).

Ian Mclecod, *Legal Theory* (5th edn Palgrave Macmillan, 2010).
Jagdish Bhagwati and Robert Hudec (ed), *Fair Trade and Harmonization* (MIT Press, Cambridge 1996) vol. II.

James Cameron, Paul Demaret and Damien Geradin (ed), *Trade and Environment: The Search for Balance* (Cameron May, London 1994).

John Alder and David Wilkinson, *Environmental Law and Ethics* (Macmillan, Basingstoke 1999).

John Jackson, *The World Trade Organisation Constitution and Jurisprudence* (The Royal Institution of International Affairs 1998).

John Jackson, *World Trading System: Law and Policy of International Economic Relations* (2nd edn. MIT Press, Cambridge 1997).

John McCormick, *Reclaiming Paradise: The Global Environmental Movement* (Indiana University Press 1991).

Joost Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to the other Rules of International Law* (CUP, Cambridge 2003).

Joseph Weiler (ed), *The EU, The WTO and the NAFTA Towards a Common Law of International Trade* (OUP, Oxford 2000).

Jutta Brunnée and Allen Hey (ed), *The Oxford Handbook of International Environmental Law* (OUP, Oxford 2007).

Malcolm Shaw, *International Law* (6th edn CUP, Cambridge 2008).

Martti Koskenniemi, *The Gentle Civilizer of Nations: The Rise and Fall of International Law 1870-1960* (CUP, Cambridge 2001).

Michael Bowman, Peter Davies and Catherine Redgwell, *Lyster's International Wildlife Law* (2nd edn. CUP, Cambridge 2010).

Nathalie Bernasconi-Osterwalder, Daniel Magraw, Maria Julia Oliva, Elisabeth Tuerk and Marcos Orellana, *Environment and Trade: A guide to WTO Jurisprudence* (Earthscan, London 2006).

Neil McCormick, *Legal Reasoning and Legal Theory* (Oxford, Clarendon Press 1978).

Patricia Birnie and Alan Boyle, *International Law and the Environment* (Clarendon Press, 1992).

- Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3rd edn OUP, Oxford 2009).
- Paul Reuter, *Introduction au droit des traits*, (2nd edn. Presses Universitaires de France, Paris 1985).
- Philippe Sands, *Principles of International Environmental Law* (Vol.1 MUP, Manchester 1995).
- Raymond Wacks, *Philosophy of Law* (OUP, Oxford 2006).
- Raymond Wacks, *Philosophy of Law* (OUP, Oxford 2006).
- Richard Steinberg, *The Greening of Trade Law* (Rowman and Littlefield Publishers, Inc., NewYork 2002).
- Robin Churchill and David Freestone (ed), *International Law and Global Climate Change* (Martinus Nijhoff Publisher, Leiden 1991).
- Rüdiger Wolfrum (ed), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means* (Springer, Berlin 1996).
- Rüdiger Wolfrum and Nele Matz, *Conflicts in International Environmental Law* (Springer, London 2003).
- Ruth Nussbaum & Simula, *Forest Certification: A Review of Impacts and Assessment Framework* (The Forest Dialogue Yale University, School of Forestry and Environmental Studies, 2004).
- Ruth Nussbaum et. al., *Assessing Forest Certification Schemes: A Practical Guide* (ProForst Publications, 2002).
- Seyed Sadat-Akhavi, *Methods of Resolving Conflicts between Treaties* (Martinus Nijhoff Publishers, Leiden 2003).
- Shabtai Rosenne, *Breach of Treaty* (CUP, Cambridge 1985).

Sir Ian Sinclair, *The Vienna Convention on the Law of Treaties* (2nd edn. MUP, Manchester 1984).

Taslim Elias, *The Modern Law of Treaties* (Oceana Publications, New York 1974).

Terence Stewart, *The GATT Uruguay Round* (Kluwer International Law, the Netherlands 1993), vol. IV.

Trouwborst, *Evaluation and Status of the Precautionary Principle in International Law* (The Hague, 2002).

Van Den Bossche, *The Law and Policy of the World Trade Organization* (2nd edn. CUP, Cambridge 2008).

Van Heijnsbergen, *International Legal Protection of Wild Flora and Fauna* (ISO Press, Amsterdam 1997).

Walter Reid, Sarah Laird, Rodrigo Gamez et al. (ed), *A New Lease on Life, in Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (World Resources Institution, Washington 1993).

Watts Arthur (ed), *The International Law Commission 1949-1998* (OUP, Oxford 1999), vol. III.

William Diebold, *The End of the ITO* (International Finance Section, Department of Economics and Social Institutions, Princeton University, New Jersey 1952).

WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* (CUP, Cambridge 1999).

Book Chapters

Alan Boyle, 'The Rio Convention on Biological Diversity' in Michael Bowman and Catherine Redgwell (ed), *International law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) Ch 2.

Carlos Correa, 'Patent Right', in Carlos Correa and Abdulgawi Yusuf (eds), *Intellectual Property and International Trade: The TRIPS Agreement* (Kluwer Law International, 2008) Ch 8.

Catherine Redgewell, 'Protecting Natural Heritage and its Transmissions to Future Generations', in Abdulqawi Yusuf (ed), *Standard-setting in UNESCO Vol 1: Normative Action in Education, Science and Culture* (Martinus Nijhoff Publishers, the Netherlands 2007) 267-290.

David Elliot, 'Certification and Eco-Labeling of Timber and Timber Products' in Zarrilli, Simonetta, Jha, Veena and Vossenaar, René (ed), *Eco-labelling and International Trade* (Macmillan Press Ltd, London 1997).

George Abi-Saab, 'International Law and the International Community: the Long Road to Universality' in R. Macdonald (ed), *Essays in Honour of Wang Tieya* (Martinus Nijhoff Publishers, Leiden 1994) Ch 1.

Gregory Rose, 'International Regime for the Conservation and Control of Plant Genetic Resources' in Michael Bowman and Catherine Redgewell (ed), *International law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) Ch 8.

Günther Handl, 'Sustainable Development: General Rules versus Specific Obligations' in Winfried Lang (ed.), *Sustainable Development and International Law* (Martinus Nijhoff, London 1995) Ch 4.

Howse and Elisabeth Turk, 'The WTO Impact on Internal Regulations: A Case Study of the Canada – EC Asbestos Dispute', in George Bermann and Petros Mavroidis (ed), *Trade and Human Health and Safety* (CUP, Cambridge 2006) Ch 2.

Ian Brownlie, 'The Rights of Peoples in Modern International Law' in Crawford (ed), *The Rights of People* (Oxford, Clarendon Press 1988).

Ian Walden, 'Intellectual Property Rights and Biodiversity' in Michael Bowman and Catherine Redgewell (ed), *International Law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) Ch 9.

Ignaz Seidl-Hohenveldern, 'Hierarchy of Treaties', in Jan Klabbers and Rene Lefeber (ed), *Essays on the Law of Treaties* (Martinus Nijhoff Publishers, the Hague 1998) 7-18.

Jagdish Bhagwati, 'Trade and the Environment: The False Conflict?' in Durwood Zaelke (ed), *Trade and the Environment: Law, Economics, and Policy* (1993) Ch 13.

Jagdish Bhagwati, 'Trade and the Environment: The False Conflict?' in Durwood Zaelke, Paul Orbuch and Robert Housman (ed), *Trade and the Environment: Law, Economics, and Policy* (Island Press, Washington, DC 1993) 159-190.

James Cameron and J. Abouchar, 'The Status of the Precautionary Principle in International Law' in David Freestone and Ellen Hey (ed), *The Precautionary Principle in International Law* (Martinus Nijhoff Publisher, the Netherlands 1996) Ch 3.

James Cameron, 'The Status of the Precautionary Principle in International Law' in James Cameron and Timothy O'Riordan (ed), *Interpreting the Precautionary Principle* (Cameron May, London 1994) Ch 15.

Peter Sand, 'Sticks, Carrots and Games' in Michael Bothe and Peter Sand (eds.), *Environmental Policy : From Regulation to Economic Instruments* (Martinus Nijhoff Publishers, the Hague : 2003) Ch 1.

Robert Jennings, ' Universal International Law in a Multicultural World ', in Maarten Bos and Ian Brownlie (ed), *Liber Amicorum for the Rt. Hon. Lord Wilberforce* (OUP, Oxford 1987) 39.

Karol Wolfke, 'Treaties and Custom: Aspects of Interpretation', in Jan Klabbers and Rene Lefeber (ed), *Essays on the Law of Treaties* (Martinus Nijhoff Publishers, the Hague 1998) 31-40.

Ruth Mackenzie and Philippe Sands, 'Prospects for International Environmental Law' in Christoph Bail, Robert Falkner, Helen Marquard et al. (ed), *The Cartagena protocol on Biosafety: Reconciling trade in Biotechnology with Environment and Development?* (Earthscan Publications Ltd, London 2002) 461.

Mary Footer, 'Our Agricultural Heritage: Sustainability, Common Heritage and Intergenerational Equity', in Nico Schrijver and Friedl Weiss (eds.), *International Law and Sustainable Development: Principles and Practice* (Martinus Nijhoff Publishers, Leiden 2004) 433.

Michael Bowman, 'The Nature, Development and Philosophical Foundation of the Biodiversity Concept in International Law' in Michael Bowman and Catherine

Redgwell (ed), *International Law and the Conservation of Biological Diversity* (Kluwer Law International, the Netherlands 1996) Ch 1.

Enrico Milano, 'The Outcomes of the Procedure and their Legal Effects', in Tullio Treves et al. (ed), *Non-compliance Procedures and Mechanisms and the Effectiveness of the International Multilateral Agreements* (TMC Asser Press, 2009) 412.

Philippe Sands, 'International Law in the Field of Sustainable Development: Emerging Legal Principles' in Winfried Lang (ed.), *Sustainable Development and International Law* (Martinus Nijhoff, London 1995) Ch 5.

Philippe Sands, 'International Law in the Field of Sustainable Development: Emerging Legal Principles' in Winfried Lang (ed), *Sustainable Development and International Law* (Springer, London 1995) 53-66.

Sabrina Safrin, 'The Relationship with Other Agreements: much ado about a savings clause' in Christoph Bail, Robert Falkner, Helen Marquard et al. (ed), *The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development?* (Earthscan Publications Ltd, London 2002) 449.

Simonetta Zarilli, 'International Trade in Genetically Modified Organisms and Multilateral Negotiations: a New Dilemma for Developing Countries' in Francesco Francioni (ed), *Environment, Human Rights and International Trade* (OUP, Oxford 2001) Ch 3.

Susan Biniatz, 'Remarks about the CITES Compliance Regime', in Ulrich Beyerlin, Peter-Tobias Stoll and Rüdiger Wolfrum (ed), *Ensuring Compliance with Multilateral Environmental Agreements* (Martinus Nijhoff Publishers, the Netherlands 2006) 89-96.

Are Sydnes, 'Overlapping Regimes: The SPS Agreement and the Cartagena Biosafety Protocol' in Orang R. and Young (ed), *Institutional Interplay: Biosafety and Trade* (United Nations University Press, 2008) 87.

Vera Gowlland-Debbas, 'Judicial Insight into Fundamental Values and Interests of International Community' in Sam Muller, D. Raic and J.M. Thuranszky (ed), *The International Court of Justice Its Future Role After Fifty Years* (Martinus Nijhoff Publishers, the Hague 1997) 327-366.

Vaughan Lowe, 'Sustainable Development and Unsustainable Argument', in Alan Boyle and David Freestone (ed), *International Law and Sustainable Development: Past Achievements and Future Challenges* (OUP, Oxford 1999) Ch 2.

Wolfram Karl, *Conflict Between Treaties*, in Rudolf Bernhardt (ed), 4 *Encyclopaedia of Public International Law* (2000).

Journal Articles

Aarti Gupta, 'Creating a Global Biosafety Regime' (2000) 2 *International Journal of Biotechnology* 205.

Aarti Gupta, 'Governing Trade in Genetically Modified Organisms: The Cartagena Protocol on Biosafety' (2000) 42 *Environment* 22.

Abdul Hamid, Ken Maung Sein and Nik Mahmud, 'The WTO Rules Versus Multilateral Environmental Agreements: The Search for Reconciliation' (2008) 5 *Macquarie JICEL* 57.

Alan Boyle, 'Further Development of the Law of the Sea Convention: Mechanisms for Change' (2005) 54 *ICLQ* 563.

Aleksander Peczenik, 'Can Philosophy Help Legal Doctrine?' (2004) 17 *Ratio Juris* 107.

Alexander Orakhelashvili, 'Oil Platforms (Islamic Republic of Iran v United States of America), Merits, Judgement of 6 November 2003' (2004) 53 *ICLQ* 753.

Anja Lindroos and Michael Mehling, 'Dispelling the Chimera of Self-Contained Regimes: International Law and the WTO' (2006) 16 *EJIL* 857.

Anja Lindroos and Michael Mehling, 'From Autonomy to Integration? International Law, Free Trade and the Environment' (2008) 77(3) *Nordic JIL* 253.

Anthony D'Amato, 'Do We Owe a Duty to Future Generations to Preserve the Global Environment?' (1990) 84 *AJIL* 190.

Arwel Davis, 'Interpreting the Chapeau of GATT Article XX in Light of the 'New' Approach in Brazil – Tyres' (2009) 43 *Journal of World Trade* 507.

Bradly Condon, 'Multilateral Environmental Agreement and the WTO: Is The Sky Really Falling?' (2002) 9 *Tulsa J. Comp. & Int'l L.* 533.

Bruce Harper, 'TRIPS Article 27.2: An Argument for Caution' (1997) 21 *Wm & Mary Envtl L & Pol Rev* 381.

Bruno Simma and Andreas Paulus, 'The 'International Community': Facing the Challenge of Globalization' (1998) 9 *EJIL* 266.

Bruno Simma and Dirk Pulkowski, 'Of Planets and the Universe of Self-Contained Regimes in International Law', (2006) 17 *EJIL* (2006) 483.

Bruno Simma, 'Self-Contained Regimes' (1985) 16(1) *NYIL* 115.

Bruno Simma, 'Universality of International Law from the Perspective of a Practitioner' (2009) 20 *EJIL* 265.

Burhenne-Guilmin and Casey-Lefkowitz, 'The Convention on Biological Diversity: A Hard Won Global Achievement' (1992) *YbIEL* 43.

Campbell McLanhan, 'The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention' (2005) 54 *ICLQ* 279.

Chris Wold, 'Multilateral Environmental Agreements and the GATT: Conflict and Resolution?' (1996) 26 *Environmental Law* 841.

Christopher Borgen, 'Resolving Treaty Conflicts' (2005) 37 *George Washington ILR* 573.

Claire Kelly, 'The Value Vacuum: Self-enforcing Regimes and the Dilution of the Normative Feedback Loop' (2001) 23 *Mich JIL* 673.

David Morgan and Gavin Goh, 'Genetically Modified Food Labeling and the *WTO Agreements*', (2004) 13 *RECIEL* 306.

David Ong, 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law' (1998) 10 *JEL* 291.

Dinah Shelton, 'Common Concern of Humanity' (2009) 39 EPL 83.

Dinah Shelton, 'Normative Hierarchy in International Law', (2006) 100 AJIL 291.

Duncan French, 'Treaty Interpretation and the Incorporation of Extraneous Legal Rules' (2006) 55 ICLQ 281.

E. W. Vierdag, 'The Time of the Conclusion of the Multilateral Treaty: Article 30 of the Vienna Convention on the Law of the Treaties and Related Provisions' (1988) 59 BYIL 92.

Edith Weiss, 'Free International Trade and the Protection of the Environment: Irreconcilable Conflict?' (1992) 86 AJIL 700.

Eva Uhlmann, 'States Community Interests, Jus Cogens and Protection of the Global Environment: Developing Criteria for Peremptory Norms', (1998-99) 11 Georgetown IELR 101.

Eyal Benvenisti and George W. Downs, 'The Empire's New Clothes: Political Economy and the Fragmentation of International Law' (2007) 60 Stanford Law Review 595.

Francis Jacobs, 'Varieties of Approach to Treaty Interpretation: With Special Preference to the Draft Convention on the Law of Treaties before the Vienna Diplomatic Conference, (1969) 18 ICLQ 318.

Fred Pearce, 'Earth's Nine Lives' New Scientist 27 february 2010.

Gabrielle Marceau, 'WTO Dispute Settlement and Human Rights' (2002) 13 EJIL 753.

Gary Meyers and Kyla Bennett, 'Answering "The Call of the Wild": An Examination of US Participation in International Wildlife Law' (1989) 7 PACE ELR 104.

George Abi-Saab, 'Whither the International Community?' (1998) 9 EJIL 248.

George Schwarzenberger, 'International Jus Cogens', (1964-65) 43 Texas LR 455.

Gerald Fitzmaurice, 'The Law and Procedure of the International Court of Justice 1951-4: Treaty Interpretation and Other Treaty points' (1957) 33 BYIL 223.

Gretchen Gaston and Randall Abate, 'The Biosafety Protocol and the World Trade Organization: Can the Two Coexist?' (2000) 12 PACE ILR 107.

Gunther Handl, 'Environmental Security and Global Challenge: The Challenge to International Law' (1990) 1 YbIEL 1.

Gwyneth Steward, 'Enforcement Problems in the Endangered Species Convention: Reservations Regarding the Reservations Clauses', (1981) 14 Cornell ILJ 429.

Halina Ward, 'Common but Differentiated Debates: Environment, Labour and the World trade Organization' (1996) 45 ICLQ 592.

Herbert Hart, 'Positivism and the Separation of Law and Morals' (1958) 71 Harv L. R 593.

Hersch Lauterpacht, 'Restrictive Interpretation and the Principle of Effectiveness in the Interpretation of Treaties' (1949) 29 BYIL 48.

Ilona Cheyne, 'Environmental Treaties and the GATT' (1992) 1 RECIEL 14.

Ilona Cheyne, 'Gateways to the Precautionary Principle in WTO Law' (2007) 19 JIEL 155.

Ilona Cheyne, 'Life After the Biotech Products Dispute' (2008) 52 EILR 52.

Ilona Cheyne, 'Proportionality, Proximity and Environmental Labeling in WTO Law', (2009) 12 JIEL 927.

Jan Klabbers, 'How to Defeat a Treaty's Object and Purpose Pending Entry into Force: Toward Manifest Intent' (2001) 34 Vand JTL 283.

Jan Mus, 'Conflicts Between Treaties in International Law' (1998) XLV NILR 208.

Jens Bartelson, 'The Concept of Sovereignty Revisited' (2006) 17 EJIL 463.

Jill Nissen, 'Achieving a Balance between Trade and the Environment: The Need to Amend the WTO/GATT to Include Multilateral Environmental Agreements' (1996-97) 28 *Law and Policy in International Business* 901.

Jimena Mrillo, 'Common Concern of Humankind and Its Implications in International Environmental Law' (2008) 5 *Macquarie JICEL* 133.

John Knox, 'The Judicial Resolution of Conflicts Between Trade and the Environment' (2004) *Harvard ELR* 1.

Jonathan Charney, 'Universal International Law', (1993) 87 *AJIL* 529.

Joost Pauwelyn, 'Bridging Fragmentation and Unity: International Law as a Universe of Inter-connected Islands' (2003-04) 25 *Mich JIL* 903.

Joost Pauwelyn, 'The Role of Public International Law in the WTO: How Far Can We Go?' (2001) 95 *AJIL* 535.

Judge Kooijmans, 'The ICJ in the 21st Century: Judicial Restraint, Judicial Activism, or Proactive Judicial Policy' (2007) 56 *ICLQ* 751.

June Starr and Kenneth Hardy, 'Not by seeds Alone: The Biodiversity Treaty and the Role for Native Agriculture' (1993) 12 *Stan ELJ* 85.

K. N. Dal, 'The Application of Successive Treaties Dealing with the Same Subject-matter', (1974) 17 *Indian YbIA* 279.

Karel Wellens, 'Fragmentation of International Law and Establishing an Accountability Regime For International Organizations: The Role of the Judiciary in Closing the Gap' (2004) 25 *Michigan JIL* 1159.

Laurence Chazournes and Makane Mbengue, 'GMOs and Trade: Issues at Stake in the EC Biotech Dispute', (2004) 13 *RECIEL* 289.

Lothar Gundling, 'Our Responsibility to Future Generations' (1990) 84 *AJIL* 207.

Louis Sohn, 'The Stockholm Declaration on the Human Environment', (1973) 14 *Harv ILJ* 423.

Malgosia Fitzmaurice and Catherine Redgewell, 'Environmental Non-compliance Procedures and International Law' (2000) 31 NYIL 35.

Margaret Young, 'Fragmentation or Interaction: The WTO, Fisheries Subsidies and International Law' (2009) 8 World Trade Review 477.

Margaret Young, 'The WTO's Use of Relevant Rules of International Law: An Analysis of the *Biotech* Case', (2007) 56 ICLQ 907.

Maria Agius, 'The Invocation of Necessity in International Law' (2009) 56 NILR 95.

Mario Prost and Paul Kingsley Clark, 'Unity, Diversity and the Fragmentation of International Law: How Much Does the Multiplication of International Organizations Really Matter?' (2006) 5 Chinese JIL 341.

Mark Halle, 'Trade and Environment: Looking Beneath the Sands of Doha?' (2006) 3 JEEPL 107.

Martin Rogoff, 'International Legal obligations of Signatories to an Unratified Treaty' (1980) 32 Mar LR 263.

Martti Koskenniemi and Päivi Leino, 'Fragmentation of International Law? Postmodern Anxieties' (2002) 15 Leiden JIL 553.

Michael Akehurst, 'The Hierarchy of the Sources on International Law', (1974-75) 47 BYIL 273.

Michael Bowman, "'Normalising" the International Convention for the Regulation of Whaling' (2008) 28 Mich JIL 293.

Michael Bowman, 'Conflict or Compatibility? The Trade, Conservation and Animal Welfare Dimensions of CITES' (1998) 1 JIWLP 1.

Mike Miere, 'GATT, WTO and the Environment: To what Extent Do GATT/WTO Rules Permit Member Nations to Protect the Environment When Doing So Adversely Affects Trade?' (1997) 8 Colorado JIELP 241.

Nita Ghei, 'Evaluating the WTO's Two Step Test for Environmental Measures Under Article XX' (2007) 18 Colorado JIELP 117.

Olivette Torres, 'The Biosafety Protocol and the WTO' (2003) 26 Boston CICLJ 263.

Paolo Galizzi, 'From Stockholm to New York, via Rio and Johannesburg: has the environment lost its way on the global agenda?' (2006) 29 Fordham ILJ 952.

Paul Hagen and John Weiner, 'The Cartagena Protocol on Biosafety: New Rules for International Trade in Living Modified Organism' (2000) 12 Georgetown IELR 697.

Peter Hilpold, 'Human Rights and WTO Law: From Conflict to Coordination' (2007) 45(4) Archiv des Völkerrechts, 484.

Peter Sand, 'Whither CITES? The Evaluation of a Treaty Regime in the Borderland of Trade and Environment', (1997) 8 EJIL 29.

Philippe Sands, 'International Law in the Field of Sustainable Development', (1994) 65 BYIL 324.

Philippe Sands, 'Treaty, Custom and the Cross-fertilization of International Law' (1998) 1 Yale HRDLJ 85.

Pierre-Marie Dupuy, 'International law: Torn between Coexistence, cooperation and Globalization' (1998) 9 EJIL 278.

R.S.J. Macdonald, 'Fundamental Norms in Contemporary International Law', (1987) 25 Can YbIL 115.

Rafe Pomerance, 'The Biosafety Protocol: Cartagena and Beyond' (2000) 8 New York UELJ 614.

Richard Tarasofsky, 'Ensuring Compatibility between Multilateral Agreements and the GATT/ WTO' (1996) 7 YbIEL 52.

Richard Stewart, 'Economic, Environmental, and Limits of Legal Control' (1985) 9 Harv ELR 1.

Robert Hepworth, 'The Independent Review of CITES' (1998) 1 JIWLP 419.

Robert Kolb, 'Principles as Sources of International Law' (2006) 53 NILR 1.

Robert Kolb, 'Selected Problems in the theory of Customary International Law' (2003) 50 NILR 119.

Robin Churchill and Geir Ulfstein, 'Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little Noticed Phenomenon in International Law' (2000) 94 AJIL 623.

Rosalyn Higgins, 'A Babel of Judicial Voices? Ruminations from the Bench' (2006) 55 ICLQ 791.

Ruth MacKenzie, 'The Cartagena Protocol After the First Meeting of the Parties'. (2004) 13 RECIEL 270.

Saskia Young, 'Contemporary Issues of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Debate Over Sustainable Use' (2003) 14 Colorado JIELP 167.

Sean Murphy, 'Biotechnology and International Law' (2001) 42 Harv ILJ 42.

Sophie Riely, 'Invasive Alien Species and the Protection of Biodiversity: The Role of Quarantine Laws in Resolving Inadequacies in the International Legal Regime' (2005) 17 JEL 323.

Steffen Rockström et al., 'Planetary Boundaries: Exposing the Safe Operating Space for Humanity' (2009) 14 Ecology and Society 32;
Steve Charnovitz, 'A New WTO Paradigm for Trade and the Environment' (2007) 11 SYBIL 15.

Steve Charnovitz, 'A Taxonomy of Environmental Trade Measures' (1993-94) 6 Georgetown IELR 1.

Steve Charnovitz, 'Multilateral Environmental Agreements and Trade Rules' (1996) 26 EPL 163.

Steve Charnovitz, 'The Supervision of Health and Biosafety Regulation of World Trade Rules' (2000) 13Tulane ELJ 271.

Steve Charnovitz, 'The World Trade Organization and the Environment' (1998) 8 YBIEL 98.

Surya Subedi, 'The Road from Doha: The Issues for the Development Round of the WTO and the Future of International Trade' (2003) 52 ICLQ 426.

Thomas Cors, 'Biosafety and International Trade: Conflict or Convergence?' (2000) 2 International Journal of Biotechnology 27.

Thomas Schoenbaum, 'International Trade and Protection of the Environment: The Continuing Search for Reconciliation' (1997) 91 AJIL 268.

Timothy Swanson, 'Economics of a Biodiversity Convention', (1992) 21 *Ambio: A Journal of the Human Environment* 250.

Ulf Linderfalk, 'Is the Hierarchy Structure of Articles 31 and 32 of the Vienna Convention Real or Not? Interpreting the Rules of Interpretation' (2007) 54 NILR 133.

Ved Nanda, 'Genetically Modified Food and International law – the Biosafety Protocol and Regulations in Europe' (2000) 28 *Den JILP* 235.

Vinod Rage, 'GATT Law and Environment-Related Issues Affecting the Trade of Developing Countries' (1994) 28 *JWT* 95.

W. Czaplinski and G. M. Danilenko, 'Conflict of Norms in International Law' (1990) 21 *NYIL* 12.

Wilfred Jenks, 'The Conflict of Law-Making Treaties' (1953) 30 *BYIL* 401.

Reports, working papers, official documents and others

'ITTO Action Plan 2008-2011' (2008) ITTO Policy Development Series No 18. Available at: <http://www.itto.int/policypapers_guidelines/>.

'ITTO/IUCN Guidelines for the conservation and sustainable use of biodiversity in tropical timber production forests' (2009) ITTO Policy Development Series No 17. Available at: <http://www.itto.int/policypapers_guidelines/>.

'Revised ITTO criteria and indicators for the sustainable management of tropical forests including reporting format' (2005) ITTO Policy Development Series No 15. Available at: <http://www.itto.int/policypapers_guidelines/>.

Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, Published by the Secretariat of the Convention of Biological Diversity (Montreal 2004). Available at: <<http://www.cbd.int/doc/publications/addis-gdl-en.pdf>>.

Armin Von Bogdandy and Sergio Dellavalle, 'Universalism and Particularism as Paradigms of International Law' (2008) IILJ Working Papers <[ww.iilj.org](http://www.iilj.org)>.

Bilderbeek, Wijgerde et al., *Biodiversity and International Law: the effectiveness of international environmental law* (IOS Press, 1992).

Douglas Caldwell, 'Multilateral Environmental Agreements and the GATT/WTO Regime' (March 2001) a paper published from the Heirrich Boll Foundation, Washington.

DR Downes, *Integrating Implementation of the Convention on Biological Diversity and the rules of the World Trade Organization* (IUCN, 1999).

Draft Ministerial Decision on Trade and Environment (21 April 2011) CTESS TN/TE/20
<http://www.wto.org/english/tratop_e/dda_e/chair_texts11_e/chair_texts11_e.htm>.

Dutfield, 'Is Novelty Still Required for Patents in the United States: the case of Turmeric', Bulletin of the Working Group on Traditional Resources Rights.

Emonds, *Guidelines for national implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora* (Gland, International Union for Conservation of Nature and Natural Resources, 1981).

Environmental Resources Management, 'Study on How to Improve the Effectiveness of CITES' (London 1996).

ILC Special Rapporteur, 'Report on the Transboundary Harm' (2000) GAOR A/55/10.

ILC, 'Report of the Study Group of International Law Commission on Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law' (13 April 2006) UN Doc. A/CN.4/1.682.

Institut de Droit international, 'Resolution on the Inter-temporal Problem in Public International Law'. Available at:

<http://www.idi-iil.org/idiE/resolutionsE/1975_wies_01_en.pdf>.

International Trade in Animal Products Threatens Wildlife (US Fish and Wildlife Services, 1982).

ITTC, 'Review of progress towards the Year 2000 Objective' (2000). Available at: <<http://www.itto.int/resource01/#reports>>.

ITTO, '2006 Status of tropical forest management' (2005) ITTO Technical Series No 24. Available at: <<http://www.itto.int/resource01/#reports>>.

ITTO, 'ITTO/IUCN Guidelines for the conservation and sustainable use of biodiversity in tropical timber production forests' (Yokohama 2009). Available at: <<http://www.itto.org>>.

IUCN, 'Guidelines for the Ecological Sustainability of non-Consumptive and Consumptive Uses of Wild Species' (Draft Guideline, 1994).

IUCN, *Guidelines for the Ecological Sustainability of non-Consumptive and Consumptive Uses of Wild Species* (Draft Guideline: 1994).

IUCN, UNEP and WWF, *Caring for the Earth: A Strategy for Sustainable Living* (1991). See *World Conservation Strategy* (1980).

IUCN-WCU, 'Genetically Modified Organisms and Biosafety: A Background Paper for Decision-Makers and others to Assist in Consideration of GMO issue' (Gland 2004).

Jeffrey McNeely, Kenton Miller and Walter Reid, *Conserving the World's Biological Diversity* (IUCN, 1990).

Lyle Glowka, Françoise Burhenne-Guilmin, and Hugh Syngé, *A Guide to the Convention on biological Diversity* (IUCN Environmental Policy and Law Papers No. 30, 1994).

Mackenzie and others, *An Explanatory Guide to the Cartagena Protocol on Biosafety* (2003) IUCN Environmental Policy and Law Paper No. 46.

Mackenzie et al., *An Explanatory Guide to the Cartagena Protocol on Biosafety* (IUCN Environmental Policy and Law Paper No. 46, 2003).

Note by the Executive Secretary, 'Sharing of experience on incentive Measures for Conservation and sustainable Use', UNEP/CBD/COP/3/24 (1996).

Note by the WTO Secretariat, 'Matrix on Trade Measures Pursuant to Multilateral Trade Agreements' (16 February 2005) WT/CTE/W/160/Rev3, TN/TE/S/5/Rev 1.

OECD, *Environmental Policy: How to Apply Economic Instruments* (Paris: 1991). *Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment* ('Environmental Arbitration Rules'). For the text of the Rules <<http://www.pca-cpa.org/upload/files/ENV%20CONC.pdf>>.

Siddhartha Prakash, trade and development Case Studies: Country Studied: India', Trade and Development Centre, <<http://www.itd.org/issues/india6.htm#Turmeric>>.

SBSTTA Report, 'Adverse Impacts of Invasive Alien species', UNEP/CBD/SBSTTA/6/7 Dec 2000.

The Declaration of the Doha Ministerial Conference (4th WTO Ministerial Conference, Qatar, 14 November 2001) WT/MIN(01)/DEC/1.

UNEP, 'Memorandum of Understanding between the Secretariat and the Secretariat of the Convention on International trade in Endangered Species of Wild Fauna and Flora (CITES)' (15 Oct 1996) UNEP/CBD/CoP/3/Inf.39.

UNEP, 'Report of the Group of Legal Experts to Examine the Concept of the Common Concern of Mankind in Relation to Global Environmental Issues' (1990).

UNEP, Report of the Group of Legal Experts to Examine the Concept of the Common Concern of Mankind in Relation to Global Environmental Issues (1990).

WECD, *Our common Future* (Oxford 1987).

Willem Wijnstekers, *The Evaluation of CITES*, 8th Eds. (Published by the CITES secretariat, 2005) see reservation in e-book at cites.org.

WIPO Secretariat, 'The Protection of Traditional Knowledge: Revised Objective and Principles' (Geneva 2006). Available at:

<http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=55136>.

WTO CTESS, 'Draft Ministerial Decision on Trade and Environment' (21 April 2011) CTESS/TN/TE/20. Available at:

<http://www.wto.org/english/tratop_e/dda_e/chair_texts11_e/chair_texts11_e.htm>.

WTO CTESS, 'Existing Forms of Cooperation and Information Exchange between UNEP/MEA and the WTO' (16 January 2007) TN/TE/S/2/Rev.2. Available at:

<http://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm>.

Yvo de Boer, Executive Secretary of the United Nations Climate Convention, 'The New Copenhagen Climate Deal' (2009) a pocket guide published by the WWK-UK.

Yearbook of International Law Commission (1964) Vol. I.

Yearbook of International Law Commission (1966) Vol. II.