Ecological Sensitivity and Global Legal Pluralism

The tension between trade liberalisation and environmental protection has received remarkable attention since the establishment of the WTO. It has been the subject of a wide-ranging debate, and is one of the central themes of the anti-globalisation movement. This book explores that debate. It argues that by focusing on the WTO, the debate has failed to recognise the institutional and discursive complexity in which the trade-environment conflict is embedded. A legal investigation of this nexus requires a framework of inquiry, in which this complexity can be elucidated—a model of global legal pluralism.

The first theoretical part of the book (Chapters One and Two) responds to this challenge by developing a pluralistic model, which recognises the trade and environment conflict as the product of multiple dilemmas, constituted and negotiated by a myriad of institutional and discursive networks. As such, this conflict cannot be understood or addressed through one-dimensional models. Viewing the trade-environment conflict through a pluralistic perspective yields important practical insights. It means that this conflict cannot be resolved by uniform economic or legal formulae. Dealing with this conflict requires, rather, polycentric and contextual strategy.

The empirical part of the book (Chapters Three to Seven) explicates this thesis by examining several global legal domains, ranging from the WTO to 'private' transnational regimes such as transnational litigation, international construction law and international financial law. This part demonstrates how the different discursive and institutional structures of these domains have influenced the contours of the trade-environment conflict, and considers the policy implications of this diversity from a pro-environmental perspective.

Ecological Sensitivity and Global Legal Pluralism

International Studies in the Theory of Private Law

This series of books edited by a distinguished international team of legal scholars aims to investigate the normative and theoretical foundations of the law governing relations between citizens. The context for such investigations of private law systems is set by important modern tendencies in systems of governance. The advent of the regulatory state marks the withdrawal of the state from direct control and management of social and economic activity, and the adoption instead of procedural regulation and co-regulatory strategies that promote the use of private law techniques of ordering and self-regulation in social and economic interactions between citizens. The tendency known as globalisation and the corresponding increases in cross-border trade produce the responses of transnational regulation of commerce and private governance regimes, and these new systems of governance challenge the hegemony of traditional national private law systems. Furthermore, these tendencies towards transnational governance regimes compel an interaction between different national legal traditions, with their differences in culture and philosophy as well as their differences based upon variations in market systems, which provokes questions not only about competing policy frameworks but also about nature and adequacy of different kinds of legal reasoning itself.

The series welcomes a diverse range of theoretical approaches in the examination of these issues including approaches using socio-legal methods, economics, critical theory, systems theory, regulation theory, and moral and political theory. With the aim of stimulating an international discussion of these issues, volumes will be published in Germany, France, and the United Kingdom in one of the three languages.

Volumes published with Hart Publishing, Oxford

1. David Campbell, Hugh Collins and John Wightman (eds), *Implicit Dimensions of Contract: Discrete, Relational and Network Contracts* (2003).

2. Christian Joerges, Inger-Johanne Sand and Gunther Teubner (eds), *Transnational Governance and Constitutionalism* (June 2004).
3. Oren Perez, *Ecological Sensitivity and Global Legal Pluralism: Rethinking the Trade and Environment Debate* (June 2004).
4. Harm Schepel, *The Constitution of Private Governance* (forthcoming 2004).

Volumes published in German with Nomos Verlagsgesellschaft, Baden-Baden

1. Peer Zumbansen, *Ordnungsmuster im modern Wohlfahrtsstaat: Lernerfahrungen zwischen Staat, Geseelschaft und Vertrag* (2000).
2. Dan Wielsch, *Freiheit und Funktion: Zur Struktur- und Theoriegeschichte des Rechts der Wirtschaftsgesellschaft* (2001).
3. Marc Amstutz, *Evolutorisches Wirtschaftsrecht: Vorstudien zum Recht und seiner Methode in den Diskurskollisionen der Marktgesellschaft* (2001).
4. Christian Joerges and Gunther Teubner (eds), *Rechtsverfassungsrecht: Recht-Fertigungen zwischen Sozialtheorie und Privatrechtsdogmatik* (2003).
5. Gunther Teubner, *Netzwerk als Vertragsverbund: Virtuelle Unternehmen, Franchising, Just in Time in sozialwissenschaftlicher und juristischer Sicht* (forthcoming 2004).

Volume published with Dalloz, Paris

Geoffrey Samuel, *Essai d'épistémologie juridique comparativ*e (forthcoming).

Ecological Sensitivity and Global Legal Pluralism: Rethinking the Trade and Environment Conflict

Oren Perez
Bar Ilan University, Faculty of Law

OXFORD AND PORTLAND OREGON
2004

Published in North America (US and Canada) by
Hart Publishing
c/o International Specialized Book Services
5804 NE Hassalo Street
Portland, Oregon
97213-3644
USA

Hart Publishing is a specialist legal publisher based in Oxford, England. To order further copies of this book or to request a list of other publications please write to:

Hart Publishing, Salters Boatyard, Folly Bridge, Abingdon Rd, Oxford, OX1 4LB Telephone: +44 (0)1865 245533 Fax: +44 (0)1865 794882
email: mail@hartpub.co.uk
WEBSITE: http//:www.hartpub.co.uk

British Library Cataloguing in Publication Data
Data Available

ISBN 1-84113-348-5 (hardback)

Typeset by Olympus Infotech Pvt Ltd, India, in Palatino 10/12 pt
Printed and bound in Great Britain by
MPG Books Ltd, Bodwin, Cornwall

To Ronit and Noa

Acknowledgements

In writing this book I have benefited from the help of a large number of people. Only a few of them can be noted here. First, Ronit, my wife, who has both encouraged and endured me during the writing of this book. To my parents, Nurit and Ran, who were always a source of support. I am also indebted to Gunther Teubner and Damian Chalmers—who supervised my PhD thesis (which forms the basis for this book) at the London School of Economics—for the long and fruitful discussions we had with respect to this work. I would also like to thank Arie Reich from Bar Ilan Faculty of Law with whom I had lively discussions on various aspects of this book. Yoram Egosi and Moshe Orlin helped me with the final editing of the book, and I would like to thank them for that. I am also grateful to Richard Hart, April Boffin and Melanie Hamill from Hart Publishing for their patience and assistance in the production of this text. Chapter Six is a revised version of 'Using Private-Public Linkages to Regulate Environmental Conflicts: The Case of International Construction Contracts', 29 Journal of Law & Society (2002) 77–110. I am grateful for the permission to use this material.

Contents

Table of Cases

WTO Cases

GATT Cases

NAFTA Cases

European Cases

US Cases

English, Irish Cases

Australian Cases

1

Deconstructing the Trade and Environment Conflict: A Pluralistic Perspective

1.1 INTRODUCTION

1.1.1 Prologue: The Seattle 1999 Conference and the Clash between Trade and Environment Concerns

FRIDAY, THE 3 of December 1999, was the fourth day of the WTO third Ministerial Conference at Seattle. At the time I was working on my doctorate in the London School of Economics (LSE). During the morning of that day I attended a seminar on political economy,[1] which took place in one of the LSE's main lecture-halls. In the middle of the seminar, a group of hooded protesters, armed with water-guns, stormed into the hall, sprayed the students and the lecturer with a warm, cheap beer, and ran out. I left the seminar to take a closer look at the protesters. It was a group of about 100 people, mostly young, some wearing costumes (one was completely naked), many were holding glasses of beer. They were clearly having a good time. After leaving LSE they continued marching toward Fleet Street and London's financial district (the city). This minor incident was part of a much wider social process: the emergence of the new anti-globalisation/anti-WTO movement. Indeed, while this small incident was taking place at the LSE a much broader campaign was being executed in Seattle.[2] In a well-organised

[1] The title of the seminar was: "Rational Choice Approaches to Political Economy and International Politics".

[2] The protests in London included more violent incidents. Thus, in an incident at Euston station on Tuesday, 30 Nov 1999, seven people were injured, a police van was set alight and several bus stops were smashed. In an interview to the Guardian, Mark Sully of Reclaim the Streets, the group behind the Euston rally said: "We'd say the fault was capitalism's. If you are focusing on the police and one box on wheels getting turned over, it's not very important when you consider that this economic system is responsible for the destruction of people's livelihoods". See "Rioters still defiant," *The Guardian*, 2 Dec 1999, p 4.

series of demonstrations and marches the anti-WTO protesters—a strange amalgam of trade unionists, environmental groups, human rights campaigners, and resurrected hippies—forced the conference organisers to cancel the opening ceremony[3] and captured the attention of the global media with their anti-WTO message. The intensity of the demonstrations forced Paul Schell, the Mayor of Seattle, to declare a state of civil emergency in the city, and to order a curfew, which was to stay in force until the end of the conference.[4]

It seems that the intensity of the street protest in Seattle had much to do with the ultimate failure of the Seattle summit.[5] The summit failed to accomplish its stated goal—to reach an agreement on an agenda for a new trade round. Neither was any agreement reached on the contentious issues of agriculture, labour rights, trade and the environment, anti-dumping, and extended market access to developing countries. The demonstrations in Seattle were not a singular or momentary event; indeed, they were presented by the protesters as part of a broader struggle between an emerging global civil society and the callous coalition of the "WTO and its evil sprites, the transnational corporations".[6] The failure of the Ministerial Conference was celebrated as a victory of grass-root democracy over the undemocratic rule of the WTO and the multinational corporations.[7]

Seattle was a turning point in the evolution of the Anti-Globalization Movement.[8] Since Seattle, almost all of the major international economic meetings were confronted with similar demonstrations. Prominent examples include the annual meetings of the International Monetary Fund and the World Bank, G8 Summits and meetings of EU leaders. May Day celebrations, particularly in Europe, were another occasion that was captured by the anti-globalisation protesters.[9] While the events of 11 September 2001 have caused some of the members of this movement to reconsider their

[3] The police stated that it could not guarantee the safety of the delegates on the streets. See the newspapers reports below.

[4] See: "Protestors Block Start of WTO Talks in Seattle", *International Herald Tribune*, London, 1 Dec 1999, p 1; "Riots Cast Cloud Over WTO Talks", *International Herald Tribune*, London, 2 Dec 1999, p 1; "Week of Division On and Off the Streets", *The Guardian*, 4 Dec 1999, p 16.

[5] See "Seattle Debacle Highlights Sharp Differences in WTO", *International Herald Tribune*, London, 6 Dec 1999, pp 1, 17.

[6] See Andrew Marr "Friend or Foe", *The Observer*, 5 Dec 1999, p 28.

[7] See, for example: Vandana Shiva "This Round to the Citizens", and Barry Coates "Friends Fall Out", *The Guardian (Society)*, 8 Dec 1999, pp 4–5. At the time of publication Vandana Shiva was director of the Research Foundation for Science and Ecology, New Delhi; Barry Coates was director of the World Development Movement, London.

[8] "Anti-Globalization Movement" is the term most often used in the media. Other terms such as "Global Justice Movement", "Anti-Capitalist Movement" or the "Alternative Movement" did not stick. See, Mike Bygrave "Where did all the Protestors Go?", *The Observer,* Sunday 14 July 2002.

[9] Important points in this confrontation path were the May Day 2000 demonstrations in London, the demonstrations against the World Bank and the IMF in Prague on

tactics, and have also reduced somewhat its appeal in the eyes of the media, the basic concerns, which have driven this popular global opposition from its inception, have not disappeared.[10]

The trade-environment problematic was one of the major themes of the anti-globalisation protest. The environmental opposition to free trade is not, however, a new phenomenon. The problem of "trade and environment" emerged as a contentious issue during the Uruguay Round negotiations at the beginning of the 1990s.[11] The establishment of the World Trade Organization (WTO) in 1995,[12] following the successful completion of the Uruguay Round, has exacerbated the debate, generating an unprecedented wave of environmental criticism.[13] The environmental critique[14] of the General Agreement on Tariffs and Trade (GATT)[15] and the WTO, as it was presented in Seattle and afterward, consisted of two different components.[16] On one level, the critique focused on the substantive rules of the new regime, particularly, on their

September 2000, and the violent clashes in Genoa on July 2001 during the G8 Summit. See, "Protests Erupt in Violence", *The Guardian*, 2 May, 2000 (reporting on the May Day riots in London), "World Bank and IMF Cut Short Prague Meeting", *The Guardian*, 28 September, 2000 (reporting on the World Bank and the IMF annual meeting in Prague), "You Could Sense the Venom and Hatred", *The Observer*, Sunday, 29 July, 2001 (reporting on Genoa). For a more detailed chronicle of the "Anti-Globalisation" demonstrations since 1999 see the special Globalisation report at the Guardian web-site: www.guardian.co.uk/globalisation (visited 23 Oct 2002).

[10] See, eg, Mike Bygrave, n 8 above, and Guy Taylor "We Haven't Gone Away", *The Observer*, Sunday 21 July 2002.

[11] See, for example, the discussion, in: Friends-of-the-Earth (1992), Arden-Clarke, (1992) and WWF (1992). For more recent accounts of the debate, see, Lane (1998) and Brack (1998). A Similar debate emerged in Europe with respect to the common market of the European Community (Kramer 1993; Rauscher 1992) and in the United States and Canada, with respect to the North American Free Trade Agreement (Ritichie 1994; Baer and Weintrub 1994). The EU and NAFTA are only two (prominent) examples of regional integration. More than 100 regional trade agreements have been notified to GATT from 1947 to 1994 (WTO 1995: 77). This debate is thus likely to arise also in other regional contexts.

[12] I will use the term WTO to describe the organization, which was established by the Marrakesh Agreement Establishing the World Trade Organisation, signed in Marrakesh, April 1994, henceforth the "WTO Agreement". The WTO Agreement was adopted by 124 countries and the European Union and put into force on 1 January 1995.

[13] See, for example, Working-Group-on-the-WTO/MAI (1999), Nollkaemper (1996) and Friends-of-the-Earth (1995).

[14] The term "environmental critique" is used here in a very narrow sense to describe the views of some of the more prominent environmental groups. In section 1.2.2 below I offer a broader view of the "environmental critique".

[15] The phrase "GATT 1994" will be used to refer to the 1994 agreement, Annex 1A to the *WTO Agreement* (see Art II(4)). The original agreement will be refereed to as "GATT 1947". The legal status of GATT 1947 is determined in Art 1 of the GATT 1994. I will sometimes use the term "GATT" alone when it is clear from the context to which of the two agreements I refer.

[16] For a good exposition of these two aspects of the environmental critique see the 1993 collection of articles "*The Case against Free Trade*" (Menotti 1993) and the special issue of the *Ecologist*: "*Beyond Monoculture: Shifting from Global to Local*" (Vol 29, No 3, May/June 1999).

impact on the global and local environment. The Greens argued that the WTO Agreement would unleash a flow of economic forces, which would generate an uncontrollable process of environmental degradation across the globe. In this context the debate has centred also on several decisions of GATT and WTO panels, such as the United States—Mexico *Tuna-Dolphin* dispute, the *Shrimp-Turtle* case and the European Union—United States dispute over *Hormones Treated Beef*. These cases brought into light the potential disharmony between trade and environmental policies, and their conclusions were subject to a continuous debate. Another argument which was promulgated in this context was that the WTO regime could undermine the operation of several Multilateral Environmental Agreements (MEAs).[17]

On a second level, the Greens' critique has challenged the institutional features of the WTO, accusing the WTO (and the GATT before it) as being *undemocratic*. In this context the Greens pointed, in particular, to the rule-making process and to the new, strengthened, dispute settlement mechanism of the WTO.[18] A prominent theme in the Green critique was the fear that the civic society was being totally excluded from the trade-environment debate by the introduction of the new regime. Thus, for example, one environmental group warned in 1992 (before the completion of the Uruguay Round), that the new trade organisation will extend the reach of trade interests by "Vastly increasing the power of panels of unaccountable 'experts' adjudicating behind closed doors".[19] On the basis of these critiques the Greens have argued that the current WTO- structure should

[17] MEAs that ban the trade in certain goods (like waste and CFCs), or permit the use of trade sanctions as tools of enforcement, such as the Basle Convention and the Montreal Protocol, can, the Greens argue, be challenged under the WTO. Such a challenge could result in a ruling against the MEA, finding its provisions incompatible with the rules of the WTO. See: Lane (1998). WTO Members have agreed in Doha to open negotiations on the relationship between existing WTO rules and specific trade obligations set out in MEAs (Art 31(i) of the Doha Declaration). See, further, on that issue the Committee on Trade and Environment special session's final report to the Trade Negotiations Committee (pre-Cancun), TN/TE/6, 6 June 2003. These negotiations have not led, yet, to any specific decisions. I will comment on this problem in ch 3, s 3.4.1.

[18] See the "Understanding on Rules and Procedures Governing the Settlement of Disputes", Annex 2 to the WTO Agreement, henceforth the "DSU".

[19] See, Friends of the Earth (1992: 5). More than five years after the WTO was established, the "democratic" problem continues to play a central role in the environmental message. Thus, for example, the British Green Party Manifesto for the 1999 European election argued that "the WTO should be disbanded and replaced by a more transparent and accountable body which can genuinely ensure that world trade rules promote, rather than undermine, sustainable development and poverty reduction" (Green Party 1999: 2). A similar call for the "democratisation" of the WTO was included in a "*Statement from Members of International Civil Society Opposing A Millennium Round or A New Round of Comprehensive Trade Negotiations*", which was signed by several hundred groups world wide before the 1999 WTO third ministerial conference. The letter was circulated in the internet (a copy is filed with the author). See, also AMERICAN-LANDS-ALLIANCE *et al* (2002: section IX).

be replaced by "alternative social and economic structures based on co-operation, ecological sustainability and grassroots democracy",[20] in which trade would be "subservient to higher values of the protection of the earth and people's livelihoods".[21]

The "green" criticism of the WTO, as mounted in Seattle, was countered by an aggressive legal and economic response. The economic media was very blunt in its critique of the Seattle protesters. The Wall Street Journal and the Economist referred to the protesters as "Rebels Without a Clue" and "Clueless in Seattle".[22] A prominent American commentator, writing in the International Herald Tribune, was even blunter, calling the protestors "a Noah's ark of flat earth advocates".[23] The protesters, according to the economic media, did not understand the meaning of free trade, failed to see that free trade—rather than harming the environment or the developing countries—actually helps them, and finally, failed to present any coherent agenda for transforming the current trade system.[24] Legal scholars emphasised the role of the new institutional structure of the WTO in promoting the "rule of law" in the field of international economic relations. The changes that were brought to the dispute settlement process by the WTO Agreement were welcomed in that regard, as a sign of progress. The argument was that the Uruguay Round has generated a transition from "*power oriented technique*" to "*rule oriented technique*",[25] or from negotiation to adjudication,[26] thus, reflecting the final triumph of legalism over pragmatism. This transition, it was implicitly assumed, would allow those interests that were excluded from the decision-making process under the pre-WTO economic order, a better chance of being heard.[27]

[20] See Andrew Marr, n 6 above.

[21] Vandana Shiva, n 7 above. One of the main paradoxes of the Seattle protest was that while the protestors were pretending to represent the interests of people in the "third world" against the "inhuman capitalism" of the WTO, the developing countries themselves had strongly opposed any attempt to introduce labour or environmental standards into the WTO. See "Seattle Debacle Highlights Sharp Differences in WTO", *International Herald Tribune*, n 5 above.

[22] See: "Rebels Without a Clue", *The Wall Street Journal Europe,* 2 Dec 1999, p 10, "Clueless in Seattle", *The Economist*, 4–10 Dec 1999, p 19.

[23] Thomas L Friedman, "Why the Protest Circus in Seattle is Ridiculous", *International Herald Tribune*, London, p 8.

[24] See, "Disaster in Seattle", *Financial Times*, 6 Dec 1999, p 18.

[25] See, Jackson (1990: 51) and Petersmann (1994: 1158–59).

[26] See, McGovern (1986).

[27] Some legal observers object also to the "democratic" critique of the greens. Thus, for example, Ernst-Ulrich Petersmann, one of the more prominent figures in the field of international trade law, argues that the WTO is not only legitimate from a democratic perspective, but can provide a lesson to other international organisations. Petersmann argues that the WTO legitimacy arises from the direct support of national Parliaments: "Most national parliaments have ratified the EC and WTO Agreement without granting powers to the Executive to violate these international treaty guarantees of transnational freedom and non-discrimination.

At the time this book is being written—five Years after Seattle—and after the conclusion of two further Ministerial Conferences, the fourth, in Doha Qatar on 9–13 November 2001, and the fifth, at Cancun Mexico on 10–14 September 2003, the trade and environment conflict is still far from being settled.[28] Indeed, the need to unravel this conflict and to reach beyond the antagonistic rhetoric of Seattle seems as vital as it was in 1999. This book develops an alternative understanding of the trade and environment conflict, which rejects the simplistic binary distinctions that characterised the dialogue between the "*greens*" and the "*free-traders*" in Seattle and afterwards, and replaces it with a pluralistic outlook.[29] The simplistic portrait of the trade-environment conflict, which characterised the dialogue in Seattle, is misguided in two critical ways.

First, this popular portrait disregards the *institutional diversity* in which the trade and environment conflict is actually embedded. This diversity characterises both sides of the debate. The tendency to associate the global economic system with few players, prominently the WTO, IMF and World Bank and the big Multinational Enterprises, which presumably operate as a transnational cartel with highly anti-social and anti-environmental agenda is clearly too simplistic as a characterisation of the global economic system. In reality this system consists of various, highly autonomous institutions, with different agendas.[30] Similarly, it is wrong to view the protests at Seattle and afterwards as the product of a single-minded, centrally-governed movement; rather, these protests reflect the cumulative and not necessarily coordinated work of diverse groups (see section 1.1.2 (a) for the detailed argument). Second, the "discourse" of Seattle also fails to capture the *complex* and *contingent* character of some of the key concepts, which underlie this conflict, such as the notions of *nature*, *economic growth* and *democracy*. Section 1.1.2(b) explores this hidden shortcoming, using as its focal point the debate about the relationship between society and nature.

Judicial activism in defending these agreed guarantees of freedom and non-discrimination can therefore claim not only legal but also democratic legitimacy for the benefit of domestic citizens" (*ibid*, at 231). This argument ignores the fact, however, that it is exactly this indirect form of legitimisation, which the greens criticise as failing to satisfy the democratic expectations of many people.

[28] The Cancun summit (10–14 September 2003) ended without consensus on any of the issues, which were included in the negotiation agenda set by the Doha Declaration—including the trade and environment question. See, the Cancun Ministerial Statement, 14 Sep 2003, and "Blow to World Economy as Trade Talks Collapse", *The Guardian*, 15 Sep 2003. For a more detailed discussion of the Doha framework see ch 3.

[29] The terms "greens" and "free-traders" are used loosely, as useful sign-posts in the context of the trade and environment debate. As I make clear in the next section (s 1.1.2(b)) the sociological reality associated with these terms is much more complex, and cannot be captured through one-dimensional terminology.

[30] For this simplistic characterisation of the global economic system see also Tabb (2000).

The pluralistic outlook, which is developed in this book, portrays the trade-environment conflict as an amalgam of multiple dilemmas, constituted and negotiated by a myriad of institutional and discursive networks. It is this multiplicity which makes this conflict so difficult to resolve. The first goal of this book is to expose the varied institutional and discursive domains in which the trade-environment conflict is experienced. This uncovering is a necessary step on the road to possible solutions. To enable this exploration this chapter develops a pluralistic model, which can capture the complexity of this conflict. The following section offers a critique of the current trade-environment conversation. Section 1.2 sketches the alternative framework, which would guide the rest of this study. The chapter concludes (section 1.3) with a general outline of the book.

1.1.2 A Critique of the Contemporary Trade-Environment Conversation

(a) First Blind-Spot: Global Legal Pluralism

The "Greens" and "Free-traders" seem to be sharing one uncontested assumption—that the WTO constitutes the epitome of the trade and environment conflict. This is a problematic assumption; it ignores the fact that this conflict takes place in *a variety of institutional arenas*, and is not limited to the WTO.[31] This institutional diversity reflects the complex structure of the global economic system, which is governed by multiple systems of law. This expanding network of economic laws is not based on a coherent set of normative or institutional hierarchies. It represents, rather, a highly pluralistic mixture of legal regimes, with variable organisational and thematic structures. These regimes include state-oriented systems, such as the dispute settlement system of the WTO, or the adjudicative system of the Law of the Sea Convention as well as hybrid or private regimes.[32] The latter category includes, for example, the expanding field of technical standardisation,[33] the new governance structure of the Internet,[34] the field

[31] Particularly problematic in this context is the greens' attempt to picture the WTO and the Multinational Enterprises as a homogenous entity: an imaginary "global villain". See, eg, Matthiessen (1999), Hoedeman *et al* (1998) and Finger and Kicoyne (1997).

[32] The term "private" is used to distinguish between state-brokered law and other forms of law; it does not mean to deny the role of various corporate bodies (eg, trade associations) in the creation of global law. The term "hybrid" refers to the tight cooperation between public and private bodies in certain regimes.

[33] The field of technical standardisation is led and dominated by a variety of transnational organisations such as the International Organization for Standardization, the International Electrotechnical Commission and the Codex Alimentarius Commission.

[34] The key player in this field is the Internet Corporation for Assigned Names and Numbers ("ICANN"). ICANN and the World Intellectual Property Organization ("WIPO") were

of transnational arbitration,[35] and the field of international financial law.[36] The claim that the global economic system is controlled by the WTO is therefore a misleading simplification.[37]

What these various systems have in common is an aspiration to govern some aspect of the global economic system. Their universality reflects, then, both their claim for global jurisdiction, and the cosmopolitan nature of their thematic horizon (which means that their normative effort is directed primarily at global issues). While these multiple forms of economic law, which operate alongside the WTO, evolved in response to the needs of the global economy, their impact has not been limited to the economic domain. Indeed, they had substantial influence on environmental issues (and on other civic concerns). To what extent the affinity of these global legal structures to economic interests has influenced their responsiveness to ecological concerns is the primary question this book seeks to explore.

The prevalent indifference to the institutional diversity of this global legal network has generated two main deliberative neglects. The first is a widespread disregard of the role that is played by private legal systems in the governance of the global economy. The fact that parallel processes of *legal formation*, with similar aspirations for global control, are taking place outside the realm of inter-state politics is commonly overlooked. These systems of a-national law are a product of multitude law-making processes, in various sectors of the civil society—representing a new *"global law without a state"* (Teubner 1997). They are not made of the familiar sources of public international law, such as international treaties and state-practice, but, rather, are the result of (private) norm-production by trade associations, professional/technical organisations, commercial arbitrators, Multinational Enterprises and other civic players. This private evolution can be associated with several social processes: the expansion—in scale and scope—of international trade, the increasing global presence of Multinational Enterprises, an increased demand (which is generated by the growth of international trade) for universal standardisation, the upsurge in the volume of business disputes dealt by international arbitration, and the rapid dispersion of modern communication technologies

responsible for the development of an international system for the resolution of domain name disputes.

[35] The field of transnational arbitration is dominated by international law firms (mainly American and European) and business associations such as the International Chamber of Commerce and its International Court of Arbitration.

[36] See ch 7.

[37] For the increasing legal and organisational fragmentation of the global economic system, see further Picciotto (1996) and Rauch (2001).

across the world. The emergence of these new forms of a-national law does not reflect just the move toward an integrated global economy; it is also a reflection of a broader phenomenon: the *transition from a fragmented civil society to a globalised society*.[38]

A second deliberative neglect concerns the insensitivity of the trade-environment conversation to the normative independence of these global systems. In discussing these systems many observers continue to cling to the Westphalian inspired concept of "delegated authority". This concept postulates the international organisation as a highly controllable entity, which is completely dependent on the states/bodies that had put it in place (usually through international treaty). This portrait fails to appreciate, however, the highly autonomous character of many of these legal systems. This conceptual misapprehension causes many observers to discount the innovative capacities of the WTO new legal system. However, in contrast to the Westphalian paradigm, the WTO system of law has proven to be highly autonomous,[39] displaying innovative capacity that transcends the legal formulations of its constituting instruments. Chapters three and four, which discuss the environmental case law of the WTO, consider this innovative potential in more depth.

A proper analysis of the trade-environment conflict must be sensitive, therefore, to the diverse institutional structures in which this conflict is realised. A pluralistic exploration of this conflict should be able to expose both the *cultural differences* between these various legal domains (which inevitably affect how they view environmental dilemmas), and the *intricate linkages* between them. Of particular importance in this context are the various, and not always transparent, links between the WTO and other legal domains.[40] While it is true that some institutions, such as the WTO and the IMF, have more power and prestige than other organisations, and have also reached an iconic status that is not shared by other institutions, disregarding the influence of these other bodies will generate a shallow and distorted image of the way in which the global economic system is governed.

[38] The establishment of the WTO did not impede the growth of these a-national systems of law. On the contrary, the economic environment of expanded international commerce (covering both goods and services) and investment, that the WTO facilitates and encourages provides fresh stimulus to the evolvement of these new forms of transnational governance.

[39] The agreement in Marrakesh was not a sudden development; it was the result of a continuous process, which took place from the inception of the GATT in 1947. However, the establishment of the WTO reflects a far-reaching institutional metamorphosis, which can not be described fairly as an incremental evolutionary change.

[40] Thus, ch 4 discusses the linkage between the standardisation establishment and the WTO, and ch 6 considers the linkage between transnational litigation, the General Agreement on Trade in Services and International Investment Agreements.

Postulating the trade-environment nexus as a multi-facet dilemma, implies, therefore, that this conflict can only be studied (and resolved) using a contextual strategy.[41] The empirical part of this book follows this thesis by closely examining some of the different legal domains that are implicated by the trade and environment conflict. Four major systems of global economic law are considered: the state-oriented system of the WTO (covering also its relationship with international standard-setting bodies, such as the ISO and the Codex Commission), international construction law—the *lex constructionis*—an important branch of the *lex mercatoria*, the realm of transnational environmental litigation, and the field of international financial law. One of the key conclusions of this pluralistic exploration is that achieving a universal or singular solution to the trade-environment conflict is probably not feasible.

I would like to conclude this section by giving few examples which would illustrate the actual manifestations of the diversity thesis. The involvement of the WTO in environmental questions has been the subject of immense discussions, and will be considered in depth in chapters three and four of this book. Here I would like to focus on the role of other fields of economic law in the trade-environment conflict. The first example focuses on the field of corporate governance. The important role of Multinational Enterprises in the global economy is well documented.[42] Despite that, the world nations have not been able to agree, so far, on a global framework that would be responsible for the regulation of Multinational Enterprises.[43] The global regulation of Multinational Enterprises was left, therefore, to private initiatives. In the environmental context the two most important initiatives are the environmental management standards of the International Organization for Standardization (ISO)—the ISO 14000 series—and the Responsible Care Programme of the Chemical sector.

The ISO 14000 series includes standards for environmental management systems, environmental auditing, environmental performance evaluation, environmental labelling, and life cycle assessment.[44] But the most

[41] The pluralistic nature of this conflict might have been made more explicit by using other terms to designate this conflict, eg, the conflict between economic integration and the environment. However, since the "trade-environment" phrase is so popular I will continue to use it.

[42] See, eg, UNCTAD World Investment Report 2002: Transnational Corporations and Export Competitiveness (2002).

[43] The only state-sponsored code is the OECD Guidelines for Multinational Enterprises, which was adopted on 27 June 2000. Its text is available at the OECD website *at* www.oecd.org (under corporate Governance, visited 24 April 2003). The OECD Guidelines are, however, strictly voluntary, and their influence has been so far quite limited. For a more detailed discussion of the OECD Guidelines, see ch 6, s 6.4 and Perez (2002b).

[44] For a general overview of the ISO 14000 series see Murray (1999) and the ISO 14000 web-site: www.iso.ch/iso/en/iso9000–14000/iso14000/iso14000index.html.

important element of this series is the environmental management standard ISO 14001, which is the most widely used standard for environmental management systems.[45] Unlike some of the ISO's other products, the ISO 14000 series is not really "technical"—at least not in the usual sense of this term. It does not deal with technological questions[46] or with emissions standards. Rather, the ISO 14000 series constitutes an ambitious attempt to create a globally-wide system through which organisations could self-regulate the environmental aspects of their activities. The Responsible Care Programme was conceived in Canada and the US between 1985–1988 in response to declining public opinion about the chemical industry, and in an attempt to preempt intrusive governmental regulation (King and Lenox 2000: 699). In the US it was backed by the US Chemical Manufacturers Association, which played an important role in the transformation of this programme into a global initiative. Global coordination is provided by the International Council of Chemical Associations (ICCA). The aim of the programme is to commit chemical companies, through their national associations,

> to work together to continuously improve the health, safety and environmental performance of their products and processes, and so contribute to the sustainable development of local communities and of society as a whole.[47]

Responsible Care covers now 46 countries and more than 85 per cent of the world's chemicals production.[48]

For an environmental observer the most important question these programmes trigger, has to do with their effectiveness: how have these programmes—which regulate the activities of corporations across the globe—affected the behaviour of the firms that adopted them, and more specifically, to what extent have they improved their environmental performance? Answering these questions requires a deep analysis of the structure and underlying philosophy of each programme, the institutional apparatus that is responsible for implementing it, and the corporate sector to which it is directed.[49] One of the challenges of this inquiry is to identify

[45] ISO 14001: Environmental Management Systems—Specifications with Guidance to Use (1996). By the end of 2002 the total number of ISO 14001 certificates has risen to 49462 (a steep rise from the 257 certificates which were issued in 1995 when the standard was introduced); see, the "*ISO Survey of ISO 9000 and ISO 14001 Certificates—Twelfth Cycle—2002*" (ISO 2003: 5).

[46] Eg, questions relating to pollution control equipment.

[47] See ICCA (2003) "What is Responsible Care?".

[48] *Ibid*.

[49] None of these programmes is considered in depth in this book. There is a brief discussion of the ISO 14001 standard in ch 5, s 5.3.4. For a more in-depth analysis see Murray (1999) for an analysis of ISO 14001, and King and Lenox (2000) and ICCA (2003) for an analysis of Responsible Care.

how the cultural and institutional features of the industrial communities to which these codes are directed (or, similarly of the bodies that produced these codes) have affected their environmental strategy.

Another powerful example concerns the field of international financial law. International financial law is a complex domain, which consists of various legal instruments—including rules pertaining to financial reporting, project finance and investment guidelines. These instruments are prominently the product of private law-making by various bodies.[50] International financial law thus influences the trade-environment conflict through multiple channels, which include, for example, environmental-oriented lending criteria, new forms of ethical investment and "green" reporting. Chapter seven discusses these multiple channels in depth. Here I would like to focus on one channel: the issue of environmental disclosure. From an economic perspective this issue falls within the field of accounting or financial reporting. This field is a key component of the global economic system. The rules of financial reporting prescribe the way in which facts or events enter into the discursive universe of the economic system. But accounting serves a further role. It is one of the major instruments through which organisations—commercial firms and others—are managed and controlled. The way in which the rules of accounting treat ecological facts can thus have an important role on the sensitivity of the global economic system in general, and Multinational Enterprises in particular, to environmental concerns. In this context chapter seven examines a recent international Initiative—the Global Reporting Initiative (GRI)—which seeks to transform the traditional rules of financial reporting, by creating a new reporting framework that would measure the impact of an organisation/firm on the environment.[51]

(b) Second Blind-Spot: The Trade-Environment Debate and the Nature/Society Dialectics

The *greens/free-traders'* formulation of the trade and environment conflict is unsatisfactory, not only because of its inattentiveness to the various institutional settings in which this conflict is experienced, but also because of its failure to problematise some of the key concepts, which

[50] These include leading financial institutions such as banks and investment funds, standard setting bodies such as the Global Reporting Initiative, and co-operative projects such as UNEP's Financial Services Initiative on the Environment. This field is also influenced by the work of various public institutions, such as the World Bank, the International Monetary Fund, the International Organization of Securities Commissions, and the US Securities and Exchange Commission.

[51] The GRI is discussed in detail in ch 7.

underlie it: the notions of *nature/environment*, *trade/economic growth* and *democracy*. This failure is a product of a general discursive "shallowness", whose main attribute is a broad insensitivity toward the complexity of the *nature/society* distinction. The popular formulations of trade-environment conflict disregard the possibility that this basic distinction does not reflect a clear thematic opposition, but rather constitutes a complex discursive continuum, whose two sides are imbued with a variety of interpretations. This discursive complexity influences the interpretation of the trade-environment conflict; it means that this conflict and the associated debate is not governed by a single discursive system, with common and well-defined criteria for reaching understanding, but is rather the playground of multiple discourses and ideologies.[52] I believe that the discursive disorder, which embodies the trade-environment debate, explains, much of the bitterness and violence that has characterised it over the last years. Making the differences between these conflicting discourses more transparent is a necessary step in the attempt to alleviate the tensions between trade and environmental concerns.[53]

Exposing the rich discursive horizon, which underlies the trade-environment conversation, requires us to take a step back, and examine this conversation from a distance. Such observation can be pursued, of course, through various prisms. However, the prism of the *nature/society* dialectics is, I believe, particularly illuminating. The traditional construction of the *nature/society* duality insisted that nature could be of value—whether intrinsic or instrumental—only to the extent that it is of value to humans.[54] One of the major achievements of the modern "environmental" movement was to put in question the validity of this traditional conceptualisation. However, as the discussion below demonstrates, this common challenging did not produce a singular understanding of the nature/society duality (a common *environmental rationality*). It created, rather, an assemblage of visions, producing multiple readings of the trade-environment conflict.

Consider, first, the view of deep ecology. The deep ecologists argue that the nature/society duality should be understood in terms of a new

[52]This argument draws on the work of writers like Gunther Teubner, Niklas Luhmann and Richard Rorty. Rorty distinguishes in this context between "normal discourse" and "abnormal discourse". For Rorty the traditional distinction between the search for "objective knowledge" and other, less privileged areas of human activity merely constitutes a "distinction between "normal discourse" and "abnormal discourse". Normal discourse… is any discourse (scientific, political, theological or whatever) which embodies agreed-upon criteria for reaching agreement; abnormal discourse is any which lacks such criteria" (Rorty 1980: 11).
[53]This does not mean that inter-discursive disputes can be resolved through some meta-discourse. Any resolution of inter-discursive conflicts must be therefore—to some extent—arbitrary.
[54]This point of view is the heritage of the Enlightenment tradition, see, Whitebook (1979: 41).

transcendent, non-anthropocentric ethics. According to this view the answer to the current ecological crisis lies in adopting a different conception of nature, which gives nature a "social role beyond being a means for human well-being" (Eder 1996: 207). This trend of thought sees the major problem of modern society in the idea of "domination" of nature, which informs all our political and economic institutions. In practical terms, the deep ecologists call for a complete withdrawal from the industrial system and the adoption of a pre-capitalist way of life.[55] For the "deep ecologists" the route of "social asceticism" constitutes the only route through which the belief in the intrinsic value of nature could be given full-effect.

For other ecological and moral thinkers, there is no reason to abandon the very familiar grounds of the Kantian, anthropocentric morality. What we need, instead, is to take the idea that what is "good-for-man" depends on what is good for "nature" more seriously. And if the challenge to the Kantian moral vision is rejected, it seems more appropriate to view the "environmental problem" not as a problem of a "new ethics", but instead as a sequence of *pragmatic dilemmas*: how to utilise (exploit) nature more responsibly. This pragmatic vision leads to various interpretations. Some (economic conservatives) take this view to mean that there is no need for a fundamental change in the basic ethos of the modern society, with its strong reliance on technology and free-market structures, and its endless appetite for growth.[56] For these trade observers the trade-environment conflict represents a "false-dilemma", which disappears once this conflict is analysed through the tools of neo-classical economics. Trade liberalisation cannot be harmful to the environment, it is argued, for two main reasons. First, because it should lead to "improved allocation and more efficient use of resources", and second because it should help developing countries to generate the resources they "need to protect the environment and work towards sustainable development" (WTO Secretariat 1999: 7). Other economic observers take a more sceptical view of the beneficial effect of global economic integration, and believe in the need to develop a more "enlightened", or ecologically-sensitive global economic regime, which will be able to deal with the various maladies (market failures, externalities) of the existing economic system.[57]

Yet, for others, the current ecological crisis is, in fact, a reflection of a deeper *political crisis*: our multiple environmental problems are seen as the inevitable result of, on the one hand, the failure of the political

[55] See eg, Naess (1983: 95).
[56] For a similar appeal to ideas of economic efficiency in the legal literature, see, eg, Petersmann (1995: 3) and Ahn (1999: 860-61).
[57] See, eg, the various contributions in Van Den Bergh and Jerom (1999).

institutions of the modern democratic state to create mechanisms for fair deliberation, which would give voice to the *different constituents* of the polity (including its non-human members), and, on the other hand, the uncontrollable rise of an expert-technocratic administrative culture.[58] Another variant of this "political" strand takes a more anthropocentric view of the trade/society problematic. The eco-socialists in the West and the Gandhians in India prefer to construct the discussion, not as a critique of the human domination of *nature*, but as a critique of the *social injustices* which, for them, underlie the contemporary ecological crisis.[59] Pollution and environmental degradation are seen as (another) form of injustice that was unfairly inflicted by society's elite ("omnivores") on the poor and marginal sectors of society. While these two variants of "eco-politics", take a different view of the nature/society duality, both see the solution to the trade-environment conflict in the creation of a new political order. The details of this "new" order remain, though, undefined.

The environmental resurgence of the last decade cannot be associated, then, with some *unitary discourse* or a *specific type of agents* (eg, a prototypical environmental group). The new environmental movement was constituted, rather, by an inconsistent stream of themes and symbols, associated with multiple actors. The common denominator of this collection of ideas and symbols was the vague, but, nonetheless powerful notion of "*concern for the environment*", which successfully constituted the "*environment*" as a meaningful way of questioning contemporary social practices.[60] While the environmental awakening of the last decade has provided society with a powerful *collective concern*, the *contents* and *practical consequences* of this concern remained undetermined.

These varied interpretations of the nature/society dichotomy endow the trade-environment conflict with a variety of (sometimes

[58] See, eg, Latour (1998).

[59] See, eg, Harvey (1998) and Gadgil and Guha (1995: 118–20).

[60] One indication to the wide reach of the new ecological concern can be found in the results of an international environmental survey, which was conducted in 1993 through the International Social Survey Programme (ISSP). The survey tried to answer the question: is there a common global concern about environmental issues that could foster international action. The ISSP study found that there was a considerable, cross-country, concern for the environment, although its intensity varied from country to country (Frizzell 1997: 16). However, an analysis of the data that was collected by the ISSP study in Canada and the United States—which are both commonly seen as "environmentally committed" societies—reveals a wide gap between what people were concerned about and what they were actually willing to do about it (Clarke and Stewart 1997: 95). As Clarke *et al* put it: "To date, most Canadians and Americans have made only "light green" responses to perceived environmental dangers" (*ibid*). Moreover, although the finding of a considerable concern for environmental matters seemed to be statistically robust, other studies have demonstrated that in the context of individual political decision-making (eg, voting) other issues are usually more important (Frizzell 1997: 17). The ISSP study supports, then, the foregoing argument about the complexity of the modern "concern" for the environment.

conflicting) meanings. Whether nature is conceptualised as a *docile but highly sensitive resource*, as a locus of *sacredness*, as a reflector of *social injustices*, or as a *legitimate partner* in a new polity, influences the interpretation of the trade-environment conflict. Thus, for those who accept the Kantian framework, the debate focuses on the *value* of free trade and the institutional framework that supports it *for humanity*. The fact that the Bretton Woods institutions (the WTO, the World Bank and the IMF) were established with the particular task of facilitating an expansion in the scale and scope of international commerce is not, in itself a "bad" thing. Under these premises these institutions can only be criticised if it is shown that they are not sufficiently attentive to the environmental impact of international commerce, to the extent that this impact has an *adverse effect on the human society*. Neo-classical economics and environmental economics offer different perspectives on this question.[61]

Eco-socialism and Gandhism, while remaining within the boundaries of anthropocentric ethic, reject the methodology of economics as a proper way for evaluating this conflict. The problems of social injustice and social domination, which in the eyes of the Eco-socialists/Gandhists, lie at the core of this debate, cannot be captured, or indeed resolved, through economic tools (not even those of the more enlightened environmental economics). They demand other tools, other perspectives. The Kantian world-view, which characterises the two foregoing stand-points, does not exhaust, however, the discursive spectrum in which the trade-environment conflict is debated. From the perspective of *deep-ecology* or *eco-politics* the Kantian frame constitutes a discursive straitjacket which should be resisted. The Kantian perspective is necessarily incomplete because it leaves *unchallenged* the *basic paradigms* of appropriation of nature, economic growth and political governance, which lie at the core of the free trade ethos. For these observers there is no reason why the current structure of the global economy should be taken as a legitimate "starting point" for the debate. Accepting this "starting point" would bar a meaningful discussion of the radical reforms, which these non-anthropocentric view-points call for.[62] For these non-Kantian observers the trade-environment conversation is seen as an opening to a broader debate about the structure of the modern society and its relationship with nature.

[61] Modern environmental economics rejects the populist reading of classical trade theory, according to which the (free) forces of the global economy should necessarily lead to environmental improvement. It argues, instead, that once the different "imperfections" of the modern society—environmental externalities and governmental failures—are taken into account, trade liberalization *can* and *does* lead to environmental degradation—both at *local* and at *global* levels. For a fuller discussion see ch two. These failures call for various "fixes" or "internalisation modules". The nature and structure of these "modules" is still highly debated. See, eg, van den Bergh and Jerom (1999).

[62] See the discussion in Daly (2002) (available at www.worldbank.org).

Thus, the trade-environment conflict has many facets. The fact that some of these facets have, so far, dominated the trade-environment conversation—in particular the vision of neo-classical economics—does not provide a good-enough reason to neglect the other facets of this conflict. Indeed, I believe, that any attempt to resolve this conflict, must take these varied interpretations, and the world-views that generate them, into account. Dealing with the trade and environment problematic requires a frame, which will be sensitive to this discursive complexity.

1.2 A NEW FRAMEWORK FOR UNDERSTANDING THE TRADE-ENVIRONMENT NEXUS

The reinterpretation of the nature/society dichotomy, which will be proposed here, is based on three key tenets. First, it rejects any attempt to place the nature/society dichotomy within a particular value hierarchy. There is no reason why this distinction should be interpreted in terms of a binary choice between the competing moralities of "nature as a resource" and "nature as sanctity". Second, the traditional binary opposition between nature and society is transformed into a multi-partite distinction, which distinguishes between *nature* (which includes living systems and a-biotic entities), *societies* (the multiplicity of communicative structures, which comprise the human society), and *consciousness* (humans). This multipartite scheme does not correspond to any hierarchical ordering, in which one of the "elements" (which forms this distinction) is ranked "above" the others. The ontological and epistemological consequences of this distinction are considered below.

Finally, the interaction between nature, societies, and consciousness is seen as a-linear. Here, following Varela *et al*, (1991) and James Lovelock, (1989), I will use the concept of co-determination or structural coupling to describe the interaction between the different realms, which constitute this multipartite universe. The idea of co-determination constitutes an intermediate conception of life, which stands between the neo-Darwinist and holistic (or monistic) views. Unlike monism, the idea of co-determination insists on the structural unity (autonomy) of biological and social systems, and on maintaining a clear distinction between communicating beings, social systems, and a-biotic systems. However, in contrast to the dualist model of neo-Darwinism, neither of these realms (including the a-biotic environment) is perceived as an exogenous, pre-given entity. Rather, the interaction of these different realms is explained through the ideas of structural coupling and co-determination.[63]

[63] See: Lovelock (1989: 216), Varela (1991: 202, 204–5) and Peirce (1998: 7–10).

Understanding ecological problems requires, then, an understanding of the multi-partite processes in which societies, consciousness, and nature co-evolve. The study of ecological problems must be constructed, then, as a trans-disciplinary endeavour. The structure of this multi-partite framework is elucidated below.

1.2.1 Nature, Communication and Social Pluralism

(a) Exposition

In order to decode the aforementioned process of co-determination one must choose a focal point—one of the vertexes of the society-consciousness-nature triangle—which would serve as the basis for the analysis. My point of departure is the social vertex. To analyse this vertex one must start with a concept of society; I will draw in this context on the writings of the German sociologist Niklas Luhmann's.[64] One of the most innovative elements of Luhmann's theory lies in the characterisation of social systems as *self-referential networks of communications*, rather than collections of actors (organisations or human beings). This change of perspective posits "communication" (rather than "action") as the elementary operation of social systems (Luhmann 1992: 254; Luhmann and Sciulli 1994: 38). Human beings are not conceived as components of social systems, but rather as necessary—but external—conditions for their emergence. Society and consciousness are postulated as separated (and autonomous) worlds of meaning, linked together by a process of structural coupling (Teubner 2001: 40).[65]

Luhmann's communicative sociology postulates social systems as a product of *recursive communicative processes, which mark themselves off the environment (that is, other social systems) through a process of self-selection* (Luhmann 1982: 88):

> We can speak of a "social system" whenever the actions of several persons are meaningfully interrelated and are thus, in their very interconnectedness, marked off from an environment. As soon as any communication whatsoever takes place among individuals, social systems emerge. From the outset, each process of communication has a history distinguished by the fact that, on the basis of a single set of interrelated choices, only a few out of the wide array of possibilities are actualized. (Luhmann 1982: 70)

[64] See, in particular, Luhmann (1995). I was also inspired by the writings of Gunther Teubner, see, eg, Teubner (1993).
[65] However, "there is no overlap in their operations. There is nothing but a symmetry of reality constructions: psychical processes produce mental constructs of society, and social processes produce communicative constructs of the psyche" (Teubner 1990: 95).

Social systems are conceived, therefore, as *autopoietic systems*, ie systems that *recursively produce their own elements (communications) from the network of their elements*. As autopoietic systems, social systems are strictly *autonomous*: they regulate their own regulation;[66] they are, in other words, structurally-determined systems: all that happens in them and to them is determined by their structures.[67]

The "communicative" thesis presupposes a sharp distinction between the social realm—the world of *communications*—and the non-social environment (animals, chemical/physical processes).[68] To enter the social realm nature has to be transformed into a *communicative event*. Chemical or biological facts, even when they pose danger to society "create no social resonance as long as they are not the subject of communication" (Luhmann 1989: 28); the environment can "make itself noticed only by means of communicative irritations or disturbances, and then these have to react to themselves" (*ibid*: 29).[69] In that respect society depends on the mediation of humans in its interaction with nature; it uses the "bodies and minds of human beings for interaction with its environment" (Luhmann 1990: 176).[70]

The foregoing portrait of the socialisation of nature is thus radically contingent. Social cognition "be it scientific, political, moral or legal cognition—is purely internal construction of the outside world; cognition has no access whatsoever to reality 'out there'" (Teubner 1990: 94).[71] Reality is postulated as "*multiversa*"—each observer constitutes its own version of "reality" through its operations of distinctions. (Maturana 1988: 31). This contingent vision is embedded, however, in a particular ontological outlook, which distinguishes between society (communications), psychic systems and the physical environment. This categorical distinction forms a necessary condition for the development of knowledge in the sense that communication depends for its emergence on the *true* existence of these discrete domains:

> On the one hand, the world must be densely enough structured so that constructing matching interpretations about the things in it is not pure chance;

[66] The notion of autonomy, so defined, could be contrasted with the notion of *allonomy*, which is associated with external control, and exogenous instructions. For a more detailed discussion of this distinction, see, Varela (1981: 20).
[67] The term "structure-determined system" was proposed by Humberto Maturana (1995: 17) in the context of biological systems.
[68] This sharp distinction between "social" and "natural" processes also characterises the writings of Jurgen Habermas, even though his understanding of "communication" is radically different from that of Lhumann.
[69] See, further on this point Luhmann (1990: 420) and Luhmann (1995: 171–2).
[70] See, also Luhmann (1992: 1433).
[71] The same holds for human cognition: "For the theory of autopoiesis, psychical processes form a closed reproductive network of their own—psychical autopoiesis—accessible only to

> communication must be able to grasp something (even if one can never know what it ultimately is) that does not permit itself to be decomposed randomly or shifted in itself. On the other hand, there must be different observations, different situations, that constantly produce dissimilar perspectives and incongruent knowledges on precisely the same grounds (Luhmann 1995: 171–72)

The system's "environment" (for society—humans and nature) represents, therefore, something "real", even if its essence cannot be determined in a conclusive way.[72]

Luhmann's theoretical framework is ontological also in the sense that it claims to offer a true description of the modern society. Lhumann distinguishes in this context between three basic types of social systems—*interaction* systems, *organisations*, and the *societal* system—which stand for different kinds of self-selection and boundary-formation processes (Luhmann 1982: 71). For *interaction* systems the boundary-formation principle is "*personal presence*". Interaction systems "are constituted by concrete communication among participants who are actually present together" (Luhmann 1981: 245). Organisations designate those "social systems which link membership to specific conditions, that is, which make entrance and exit dependent upon such conditions".[73] (Luhmann 1982: 75). It is this type of systems that enables the evolvement of unified and purposive group action (Luhmann 1982: 79).

In contrast, the *societal* system comprises "all (however indirectly) communicatively attainable experience and action" (1981: 245). Unlike interaction systems the boundaries of society "are the boundaries of possible meaningful communication, notably the boundaries set by accessibility and understandability" (Luhmann 1982: 73). This means, Luhmann argues, that today there is only one society—the world society.[74] The societal system is not, however, a homogenous entity. It is constituted by multiple sub-systems, which are *functionally differentiated*.[75] These functional

themselves and inaccessible to any communication" (Teubner 1990: 95). See, also Bourgine and Varela (1992: xiii).

[72] There is, indeed, a paradoxical tension between the deeply constructivist "tone" of Luhmann's work (and his opposition to essentialist arguments), and his appeal to ontological distinctions as a precondition to the construction of meaning. This paradoxality should not come as a surprise in a theory that studies self-referential structures, and, further, recognises itself in the field of its objects (Luhmann 1995: 487). However, despite this tension it would be wrong to associate Lhumann with essentialism. Lhumann clearly acknowledges that his theory "does not claim to be the only possible theory or even the one that offers the most security" (Luhmann 1995: 487)—this should, presumably, include also its ontological distinctions.

[73] See, further, Luhmann (1976).

[74] See Luhmann (1990; 1982: 73).

[75] The idea of functional differentiation plays a major role also in the recent writings of Jurgen Habermas. See Habermas (1996a, 1996b).

sub-systems—the backbone of the modern society—are associated, each, with a *unique mode of thematisation*. The communication flows in these domains, Luhmann argues, are ordered by a unique *binary code*.[76] Thus, for example, in the case of law, legal communication is identified by its association to the distinction—legal/illegal, economic communication by its association to the distinction—have/have-not, scientific communication by the distinction true/false, etc.[77]

The functional sub-systems of law, science, economy and politics operate as the thematic foundations of the modern society. Their thematic structures are pervasive: they know no boundaries—whether organisational or geographical. While these systemic distinctions indeed provide the background for almost any social interaction, they do not exhaust the discursive universe of human interaction. First, because the distinction between different functional systems is fuzzy rather than crisp—opening the way to hybrid forms of meaning;[78] second, because these basic distinctions operate alongside other thematic modules (evolving, for example, from the interaction level); and third, because understanding social interactions requires also an understanding of the inner workings of these different systems, with their intricate institutional and discursive routines.

The deeply pluralistic character of the world society means, therefore, that the "socialisation" of nature takes place in multiple contexts, and may be subject to different discursive logics. In that sense the reaction of the contemporary society to the modern ecological crisis is problematic, not because society is "blind" to "nature", but because society reacts to this crisis through *multiple and ambiguous interpretations* (or, if you like, multiple forms of blindness).[79] This discursive disorder is a

[76] While the binary code is also a distinction, it is unique in that it endows the system with its unique identity. Whereas the other distinctions which are invoked in a certain domain (eg, law) are changeable, the code is not, because it orders the flow of communications within this discursive space.

[77] Or, in terms of themes, law uses the theme of legality, economy of money and property, science of truth, politics of power, religion of faith, etc. See, also Arnoldi (2001: 6).

[78] This argument represents a major departure from Luhmann's model, which postulates the distinction system/environment as non-fuzzy. For Luhmann there is no middle way: "As for autopoiesis in general, it can also be said about autonomy that it either exists or does not. It cannot be realized a little bit. Neither can there be relative autopoiesis…" Luhmann (1988: 346). The "fuzzy" thesis requires further explication, which cannot be pursued here. Some of the ideas on which this argument draws can be found in Zadeh (1997).

[79] This *blindness*, or *closure*, emerges from the fact that communication processes are products of coordinated selections. The emergence of communication is the result of a coordinated process, in which there is (some) inter-subjective agreement on the singling-out of a unique domain of *possibilities*, and, further, on the selection of *particular* options out of this domain. The emergence of communication (or societal meaning) thus comes, necessarily, at the expense of some *other potential* distinctions (or selections) which were successfully excluded. Any observer— whether a human being or a social system—by founding his

product of a plurality of environmental themes within a difficult to define "*environmental camp*",[80] and a plurality of "*ecological appropriations*", generated by the attempt of a modern, differentiated society to deal with an ever-increasing flow of ecological problems.[81] These dual processes produce, if you like, a "double plurality".

While these different realms—societies, human beings and nature—remain operationally closed to each other they are nonetheless linked in a process of co-evolution, or co-determination. What is distinctive about this notion is that it rejects the view that some of these realms (eg, nature) operate as an exogenous or pre-given constraint for the evolution of the other. That is, it assumes that each of these domains both transforms and, at the same time, adapts to the other; each system struggles—through processes of variation, self-selection and restabilisation—to cope with recurring environmental irritations (Lee 2000: 327). The reactions of each domain are determined, however, by *its internal structure* and not by external directives (as long as its autonomy is sustained). Thus, the evolution of society is not determined by the transformation of its environment (humans, and through their mediation, nature), but by its *own* history of variation, self-selection and restabilisation, as it unfolds through the realm of communication. Similarly, the evolution of nature is not determined by communication (through the mediations of humans), but, rather by the complex interaction of living and non-living systems, as they react to external perturbations.[82]

observation on *this* distinction rather than *any other*, would fail to see what *this* distinction excludes. This failure includes, also, the fact of the failure itself. Only a second observer can view this failure—but he, also, would be subject to the limits of his own point of view (Luhmann 1994: 137). However, this blindness/selection is also a condition *sine qua non* for observing/understanding—because without it reality will remain disordered and thus incomprehensible.

[80] See, further on this plurality or incoherence of the environmental movement, Offe (1990: 234).

[81] The notion of "*ecological appropriation*" refers to those multiple processes, which occur simultaneously in different arenas of society, in which "green themes" are redefined, incorporated and injected with new meanings. For a comprehensive discussion of these appropriations of the ecological theme, see Luhmann (1989). Environmental activists would probably prefer the term "*expropriation*". Mike Woodin, writing in the Guardian, put it nicely in the context of politics: "Clearly, most politicians have learned to nod. Sustainability is invoked so regularly there is a danger that the word will lose all force… But a question nags in the background: have the fine words translated into real progress in preventing and solving environmental problems?" Mike Woodin "Enough Hot Air", *The Guardian (Society)*, 21 April 1999, p 4.

[82] For a more extensive discussion of the evolution of nature, see Rose (1999), Varela *at al* (1991) and Lovelock (1990). James Lovelock's writings are particularly interesting in this regard, because he offers an illuminating account of the way in which nature regulates itself. Lovelock puts in the centre of his inquiry the question of the stability of the earth's climatic and geological conditions. He rejects the argument that this stability was a random event or that it was the result of purely a-biotic feedbacks. Rather he argues that organisms have

This process of co-determination is not deterministic or teleological; neither does it include an assurance for preservation. It can lead either to a successful self-change (adaptation), or to the destruction of the autopoietic reproduction—at the social, biological or human levels (Luhmann 1992: 1433; 1995: 350). One can never be sure that all will go well.

(b) *Decoding the Co-Determination Process of Nature, Societies and Consciousness*

Understanding ecological problems requires, therefore, an understanding of the "messy" processes through which societies, consciousness, and nature co-evolve. Environmental research should involve, then, the simultaneous study of these inter-woven domains. From the perspective of social science the starting point for such investigation is the understanding that *societies,* as networks of communications, refer to nature only after it was *thematised* as a *communicative event*. The primary challenge of the social sciences—from economics, to law and sociology—lies in developing richer and more accurate descriptions of *the communicative processes through which "nature" enters into the social realm* (that is, the varied ways in which concepts such as "environment", "pollution", "conservation", or "sustainable development" are interpreted in distinct social domains).[83] The different thematic patterns, which *regulate this process* of incorporation, do not operate just as passive prisms/constructions or constraints; they operate also as *steering mechanisms*, which trigger and generate action.[84] Thus, the thematic patterns through which society conceptualises nature constitute the medium through which society both *adapts* to environmental pressures, and *impinges* upon the natural environment.

Our current limited understanding of the human mind suggests that studying the societal, or thematic, aspects of ecological dilemmas

contributed to the self-regulating mechanisms that kept the earth's surface environment stable and habitable for life, and have been doing so deep into the earth's history. The climate and geology of the earth are conceived under this account, then, not just as an exogenous, pre-condition for life, but also, as a consequence of life. Thus Lovelock argues that the evolution of species should not be considered separately from the evolution of their environment. The two processes are "tightly coupled as a single indivisible process. It is not enough merely to say that the organism that leaves the most progeny succeeds. Success also depends upon coherent coupling between the evolution of the organism and the evolution of its material environment" (Lovelock 1989: 222). Lovelock's Gaia hypothesis thus projects the whole earth as a self-regulating system. See, further, Lenton (1998).

[83] The significance of achieving a better understanding of the social aspect of ecological problems is also acknowledged by works that are written from the perspective of the "natural sciences". See, eg, Peirce (1998: 19–20).

[84] These "steering" effects take place both at the system level (eg, changes in legal doctrine or in corporate strategy) and at the level of the individual (at the motivational and reasoning levels).

constitutes a more fruitful avenue than trying to develop universal models of practical reason (which assume a complete understanding of the way in which human beings cognise, reason and make decisions).[85] This argument seeks to *shift* the gaze of social inquiry from the doubtful terrain of practical reason models, to an inquiry into the *thematic features* of particular socio-ecological dilemmas. This shift is based on the assumption that:

> Observers can predict action better by knowing a situation than by knowing people, and correspondingly, their observation of actions often, if not always, is not concerned with the mental state of the actor, but with carrying out the autopoietic reproduction of the social system (Luhmann 1995: 166).

But what does it mean to study the *thematic* aspects of an ecological dilemma? The first step in conducting this kind of analysis is to *designate* a specific *ecological dilemma* with particular bio-physical properties and spatio-temporal boundaries.[86] Consider, for example, the problems of soil-degradation, deforestation, industrial contamination of water resources, whether within a particular country (eg, Indonesia), a region (eg, Africa) or even the whole globe.[87] Here ecologists have a leading role. Once the ecological problem has been properly defined we can proceed to the second step, which involves an investigation of the unique dynamics that characterise the social contexts in which this problem is embedded. This inquiry should proceed in three different phases.

The first phase consists of identifying the various social domains, which are *implicated* by a concrete ecological problem. This includes function-systems, organisations and interaction systems. The guiding principle here is polycontexturality. Any attempt to locate ecological dilemmas within a single organisational or thematic context is doomed to fail. The second phase of the inquiry involves a detailed examination of the

[85] For a critique of the *homo-economicus* model—probably the most influential model of human decision-making, see, eg, Tversky and Kahneman (1988: 167). For an attempt to develop new techniques for understanding the "self", see Varela and Shear (1999).

[86] To some extent the term ecological problem/dilemma is already value laden. We could use instead the term *ecological disturbance*. Thus, the problem of deforestation becomes a disturbance once it changes the system equilibrium in a significant way, eg, when the forest eco-system is exploited without regard to its regenerative capacity (leading, potentially, to its complete destruction). This destruction has secondary effects, such as loss of bio-diversity, and soil degradation.

[87] Clearly, however, the spatio-temporal boundaries of any ecological problem should be conceived as a fuzzy predicate, in the sense that the eco-system of one region could be influenced by social and ecological processes taking place in other regions. It is also very hard to demarcate the time interval by which any such ecological disturbance should be observed.

diverse organisational and discursive variables that characterise these multiple systems (eg, a legal system, an anti-globalisation group, a transnational corporation, a village). This inquiry seeks to unravel the key features of the implicated social domains. Only in the last instance, once the inner structure of each of these distinct domains is better understood, can we proceed to examine how the *structural attributes of these systems affect their sensitivity to environmental issues*. This last phase should provide some insight into the dynamics of the interaction between society and nature, in the context of a particular environmental problem. At this point one can re-open the analysis by studying directly the human population involved—the third vertex—using psychological and other tools. This exercise will not be pursued here.[88] In general the study of the human vertex pursued in this book will be limited to eliciting (constructed) action and motivational patterns from the discursive analysis.[89]

To give an example of the complexity of such a polycontextural analysis, consider the problem of agriculturally-generated deforestation in a developing country, such as Indonesia. I refer primarily to deforestation that is a consequence of land-clearing by small farmers.[90] Giving a complete diagnosis of this problem is beyond the scope of this chapter;[91] however, I would like to sketch the kind of questions and insights that the model described above should lead to in this context. Decoding the process of deforestation requires an understanding of the multiple systemic domains—stretching from the cultural practices of the local community (the farmers), to property law and the global financial system—in which this problem is embedded. Thus, for example, Sunderlin *et al*, who studied the problem of deforestation in Indonesia, point out that a combination of certain legal conventions and political-economic conditions can give rise to a practice, which they term "land races" (2001: 779). This term refers to a situation in which farmers convert forest land into plantations, not to generate income, but to serve as "*property markers*" against competing claims from neighboring farmers or immigrants. If this practice becomes crystallised in the local social fabric it can generate a cycle of self-destruction, which will further exacerbate the problem of deforestation.

[88] Although I will refer occasionally to psychological studies. See, eg, the studies of ethical investment by Friedman and Miles (2001), Lewis (2002) and Webley *et al* (2001), which will be discussed in ch 7.

[89] Which means the decoding exercise carried in this book is necessarily incomplete. For an in-depth analysis of different techniques for studying the mind, and their various limitations, see Varela and Shear (1999).

[90] Distinguished from deforestation caused by commercial logging, or by large construction projects (eg, dams, mines).

[91] But see, for example, Caviglia and Kahn (2001), Sunderlin *et al* (2001) and Cassel-Gintz and Petschel-Held (2000).

However, the social investigation of this ecological problem does not end (necessarily) at the local level. Understanding the local practices requires the investigator to look above to the realm of international finance. Indonesia was one of the major victims of the economic crisis that hit South-East Asia in the late 1990s. To overcome this crisis Indonesia required massive financial assistance, which was coordinated, primarily, by the International Monetary Fund (IMF). The way in which this financial assistance was distributed and structured has had enormous impact on the social and environmental conditions within Indonesia (and other developing countries). Because of various institutional and cultural constraints the IMF funds have been used mainly to support the local currency and to meet obligations on external debt (serving, in effect, the interests of Western banks) (Stiglitz 2001: 14), and were not used to create a safety net for the local people. The citizens of Indonesia were left, therefore, to deal with the devastating results of the financial crisis—deep unemployment and high inflation—by themselves. The deep financial distress—the need to compensate for lost income at the individual level—led, in many cases to over-exploitation of various natural resources (including forests).[92] Developing an understanding of the Indonesian farmers' land-clearing practices requires, then, more than a conception of the local culture; it also requires an examination of the institutional culture of the IMF—in particular its inherent blindness to the linkage between financial distress and unsustainable agricultural practices.[93]

1.3 INTERIM CONCLUSIONS AND THE STRUCTURE OF THE BOOK

The structure of this book can be presented now in a more explicit fashion. I have argued that the trade and environment conflict, in contrast to its popular binary image, reflects in effect multiple dilemmas. It therefore makes no sense to analyse it in terms of a single institution (eg, the WTO), or as a competition between two "pure" discourses (eg, a discourse of "nature" and a discourse of "trade"). Studying the trade and environment conflict requires a pluralistic framework, which would enable the observer to decode the different organisational and discursive contexts in which this conflict is embedded. Guided by this pluralistic insight the empirical part of this book examines some of the different legal settings,

[92]See, eg, Sunderlin *et al* (2001) and Kessler and Van Dorp (1998).
[93]See, Sunderlin *et al* (2001) for the case of Indonesia. For a general critique of the cultural biases of the IMF and the World Bank, see Stiglitz (2000).

in which this conflict is experienced. This empirical inquiry will attempt to elucidate the way in which the diverse organisational and discursive variables that characterise these settings influence their sensitivity to ecological concerns. Ultimately, my goal is to produce a rich map of *ecological (in)sensitivities*, stretching over various transnational domains.[94] This detailed mapping constitutes a necessary step in the attempt to decode the process in which nature, society and consciousness co-evolve.

The idea of functional differentiation provides the general horizon for this contextual inquiry. As noted above, the functional differentiation thesis identifies the systems of law, science, economy and politics as the corner stones of the modern society. The pervasiveness of these systems (or discourses) is a reflection of a deep dependency: the modern society cannot operate without its major function-systems. Any attempt to prompt environmental change must take into account the constraints that these systems impose on the contemporary society. The stability of this social structure makes me sceptical of solutions which seek to resolve the trade-environment conflict through radical and unidimensional solutions (eg, radical rearrangement of the current international economic system). This sceptical view guides this book, in that the proposals for reform, which are included in its various chapters, are relatively modest; they are more in the style of *micro-modifications*, than of radical transformations. They are based on the understanding that resolving the tension between trade and environmental concerns requires one to consider the micro-texture of the environmental dilemma. Developing a better understanding of the structural competencies and limitations of the manifold systems in which the trade-environment conflict is embedded should point out various practical modules for minimising the tension between these objectives.[95]

Adopting this pluralistic outlook this book explores several systems of transnational law: the evolving WTO legal system, international construction law (the *lex constructionis*), transnational environmental litigation and international financial law.[96] In the context of the WTO the book also examines the international standardisation community. Analysing the environmental responsiveness of these different systems of law requires several analytical steps. In the first instance it involves an examination of the particular structural details which constitute these systems as independent social domains. This step consists of two different inquiries.

[94] Unlike topographical maps the contours of this map are highly fuzzy and indefinite.
[95] In view of the deep ideological and social cleavages that characterise this conflict a complete resolution is probably not feasible.
[96] There are of course other institutional contexts in which the trade and environment nexus is experienced as a problem. A prominent example is the realm of international environmental treaties. The examination of this domain is beyond the scope of this study.

First, an attempt to unravel the unique communicative or thematic features of these systems; and second, an inquiry into the varied organisational structures that facilitate the flow of communication within their boundaries.

Only in the second instance, once the inner structure of these systems is better understood, I will proceed to examine more specifically how the *structural attributes of these systems have affected their environmental sensitivity.*[97] In other words I will try to expose the "blindness", or "closure" of these diverse domains to environmental concerns. Exposing these forms of closure already contains the possibility of change; that is, it necessarily points to alternative ways for observing the environment (for changing the system's responsiveness).[98] Identifying the diverse distinctions that serve as the basis of a certain discourse, and the various forms of blindness they generate, lays the ground for the employment of other distinctions.[99] The challenge facing an environmentally motivated observer is to pick those alternative thematic modules, which will extend the system's responsiveness to environmental concerns drawing on the system's unique competencies, but, respecting, nonetheless, its structural constraints.

The argument that is pursued in the following chapters consists, then, of two different movements. The first movement is *descriptive*; it is an exercise in *micro-structure analysis*, an attempt to expose the inner structures of different systems of transnational economic law.[100] The second movement is *pro-active*. It seeks to utilise this enhanced structural understanding in order to develop more ecologically-sensitive legal structures. The search for more *responsive* legal structures should not be perceived, however, as a search for perfect "internalisation". More responsiveness to environmental problems does not eliminate the system's blind spots—it only changes the structure of its closure.[101] The impossibility

[97] This research question follows, in a way, from Luhmann's suggestion that there is a need for empirical studies that would explore "the sensitivity (or limits thereon) of the autopoiesis of the legal system to social and political changes" (Luhmann 1992: 1439).

[98] This closure is not just a source of troubles. Because it is a product of the system's code it is also a necessary condition for action (the law cannot operate as law unless it abides by the system's code). Radically changing the system's mode of observation can therefore be a risky exercise; it could jeopardise the capacity of the system to act as a system of *this kind* (eg, as law).

[99] Which would have, however, their own blind-spots.

[100] As Jeremy Waldron observed in a recent article: "If law offers anything distinctive to the utopian imagination it is surely an unusual familiarity with issues of micro-structure, the nuts and bolts of legal rules and procedures" (Waldron 1998: 525). Law, then, can be a vital instrument in the hands of radical idealists, linking their *imaginative drive* to *practical constraints*.

[101] The structure—but not the *kind*. Thus, in the case of law, a doctrinal change does not affect the basic parameter that orders the flow of legal communications—the binary code

of "perfect internalisation" does not mean that the goal of devising more environmentally-oriented structures is hopeless. It should only remind us that changing the structure of a system could generate new types of insensitivities, and that these should be explicitly acknowledged. In particular, enhancing the system's sensitivity to environmental concerns could hinder its responsiveness to other social concerns. This risk is inevitable. Rather than a barrier to reform, this risk should be conceived as a challenge—to try and find those reform schemes that minimise it.

The rest of this study proceeds as follows. Chapter two examines the economic analysis of the trade-environment conflict. In particular it considers the argument of some trade-observers that the trade-environment conflict is in effect a false conflict, whose strong public appeal reflects the popularity of the "ecological" and "anti-globalisation" themes. Chapters three and four discuss the trade and environment debate in the WTO. Chapter three considers the trade and environment jurisprudence of the GATT/WTO. Chapter four examines the linkage between the WTO and the private sphere of standards harmonisation, focusing on the key role which is played by science in these domains. Chapter five discusses the *lex constructionis*, and looks, in particular, into the environmental responsiveness of international standard construction contracts. Chapter six explores the issue of transnational environmental litigation. Chapter seven examines the field of international financial law. Chapter eight concludes. While the chapters of the book are part of a single argument, the book's pluralistic outlook means that they can be read, to a large extent, independently of each other.

(legal/not legal). However, such change would influence the way in which the code is applied and, consequently, the way in which the legal system responds—*as law*—to external pressures.

2

The Trade-Environment Problematic: Fantasy or Reality?

BEFORE PROCEEDING TO the particularistic part of this study, I want to discuss two preliminary questions, which are critical to the research goals of this book. First, does the trade and environment conflict constitute a true dilemma, or is it, rather, an imaginary construct of the twentieth century environmental movement? Second, if the trade-environment conflict does represent a real dilemma, why should we turn to international economic law—in its various forms—for possible solutions? Other realms of governance—such as international environmental law and the global markets—offer, arguably, more efficient methods for resolving transnational ecological dilemmas.

My response to the first question is clear-cut: the trade and environment conflict represents a systemic dilemma, which cannot be dismissed just as an imaginary construct. In support of this argument I will review the recent economic research that considered the trade-environment question.[102] This research provides convincing evidence to the fact that trade liberalisation and the economic growth it facilitates, can, and does in fact, lead to environmental degradation, both globally, and locally. Relying on this research, which draws on the discourse of modern environmental economics, involves admittedly, some loss of insight. It side-steps some of the difficult questions, which were discussed in the previous chapter, regarding the relationship between society and nature. However, because of the dominant role of the economic discourse in the trade-environment debate, formulating the green critique in economic terms is highly important in terms of influencing the policy-making process. With respect to the second question, I will argue that the inquiry into the environmental (in)sensitivity of international economic law is valuable, primarily, because of the inability or dis-interest of other function systems—such as

[102] Because of the large scale of this literature I can only offer a selective overview, which focuses on the more important studies. For more detailed surveys see: Anderson (1998), Beghin and Potier (1997) and Jaffe *et al* (1995). A recent report, sponsored by the WTO, also provides a good overview (Nordstrom and Vaughan 1999).

the global political sphere, international (and national) environmental legal institutions and the new (semi-integrated) global markets—in providing adequate solutions to the trade-environment dilemma.

2.1 THE TRADE-ENVIRONMENT CONFLICT IN THE EYES OF MODERN ECONOMICS: CRITIQUE AND REFLECTION

The economic discourse plays an important role in the trade-environment debate. Many trade observers rely on economic models and concepts in constructing their response to the environmental critique of free trade. Thus, for example, the *Financial Times* argued in an editorial (which was published after the failure of the Seattle summit) that governments and business must reclaim "the moral high ground from the legion of the misguided and the self-interested now encamped there" and should argue for the simple truth that trade liberalisation *poses no threat to the global environment* and is, in addition, an essential component in any effort to end mass destitution.[103] Similarly, a 1999 WTO report argued that trade liberalisation should, in the general case, be beneficial to the environment. Free trade can both help, it was argued, to generate the resources developing countries "need to protect the environment and work towards sustainable development", and contribute to "improved allocation and more efficient use of resources".[104]

This reading of the economics of free trade, disregards, however, the findings of modern environmental economics. Overall, the economic research of the trade-environment nexus provides neither analytic, nor empirical grounds for a categorical dismissal of the environmental critique of free trade. On the theoretical side economists are now willing to acknowledge that once the different "imperfections" of the modern society—ie, environmental externalities and governmental failures—are taken into account, trade liberalisation can lead to environmental

[103] "Disaster in Seattle", *Financial Times*, 6 Dec 1999, p 18 (my emphasis).

[104] Trade and the Environment in the GATT/WTO, Background Note by the WTO Secretariat for the High Level Symposium on Trade and Environment, 15 March 1999 (WTO Secretariat 1999: 7). For a similar appeal to ideas of economic efficiency in the legal literature, see, Petersmann (1995: 3) and Ahn (1999: 860–61). Michael Porter's famous "win-win" thesis reflects a similar tendency to minimise the conflict between economic development and environmental considerations. Porter argued that the conflict between environmental protection and economic competitiveness is a false dichotomy and that stringent environmental regulation can actually "pay for themselves" by inducing innovation (Porter 1991; Porter and van der Linde 1995). This argument was forcefully criticised by environmental economists, which argued that Porter's vision of a cost-free environmental control is a false vision. From society's perspective, the introduction of stringent environmental controls would always have to be balanced by certain sacrifices—both in the forms of direct costs and of opportunities foregone. See, for example, Palmer *et al* (1995).

degradation—both on the *local* and the *global* levels. This means—in contrast to the arguments of some trade observers—that leaving the environment to the (free) forces of the global economy cannot be treated, a priori, as a "proper" solution to the trade and environment conflict. On the empirical side, this research provides worrying evidence to the capacity of trade liberalisation and economic integration to generate, as the theoretical argument foresees, significant ecological damage, both globally and locally (with developing countries being the major sufferers).[105] Taken together, this research programme demonstrates quite forcefully that "freeing" the global markets is not a panacea to the global ecological crisis.

2.1.1 Exposition

The trade-environment problem can be examined through several perspectives. The first perspective looks at the way in which international trade influences the *domestic environment* of the trading parties; the second examines the way in which trade affects *transboundary ecological problems*.[106] The third perspective examines the linkage between transnational trade and the *"global commons"* (eg, the ozone layer, fish stocks, Antarctica, etc).[107] The economic literature has tackled the question of the environmental impact of trade liberalisation by distinguishing between four causal effects or paths.[108] The *scale* effect measures the ecological impact of the expansion in the scale of production, which is likely to occur with the transition to an open trading regime. Ceteris paribus, the scale effect is likely to prove damaging to the environment: if

[105] Some international lawyers seem to underestimate the robustness of the environmental critique against free trade. Thus, for example, Ernst-Ulrich Petersmann argues that the rules of the WTO derive their political legitimacy from "today's *universally recognized insight* that liberal trade and non-discriminatory competition tend to maximize consumer welfare, competition and individual responsibilityy …" (1999: 212, my emphasis). This argument fails to recognise that trade liberalisation, in contrast to the neo-classical economic model, is not always welfare-enhancing—as the text below demonstrates.

[106] Transboundary pollution can be caused in two ways. First, it can be the incidental result of industrial processes. The emissions of country A's power plants may affect—through acid rain for example—people in country B. Second, transboundary pollution can be the result of trade in hazardous products, eg, hazardous waste, or genetically modified organisms. For a detailed taxonomy of international environmental problems, see Maler (1991).

[107] One of the problematic features of the "global commons" question is that different nations may have different preferences with respect to the value of natural resources. Such differences characterised, for example, the infamous *Tuna-Dolphin* dispute between the US and Mexico, which will be discussed in ch 3.

[108] Grossman and Krueger were probably the first to use this analytical framework in their study of the environmental impact of NAFTA (1993: 14–15). See, further Schulze and Ursprung (2001: 52).

production and/or consumption of a good is pollutive, an expansion in the global output of that good is likely to lead to greater environmental degradation. The *composition* effect examines the change in the composition of industry, which is triggered by the process of trade liberalisation, as countries *specialise* in sectors in which they enjoy a comparative advantage. Whether the ecological impact of this change is positive or negative depends on the nature of the specialisation (ie, whether it is geared toward more or less pollution-intensive sectors). Environmentalists have raised, in this context, the pollution havens hypothesis, which argues that free trade will increase industrial pollution in developing countries through the migration of dirty industries from developed countries (with stricter environmental regulations) into developing countries.

Third, the *technological* effect examines how the technological changes, which usually accompany the process of trade liberalisation, could influence the environment. It is usually assumed that these (trade-induced) technological changes should, overall, be beneficial to the environment, whether by introducing cleaner production methods, or through improved recycling or waste treatment methods. This hypothesis is supported by two different arguments. First a nation with a liberal trade policy should have greater access to foreign "environmental" technologies. Second, the transition to an open market is usually associated with an increase in individual incomes, which, in turn should generate a greater demand for "environmental goods", such as clean air and uncontaminated water (generating steeper demand for "clean technology"). Finally, the *regulatory effect* examines the way in which trade liberalisation affects local environmental standards. In this context one can distinguish between two contradictory trends. On the one hand the anticipated increase in average income, as well as deeper exposure to foreign regulatory methods, is likely to lead to increase in the demand for environmental control, pushing the government to adopt stricter environmental regulations. On the other hand, the "race to the bottom" hypothesis, which will be discussed below, suggests that free trade may induce a process by which countries will lower their environmental standards in order to gain competitive advantage.

Since each of these different effects of trade liberalisation can generate distinct environmental impacts, all of them must be taken into account simultaneously. This account of the trade-environment dilemma is incompatible, therefore, with the attempts to provide a priori, or purely analytic solutions to this dilemma. Its solution requires, rather, an empirical evaluation, which would be sensitive to the way in which these *different effects* interact in the unique context of a country/region and the ecological variable in question.

This analytical perspective provides a comprehensive framework to the study of the trade and environment problematic. Before proceeding with a discussion of the economic literature I would like, though, to make a few comments on the "*pollution haven*" and "*race to the bottom*" hypotheses, which were mentioned above, and are repeatedly invoked by the critiques of free-trade. Consider, first the pollution haven hypothesis, which claims that free trade should lead to the migration of dirty industries from developed countries into developing countries. Despite the popularity of this argument, in the anti-globalisation critique most of the empirical studies that examined this argument found no evidence of substantial flight of polluting industries into developing countries.[109] Most of the adverse environmental effects of international trade seem to be caused by internal changes in the local economy (not associated with pollutive "relocation").

The main idea behind the "race to the bottom" argument is that international disparities in environmental standards confer a competitive advantage on low-standard countries. This advantage could arguably cause developed countries to relax their environmental standards in order to avoid losing their competitive edge and at the same time prevent any regulatory improvement in developing countries (or even cause further relaxation).[110] The international competition for foreign investment should contribute, it is argued, to the downward spiral in standards, because high environmental costs could prevent foreign industries from locating their plants in high-standards jurisdictions. The race to the bottom thesis is intuitively and theoretically compelling. However, it is not easy to demonstrate it in practice, especially if it is manifested through lax enforcement or regulatory chill (Bhagwati 2000: 490).[111]

Two main arguments are usually made against the race to the bottom hypothesis. These arguments support a softer version of this hypothesis which formulates it in terms of a regulatory chill (rather than downward spiral in standards).[112] First, governments are not free to react strategically to other countries' standards (certainly they do not enjoy the freedom of

[109] See, for example, Levinson (1996), Ederington *et al* (2003), Wheeler (2002) and Neumayer (2001: 161). One of the main (economic) explanations offered for this result is that those industries with the largest pollution abatement costs, and hence the largest motivation to relocate, also happen to be the least geographically mobile, or "footloose" (Ederington, Levinson, and Minier 2003: 13–14).

[110] The "race to the bottom" dilemma can be interpreted also in terms of the resources countries spend on the enforcement of environmental standards. Indeed, the problem of lax enforcement of environmental standards characterises many developing countries (Jha and Whalley 1999: 10).

[111] Contrast Bhagwati (2000: 490) who is skeptic about this argument with Ederington and Minier (2003) who bring evidence for this effect regarding the US.

[112] See, in that context, Porter (1999) and the WWF report by Mabey *et al* (2003: 38–40).

choice which is presumed by political economy models). In open and democratic societies such strategic rule-making is likely to generate strong opposition.[113] Political or legal passivity, leading to regulatory chill, is less likely, however, to generate such opposition. Second, trade and investment flows are not very sensitive to differences in environmental standards (because for the majority of industries pollution abatement costs represent only a small fraction of total costs) (Ederington, Levinson, and Minier 2003: 3). Thus governments may lack the motivation to engage in strategic lowering of environmental standards—at least for most industries. A good example for the suppressive power of free trade is the Kyoto protocol, whose relatively radical scheme was substantially eroded by consequent meetings of the contracting parties and the withdrawal of the US (Bohringer and Vogt 2003). At least part of this erosion could be attributed to the competitive environment induced by free trade.

To conclude these introductory comments it should be noted that the aforementioned analytical framework does not constitute a complete cost-benefit analysis of the trade-environment problem. In order to complete the analysis one would have to compare the social costs of trade-induced environmental degradation, with the social benefits of free trade. From an economic perspective, the fact that the transition to free trade could be found to cause some ecological damage does not, in itself, settle the debate. Only if the social costs of this ecological damage outweigh the social benefits of free trade, should one start to worry about the wisdom of a transition to a more liberal trade regime.[114] Because of the complexity of this comprehensive analysis only few studies had actually pursued this type of "full" cost-benefit analysis.[115]

So what does the economic research tell us? The studies which followed the research strategy described above can be divided into three sub-groups: studies that examined the *global effect* of the liberalisation process, usually by focusing on particular environmental *indicators*; studies that limited their outlook to *specific economic sectors*; and finally, studies that focused on *specific countries*. The following text provides a brief

[113] Countries can compete through other less problematic channels such as tax breaks, land grants etc.

[114] Similarly, a cost-benefit analysis of an environmental regulation should examine not only the ecological benefits of this regulation (eg, in terms of pollution abatement achieved) but also the social costs of this regulation. These costs include not only the direct costs of the regulation (compliance and administrative costs) but also opportunity costs: from the firm perspective this refers to the cost of foregoing other investment opportunities because of the need to invest in pollution-abatement technology. From the regulator point of view these costs reflect the need to give up alternative regulatory goals. See Palmer *et al* (1995).

[115] Thus, only one of the studies discussed below (Cole, Rayner, and Bates 1998) offers such a comprehensive analysis.

description and critique of this research. For reasons of space I will not discuss in detail the sectorial studies.[116] The studies that examined the global effect of the liberalisation process provide conflicting results. Cole *et al* (1998) examined the environmental impact of the Uruguay Round in terms of five air pollutants for a number countries/regions.[117] They conclude that:

> trade liberalisation may result in some degree of environmental damage, particularly in the developing regions, as a result of increased emissions of local air pollutants and perhaps globally for carbon dioxide emissions (*ibid*, at 347).

Their results indicate that emissions of all five pollutants will rise in most developing and transition regions as a result of the Uruguay Round. In the developed regions, "emissions of three local air pollutants are predicted to fall whilst nitrogen dioxide and carbon dioxide emissions generally rise" (*ibid*, at 346).[118]

Cole *et al* also analyse the effect of a change in the *rate of economic growth* on pollution emissions. They find that if the Uruguay Round was to increase this rate of growth, the level of emissions in the year 2000 is likely to be considerably different from that predicted in the absence of the Uruguay Round. They argue that:

> the increase in emissions of local air pollution for the developing regions for the year 2000 is generally 5 to 10 times higher if the growth rate were increased by 0.5 per cent, with some emissions predicted to increase by up to 10 percent (*ibid*, at 346–47).

In terms of cost-benefit calculus Cole *et al* find that, compared to the estimated gains from the Uruguay Round, the monetary costs associated with the predicted increase in the level of pollution seem to be small (*ibid*, at 346). The results of Cole *et al* regarding carbon emissions receive confirmation in a paper by Adkins and Garbaccio (2002). They study the effect of regional trade liberalisation within the proposed Free Trade

[116] See, for example Reppelin-Hill (1999: a study of the influence of trade liberalisation on the global steel industry, which focuses on the technology effect) and Anderson (1992: examining the environmental effects of trade liberalisation in the sectors of coal and food).

[117] Nitrogen dioxide, sulphur dioxide, carbon monoxide, suspended particulate matter and carbon dioxide.

[118] The analysis of the *composition* effect highlights which sectors will experience the highest increase in emissions. The expansion of the *textile* sector in the developing regions, and a growth in the *heavy industrial* sector within the developed regions is predicted to lead to an increase in emissions of all 4 local air pollutants. These increases are predicted to be particularly large because of the high pollution intensities of these sectors (*ibid*, at 346).

Area of the Americas (FTAA), and worldwide liberalisation, on global carbon emissions.[119] They find that the FTAA is not likely to have a significant effect on global emissions; in contrast, worldwide trade liberalisation leads to a *substantial increase* in global emissions, with increases both within the FTAA region and more prominently in the rest of the world (*ibid*: 8).[120]

Ferrantino and Linkins (1998) use, similarly to Cole *et al*, the data from the EPA Toxic Release Inventory to estimate the influence of the Uruguay Round and a hypothetical "zero-for-zero" agreement to eliminate all tariffs in manufacturers on *toxic industrial emissions*. They find that liberalisation reduces global pollution moderately by eliminating over-production in protected "dirty" industries in developing countries, and by reallocating "dirty" production from developing to developed countries, where better emissions-control technologies and tighter regulatory regimes are in place. They also find that the countries in the former Soviet Union and Eastern Europe (what they call economies in transition), and part of Asia, may become more polluted as a result of liberalisation, reflecting their comparative advantage in more pollution-intensive industries.[121] Antweiler *et al* (1998) examine the impact of a policy of "openness" on *sulphur dioxide concentrations*, relying on data from the Global Environment Monitoring Project.[122] Their estimates of scale and technique elasticities indicate that "if openness to international markets raises both output and income by 1%, pollution concentrations fall by approximately 1%" (*ibid*: 41). Freer trade, according to Antweiler *et al*, is good for the environment. Note, however, that Antweiler *et al* study is based on a single pollutant.

Several studies look at the effect of trade liberalisation on specific countries. Overall, the findings of these studies indicate that a transition toward a more open global trading regime causes some environmental

[119] Trade liberalisation is defined as the complete elimination of trade barriers (Adkins and Garbaccio 2002: 8).

[120] In order to study the changes in emissions, Adkins and Garbaccio decompose each country's overall emissions change into three separate components, which result from changes in: (i) total output; (ii) the energy intensity of output; and (iii) the carbon intensity of fossil fuel use (Adkins and Garbaccio 2002: 1).

[121] *Ibid*: at 13–14. The Asian countries that are specifically pointed out are: South Korea, Singapore, Taiwan, Indonesia, Malaysia, the Philippines and Thailand.

[122] The Global Environment Monitoring System has been recording SO2 concentrations in major urban areas in developed and developing countries since the early 1970s. It was operated and maintained by the United Nations Environmental Programme until the early 1990s (Antweiler, Copeland, and Taylor 1998: 19–20). Today the project only covers freshwater quality. See: www.cciw.ca/gems/gems-e.html (visited 17 January 2003). Antweiler *et al's* study provides, therefore, a somewhat more "realistic" picture than the previous studies, since its global analysis is based on "real" global data, and not on simulations based on US data from the EPA Toxic Release Inventory.

damage in the developing world.[123] Because the regulatory establishment in developing countries is generally weaker and the local industry is (on average) more pollution intensive, the economic expansion that follows the move toward more open economic regime is most likely to increase the level of pollution (Wheeler 2002: 6).[124] Dessus and Bussolo (1998) study the effect of trade liberalisation on Costa Rica. They find that an outward orientation alone (unaccompanied by appropriate environmental reform)[125] promotes growth but induces a substantial risk of environmental degradation. This risk is due, mainly to a shift in the output composition towards more pollution-intensive products, and to the general effect of economic growth (the *scale* effect) that is predicted to raise aggregate emissions levels (*ibid*: 23–24). Lee and Roland-Holst (1997) find a similar trend in a study of Indonesia.[126] Grossman and Krueger (1993) examined the environmental risks that might be associated with the liberalisation of trade between Mexico and the United States. Overall, their findings suggest that the transition of the Mexican economy toward a more open trade regime could bring a reduction in pollution levels, mainly due to specialisation in less pollution-intensive activities and because the trade-induced growth in per-capita income is predicted to generate a greater demand for environmental amenities (*ibid*: 48–49).

[123] This point is made by Cole *at al* (1998) and Ferrantino and Linkins (1998). It is also supported by studies, which examined the composition of trade flows between developed and developing countries. There is some evidence that the exports of developing countries have become dirtier (in terms of their production process) over time. See, for example, Mani and Wheeler (1998) and Rock (1996). However, these findings should not be confused with the "pollution haven" hypothesis, since they are not, necessarily, the product of a reallocation of "dirty" industries. They reflect, rather, changes in the local economy, ie, composition changes, and increasing domestic demand for certain pollution-intensive goods.

[124] Joseph Chai (2002) provides revealing support for this argument in the context of China. Since 1979 China has reduced significantly its tariff and non-tariff barriers. As a result of this move the share of exports and imports in China's GDP has shot up from 11% in 1979 to 33.8% in 1998 (*ibid*: 25). The move toward a more open economy has had positive environmental impact by promoting specialisation in less pollutive industries, by allowing China access to advanced pollution abatement technology, and by enabling it to transfer environmental costs to other countries by importing intermediate, pollution intensive products. However, these positive effects were overwhelmed by a negative scale effect, which was the result of a huge increase in the demand for Chinese exports. Chai estimates that whereas the compositional and technological effects reduced the levels of industrial pollution at a scale of 16% to 60%, the expansion in the Chinese economy caused an increase of (around) 700% in the levels of pollution (*ibid*: 33). Beghin *et al* (2002) reach similar conclusions in a study of Chile. They find that a policy of unilateral trade liberalisation, with *no* pollution abatement policy, should lead "to detrimental impacts on public health in Santiago and considerable monetary damages associated with the negative health impact" (*ibid*: 20).

[125] In their model—the introduction of effluent charges.

[126] Both Dessus and Bussolo and Lee and Roland-Holst find, however, that when trade liberalisation is accompanied by appropriate environmental reform, such as the introduction of environmental taxation it is possible to achieve significant pollution abatement, without

2.1.2 Reflection

The foregoing studies suffer from several common weaknesses. These weaknesses lead these works, in general, to down-play the ecological impact of trade-liberalisation. The first problem concerns the very limited range of ecological indicators on which these studies are based. Most of the studies limit their analysis to industrial toxic emissions (mainly air-pollutants).[127] They thus ignore the various other ways in which human activity affects (degrades) the environment. These include, the erosion and contamination of soil, contamination of water resources, problems associated with the over-use of natural resources (eg, deforestation, over-fishing), the effects of increased vehicle use (emissions and congestion), and the adverse effects of untreated human and non-human waste.[128] They also tend to disregard the impact of trade on transnational ecological problems, such as emission of green-house or ozone-depleting gases, loss of bio-diversity, pollution of the seas, acid rain, etc. The economic literature on the trade-environment problem produces, therefore, a highly incomplete portrait of "nature".[129]

This limited outlook is problematic—both from environmental and economic perspectives—because many of these "missing" environmental attributes have substantial economic and ecological value. Jha and Whalley tried to estimate, in a recent paper, some of this "missing" data. They argue that in some developing countries the annual productivity losses due to ecological problems, such as soil erosion and increased vehicle use, could be as high as 10 per cent of GDP. These costs are much

hampering economic growth (Dessus and Bussolo 1998: 27; Lee and Roland-Holst 1997: 81). Neither of these studies engaged in a complete cost-benefit analysis. Rather, their strategy was to assess the relative costs of alternative regulatory instruments that could achieve certain emission targets (Dessus and Bussolo 1998: 25; Lee and Roland-Holst 1997: 76). The main obstacle for a full cost-benefit analysis is, as Lee and Roland-Holst note, the uncertainty about the *marginal social damage* of an increase in emissions of a particular pollutant (*ibid*, at 76).

[127] They are based on two major sources. First, data from the US Environmental Protection Agency Toxic Release Inventory (TRI). Second, data from the Global Environmental Monitoring System (GEMS). There are several problems with these sources. First, they only cover industrial pollution, which in the TRI case refers only to the US. The GEMS data-base is also very limited—in terms of geographical coverage and pollution types. As noted before (n 122 above) it now collects only data regarding the pollution of freshwater resources. Second, in both cases the data-bases offer information only about levels of discharges—not on actual damage (to the environment or people) (Schulze and Ursprung 2001: 47, 54).

[128] This limitation is openly acknowledged. See, for example: Cole *et al* (1998: 347) and Ferrantino and Linkins. (1997: 4).

[129] New initiatives of UNEP might enable a more wide-ranging research. One notable project is the enhanced United Nations System-wide Earthwatch mechanism. This broad initiative seeks to coordinate, harmonise and catalyse environmental observation activities among all UN agencies for integrated assessment purposes. UNEP provides the Earthwatch secretariat. See, further, earthwatch.unep.net (visited 30 July 2003).

higher, than the estimated gains from trade reforms, which are usually in the region of 1–3 per cent of GDP (1999: 15).[130]

From an ecological perspective the limited scope of these studies is worrying because many of the disregarded ecological indicators reflect *irreversible ecological processes*. Whereas, for example, in the case of local air pollution one can quite safely treat environmental quality as a *renewable* resource, it is doubtful whether this assumption can be applied to other ecological problems, such as soil degradation, or contamination of underground water. This is also true to many environmental problems, which have a strong "public good" feature, such as bio-diversity and the greenhouse effect. These attributes reflect the long-term capacities of our eco-system. The possibility that the process of trade-liberalisation, with the accelerated growth that it induces, could threaten some of the *long-term capacities* of the eco-systems in which we live and on which we depend, should be treated as a grave warning sign.[131] Indeed, it could justify some deceleration of the current race toward global economic integration.[132]

A second, problematic feature of these studies concerns the way in which they model the relationship between per capita income and per capita pollution emissions. The examination of the *technological* and *regulatory* effects is based, partially, on the assumption that there is an inverted U-shaped relationship between per capita income and environmental quality: as incomes goes up there is an increasing environmental degradation up to a point, after which environmental quality improves (another term used in the economic literature to describe this type of relationship is environmental *Kuznets* curve).[133] The idea behind this thesis is that "as society becomes richer, its members may intensify their demands for a more healthy and sustainable environment, in which case the government may be called upon to impose more stringent environmental controls", which should lead to the development of "cleaner" technologies (Grossman and Krueger 1993: 17). This process, together with a structural change toward information-intensive industries and services, is presumed to lead to a gradual decline in environmental degradation.

[130] They refer to studies on China, India, Indonesia, Pakistan, the Philippines and Thailand (*ibid*: 13).
[131] See the discussion in Arrow *et al* (1995).
[132] The Commission for Environmental Cooperation ("CEC") of North America notes similarly in a 2002 report, that regulatory response to the trade-environment problematic should focus not just "on what environmental policy ought to do" but also on "adjusting the sequence of trade liberalisation itself, to allow environmental regulators time to adjust to market integration" (CEC 2002: 4). See also Tisdell (2001: 192).
[133] See, for example, the discussion in Cole *et al* (1998: 338) and Grossman and Krueger (1993: 16–36).

While this reasoning has some intuitive appeal, its general applicability is questionable.[134] First, the linkage between the *Kuznets* curve hypothesis and the "race-to-the-bottom" hypothesis, which work in opposite directions, remains unclear. Second, even presuming that the empirical argument of the Kuznets curve literature is sound, its social meaning is not clear. Since these studies do not measure the *wellbeing* of the societies they examine, there is no reason to assume that the level of environmental protection along the Kuznets curve is socially optimal. It might be better, for example, to pollute less in the first stage of the growth process, if the costs of the clean-up in later stages are very large. Further, the predicted reduction in emission levels might be of little social/ecological value if pollution is cumulative (e.g., greenhouse gases, contamination of underground water), or if early emissions can cause irreversible damage (eg, loss of biodiversity) (Tisdell 2001: 187).[135] Third, all of these studies are extremely problematic in their empirical outlook. The inverted U curve relationship has been shown to apply, so far, only to a *limited* number of pollutants, mainly air pollutants.[136] The policy reversal which this thesis claims to predict also depends on the degree of publicness of the environmental problems at hand. Ecological problems which remain outside the "public gaze" are unlikely to behave in this way.[137] This literature, like the trade and environment literature, *fails, therefore, to give a complete picture of the linkage between economic growth and the environment*.[138] There is thus no reason to suppose that the inverted U hypothesis provides an accurate representation of the way in which *overall environmental quality* changes with income.

It seems therefore, that the potential ecological impacts of trade liberalisation could be far worse than is indicated by the current economic research.[139] One should not ignore, therefore, the possibility that the

[134] For a review and critique of the Kuznets curve literature, see Barrett (1997), Arrow *et al* (1995) and Stern *et al* (1996).

[135] In that sense the Kuznetz curve argument also fails to cope with the possibility that some ecological systems might break down completely if certain critical thresholds are breached. In such cases it will be of little use if at later stages in the development process the emission levels will decrease below the threshold levels—as this would not restore the destroyed ecosystem (Tisdell 2001: 188).

[136] See, for example, Barrett (1997) and Jha and Whalley (1999: 19–24).

[137] See, Schulze and Ursprung (2001: 54).

[138] The few studies that did examine other ecological issues found little support for the Kuznetz hypothesis. Koop and Tole (1999) for example, failed to find a Kuznets type relationship for deforestation. Shafik and Bandyopadhyay (1992) who examined a broad range of environmental indicators, in a background report for the World Bank, 1992, *World Development Report* (1992) found that rising income has an unambiguous negative effect on river quality, and on levels of municipal waste, and carbon emissions per capita. Moreover, the quality of the data on which these studies rely on is quite poor (Stern, Common, and Barbier 1996: 1156).

[139] Further support for this proposition can be found in a 2002 report by UNDP (2003: 321–2) and the sources cited therein.

adverse ecological impacts of globalisation could outweigh the projected efficiency gains in resource-use.[140]

2.2 THE ASYMMETRY BETWEEN THE TRADE AND ENVIRONMENTAL DOMAINS

Even if the trade-environment problematic is not imaginary—why should we look to international trade law as a source for solutions—rather than using more direct paths, such as environmental law and economic incentives? Jagdish Bhagwati, a highly regarded trade economist, argues in this spirit that the existence of environmental externalities should not lead to the renunciation of "free trade", but, rather, to the adoption of appropriate environmental policy measures, leading back to "free trade" as the first-best trade policy (Bhagwati 2002: 61–62).[141] What this argument disregards is the (still) significant *institutional asymmetry* between the trade and environmental domains. This asymmetry characterises both the *global* and *local* levels. Indeed, it constitutes the primary motivation for using trade measures for environmental goals, and consequently for studying the sensitivity of international economic law to ecological concerns.

Consider first the global level. Despite the undeniable progress that took place over the last decade in building cooperative solutions to international ecological problems, there is still substantial disparity between the powers and reach of the two domains. Whereas, in the economic realm there are several influential institutions, such as the WTO, the International Monetary Fund and the International Chamber of Commerce, which are endowed with substantial powers, the parallel environmental institutions do not enjoy similar powers. Neither UNEP, nor any of the secretariats of the different multilateral environmental treaties can be compared, in terms of power, membership, and prestige, to the foregoing trade institutions.[142]

A prominent reflection of this asymmetry is the new legal system of the WTO. In its broad autonomy and extensive authority this system constitutes a unique phenomenon in the international sphere. The WTO dispute settlement mechanism—the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)—provides that WTO Members shall be obliged to use the WTO dispute settlement system in case of WTO

[140] See also Tisdell (2001: 189). The term "resource-use" refers to the conversion of natural resources to man-made capital.
[141] For similar arguments see also Anderson (1992: 167), Dessus and Bussolo (1998) and Lee and Roland-Holst (1997).
[142] This point has been made by other commentators. See, eg, Cahrnovitz (1994: 476).

relevant disputes (and should therefore refrain from using extra-legal measures in response to infringements of WTO obligations (Article 23(1)). The DSU further stipulates that WTO members shall be obliged to follow the decisions of the WTO judicial bodies (Article 23(2)) and creates a system for the enforcement of these commitments.[143] The DSU also ensures the independence of the WTO legal system (against political intervention).[144] In contrast, the dispute settlement mechanisms of most environmental treaties are usually optional and in most cases their results are not binding on the parties (Calatayud-Gonzalez and Marceau 2002: 279). While one can make a strong argument for the need to strengthen the multilateral framework that deals with transnational ecological problems, and to work toward the establishment of a Global Environmental Organization and an International Environmental Court,[145] the current political climate does not support such a radical empowerment of the environmental domain.[146]

At the national domain—especially in developing countries—environmental institutions suffer from similar weaknesses. Indeed, in many cases the transition to a more open trade regime is not accompanied by a simultaneous empowerment of the domestic environmental institutions, despite the anticipated rise in economic activity (CEC 2002: 3–4). This deep asymmetry means that trade institutions can not operate under the assumption that environmental problems are being dealt with elsewhere in the regulatory chain. Indeed, this asymmetry provides a good reason for imposing upon trade institutions an independent responsibility toward the environment (rejecting their current policy of total deference). It is this asymmetry, commonly disregarded by trade economists,[147] that justifies the study of the responsiveness of the WTO and other trade institutions to ecological concerns.

[143] See, for further details Calatayud-Gonzalez (2002: 276–79).

[144] The main reflection of this independence is the "reverse-consensus" rule of the DSU. Arts 16(4) and 17(14) of the DSU replaced the *consensual practice* of the GATT with a reverse rule which requires the WTO Member who wishes to prevent a panel or appellate report from being adopted by the Dispute Settlement Body (DSB) to forge a consensus against it. This means in effect that the WTO political system—here, the DSB (whose composition is identical to that of the WTO General Council—Art IV(3) of the WTO Agreement)—cannot override the decisions of the legal bodies.

[145] A strong proponent of the Global Environmental Organization (GEO) is Daniel Esty (1994: 240). See also, Ahn (1999: 860). For the idea of an International Environmental Court see the report of the ILA Committee on Transnational Enforcement of International Law (2002: 14). The idea of developing global environmental institutions is not new. A proposal for a World Environmental Organization (WEO) was made already in 1971 by Lawrence Levien, who suggested that the WEO should be constructed after the model of the International Labour Organization (1971). This idea is also supported by various environmental groups (Friends of the Earth 1992:2; Arden-Clarke 1992: 2).

[146] Even Daniel Esty seems to share this prognosis. In a recent paper he argues: "… there is little prospect of a GEO being created in the near future. Thus the trading regime must manage the risk of environmentally-derived market failures" (1999: 8).

[147] See eg, Bagwell and Staiger (2001: 58) and Bhagwati (2002: 134).

The argument for "leaving trade policy alone" is sometimes presented in a different light, which focuses on the measures to be used, rather than the institutions that should implement them. Thus, it is argued that trade measures constitute a highly inefficient method for resolving environmental dilemmas: there are always "more efficient policy instruments than trade policies for preserving the natural environment" (Anderson 1992: 167). The term "more efficient policy instruments" refers to policies that are directed, primarily, to solving the environmental problem at hand, whether through international agreement, or through focused national policies. Economists are very clear about the nature of such policies: they prefer incentive-based or market-based mechanisms over command and control regulation.[148]

However, while the economic case for "direct environmental intervention" might be sensible as a theoretical conjecture, the institutional asymmetry discussed above means that in many cases this "direct path" is not feasible. Whether it is possible to use direct and effective measures to tackle particular environmental problems depends on certain institutional competencies—political, administrative and legal. In many instances, whether because of the transnational features of the ecological problem, or because of the structure of the domestic political system, these necessary institutional capacities do not exist.[149] Where these necessary competencies are missing, trade measures might offer the best solution; whether by *inducing* international cooperation, or by *stalling* the development/liberalisation process. If the costs estimates of Jha and Whalley (1999) are correct,[150] many developing countries might have a good "economic" case for foregoing some of the welfare benefits associated with trade liberalisation, if the resulting reduction in economic activity could enable them to tackle more effectively their domestic environmental problems.[151]

[148] Unlike the command and control approach, which is based on setting quite rigid emission or technology standards (leaving firms with, arguably, little flexibility in achieving goals), market-based mechanisms, such as effluent charges or tradeble permits, provide firms with greater flexibility and incentives to look for more cost-effective ways of achieving the same environmental objectives. For an economic discussion of these different modes of regulation, see, for example: Hahn and Stavins (1992) and Oates and Portney (1992).

[149] When the weakness of the domestic environmental regime does not reflect the true preferences of the local society or the country's actual ecological conditions (eg, its absorptive capacity), it would be wrong to consider the leniency of the regime as a reflection of "comparative advantage". This leniency produces a "*pseudo*", economically inefficient, comparative advantage (Beghin and Potier 1997: 437–38).

[150] See also Chai (2002).

[151] Beghin *et al* (2002) give a similar warning: "For fast-growing developing economies, greater outward-orientation holds great promise in terms of growth and efficiency. Pursuing this goal blindly, however, may jeopardise long-term prosperity because of the environmental costs of such a strategy. Hence, it is essential to assess the environmental impact of trade policy generally and trade liberalisation in particular, and to examine how these might be better coordinated with environmental policies to mitigate environmental degradation" (*ibid*, at 1).

It should be further emphasized that using incentive-based regulation—as the economists recommend us to do—does not resolve the problem of weak institutional framework. Maybe the most important point in that context is that the distinction between incentive based mechanisms and command and control regulations is somewhat misleading: it conceals the fact that both methods require extensive institutional support for their operation. To establish a system of effluent charges or transferable permits we need a comprehensive regulatory system that would determine the level of taxation (or permits quota), measure actual emissions, collect taxes, and see that the rules of the new regime are observed.[152] In that respect market mechanisms do not differ from "command and control" regulation—they merely represent *another type* of governmental intervention.[153]

Furthermore, the economic promise that our environmental problems could be tackled by attaching ("correct") price to any activity with adverse ecological implications is also deeply problematic in another sense. It not only disregards the institutional difficulties of implementing "market-based" environmental control, but also the empirical problematic of attaching "correct" prices to environmentally-problematic activities. This problem was captured nicely by Bo Gustafsson:

> No mechanism exists which can guarantee that the behavior of nature and the behavior of the economy are adjusted to each other except by pure chance. The reasons are, on the one hand, the complex interrelations of ecological mechanisms and on the other hand, the optimizing behavior of economic man and the impossibility of acquiring and utilizing all the

[152] The following quote from Oates and Portney clarifies how important is the role of the environmental agency in an incentive-based scheme: "Under the tax approach, the environmental authority raises the tax to the *level needed* to achieve that target level of emissions reductions. Under the permit approach, the agency simply issues permits that, in total, *equal that target level* of emissions. Sources are then free to buy and sell these permits. In the first case the *authority sets 'price'* and the sources respond by choosing quantities of emissions; in the second case, the *agency sets quantity* directly and sources bid the price of permits up to their market-clearing level" (Oates and Portney 1992: 87, my emphasis). If the effluent charges or the emissions quota are set on a level that is incongruent with the "true" assimilative capacity of the eco-system, the market would operate according to the "wrong" signal. The result, of course, would be further environmental degradation rather than environmental improvement. Because the markets that these incentive-based schemes create are artificial, they do not possess any inherent mechanism that could lead to the "discovery" of this absent ecological information, and would generate any self-correction process. The correction would always have to come from the "outside" (presumably from some governmental authority).

[153] See for example the discussion of the US sulphur-trading scheme in Klassen and Nentjes (1997: 133–34). Interestingly, the administrative costs of the trading scheme were *higher* than the costs of the previous "command and control" programme (*ibid*, at 135). Its economic superiority was the result of costs-savings in the production side (which outweighed the increasing administrative costs, *ibid*, at 135).

necessary information about these ecological mechanisms (Gustafsson 1998: 265–66).

Handing over the problem of trade and environment to the economic realm is not, therefore, a "real" option. There is neither an agreed "economic" judgement on this debate; nor a satisfactory "economic" solution. The legal debate over the trade and environment question will not be resolved, therefore, by delegating this question to the forces of the "market", or through the adoption of a simple cost-benefit test. At our current state of knowledge most of the trade-environment linkages are simply not amenable to such a simple analysis. This is not to say that the economic research is not important. On the contrary, there is a great need to improve our understanding of how economic activity affects the environment and to develop more comprehensive ecological indicators. But, it would be wrong, at this time, to leave the regulation of environmental questions to economists, or to the forces of "free market". And since, as we saw, environmental institutions are still too weak to do the job, trade institutions can make important contribution to the resolution of environmental problems.

3

The GATT/WTO Trade-Environment Jurisprudence

THE FOLLOWING TWO chapters offer a detailed analysis of the GATT/WTO trade and environment jurisprudence.[154] Their purpose is twofold. First, to describe the evolution of the GATT/WTO environmental case law and to expose the institutional and cultural modules that have influenced (and shaped) it. Second, to offer tentative proposals for reform. As will be made clear below, uncovering these institutional and cultural modules, with their various blind-spots, constitutes a first step in thinking about possible changes to the structure of the WTO.

Before I proceed to examine the WTO legal system I wish to consider briefly the status of the negotiations within the WTO with respect to the trade-environment nexus. The WTO political sphere has failed, so far, to make real progress with respect to this issue. One of the reasons for the failure of the third Ministerial Conference in Seattle, which took place in 1999 was the inability of the WTO political collective to reach an agreement on the trade-environment question. Some progress on this question was achieved at the fourth Ministerial conference, which took place in Doha Qatar on 9–13 November 2001. The Ministerial Declaration, adopted on 14 November 2001, reaffirms the commitment of WTO members to the objective of sustainable development, as stated in the Preamble to the Marrakesh Agreement, provides a framework for future negotiations on the trade and environment issue,[155] and instructs the

[154] Although the trade-environment question was discussed in the WTO, so far, only in the context of Art XX of the GATT 1994 and the SPS and TBT Agreements, this *tension* arises also in other sections of the WTO rulebook. These include Art XIV of the GATS, Art 27(2) and (3) of the TRIPS Agreement, Art 8.2(c) of the Subsidies Agreement, and the different exemptions from reduction commitments included in Annex 2 of Agriculture Agreement. For a more detailed discussion of these provisions see the report of the WTO secretariat (WTO-Secretariat 1999: 7–10) and AMERICAN-LANDS-ALLIANCE *et al* (2002), available at: www.consumerscouncil.org/trade/doha102502.html (visited 23 July 2003).

[155] Arts 6, and 31–33 to the declaration. The negotiations focus on the relations between the WTO and Multilateral Environmental Agreements, on the liberalisation of trade in environmental goods and services and on the reduction of subsidies in the fisheries sectors. The

Committee on Trade and Environment (CTE) to investigate certain issues and present recommendations to the fifth Ministerial Conference in Cancun. Currently there is little agreement within the WTO community on the Doha agenda. This was reflected also in the lack of any breakthrough in the environmental negotiations towards and in the Cancun meeting.[156] The CTE does not have the political power to "break" this political impasse; its recommendations are non-binding, and it has failed, so far, to make a meaningful impact on the WTO approach to environmental questions.[157]

This chapter narrates the "ecological evolution" of the GATT/WTO legal system, and points out those structural attributes of the WTO that are likely to prevent a deeper environmental sensitisation of this institution. It opens with an analysis of the GATT's mercantilist ethos, exploring how this ethos has influenced the GATT's environmental case law. The chapter then moves to the WTO era, describing the new framework for deliberating trade-environment disputes that was developed by the WTO highest tribunal—the Appellate Body. This framework is much more sensitive to environmental concerns. This new framework is facing several "threats" or constraints. These relate to the remaining weight of the GATT's cultural heritage, the structural limitations of the WTO (and its dispute settlement system), and its problematic status in the international arena. The chapter concludes with an analysis of these constraints and possible responses to them, taking into account the Doha process. The thesis of this chapter is that given these constraints, resolving the trade-environment conflict—in the WTO context—must focus on the institutional space, which governs these conflicts within the WTO. This space should be extended—for example by giving UNEP a

deadline for these negotiations is 1 January 2005 and they are taking place, principally in "special sessions" of the Trade and Environment Committee.

[156] 10–14 September 2003. See, the Cancun Ministerial Statement, 14 Sep 2003, the CTE special session's final report to the Trade Negotiations Committee, TN/TE/6, 6 June 2003 and section 3.4.2 below. The Appellate Body is conscious, of course, of this political failure. In the first *Shrimp* report it made a direct reference to the failure of the WTO political sphere to provide it with any guidance on the "environment" question: "Pending any specific recommendations by the CTE [Committee on Trade and Environment] to WTO Members on the issues raised in its terms of reference, and in the absence up to now of any agreed amendments or modifications to the substantive provisions of the GATT 1994 and the *WTO Agreement* generally, we must fulfill our responsibility in this specific case, which is to interpret the existing language of the chapeau of Art XX by examining its ordinary meaning, in light of its context and object and purpose in order to determine whether the United States measure at issue qualifies for justification under Art XX" (para 155). *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/R, 12 Oct 1998 (Panel Report), WT/DS58/AB/R, 12 Oct 1998 (Appellate Body Report).

[157] The CTE has published a comprehensive report on the trade and environment question in 1996, see WT/CTE/1, 12 Nov 1996. For a discussion and critique of this report, see Cameron (1998).

larger role in the WTO decision-making apparatus—and be endowed with more discretion/authority vis-à-vis WTO members. For reasons which will be made clear below, I do not believe that the trade-environment conflict could be resolved (at this time) through a comprehensive normative rearrangement, which will seek to resolve at one stroke the various aspects of this conflict (within the WTO).[158] A final note to the reader. This chapter is somewhat longer than the other chapters of this book because it deals with a longer period. Readers who are mainly interested in the policy discussion might want to skip the detailed legal and institutional analysis in the first three sections, and move straight to section 4.

3.1 THE MERCANTILIST ETHOS OF THE GATT AND THE ENVIRONMENT

One of the main criticisms which was mounted against the GATT and the WTO, focused on their (alleged) "pro-trade" bias, This bias, argue the critiques, created a value-hierarchy that favoured trade over environmental concerns, and operated as a "barrier" to the integration of environmental considerations into the law of the GATT/WTO.[159] While this critique exposes, indeed, one of the more problematic aspects ("environmentally" speaking) of the GATT, it sheds little light on the sociological origins and structural manifestations of this cultural inclination. This section develops a deeper understanding of the GATT's "pro-trade bias"—what I would call the GATT's *mercantilist ethos*. In the third part of this chapter I will take this analysis a step further by considering whether, and to what extent, this cultural inclination plays a role in the legal system of the WTO.

The mercantilist ethos is a product of two ideals: *fairness* and *nationalism*. This ethos has governed the negotiation culture of the various GATT rounds. The wrangling over tariffs levels and other trade barriers was not guided by the maxims of welfare or efficiency. Rather, it was driven by a common obsession with "*market access*". Tariff reductions were agreed upon only if they withstood the test of *balanced reciprocity*: any forgone "custom" income was to be "compensated" by comparable payoffs in

[158] For such an attempt see Bagwell *et al* (2002). I will return to this article in sections 4 and 5 below.

[159] This argument appears, persistently, in the publications of environmental groups. See, for example, Friends of the Earth (1992), the Working Group on the WTO/MAI. (1999), and AMERICAN-LANDS-ALLIANCE *et al* (2002: para VI). It can also be found in the writings of some legal scholars. See, for example, Shell (1996: 377) and Nichols (1996: 873).

terms of *increased access* to foreign markets.[160] The mercantilist spirit of the GATT was captured nicely by Paul Krugman:

> Anyone who has tried to make sense of international trade negotiations eventually realizes that they can only be understood by realizing that they are a game scored according to mercantilist rules, in which an increase in exports—no matter how expensive to produce in terms of other opportunities foregone—is a victory, and an increase in imports—no matter how many resources it releases for other uses—is a defeat (Krugman 1997: 114).

The "environment" *had no place in this "mercantilist game"*: the parties to this game were seeking "market access"—not "ecological benefits" (Bagwell and Staiger 1999: 4). The practitioners of mercantilism were blind to the ecological implications of this game: both to the possibility that trade expansion could lead to ecological degradation and to the idea that linking between the negotiations within the GATT and negotiations in other international forums (eg, environmental) could provide greater flexibility in resolving global environmental dilemmas. The evolvement of a value ranking, which favoured trade interests over environmental concerns, was, therefore, a direct result of this mercantilist ethos. The persistence of the mercantilist game, and the closed community of trade bureaucrats and corporate lobbyist which participated in it, produced a deep sense of purposiveness within the GATT. The mercantilist vision of facilitating transnational trade through *balanced*—rather than *welfare-maximising*—liberalisation of national markets was seen as the *overarching mission* of the organisation. This unifying objective was imprinted into many of the GATT procedures and rituals during its long institutionalisation process[161] (which began in the early "club" days of the 1950s and ended in the more formal organisation of the 1980s). Indeed, the long period over which this institutionalisation process has occurred explains the strong influence that this ethos has within the WTO today.[162]

The mercantilist game is not just ecologically blind. It is also incompatible with the economic conception of free trade. Whereas the economic case for free trade is based on a *calculus of welfare*[163]—on the understanding that the policy of free trade is superior, in terms of welfare, to any alternative

[160] For a detailed account of the GATT's negotiating history see Jackson (1997: 142–50).
[161] As Philip Selznick notes, one way in which thick institutionalisation takes place, is by intensifying a sense of purposiveness within the organisation. (1992: 235)
[162] JHH Weiler is making a similar argument with respect to the continuing influence of the GATT's diplomatic ethos within the WTO, despite the radical transformation ("juridification") of the organisation's dispute resolution system following the Uruguay Round (Weiler 2001).
[163] In that sense the economic criterion of "welfare" is more open to environmental concerns than its mercantilist reconstruction.

trade policy—the concept of mercantilism is based on a *calculus of fairness* (viewed from a strict "nationalistic" perspective).[164] From an economic point of view the problem with the mercantilist logic—as described above—does not lie in its emphasis on reciprocity. Economists agree that reciprocal trade liberalisation is superior to unilateral liberalisation (Bhagwati 2002: 102). The problem lies elsewhere—in the mis-characterisation of the costs and benefits of imports/exports. Mercantilism disregards the possibility that imports may contribute to the economy of the importing state (when they release resources for more profitable uses) while exports may be, in some circumstances, damaging to the economy (eg, when they are supported by massive subsidies) (*ibid*, at 103).[165]

The mercantilist indifference to ecological concerns was reflected also by the way in which some trade observers—from WTO officials to economic journalists—responded to the ecological criticism of free trade. Thus, it was argued that trade liberalisation should, in the general case, be beneficial to the environment, by generating the resources needed to protect the environment and by contributing to more efficient use of resources.[166] However, as was demonstrated in chapter two, this mercantilist reading of the concept of free trade is not supported by the findings of modern economic research. Overall, this research provides neither analytic, nor empirical grounds, for a categorical dismissal of the environmental criticism of free trade. On the contrary, these studies provide worrying evidence of the capacity of trade liberalisation to generate ecological damage. In contrast to the mercantilist argument, trade liberalisation, standing alone, is *not* necessarily welfare enhancing. "Freeing" the global markets through more extensive trade negotiations is thus not a panacea to the global ecological crisis.

[164] On the historical origins of mercantilism, see Irwin (1992).

[165] From an economic perspective it is possible to view mercantilism more favourably, as a mechanism that provides—through its emphasis on the reciprocal exchange of market access commitments—a solution to the terms-of-trade-driven "prisoners dilemma" of trade relations (Bagwell, Mavroidis, and Staiger 2002). This dilemma occurs because of the capacity of countries to generate, through the setting of higher import tariffs, negative pecuniary externality abroad, leading, in the absence of trade agreements, to the imposition of inefficiently high tariffs (Bagwell, Mavroidis, and Staiger 2002: 58). The terms-of-trade model does not explain the GATT negotiation history, therefore, in terms of a "patriotic" search for fairness, but rather in terms of the economically inspired understanding that "reciprocal increases in imports and exports can be good when they are achieved through reciprocal import tariff reductions" (*ibid*). Whether this is a correct characterisation of the GATT's negotiation history is open to debate. In any case, this economic reading of mercantilism is ecologically blind as the traditional version—it ignores both to the possible (adverse) ecological impacts of trade liberalisation, and the (positive) role that can be played by the WTO in facilitating solutions to transnational environmental dilemmas.

[166] Trade and the Environment in the GATT/WTO, Background Note by the WTO Secretariat for the High Level Symposium on Trade and Environment, 15 March 1999 (WTO-Secretariat 1999: 7). See also Martin Wolf, "In Defence of Global Capitalism", *Financial Times*, 8 Dec 1999, p 29.

3.2 THE LEGAL REPERCUSSIONS OF THE MERCANTILIST ETHOS

3.2.1 The General Argument

There were several ways in which the mercantilist *vision* has manifested itself in the law of the GATT. The first concerns the interpretation of the "exception clause" of the GATT—Article XX—that includes also the environmental exceptions. GATT panels have consistently adopted a *narrow reading* of Article XX.[167] Thus, the principles of "*most favoured nation*" and "*national treatment*", which required GATT contracting parties (and now—WTO Members) to provide imported goods with *equal competitive conditions*, both with respect to domestic goods and to other imported goods, were seen as more important than the different exceptions of Article XX.[168] In *Canada—Import Restrictions on Ice Cream and Yoghurt*,[169] the panel noted:

> that a contracting party invoking an exception to the General Agreement *bore the burden* of proving that it had met all of the conditions of that exception … [and] that exceptions were to be interpreted *narrowly* (my emphasis).[170]

This formulation was not just an empty rhetorical device indicating a legal need to balance between competing interests. Rather, it was a reflection of a mercantilist-oriented *hierarchy* of values that influenced, directly, the way in which Article XX was applied in specific "environmental" disputes.

A second way, in which the mercantilist culture has influenced the law of the GATT, was by prompting a very confined understanding of the GATT's "environmental" responsibility. The law of the GATT ignored, completely, the acute *institutional asymmetry* between the trade and environmental systems. This *asymmetry* was seen as irrelevant to the resolution of internal disputes between GATT parties. GATT law was "blind" to the weaknesses of the existing global environmental institutions as

[167] Similar interpretation was advocated with respect to other exception clauses, in particular Art XI:2(c)(i).
[168] See the statement of the Appellate Body in *Japan—Taxes on Alcoholic Beverages*, WT/DS8,10,11/AB, 4 Oct 1996, at 16.
[169] GATT Doc L/6568–36S/68, adopted 5 Dec 1989.
[170] Para 59, comment made in the context of Art XI:2(c)(i). See also: *Canada—Administration of the Foreign Investment Review Act*, GATT Doc L/5504–30S/140, adopted 7 Feb 1984, at para 5.20 (Art XX(d)); *United States—Section 337 of the Tariff Act 1984*, GATT Doc L/6439–36S/345, adopted 7 Nov 1989, at para 5.27 (Art XX(d)); *Tuna I*, at para 5.22; *Tuna II*, at para 5.26 (Art XX(b), (g)) (the Tuna panels are discussed in section 3.2.2(b) below). The idea that exceptions should be interpreted narrowly was adopted by other international tribunals, see the decision of the NAFTA arbitral panel, *Tariffs Applied by Canada to Certain US-Origin Agricultural Products*, 2 Dec 1996, CDA–95–2008–01, para 122 and fn 109.

venues for deliberating global environmental disputes, and to the similar weaknesses of domestic environmental institutions (particularly in developing countries).

The third manifestation of the mercantilist ethos in the legal sphere has to do with what I would call "*cognitive discrimination*". One of the main features of the GATT's environmental jurisprudence was its persistent reluctance to engage in *result-oriented argumentation*, which would have allowed the panels to *compare the trade and environmental effects* of disputed trade measures. However, this strategy of cognitive reticence, which characterised the trade-environment realm, was not employed uniformly in the GATT legal system. In some areas, in particular the fields of anti-dumping and subsidies, the GATT panels developed a much more open strategy toward empirical questions. This discriminatory pattern was a product of the mercantilist tradition—in particular its nationalistic component.

The cognitive question is central to the environmental debate. The cognitive structure of the law determines *who and what can speak or be spoken about* in the realm of law. Indeed, the GATT's restrictive cognitive approach was widely criticised by the Greens. The Greens argued that an assessment of the ecological implications of international trade was prerequisite to a successful integration of the environmental cause into the GATT and the WTO. They urged the WTO to "educate" itself about the environmental problems that confront its Members and the world as a whole.[171] This "informational" campaign was strongly resisted, however, by the trade community. Allowing the environmental impacts of trade to enter into the balancing equation of Article XX could, it was argued, open the door for "green protectionism" or "green imperialism", and could undermine the entire GATT regime.[172]

I will elaborate more on these various manifestations of mercantilism in the discussion of the GATT environmental jurisprudence (section 3.2.2 below). Before proceeding with the detailed analysis I would like to consider in more depth my argument regarding the GATT's strategy of "cognitive discrimination". The law of the GATT utilised two different cognitive strategies. The first was a "blocking" strategy. The law, through a combination of legal doctrines—of which the most important were the concepts of "*prima facie nullification or impairment*", and "*like*

[171] See, Shrybman (1999: 270). Steve Charnovitz argues, in that context, that the participation of environmental NGOs in the dispute resolution process in the WTO will *increase* and *improve* the information available to WTO panels (1996: 351–52).

[172] Furthermore, Green protectionism would not only be inconsistent with the basic principles of the GATT, but would also be of little environmental value, since its "environmental message" would serve only as a "false front" to other interests. See, Petersmann (1995: 21–22).

product"—sought to limit its (self-designated) cognitive horizon. These strategies have dominated the core of the GATT's jurisprudence: disputes revolving Articles I and III. According to the "*prima facie*" doctrine it was not "necessary for a finding of nullification or impairment under Article XXIII first to establish statistical evidence of damage".[173] Rather, it was enough for a contracting party to demonstrate that one of the rules of GATT was breached. The commitments, which the contracting parties have exchanged in tariff negotiations, were considered to be commitments on *conditions of competition, not on volume of trade*. GATT contracting parties were seen, therefore, as possessing *legitimate expectations* with respect to the *endurance of certain competitive conditions*, but *not* with respect to trade volumes.[174] By restricting the GATT's cognitive horizon in that way, GATT panels sought to promote the *normative stability* of the GATT's regime.

This "cognitive reticence", or animosity toward probabilistic argumentation, which was the result of an attempt to protect the contractual rights of GATT parties, had a negative effect on the sensitivity of the GATT to environmental concerns. By refusing to consider the economic or environmental effects of GATT-inconsistent trade measures, by rejecting the attempts to broaden the concept of "like product" to include process and production methods ("PPMs"), and by using other legal formulations, the law of the GATT limited significantly the ability of disputants *to raise claims with respect to the ecological impacts of trade measures*. These legal mechanisms operated as *pre-selection* devices, which restricted the cognitive horizon of the system. While this "barrier" strategy provided an enhanced sense of stability to the system, its price was a substantial *blindness* to environmental issues.

As was noted above this strategy of cognitive reticence was not employed uniformly across the different fields of GATT law. In the fields

[173] *Treatment by Germany of Imports of Sardines*, GATT doc G/26–1S/53, adopted 31 Oct 1952, at para 9. See also: *Japan—Customs Duties, Taxes, and Labelling Practices On imported Wines and Alcoholic Beverages*, GATT doc L/6216–34S/83, adopted 10 Nov 1987, at para 5.11; *United States—Restrictions on Imports of Tuna ("Tuna II")*, 33 I. L. M. 839–903 (1994), at para 5. The panel in *United States—Taxes on Petroleum and Certain Imported Substances* has even gone further, stating that the prima facie presumption "had in practice operated as an *irrefutable presumption*" (para 5.1.7, my emphasis), GATT Doc L/6175–34S/136, adopted 17 June 1987.

[174] See, *Japan—Taxes on Alcoholic Beverages*, WT/DS8,10,11/AB, 4 Oct 1996, at 16 (Appellate Body Report). The concept of "prima facie nullification or impairment" was incorporated into the WTO Understanding on Rules and Procedures Governing the Settlement of Disputes ("DSU"), as a legal "presumption". Art 3(8) of the DSU provides that "In cases where there is an infringement of the obligations assumed under a covered agreement, the action is considered *prima facie* to constitute a case of nullification or impairment. This means that there is normally a *presumption that a breach of the rules has an adverse impact* on other Members parties to that covered agreement, and in such cases, it shall be up to the Member against whom the complaint has been brought to rebut the charge" (my emphasis).

of anti-dumping, subsidies and safeguards the GATT used a different strategy, which was much more sensitive to empirical questions.[175] This different cognitive approach reflected the result-oriented outlook of these regimes. Thus, for example, Article VI of the GATT, which allows governments to impose duties on imported products —in contrast to the GATT's standard normative framework (Articles I to III)—is not based on an unequivocal condemnation of the act of dumping or subsidisation.[176] Rather, Article VI(6)(a) states that a contracting party can impose anti-dumping or countervailing duties only after it has determined that "the effect of the dumping or subsidisation, as the case may be, is such as to cause or threaten material injury to an established industry in the territory of a contracting party or materially retards the establishment of a domestic industry".[177]

The increased cognitive sensitivity in the fields of anti-dumping and countervailing duties was achieved by a strategy of deference, which placed the actual "cognizance" outside the GATT's institutional apparatus. This strategy had three prongs. First, the initial supervision (and implementation) of anti-dumping, countervailing or safeguards measures was left to the administrative and legal systems of GATT/WTO members. Second, the law—both on the national and international level—has delegated much of the cognitive burden that was generated by these regimes, eg, in the finding of "dumping" or an "injury" to the local industry, to a new realm of technical expertise—*antidumping accountancy*.[178] Rather than reducing the cognitive burden of the system through *pre-selection*, as was done in the context of Article XX, this (deference) strategy took a different route: it extended the processing capabilities of the legal system by

[175] These issues are dealt with in Arts VI, XVI and XIX of the GATT. The WTO includes three special agreements that create a detailed regime for each of these fields: the Agreement on Implementation of Art VI of the General Agreement on Tariffs and Trade 1994 ("Antidumping Agreement"), the Agreement on Subsidies and Countervailing Duties ("Subsidies Agreement") and the Agreement on Safeguards. For a detailed discussion of these regimes, see Jackson (1997: 175–212, 247–304).

[176] Dumping is defined in Art VI(1) as the introduction of products of one country "into the commerce of another country at less than the normal value of the products". The term "subsidy" is not defined explicitly in Art VI.

[177] This normative structure characterises also the prohibition on export subsidies in Art XVI(3) of the GATT, which prohibits the use of subsidies only to the extent that such subsidies would result "in that contracting party having more than equitable share of world export trade in that product … ".

[178] Thus, for example, in the context of anti-dumping actions, the empirical assessment of the three factors—*dumping margin*, an *injury* to the domestic industry, and a *causal connection* between the two—which are prerequisite to the imposition of anti-dumping duty—was delegated to the realm of accounting. This empirical assessment was pursued, increasingly, through the use of sophisticated econometric and statistical tools. For a more detailed discussion of anti-dumping accounting, and a critique of its economic logic, see: Hindley and Messerlin (1996) and Tharakan (1999).

enlarging the institutional realm in which this processing was taking place. The third prong of this strategy, which was mainly developed by the law of the WTO (post 1995), is a broad judicial scrutiny of these external sources. The WTO Appellate Body, relying on the relevant WTO Agreements, developed a critical dialogue with these external bodies of knowledge. In a series of decisions, the Appellate Body has criticised national bodies for using inappropriate procedural and methodological criteria in exercising their anti-dumping, countervailing or safeguards powers.[179]

The crucial point from an environmental perspective is that these two distinct cognitive strategies were employed, both, in the context of *exceptions* to the GATT principal obligations. However, whereas in the context of Article XX the mercantilist ethos led to the evolvement of *a restrictive* cognitive strategy, in the fields of anti-dumping and subsidies this same ethos led to the adoption of an *expansive* cognitive strategy.

Breaking this cognitive asymmetry and forcing the WTO to take into account the environmental implications of trade liberalisation would raise difficult structural dilemmas. Indeed, it is not clear whether the WTO system, in its current form, is capable of coping with the *cognitive pressures* that would be created by more extensive "ecological cognizance".[180] While the ability of the Appellate Body to cope with empirical questions in the fields of anti-dumping, subsidies and safeguards suggests that it could cope with such a move, this hypothesis requires further support. A further non-trivial question is whether this new strategy should necessarily be "good" for the environment. I will return to these questions in the sections 4 and 5 below.

[179] Thus, for example, the Appellate Body has criticised the methodologies that were used by some anti-dumping authorities in the calculation of dumping margin and in the investigation of material injury. See, eg, *European Communities—Anti-Dumping Duties on Imports of Cotton-Type Bed Linen from India—Recourse to Article 21.5 of the DSU by India*, WT/DS141/AB/RW, 8 April 2003 (Appellate Body Report), *Thailand—Anti-Dumping Duties on Angles, Shapes and Sections of Iron or Non-Alloy Steel and H-Beams from Poland*, WT/DS122/AB/R, 12 March 2001 (Appellate Body Report), and *United States—Anti-dumping Measures on Certain Hot-Rolled Steel Products from Japan*, WT/DS184/AB/R, 24 July 2001 (Appellate Body Report). See, further Bhala and Gantz (2002: 518–608). The Appellate Body approach was criticised, most notably by the US, which tried to use the Doha negotiations to restrict the ability of WTO panels to review factual determinations made by national authorities in antidumping investigations (Sidley-Austin-Brown-&-Wood 2002: 43).

[180] The WTO legal system has a much more complicated task than, for example, the legal system of the EC, because the WTO—unlike the EC—is not endowed with the powers to pursue positive harmonisation of environmental standards. Damien Geradin, for example, notes that "the EC has widely harmonized product and process standards. Such a harmonization process, which has been extremely flexible, has enabled the avoidance of many trade and environment problems" (1998: 116).

3.2.2 The Influence of the Mercantilist Ethos on the Interpretation of Article XX

(a) Exposition: The Analytic Structure of Trade-Environment Disputes in the GATT/WTO

The first step in the exploration of the GATT's environmental jurisprudence is to develop a clear understanding of the structure of trade-environment disputes. I will distinguish in this context between two types of trade-environment conflicts. The first type involves environmentally motivated trade measures, which are *inward-oriented*; that is, governmental measures whose objective is the protection of a domestic ecological unit or the health and safety of the local population.[181] The second type of conflicts is characterised by an *extra-territorial* motivation. These conflicts are triggered by trade measures whose objective lies outside the territory of the regulating state; the target of such measures can be an ecological asset which is located within the borders of another state but has a global value (eg, the Brazilian tropical forests), a common access resource (eg, the high seas, the ozone layer) or a migratory species (eg, sea turtles). I will use the term "*outward-oriented*" to describe this type of conflicts.[182]

The legal questions that these disputes have produced are quite different. The first type of disputes, involving inward-oriented measures, raises the question of the freedom of GATT/WTO members to determine the environmental regime that will persist within their borders. The key question in this context is to what extent the GATT/WTO regimes limit this freedom. In order to answer this question GATT panels have invoked the notion of necessity (which has supplemented the more general requirement of non-discrimination). Inward-oriented measures involve both *production standards* (eg, emission controls) and standards relating to *consumption* (eg, recycling laws or regulations controlling the sale and distribution of products).

"*Outward-oriented*" disputes raise a different question: the freedom of GATT/WTO members to respond with trade measures to environmental policies of their trading partners, which they find problematic—even if these policies are otherwise consistent with GATT/WTO rules. These trade measures are usually triggered by a production externality, taking place outside the borders of the importing country—eg, fishing that endangers dolphins. The focus of these disputes, then, is on the adverse

[181] WTO and GATT Panels have generally adopted a broad interpretation to the concept of "governmental measure". For a recent discussion see: *Japan—Measures Affecting Consumer Photographic Film and Paper,* WT/DS44/R, 31 March 1998 (Panel Report).
[182] For a similar analysis of trade-environment disputes see Bagwell and Staiger (1999: 1).

ecological aspects of the *production method* of the imported product (which may or may not influence also its final characteristics). The main question raised by these cases is the consistency of such indirect interference in the way in which foreign products are produced with the rules of the GATT/WTO. Since outward-oriented measures cannot influence directly the production processes which take place abroad they are based on consumption standards.

During the GATT Article XX provided the framework for deliberating both of these dispute types. The establishment of the WTO has changed the structure of the legal deliberation somewhat because of the establishment of a new regime for the regulation of non-tariff barriers. The adoption of the Agreement on the Application of Sanitary and Phytosanitary Measures ("SPS Agreement"), and the Agreement on Technical Barriers to Trade ("TBT Agreement") meant that most of the *inward oriented* cases, which under the GATT were considered under Article XX(b), are now considered through the prism of these Agreements.[183] These agreements raise new kinds of questions, mainly because they impose broader restrictions on the regulative capacities of WTO Members. In view of this development I have found it convenient to divide the discussion of the WTO "environmental" jurisprudence into two parts. The first part considers the jurisprudence of the GATT/WTO with respect to "outward-oriented" trade-environment conflicts (this chapter). The second part (the next chapter) examines the "inward-oriented" *problematic* particularly in the context of the SPS and TBT Agreements.

(b) The Tuna *Panels*

The famous *Tuna-Dolphin* dispute, which involved an *outward-oriented* regulatory scheme provides a good illustration to the influence of the mercantilist ethos on the GATT's environmental case law. The problem of *outward-oriented* trade measures was formulated by GATT law in terms of the notion of equal treatment. The starting point for the legal deliberation was the *national treatment* obligation of GATT Article III.[184] Thus, the initial question, which guided the panels in these cases, was whether a difference in the *production method* of otherwise similar products, could allow GATT parties to treat these products differentially. The answer of GATT law to that question was a clear "no": trade measures that *differentiated* between domestic and imported goods, not on the basis of the

[183] But not all cases. See, for example, *European Communities—Measures Affecting the Prohibition of Asbestos and Asbestos-Containing Products*, WT/DS135, 18 Sep 2000 (Appellate Body Report) ("*EC—Asbestos*").
[184] The concept of "equal treatment" is also the underlying rationale of Art I.

characteristics of the imported goods, but on the basis of *certain features of the exporting country economy*, were considered as inconsistent with the law of the GATT (Jackson 1997: 163). In the environmental context this meant that a GATT party was not allowed to use the way in which a foreign (imported) product is produced as a ground for imposing trade restrictions, unless it could show that the production method had some bearing on the *ultimate features* of the product.[185]

This doctrinal choice was elaborated by the two panels, which were involved in the *Tuna-Dolphin* dispute (henceforth "*Tuna I*" and "*Tuna II*");[186] these decisions offer a detailed and highly illuminating discussion of Articles III and XX. The trigger for the *Tuna-Dolphin* dispute was a US attempt to promote the conservation of dolphins in the Eastern Tropical Pacific Ocean ("ETP"). The main concern of the US programme was the incidental killing of dolphins as a result of fishing of yellowfin tuna using purse-seine nets.[187] The US regulatory scheme[188] sought to reduce the incidental killing of dolphins via three parallel measures. First, it required US fishermen to adopt fishing techniques, which were less harmful to dolphins. Second, it required the US administration to *ban* the importation of fish caught with fishing technology, which resulted in the incidental killing of dolphins *in excess of US standards*. Finally, it introduced the label "*Dolphin Safe*", which could have been used only for tuna products that were produced from tuna that was harvested in a manner not harmful to dolphins.

The *Tuna I* case was initiated by a complaint by Mexico following the introduction of restrictions on the import of Mexican tuna into the US. In the *Tuna II* case the complainants were the EC and the Netherlands (acting on behalf of the Netherlands Antilles), and involved also an intermediary nation embargo.[189] The panels considered the US import ban first in the light of Article III, the "national treatment" requirement, and Article XI, the prohibition of "quantitative restrictions". Both panels ruled that requiring tuna exporters to satisfy certain fishing requirements, as a

[185] The method of production could of course influence the characteristics of the final product. The *Hormones* case provides a good illustration to this potential problem. The dispute revolved around the potential influence of the US practice of administering growth hormones on the risk profile of the derived beef-product. See *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26–DS48/AB/R, 16 January 1998 (Appellate Body Report) ("*EC-Hormones*").

[186] See *United States—Restrictions On Imports of Tuna ("Tuna I")*, 30 I.L.M 1594–1623 (1991); *United States—Restrictions On Imports of Tuna ("Tuna II")*, 33 I.L.M 839–903 (1994). The US has blocked the adoption of the decisions in the GATT council. The following factual background of the cases is based on the panels' introductory comments.

[187] For a more detailed account of the US scheme see the panel decisions, *ibid*.

[188] Which was based on two statutory instruments: the Marine Mammal Protection Act 1972 ("MMPA") and the Dolphin Protection Consumer Information Act ("DPCIA").

[189] This embargo covered those nations whose tuna exports were based on imports from countries, which were subject to a direct embargo.

condition for receiving an import license, could not be considered as a legitimate border tax adjustment under Ad Article III.[190] The panels noted that under the national treatment principle of Article III, countries might apply border tax adjustments with regard to those taxes that are borne by products *as such*. Article III did not allow the US to introduce regulations, which took into account the *way in which the tuna was harvested*.[191] Since the US scheme was not a legitimate border tax adjustment, the ban against the import of tuna or tuna products (from countries not meeting the US environmental conditions), was viewed as by the Panels as a direct import prohibition, which was inconsistent with the prohibition in Article XI(1) against quantitative restrictions.[192]

Both panels proceeded, thereafter, to examine whether the US scheme could be justified by Article XX(b) or XX(g) (the full text of Article XX is given in Annex A to this chapter). The Panels interpretation of Article XX reflects, as will be pointed out below, a value ordering that *favoured* the goal of trade facilitation over the environment. The *Tuna I* panel began its concrete analysis by looking at Article XX(b). It rejected the US invocation of Article XX(b) on three grounds. First, the Panel ruled that Article XX(b) did not cover "*extra-jurisdictional*" environmental measures. The panel concluded that:

> if the broad interpretation of Article XX(b) suggested by the United States were accepted, each contracting party could unilaterally determine the life or health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the general agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations (para. 5.27).

Second, the Panel added that even if Article XX(b) was interpreted to permit extra-jurisdictional protection, the US measures would not meet the requirement of "*necessity*" set out in that provision. The Panel emphasised the fact that the US had not demonstrated to the panel that it had exhausted all options reasonably available to it within the GATT to pursue its dolphin conservation objectives, in particular, through the negotiation of *international cooperative agreements* (para. 5.28).

The Panel used exactly the same reasoning to reject the US invocation of Article XX(g). First, it stated, that, in general an extra-territorial

[190] This question was considered under Ad Art III because, as the US measure was applied at the border, it did not fall under the national treatment provisions of Art III. See. *Tuna II*, at para 5.8.
[191] *Tuna I*, at paras 5.8–5.16; *Tuna II*, at paras 5.8–5.9.
[192] *Tuna II*, at para 5.10. See also *Tuna I*, at para 5.18.

interpretation of Article XX(g) could undermine the multilateral nature of the GATT regime (para 5.32). Second, even if Article XX(g) was interpreted to permit extra-jurisdictional measures, the US scheme was not, in the Panel opinion, "primarily aimed" at the conservation of exhaustible natural resources,[193] because, due to the particular structure of the US regulations the Mexican authorities were unable to assess, at a given point of time, whether their conservation policies conformed to the US conservation standards (para. 5.33).[194] The second *Tuna* Panel adopted basically the same reasoning, which was used by the first panel.[195]

The *Tuna* cases have been reviewed extensively in the academic literature.[196] I will focus in my remarks on the various ways in which the mercantilist ethos has influenced the Panels' decisions. First, it is clear that the decision to disregard the method in which the tuna was harvested for the purposes of Article III, and to reject a possible application of Article XX to extra-jurisdictional measures, was based on a mercantilist vision of the GATT, in which the environment had no independent role. Indeed, the *Tuna I* Panel noted that as

> Article XX is a limited and conditional exception from obligations under other provisions of the General Agreement, and not a positive rule establishing obligations in itself … the practice of panels has been to interpret Article XX narrowly [and] to place the burden on the party invoking Article XX to justify its invocation … (para 5.22).[197]

[193] Art XX(g) requirement that the disputed measure should be "relating to the conservation of exhaustible natural resources", was interpreted by GATT panels to require that the measure would be "*primarily aimed*" at such conservation. See also *Canada—Measures Affecting Exports of Unprocessed Herring and Salmon*, GATT Doc L/6268—35S/98, adopted 22 March 1988, at para 4.6.

[194] The MMPA linked the maximum incidental dolphin-taking rate, which Mexico had to meet during a particular period, to the taking rate actually recorded for US fishermen during the same period. Consequently, the Mexican authorities could not know whether, at a given point of time, their policies conformed to the US dolphin protection standards (para 5.28).

[195] Thus the panel noted that Art XX could not be interpreted as covering conservatory measures, which in order to be effective, required other countries to change their policies with respect to persons or things within their own jurisdictions. The reason being that if "Article XX were interpreted to permit contracting parties to take trade measures so as to force other contracting parties to change their policies within their jurisdiction, including their conservation policies, the balance of rights and obligations among contracting parties, in particular the right of access to markets, would be seriously impaired. Under such an interpretation the General Agreement could *no longer serve as a multilateral framework for trade* among contracting parties" (para 5.26, my emphasis). The panel concluded, therefore that this type of extra-jurisdictional measures could not be interpreted as either "primarily aimed at" the conservation of natural resources in the sense of Art XX(g), or as "necessary" for the protection of animal life or health in the sense of Art XX(b) (paras 5.26, 5.39).

[196] For recent contributions, see Hudec (1996) and Ahn (1999).

[197] The *Tuna II* Panel observed, similarly, that "Article XX should be interpreted narrowly and in a way that preserves the basic objectives and principles of the General Agreement". *Tuna II*, at para 5.38.

The panels' interpretation of Article XX was therefore a *product of a particular value ranking*. This interpretative mode has ruled out other possible and more environmentally friendly interpretations. Thus, for example, the claim that the US measures exhibited illegitimate "extra-territoriality" could have been rejected by noting simply that these measures were employed within US borders reflecting the result of a democratic process, which at least presumably, reflected the aggregate preferences of US citizens.[198]

The Panels' interpretation of the concept of "necessity", which constitutes a clear illustration of the GATT's reserved cognitive strategy, provides another example to the influence of the mercantilist ethos. In ruling that the US regulatory scheme was not "necessary" or "primarily aimed at" the conservation of dolphins, the panels relied, solely, on the *extra-territorial nature* of the US measures. The panels *did not examine* the potential impact of the US scheme on the conservation of the dolphin population in the Eastern Tropical Pacific Ocean. Neither did the panels consider what were the costs of the US import ban to the complainants, or how much the complainants would have to invest in order to change their fishing methods in order to comply with the US requirements.[199]

Finally, a further manifestation of the GATT's pro-trade bias concerns the Panels' refusal to take into account the difficulties associated with achieving cooperative solutions to transnational ecological problems (such as the preservation of dolphins). This refusal reflects a complete disregard of the asymmetry between the international trade and environmental systems. In practice, however, the US unilateral embargo (which was *not* discontinued despite the decisions of the *Tuna I* and *Tuna II* Panels) seemed to have played an important role in the final conclusion of an international agreement to protect the dolphin population in the Eastern Tropical Pacific Ocean.[200] The US determination in pursuing its

[198] For a similar argument, see: Nollkaemper (1996: 246). Another possible interpretation, which was later adopted by the WTO Appellate Body in the *Shrimp* case, could have based the rejection of the US defence on the introductory clause to Art XX. The US scheme by not giving the Mexican authorities clear guidelines, clearly discriminated between the US and Mexican fishermen (*Tuna I*, at para 5.28). Thus, the US measures could have been marked as "arbitrary or unjustifiable discrimination" for the purpose of Art XX. Such a ruling would have left open the question whether "extra-jurisdictional" measures enjoy the protection of Arts XX(b) and (g). This disregard of the chapeau was common to the GATT "environmental" jurisprudence as a whole. None of the six pre-WTO environmental cases examined the "legality" of the disputed trade measure in view of the chapeau (Ahn 1999: 827–8).

[199] Similar animosity to cognitive deliberation reflected the discussion of the implications of opening the Thai market to import of foreign cigarettes in the GATT case of *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes* ("*Thai—Cigarettes*"), GATT Doc DS10/R–37S/200, adopted 7 Nov 1990.

[200] Another case which illustrates how unilateral action can facilitate international cooperation is the 1982 case *United States—Prohibition on Imports of Tuna and Tuna Products from Canada*, GATT Doc L/5198–29S/91, adopted 22 Feb 1982.

environmental concerns was essential to the successful completion of the negotiations on a multilateral dolphin protection agreement. Following earlier international initiatives in 1992 and 1995, a comprehensive agreement to protect dolphins and other marine species in the ETP, the *International Dolphin Conservation Program*, entered into force in February 1999.[201] The agreement provides the means for the final removal of the tuna embargoes against those nations that would become parties to the agreement.[202]

3.3 THE WTO ENVIRONMENTAL JURISPRUDENCE

The environmental jurisprudence of the WTO, most notably the two reports of the Appellate Body in the *Shrimp* dispute, reflects a bold attempt to construct a broader social vision for the WTO, which will not be bounded by the mercantilist tradition, and will be more sensitive to environmental concerns. However, the attempt to integrate environmental concerns into the WTO continues to face substantial resistance reflecting internal institutional constraints and powerful political and economic opposition. Overcoming this resistance requires innovative institutional solutions. I will make several suggestions in this context in sections 4 and 5 below.

[201] The agreement was ratified or acceded by 12 countries: Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States, Vanuatu and Venezuela. It is applied provisionally by Bolivia, Colombia and the European Union. The international effort to protect dolphins in the ETP began in 1992 with the *La Jolla Agreement* which established the International Dolphin Conservation Program ("IDCP") and the Inter-American Tropical Tuna Commission ("IATTC"). The La Jolla Agreement was followed by the 1995 Panama Declaration, which sought to strengthen and make legally binding the IDCP and to reduce dolphin deaths even further. The requirement that the US will open its market to tuna caught in accordance with the agreed programme was a central element of the Panama Declaration. See, the statement of Mary Beth West, Deputy Assistant Secretary for Oceans, to House Committee on Resources, Committee on Fisheries, Wildlife and Oceans, Washington, DC, April 9, 1997 (West 1997), available at: *www.state.gov/www/global/oes/oceans/970409.html* (visited 27 July 2003). Further information on IDCP and IATTC can be found at the latter web-site: www.iattc.org.

[202] The *Tuna I* Panel made a limited concession to the environmental cause by approving the US "*Dolphin Safe*" labelling scheme. The US *Dolphin Protection Consumer Act* allowed tuna producers to use the label "*Dolphin Safe*" on their products only if they could demonstrate that the tuna used in their products was not harvested by vessels using purse seine nets. The criteria used by the Act were thus identical to those that formed the basis for the import restrictions. Despite this similarity the Panel rejected the Mexican argument against the scheme noting that "Any advantage which might possibly result from access to this label depends on the free choice by consumers to give preference to tuna carrying the "Dolphin Safe" label. The labelling provisions therefore did not make the right to sell tuna or tuna products, nor the access to government-conferred advantage affecting the sale of tuna or tuna products conditional upon the use of tuna harvesting methods" (para 5.42). The scope and definition of the "dolphin safe" label was subject to a contentious debate within the US See, eg, *Earth Island Institute v Donald Evans*, United States District Court for the Northern District of California, 2003 US Dist. LEXIS 6057, 10 April 2003.

The Appellate Body considered Article XX in three key decisions: *Reformulated Gasoline*,[203] *Asbestos*,[204] and *Shrimp-Turtle*.[205] The first two cases involved an *inward-oriented* measure, while the latter focused on an *outward-oriented* measure. Particularly important to the understanding of Article XX are the *Reformulated Gasoline* and *Shrimp* reports, where the Appellate Body laid down the basic principles for interpreting Article XX. In both cases the Appellate Body has formulated the interpretative problem of Article XX in terms of two, interrelated, questions. First, what is the relationship between Article XX and the substantive rules of the GATT (in particular Articles I and III); second, what is the linkage between Article XX introductory clause (the chapeau) and Article XX subparagraphs. Because the two Shrimp reports developed and extended the ideas of *Reformulated Gasoline* the following discussion does not refer in detail to this decision.[206]

The discussion in this section is divided into two parts. The first part (section 3.3.1) describes the new environmental vision, which was developed by the WTO legal system, setting it against the GATT's heritage. The second part examines how this vision was realised in the two *Shrimp* rulings (section 3.3.2).

3.3.1 A New Environmental Vision

(a) The Place of Article XX in the WTO Normative Hierarchy

In its two decisions in the *Shrimp* case the Appellate Body has reconstructed the normative hierarchy of the WTO by creating parity between the environmental exceptions of Article XX and the substantive obligations of the GATT (eg, Article I and III). By doing so the Appellate Body moved away from the restricted vision of the *Tuna* panels, which emphasised the objective of trade facilitation, to a broader interpretation of the goals of the WTO. This doctrinal change was achieved through several interpretive moves. First, the Appellate Body noted that a failure to comply with one of the general obligations of the GATT cannot, in itself, prevent a Member from invoking Article XX (successfully), because such interpretation

[203] *United States—Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, 29 April 1996 (Appellate Body Report) ("Reformulated Gasoline").
[204] *EC-Asbestos*.
[205] *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/R, 12 October 1998 (Panel Report), WT/DS58/AB/R, 12 Oct 1998 (Appellate Body Report); *United States—Import Prohibition of Certain Shrimp and Shrimp Products—Recourse to article 21.5 by Malaysia*, WT/DS58/RW, 15 June 2001 (Panel Report) WT/DS58/AB/RW, 22 Oct 2001 (Appellate Body Report)—henceforth, the *first* and *second Shrimp* reports/rulings.
[206] For a detailed analysis of the *Reformulated Gasoline* case, see, eg Zedalis (1997).

would deprive Article XX of any practical meaning.[207] This interpretation places the trade and environmental provisions of the GATT on an equal level.[208]

The Appellate Body's next move was to develop a new framework for interpreting Article XX.[209] This framework was based on a two-tiered model, first promulgated in the *Reformulated Gasoline* case.[210] According to this model, to be accorded the justifying protection of Article XX, a measure must not only come under one of the particular exceptions listed in Article XX; it must also satisfy the requirements imposed by the opening clause of Article XX. This produces a two-tiered analysis in which the measure under dispute is appraised, first, by reference to Article XX sub sections; and second, according to the criteria of the chapeau.[211]

What was crucial to the transformation of the value hierarchy of the WTO is the second tier of the foregoing model—the interpretation of the chapeau. The Appellate Body rejected the Panel's attempt to reintroduce to the WTO legal system, through the interpretation of the chapeau, a pro-trade preference (in the spirit of the *Tuna* Panels). The Panel proclaimed that measures which undermine the WTO multilateral trading system must be regarded as not within the scope of measures permitted under the chapeau of Article XX,[212] a formulation similar to the one used by the *Tuna* Panels.[213] The Appellate Body disagreed. It first noted that the main goal of the chapeau is to prevent the abuse of the exceptions of Article XX (para. 151); it is, in fact, "one expression of the principle of *good faith*" (para 158, my emphasis).[214] Second, it noted that the application of the chapeau should not be governed by the goal of maintaining the multilateral trading system. While this is a fundamental premise of the *WTO Agreement*, it is not "a right or an obligation, nor is it an interpretative rule which can be employed in the appraisal of a given measure under the chapeau of Article XX" (para. 116). It further noted that the interpretation of Article XX should be guided by the idea of sustainable development (which is mentioned in the WTO preamble):

> this language [of the preamble] demonstrates a recognition by WTO negotiators that optimal use of the world's resources should be made in accordance

[207] First *Shrimp* Report, at para 150.
[208] See, also the *Reformulated Gasoline* decision, at 17–18.
[209] Art XX is reprinted in Annex A to this chapter.
[210] First *Shrimp* Report, at para 118.
[211] See, also the *Reformulated Gasoline* Report, at 22.
[212] Panel Report, at paras 7.44, 7.49.
[213] *Tuna I*, at para 5.27, *Tuna II*, at para 5.26. Indeed, the Panel justified its interpretation to Art XX by quoting para 5.26 to the *Tuna II* decision (Panel Report, at para 7.46).
[214] Here the Appellate Body relied on the general principle of international law of *abus de droit*, which prohibits the abusive exercise of a state's rights (para 158).

> with the objective of sustainable development. As this preambular language reflects the intentions of negotiators of the *WTO Agreement*, we believe it must add colour, texture and shading to our interpretation of the agreements annexed to the *WTO Agreement*, in this case, the GATT 1994 (para. 153).[215]

The foregoing discussion led the Appellate Body to conclude that the legal rights, which are embodied in the environmental exceptions of Article XX and the primary obligations of the GATT (eg, Articles I and III), are of the *same order*. The chapeau reflects the necessity to strike a balance between these competing rights (paras 156 and 159).

(b) Cognitive Openness

In several decisions, which focused on the structure of the WTO dispute settlement mechanism (the "DSU"),[216] the Appellate Body extended, significantly, the cognitive horizon of the legal system. This extension had significant consequences for the deliberation of trade-environment questions within the WTO. First, the Appellate Body adopted a broad interpretation to the power of panels to seek information from third parties. It interpreted Article 13 of the DSU as giving panels wide discretion in seeking information and technical advice from third parties. This could be done by either inviting several experts to give testimony before the panel (Article 13(1)), or by requesting an advisory report from an expert review group (Article 13(2)). Thus, for example, the panels in the *Shrimp* and *Asbestos* cases heard the testimony of several experts (both orally and in writing). The Appellate Body further extended the powers of panels under Article 13 by concluding, in the first *Shrimp* Report, that panels have the right to accept and consider *unsolicited* information. A panel has a wide discretion both with respect to the procedural question—whether to accept briefs from non-governmental organisations (or any other interested parties)—and with respect to the substantive question concerning the legal value of that information.[217]

Another important element in the movement to cognitive openness was the adoption of a new approach to the process/product distinction, which was markedly different from the one invoked by the *Tuna* Panels. In the first *Shrimp* report the Appellate Body notes (reversing the Panel's ruling in that respect) that the extra-jurisdictional nature of the US

[215] See also para 155. The Appellate Body made a similar comment with respect to the interpretation of Art XX(g). See, paras 129–31.
[216] Understanding on Rules and Procedures Governing the Settlement of Disputes.
[217] *Ibid*, at para 108. The Appellate Body further extended this interpretative scheme in the *EC—Asbestos*, by ruling that it also has the power accept submissions from non-governmental organisations, see *EC—Asbestos*, at paras 50–57. I will return to the question of the role of NGOs in the WTO dispute settlement process in section 3.5.1(b) below.

conservatory scheme does not exclude it, in itself, from the justifying protection of Article XX (para. 121):

> … conditioning access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy or policies unilaterally prescribed by the importing Member may, to some degree, be a common aspect of measures falling within the scope of one or another of the exceptions (a) to (j) of Article XX. Paragraphs (a) to (j) comprise measures that are recognized as *exceptions to substantive obligations* established in the GATT 1994, because the domestic policies embodied in such measures have been recognized as important and legitimate in character. It is not necessary to assume that requiring from exporting countries compliance with, or adoption of, certain policies (although covered in principle by one or another of the exceptions) prescribed by the importing country, renders a measure *a priori* incapable of justification under Article XX. Such an interpretation renders most, if not all, of the specific exceptions of Article XX inutile, a result abhorrent to the principles of interpretation we are bound to apply.

This ruling means, in effect, that under certain conditions a Member state can introduce trade measures, which would focus on the process and production methods ("PPMs") of an imported product. To avoid this interpretation the Appellate Body should have added some qualification, which would have limited this statement to (unilateral) policies that relate to the ultimate characteristics of the product. The Appellate Body reiterated its commitment to the argument of paragraph 121 in its second Shrimp Report.[218] It is important to note in this respect, that the argument of the Appellate Body in paragraph 121 is the result of a value-laden choice, and is not a necessary or "objective" reading of the text of Article XX. While it is true that any trade policy claiming to enjoy the protection of Article XX would necessarily be "conditioning access to a Member's domestic market on whether exporting Members comply with … a policy … unilaterally prescribed by the importing Member", one can still argue, without rendering Article XX futile, that the intention of Article XX was to allow such conditioning only if it relates to domestic ecological or health and safety problems (in other words, refers to the product ultimate features).[219]

[218] It noted there that its statement in para 121 to the original Report "is not 'dicta'", but, rather, expresses a principle that "was central to our ruling in United States—Shrimp", and emphasised again the idea that "conditioning access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy or policies unilaterally prescribed by the importing Member may, to some degree, be a common aspect of measures falling within the scope of one or another of the exceptions (a) to (j) of Art XX." *Ibid*, para 138. Note, however, that since the Appellate Body did not refer explicitly to the product/process question one can argue that the question remained open. See, Howse (2002: 515–16).

[219] As was the case in the *Asbestos* and *Hormones* disputes.

Another move toward a more expansive cognitive horizon was made by the Appellate Body in the *Asbestos* case. The focus of this case was an import ban on asbestos and asbestos products, which was introduced by the French Government in 1997. One of the issues that stood to scrutiny was the Panel's finding that cement-based products containing chrysotile asbestos fibres are "like" cement-based products containing PCG fibres. The Appellate Body found that the Panel's reasoning was insufficient to support a finding of "likeness", among other things, because it failed to take into account the "risk" associated with asbestos-based products.[220]

It should be noted, however, that the move toward cognitive openness, and the employment of new cognitive mechanisms, does not guarantee, in itself, that the law will be *responsive* to the ecological facts that would be incorporated into the legal process. Indeed, a close examination of the interaction between the WTO judicial bodies, scientific experts and NGOs demonstrates an enduring animosity toward empirical argumentation. I will return to this issue in section 3.4.3 below. However, this problematic does not detract from the importance of this doctrinal change.

(c) The Gap between the Trade and Environmental Realms

The decisions of the Appellate Body in the *Shrimp* case, in particular the second report, include, for the first time in the history of the GATT/WTO, a clear recognition—with definite legal consequences—of the asymmetry between the trade and environment regulatory domains. This recognition was implicit in the Appellate Body's statement in the first *Shrimp* Report that extra-jurisdictional conservatory schemes can be legal under the WTO. This abstract statement was given further support by the decision in the second *Shrimp* report to endorse the US revised scheme.

3.3.2 The Vision Realised: The *Shrimp* Reports

(a) The First Report

The *Shrimp* dispute was triggered by an import ban that was introduced by the US authorities on the importation of shrimp, which were harvested

[220] The Appellate Body noted that "the health risks associated with a product may be relevant to the inquiry into the physical properties of a product when making a determination of "likeness" under Article III:4 of the GATT 1994". It further noted that even if the two products (with and without asbestos fibres) "were functionally interchangeable, we consider it likely that the presence of a known carcinogen in one of the products would have an influence on *consumers' tastes and habits* regarding that product" influencing again the question of "likeness" (paras 128 and 130).

in a way that endangered the lives of sea turtles.[221] The ban was introduced by section 609 of Public Law 101–162.[222] Section 609 prescribed two kinds of certifications, which were required as a condition for export into the US. Their details were elaborated in regulatory guidelines in 1991, 1993 and 1996.[223] The first certification type was to be granted to countries with a fishing environment which *does not pose* a threat of the incidental taking of sea turtles (section 609(2)(C)). A second certification type was conditional upon the adoption of a *specific conservatory programme* by the exporting country (section 609(b)(2)(A) and (B)). According to the 1996 Guidelines, the Department of State assesses the regulatory programme of the harvesting nation and issues certification if the programme includes: (i) the required use of Turtle Excluder Devices (TEDs) that are "comparable in effectiveness to those used in the United States…"; and (ii) "a credible enforcement effort that includes monitoring for compliance and appropriate sanctions".[224] Other measures that the harvesting nation undertakes for the protection of sea turtles will also be taken into account in making the comparability determination.[225] The average incidental take rate "will be deemed comparable if the harvesting nation requires the use of TEDs in a manner comparable to that of the US program…".[226] Several other features of the US scheme will be discussed below.

The Panel Concluded that the US import ban on shrimp was not consistent with GATT Article XI(1) and cannot be justified under Article XX,[227] and recommended that the Dispute Settlement Body request the US to bring this measure into conformity with its obligations under the WTO Agreement.[228] The US filed an appeal against the Panel's decision. The respondents were India, Pakistan and Thailand ("Joint Appellees") and Malaysia. Australia, Ecuador, the European Communities, Hong Kong, China, and Nigeria joined the proceedings as third participants.

Article XX(g)

In applying Article XX to the facts of the case the Appellate Body considered, first whether the US measures could be *provisionally justified under*

[221] The US programme included five species of sea turtles: loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempi*), green (*Chelonia mydas*), leatherback (*Dermochelys coriacea*) and hawksbill (*Eretmochelys imbricata*).
[222] Section 609 of Public Law 101-162, enacted on 21 Nov 1989, Endangered Species Act 609, 16 USC. 1537 (1998) (entitled "Conservation of Sea Turtles; Importation of Shrimp"). It is quoted in para 3 to the first *Shrimp* Report.
[223] Hereinafter referred to as the "1991 Guidelines" (56 Federal Register 1051, 10 Jan 1991), the "1993 Guidelines" (58 Federal Register 9015, 18 Feb 1993) and the "1996 Guidelines" (61 Federal Register 17342, 19 April 1996), respectively.
[224] 1996 Guidelines, p 17344.
[225] *Ibid*.
[226] *Ibid*.
[227] Panel Report, at para 8.1.
[228] Panel Report, at para 8.2.

Article XX(g),[229] and second, whether they *satisfied* the *requirements of the chapeau*. The Appellate Body accepted the US provisional claim under Article XX(g), finding, first that sea turtles constitute "exhaustible natural resources" for purposes of Article XX(g) (paras 127–34). In ruling that sea turtles fall under the ambit of Article XX(g) the Appellate Body emphasised the migratory nature of this species. This allowed it not to pass judgement "upon the question of whether there is an implied jurisdictional limitation in Article XX(g), and if so, the nature or extent of that limitation". The Appellate Body was satisfied:

> that in the specific circumstances of the case before us, there is a sufficient nexus between the migratory and endangered marine populations involved and the United States for purposes of Article XX(g) (para 133).

The Appellate Body then proceeded to examine whether the US measures satisfy the second requirement of Article XX(g) of "relating to the conservation of exhaustible natural resources".[230] It noted that this requirement calls, in this case, for the examination of "the relationship between the general structure and design of the measure here at stake, Section 609, and the policy goal it purports to serve, that is, the conservation of sea turtles" (para 137). In answering this question the Appellate Body employed a *means-ends* test, which considered whether the means are "*reasonably related to the ends*" (para 141). Despite the fact that the US measures sought to prevent the incidental take of sea turtles *indirectly*, by imposing an *import ban* on those countries, which did not adopt a regulatory programme requiring the use of TEDs, the Appellate Body found that the US scheme satisfied Article XX(g) means-end requirement.

In justifying its conclusion the Appellate Body focused on the criteria that were used by the US as the basis for its trade measures. The Appellate Body noted that the requirement to use TEDs by commercial shrimp trawling vessels in areas where there is a likelihood of intercepting sea turtles is "directly connected with the policy of conservation of sea turtles". It justified its conclusion by reference to the experts' testimony:

> It is undisputed among the participants, and recognized by the experts consulted by the Panel, that the harvesting of shrimp by commercial shrimp

[229] The Appellate Body did not consider Art XX(b) because the US framed its arguments primarily in terms of Art XX(g). Since the Appellate Body accepted the provisional claim under Art XX(g) it did not find it necessary to consider the US claim under Art XX(b). See, Appellate Body Report, at para 125.

[230] I will comment on the linkage between the Appellate Body interpretation of Art XX(g) and Art XX(b) in the *Shrimp* and *Asbestos* decisions in section 3.4.3 below.

> trawling vessels with mechanical retrieval devices in waters where shrimp and sea turtles coincide is a significant cause of sea turtle mortality. Moreover, the Panel did "not question … the fact generally acknowledged by the experts that TEDs, when properly installed and adapted to the local area, would be an effective tool for the preservation of sea turtles" (para 140, footnotes omitted).

The Appellate Body concluded that "Section 609 is not a simple, blanket prohibition of the importation of shrimp imposed without regard to the consequences":

> Focusing on the design of the measure here at stake, it appears to us that Section 609, *cum* implementing guidelines, is not *disproportionately wide* in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species. *The means are, in principle, reasonably related to the ends*. The means and ends relationship between Section 609 and the legitimate policy of conserving an exhaustible, and, in fact, endangered species, is observably *a close and real one* … (para 141, my emphasis, footnote omitted).

In deciding whether the US conservatory measures satisfied the means-ends test of Article XX(g) the Appellate Body ignored *both the question of the actual effect of the measures, and the way in which they were applied in practice*. While the second question was discussed under the second tier of the analysis (the chapeau), the first question, ie, whether the trade prohibition on the import of shrimp to the US could by itself save sea turtles from shrimp trawlers and extinction was not considered by the Appellate Body.[231]

Finally, the Appellate Body noted that the US measures satisfied the third element of Article XX(g), the requirement that the measures should be "made effective in conjunction with restrictions on domestic production or consumption". Referring to its decision in the *Reformulated Gasoline* case the Appellate Body noted that this part of Article XX(g) reflects a requirement for "*even-handedness*" in the way in which the restrictions deal with foreign and domestic production or consumption.[232] Since the requirement to use approved TEDs in areas and at times when there is a likelihood of intercepting sea turtles applied to US shrimp trawlers, as well as to foreign vessels, the Appellate Body decided that section 609 satisfied the even-handedness requirement (paras 143–45). After concluding that the US scheme was provisionally justified under Article XX(g), the

[231] Although some of the experts raised this question explicitly, see, eg, the testimony of Mr Michael Guinea (of Northern Territory University, Darwin, Australia) Para 19, Annex IV to the Panel Report, *Transcript of the Meeting with Experts Held On 21 and 22 January 1998*. See also the remarks of Michael Guinea at paras 148–49.

[232] *Reformulated Gasoline*, at pp 20–21.

Appellate Body moved to examine whether the scheme satisfied the requirements of the chapeau.

The Application of the Chapeau

Article XX introductory clause states:

> 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 Member of measures …

The Appellate Body interpreted the chapeau as "one expression of the principle of good faith" (Para 158). Good faith is, however, an ambiguous term. How did the Appellate Body apply it in this case? Following its decision in the *Reformulated Gasoline* case, the Appellate Body noted that three elements must exist in order for a measure to be considered inconsistent with the chapeau (para 150). First, the application of the measure must result in *discrimination*. The Appellate Body emphasised that the nature and quality of this discrimination is different from the discrimination in the treatment of products, which was already found to be inconsistent with Articles I or III of the GATT 1994. Second, the discrimination must be *arbitrary* or *unjustifiable* in character. Third, this discrimination must occur *between countries where the same conditions prevail*. The Appellate Body also noted that a decision that a certain regulatory measure abuses Article XX may be based not only on the normative structure of that measure but also on the way in which it is *applied in practice* (para 160).

The Appellate Body began its concrete inquiry by considering whether Section 609 has been applied in a manner constituting "unjustifiable discrimination between countries where the same conditions prevail". The Appellate Body concluded that it has, focusing on the way in which the US authorities have *implemented* Section 609. It noted, first, that while the US scheme permitted a degree of flexibility with respect to the determination of comparability between the US and the exporting countries policies, this flexibility has been effectively eliminated through the implementation of the 1996 Guidelines and the practice of the administrators in making certification determinations (para 161). The Appellate Body further noted that the rigid application of Section 609 transformed it, in effect, to:

> an economic embargo which requires *all other exporting Members*, if they wish to exercise their GATT rights, to adopt *essentially the same* policy … as that applied to, and enforced on, United States domestic shrimp trawlers (para 161).

It is not acceptable, the Appellate Body stated

> in international trade relations, for one WTO Member to use an economic embargo to *require* other Members to adopt essentially the same comprehensive regulatory program, to achieve a certain policy goal, as that in force within that Member's territory, *without* taking into consideration different conditions which may occur in the territories of those other Members (para 164).

Second, the Appellate Body criticised the United States policy of not permitting the importation of shrimp, which was harvested by shrimp trawl vessels using TEDs, if those shrimp originated in waters of countries *not certified* under Section 609 (para 165). Third, the Appellate Body attributed an important weight to the:

> failure of the United States to engage the appellees, as well as other Members exporting shrimp to the United States, in serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements for the protection and conservation of sea turtles, before enforcing the import prohibition against the shrimp exports of those other Members (para 166).[233]

Finally, the Appellate Body noted that the application of Section 609 resulted in other differential treatment among various countries desiring certification. Here the Appellate Body referred to the different "phase-in" periods that were granted to different exporting countries,[234] and to the different levels of effort that were made by the United States to transfer TED technology.[235]

After concluding that Section 609 has been applied in a manner constituting "unjustifiable discrimination" the Appellate Body moved to consider whether Section 609 has been applied in a manner constituting "arbitrary discrimination". It noted, first, that the *rigid and inflexible* way in which Section 609 was applied constituted also "arbitrary discrimination"

[233] Section 609 calls upon the United States Secretary of State to "initiate negotiations as soon as possible for the development of bilateral or multilateral agreements with other nations for the protection and conservation of … sea turtles".

[234] On 29 December 1995 the United States Court of International Trade, directed the Department of State to apply the import ban on a world-wide basis not later than 1 May 1996 (*Earth Island Institute v Warren Christopher*, 913 F. Supp. 559 (CIT 1995)). On 19 April 1996, the Department of State issued new Guidelines bringing shrimp harvested in *all* foreign countries within the scope of Section 609, effective 1 May 1996. Thus, all countries that were not among the 14 in the wider Caribbean/western Atlantic region had only four months to implement the requirement of compulsory use of TEDs. See para 172 to the Appellate Body Report.

[235] The Appellate Body noted that "far greater efforts to transfer that technology successfully were made to certain exporting countries—basically the 14 wider Caribbean/western Atlantic countries cited earlier—than to other exporting countries, including the appellees" (para 175).

within the meaning of the chapeau (para 177). Second, it found that the certification process of Section 609 did not satisfy the elementary requirements of due process. The process consisted principally of an administrative ex parte inquiry by US officials. There was no procedure for review of, or appeal from, a denial of an application. The Appellate Body concluded that:

> It appears to us that, effectively, exporting Members applying for certification whose applications are rejected are denied basic fairness and due process, and are discriminated against, *vis-à-vis* those Members which are granted certification (para. 182).[236]

The Appellate Body's comments in this context were based only on the formal aspect of the administrative process. The Appellate Body did not consider the question whether any of the Appellees was actually harmed by this lack of "due process".

The Appellate Body concluded that the US measure, while qualifying for provisional justification under Article XX(g), failed to meet the requirements of the chapeau of Article XX, and, was not, therefore, justified under Article XX. It recommended, therefore, that the Dispute Settlement Body should request the US to bring its measure into conformity with the provisions of the GATT 1994 (paras 187–88).

(b) The Second Report

The US authorities did not perceive the Appellate Body's recommendations, however, as a call for a radical change in the structure of the "Shimp-Turtle" programme. Thus a key American official stated in 1999—in contrast to the press coverage of the *Shrimp* case—that the Appellate Body did not find the US scheme to be inconsistent with the WTO rules. He noted that the decision only required some modifications to the way in which the scheme was implemented, and that none of these modifications required the US to repeal or even amend Section 609 or to give up the insistence on the use of TEDs.[237] Not surprisingly the US response led to another round of legal wrangling, which focused on the question of whether the US had properly implemented the Appellate Body ruling. On 23 October 2000, Malaysia requested that the "implementation question"

[236] The Appellate Body found further support for its conclusion in Art X(3) of the GATT. See paras 182–3 to the Appellate Body Report.

[237] See, the remarks of David Balton, the Director of the Office of Marine Conservation in the Bureau of Oceans and International Environmental and Scientific Affairs, to the Eleventh Annual Judicial Conference of the US Court of International Trade on Social Justice Litigation: The CIT and WTO, New York, Dec 7, 1999 (Balton 1999).

be referred to the original panel pursuant to Article 21.5 of the DSU.[238] The complaint challenged the measures that were taken by the US to implement the Appellate Body Decision, focusing, in particular, on the Revised Guidelines, which were issued by the US on July 1999.[239] Malaysia argued, first, that the Revised Guidelines maintained, in effect, the same regulatory regime which was denounced by the Appellate Body in its first decision, leading to a similar prohibition on the export of Malaysian shrimp to the United States.[240] Second, it argued that the United States was not entitled, further to the Appellate Body findings, to adopt a unilateral import ban outside the framework of an international agreement. The United States should have negotiated an agreement on the protection and conservation of sea turtles *before* the eventual imposition of an import ban. By continuing to apply a unilateral measure after the end of the reasonable period of time pending the conclusion of an international agreement, the United States failed, therefore, to comply with its obligations under the GATT 1994. Finally, Malaysia also claimed that by imposing its own conservation policy and standards on other Members, the United States has interfered with Malaysia sovereign right to define its own environmental policies and standards.[241]

Before considering the Malaysian arguments it might be worthwhile to describe the changes that were introduced by the Revised Guidelines. The requirement to use TEDs continued to play a key role in the US programme.[242] The Revised Guidelines differed from the original ones, however, in that they enabled applicant countries to

[238] Under Art 21.5 a panel is supposed to review the existence and consistency of the measures taken to implement the DSB recommendations and rulings with a covered agreement. Second *Shrimp* Report (Appellate Body), at para 2.

[239] Revised Guidelines for the Implementation of Section 609 of Public Law 101–162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations (the "Revised Guidelines"). United States Department of State, Federal Register Vol 64, No. 130, 8 July 1999, Public Notice 3086, pp 36946–52. The Revised Guidelines are attached to the Panel Report.

[240] *United States—Import Prohibition of Certain Shrimp and Shrimp Products—Recourse to Article 21.5 by Malaysia,* WT/DS58/RW, 15 June 2001 (Panel Report) WT/DS58/AB/RW, 22 Oct 2001 (Appellate Body Report), para 3.28 to the Panel Report.

[241] *Ibid,* at para 5.1.

[242] Thus, para 17 to the Revised Guidelines states that "The Department of State is presently aware of *no* measure or series of measures that can minimize the capture and drowning of sea turtles in such nets that is *comparable* in effectiveness to the required use of TEDs" (my emphasis). The Guidelines further clarify the criteria for certifying a conservation programme based on TEDs: "If the government of the harvesting nation seeks certification on the basis of having adopted a TEDs program, certification shall be made if a program includes the following: … A requirement that all commercial shrimp trawl vessels operating in waters in which there is a likelihood of intercepting sea turtles use TEDs at all times. TEDs must be comparable in effectiveness to those used in the United States. Any exceptions to this requirement must be comparable to those of the US program described above; and … A credible enforcement effort that includes monitoring for compliance and appropriate sanctions" (paras 17–19, p 105 to the Second Panel Report).

apply for certification even if they do not require the use of TEDs. In such cases the harvesting country is required to demonstrate that it has implemented, and is enforcing, a "comparably effective regulatory programme" to protect sea turtles without the use of TEDs. Such claim would have to be "based on empirical data supported by objective scientific studies of sufficient duration and scope to provide the information necessary for a reliable determination". The Department of State is required to take into account any demonstrated differences between the shrimp fishing conditions in the United States and those in other nations.[243]

Both the Panel and the Appellate Body rejected Malaysia's arguments.[244] The decisions of the Panel and Appellate Body remove some (but not all) of the ambiguities of the first Appellate Body decision. First, both decisions recognise the deep asymmetry that exists between the trade and environmental domains. Thus, regarding the duty of the US to negotiate an international environmental treatment with the appellant, the Panel clarified that:

> what is required from the United States according to the Appellate Body reasoning is *serious good faith efforts* in the negotiation of an agreement aiming at the protection and conservation of sea turtles, taking into account the situation of the other negotiating parties (my emphasis).[245]

The Appellate Body clarified this statement further by noting, first, that the "good faith" condition requires the United States to ensure that it makes "comparable" efforts to reach international agreements in the various forums in which it negotiates such agreements.[246] Second, it emphasised that a country can satisfy the "good faith" requirement even if it ultimately fails to conclude an international agreement. Requiring that a multilateral agreement be *concluded* by the US before applying its measure would mean, the Appellate Body notes, that:

> any country party to the negotiations with the United States, whether a WTO Member or not, would have, in effect, a veto over whether the United States could fulfill its WTO obligations. Such a requirement would not be reasonable.[247]

[243] Para 19(2) to the Revised Guidelines, *ibid*.
[244] The Appellate Body notes in para 153(b) that it adopts the findings of the panel (in para 6.1 to its decision) that "Section 609 of Public Law 101–162, as implemented by the Revised Guidelines of 8 July 1999 and as applied so far by the [United States] authorities, is justified under Art XX of the GATT 1994 as long as the conditions stated in the findings of this Report, in particular the ongoing serious good faith efforts to reach a multilateral agreement, remain satisfied".
[245] Panel Report, at para 5.86.
[246] Appellate Body Report, at para 122.
[247] *Ibid*, at para 123.

This interpretation of the idea of "good faith" could provide important impetus to the negotiation of multilateral environmental agreements. However, it also imposes a difficult burden on WTO panels in adjudicating Article XX claims: they will have to determine which of the negotiating parties was responsible for the ultimate failure of the negotiations.[248]

Second, the Appellate Body rejected the Malaysian argument that the Revised Guidelines are not flexible enough to meet the requirement of the chapeau because they do not provide explicitly for the specific conditions prevailing in Malaysia.[249] The Appellate Body rejected this argument stating that the Revised Guidelines permit a wide degree of flexibility that should enable the United States to consider the particular conditions prevailing in Malaysia. There is an important difference, the Appellate Body noted, between conditioning market access on the adoption of *essentially the same programme*, and conditioning market access on the adoption of a programme *comparable in effectiveness*—as was done by the Revised Guidelines.[250] Thus the Revised Guidelines did not insist on the use of TEDs but provided that a harvesting nation could be eligible for certification if it demonstrated that it has implemented a *comparably effective* regulatory programme to protect sea turtles. Likewise, the Revised Guidelines required the Department of State to take fully into account any demonstrated differences between the fishing conditions in the US and those in other nations.[251] The Appellate Body noted further that as Malaysia has not applied for certification, the question whether Malaysia would have been certified cannot be answered in a definite way.[252] The fact that Malaysia did not apply for certification provided a good excuse for the Appellate Body to refrain from considering the way in which the Revised Guidelines were actually implemented. Such examination would have found, I suspect, that the use of TEDs, remain, in effect, a *critical condition* for a successful application.

Finally, the Appellate Body also rejected the argument that the United States, by imposing its own conservation policy and standards on other Members has interfered with Malaysia sovereign right to define its own environmental policies and standards. Malaysia insisted that this

[248] One should not assume, ex ante, that the faulty party is the one that refused to join the environmental agreement. It might be that the initiating side has put unreasonable demands on the negotiation table (eg, in terms of the economic capabilities of the other party). The Appellate Body was satisfied that in this case the US did make good faith efforts to conclude an agreement, thus placing the "fault" on the "other" side. See the discussion in paras 30–34 to the Appellate Body decision, paras 5.81–5.86 to the Panel Report.
[249] The Appellate Body Report, at para 145.
[250] *Ibid*, at para 144.
[251] *Ibid*, at para 146.
[252] *Ibid*, at para 148.

argument, which focuses on the unilateral feature of the US programme, is valid even in view of the flexibility of that programme.[253] By rejecting the Malaysian argument the Appellate Body reiterated the argument it made in the original proceedings according to which

> conditioning access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy or policies unilaterally prescribed by the importing Member may, to some degree, be a common aspect of measures falling within the scope of one or another of the exceptions (a) to (j) of Article XX.[254]

The Appellate Body decision removes some of the uncertainties that surround the original Report. In particular it gives practical effect to the idea that WTO Members can make use of unilateral trade measures in order to promote environmental goals (even when these goals are transnational in character), subject to the requirement of "good faith". The decision thus strengthens the Appellate Body's statement regarding the equal status of the environmental and trade objectives within the WTO universe.

3.4 GOING FURTHER: GUIDELINES TO ENVIRONMENTAL SENSITISATION OF THE WTO AND REMAINING BARRIERS

3.4.1 Beyond the *Shrimp* Ruling: Basic Guidelines

The environmental reform of the WTO should be guided, I believe, by one key insight: the deep and persisting gap between the institutional capacities of the trade and environmental domains.[255] This asymmetry characterises both the international and national levels. In the international domain it is reflected in the lack of sufficient participation in existing and emerging international environmental agreements (a free rider problem), and the weak enforcement powers of existing regimes (Neumayer 2001: 124–28). In the domestic context this asymmetry is reflected in the general weakness of environmental regulators, especially in the developing world. Domestic regulators find it increasingly difficult to calculate and

[253] *Ibid*, at para 136.
[254] *Ibid*, at para 138. It noted further that its statement in para 121 to the original Report "is not '*dicta*', but, rather, expresses a principle that was central to our ruling in *United States—Shrimp*". *Ibid*.
[255] See also, on this point, the report of the Commission for Environmental Cooperation of North America "Free Trade and the Environment: the Picture Becomes Clearer" (CEC 2002: 27).

oversee the course and consequences of the economic changes that accompany the process of trade liberalisation (CEC 2002: 26; Jha and Whalley 1999).

The asymmetry between these two regulatory domains constitutes probably the most convincing argument for constructing a broader social vision to the WTO. The argument that the WTO should not interfere in environmental questions, letting international environmental organisations "do the work" (WTO-Secretariat 1999: 6–7), might have been valid in a perfect world; however, it seems highly dubious in a world whose environmental institutions suffer from systemic weaknesses. It makes little sense to move forward in the trade field, without making similar progress in the environmental domain (CEC 2002: 3). The institutional asymmetry between the environmental and trade regimes thus calls for second-best solutions, which would place explicit environmental responsibilities on the WTO and other trade institutions.[256] The two *Shrimp* rulings seem to recognise the logic of this argument, demonstrating a willingness to take this institutional gap into consideration in the adjudication of trade disputes. This willingness is driven, so it seems, by a broad reading of the goals of the WTO. However, implementing this vision will require drastic changes in the way in which the WTO makes decisions. These changes go beyond the *Shrimp* formula and affect both the structure of the trade negotiations and the law that governs trade-environment disputes.

Consider, first, the politics of trade negotiations. Giving meaningful effect to the broader vision that was outlined by the Appellate Body means that the negotiations cannot be governed by the traditional mercantilist logic, which denies the independent value of ecological "goods". The negotiation culture of the WTO would have to be transformed, enabling various forms of "issue linkage", admitting environmental issues into the "negotiation table".[257] The incorporation of environmental issues into the negotiation table could take various forms. The most obvious way, and least complicated, is to create a link between environmental commitments and "market access" opportunities. Such linkage could allow the developed countries, which presumably care more about the environment (in economic terms), to "pay" developing countries for ecological benefits, such as broader participation in international environmental agreements and better compliance with their provisions.[258] One can also use the negotiation within the WTO to facilitate other

[256] On the distinction between first-best and second-best policy prescriptions see, eg, Blackorby (1990).
[257] For a discussion of "issue linkage" see, eg, Spagnolo (1999) and Horstmann *et al* (2001).
[258] See, further, on that point Bagwell *et al* (2002: 70–74). To some extent such linkage already exists in the WTO, in the legal framework that allows developed countries to grant preferential market access to developing countries (the Generalized System of Preferences, "GSP").

modes of payment, such as financial or technical assistance by the World-Bank/IMF. Of course, structuring the question of linkage in this way is not morally neutral; underlying it is a moral conception of the way in which the costs of coping with global ecological problems should be distributed (Bhagwati 2002: 134).[259]

How should the legal system respond to this regulatory gap? While the *Shrimp* rulings recognise this gap, their doctrinal output does not go far enough. In this context I foresee two key changes in the interpretation of Article XX. The first refers to the role of trade measures in securing solutions to transnational environmental problems. The law should recognise that trade measures can play an important role:

> in securing participation in and compliance with internationally agreed standards such as multilateral environmental agreements. The threat of trade sanctions may be enough to alter the behaviour of would-be free-riders (UNDP 2003: 326).

Measures designed with this goal in mind should not be declared a priori as inconsistent with GATT law. The Appellate Body seemed to have acknowledged this idea in its two *Shrimp* rulings. However, it left open the question whether the use of *Shrimp*-like trade measures would also be legitimate in cases involving pure global public goods (eg, problems relating to the atmosphere) or global public goods which are located within the boundaries of a single state (eg, tropical forests).[260] It also left open the question of the legality of trade measures that were initiated under the authority of a Multilateral Environmental Agreement. I believe that one could interpret the *Shrimp* decision to cover these cases as well.[261]

The good faith protocol, which was devised by the Appellate Body in its interpretation of the chapeau of Article XX provides, I believe, adequate defence against abusive applications of Article XX. The *Reformulated*

Thus, for example, the EU GSP list grants additional preferential margin to beneficiary countries that comply with certain requirements related to labour standards and environmental protection. The US GSP scheme includes similar conditions. See, Bagwell *et al* (2002: 71–72). The EU scheme was challenged by India (case No WT/DS246). See the Panel's decision: *European Communities: Conditions for the Granting of Tariff Preferences to Developing Countries*, WT/DS246/R, 1 December 2003. The environmental and labour conditions were not discussed by the Panel.

[259] In this context attention should be given also to the difficulties many developing countries are facing in managing the domestic side-effects of integrating into the global market. These difficulties should be explicitly recognised and dealt with in WTO forums. The WTO should cooperate with the World Bank and the IMF in order to find ways to support domestic environmental institutions within developing countries.

[260] See para 133 to the first *Shrimp* ruling and the discussion in section 3.3.2(a) above.

[261] What should be the position of the WTO regarding a unilateral trade measure that was initiated in order to enforce an obligation prescribed by a MEA, but was not authorised by it? I deal with this question below.

Gasoline and *Shrimp* decisions suggest that this "protocol" consists of the following obligations: a requirement to *explore* the possibility of solving the environmental problem through a multilateral agreement rather than unilaterally; the measure in question should be applied in a transparent, flexible and even-handed manner—a "*due process*" *requirement*;[262] any provision of technical assistance should be pursued on a *non-discriminatory basis*; and, finally, an obligation to consider the *incremental costs* that the environmental programme might generate, both for the domestic manufacturers and for the foreign producers as a result of the measure.[263]

A second change concerns the interpretation of the "necessity" requirement, which is part of Article XX sub-paragraphs (b) and (g). In assessing the range of regulatory options countries are facing when seeking to cope with environmental or health risks, the law should take into account the general weakness of environmental regulators. This means that in considering Article XX claims, panels should be careful not to apply the principle requiring the adoption of the "least trade restrictive measure" too strictly, since such interpretation could reflect unreasonable expectations from domestic regulators. This would require the law of the WTO to be more receptive to the use of trade measures as a method for protecting domestic health or environmental interests.[264] This assessment can also justify giving developing countries with acute environmental problems longer adjustment periods (for

[262] In the case of trade measures authorised by a MEA the due process requirement can be applied to the authorisation process.

[263] The latter obligation is based on the Appellate Body decision in the *Reformulated Gasoline* case, at 28.

[264] Thus, for example, *in Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes* (DS10/R, BISD 37S/200, adopted on 7 November 1990) the Panel should probably have given more weight to the Thai argument that the import ban on the importation of foreign cigarettes was motivated by health concerns. In pronouncing the Thai measure as inconsistent with the GATT the Panel noted that the Thai government could have introduced alternative non-discriminatory measures such as labelling and disclosure regulations, general ban on cigarettes advertisement and higher taxes (paras 77–80). Despite the intuitive appeal of the Panel's reasoning, the efficacy of the measures it suggested in restraining the consumption of cigarettes is highly disputed (Duffy 1995; Bate 1998). Subsequent studies of cigarette consumption confirm this skepticism. From 1975 to 1995 consumption of cigarettes in developing countries has doubled (while in the developed countries it has actually fallen) (Barnum 1994: 359). Multinational tobacco companies were the primary beneficiaries of this rise. *A similar trend was reported in Thailand*. There was an increase in the annual per capita consumption of cigarettes in Thailand (persons age 15 and over) of 10% from 1991, when the pane1's decision was adopted, to 1994 (from 989 cigarettes in 1991 to 1,089 in 1994) (Tungthangthum 1997: 25). The details were provided to the author by the Thai branch of the ASH Foundation, which translated the relevant parts of Tungthangthum's report. While this data seems to support my general argument, it should be noted that without a detailed econometric analysis, it is hard to tell how much of this increase can be attributed to the opening of the Thai market (rather than to other socio-economic factors). While there can be little doubt that the Thai ban was also motivated by a desire to protect the local tobacco industry one should not ignore, then, the undeniable health benefits of this ban.

complying with the WTO multiple obligations). The Appellate Body's decision in the *Asbestos* case reflects, I believe, a similar sentiment. In rejecting the Canadian argument that the French government should have replaced the ban on asbestos products with a less restrictive measure such as "controlled use" practices, the Appellate Body emphasized that "[t]he more vital or important [the] common interests or values pursued, the easier it would be to accept as 'necessary' measures designed to achieve those ends".[265]

The trade-environment literature includes other proposals for "greening" the law of the WTO. I do not think these proposals should be accepted, either because they reflect a mercantilist reconstruction of the environmental argument or because they under-estimate the institutional constraints of the WTO legal system. One popular argument calls for "*leveling the playing field*"—for a global harmonisation in domestic environmental standards. In the absence of such harmonisation, it is argued, countries should be allowed to protect their domestic industries against imports from countries with low environmental standards ("eco-dumping") through the imposition of countervailing measures. This argument should be rejected, mainly because it is based on mercantilist rather than environmental considerations: its main concern is the creation of "fair" trading conditions rather than "good" environment. From an environmental perspective, however, the call for "levelling" the playing field is completely untenable; it ignores the fact that with different fundamentals, such as absorptive capacities, population density, culture or social preferences, there is no reason why countries should have identical environmental standards (Bhagwati 2000: 489).

A more attenuated version of the "level-playing-field" argument replaces the call for complete harmonisation with the demand that each WTO member should refrain from lowering its environmental standards, relative to their level at the time in which the parties negotiated their market-access commitments (Bagwell and Staiger 2001; Bagwell, Mavroidis, and Staiger 2002). The logic of this argument is that such policy change constitutes a breach of the original agreement between the parties—it breaks the contractual balance. Such move transforms the competitive conditions between the parties by giving an advantage to the local industry, both in the local market (against foreign imports) and in export markets (against foreign producers). Bagwell *et al* (2002) argue that in terms of GATT/WTO law such policy change should be countered either through the imposition of countervailing measures (when the manipulative Member is an exporter) or through a non-violation complaint (when that Member is an importer).

[265] *EC—Asbestos*, at para 172.

While this argument has a strong mercantilist flavour, it has also certain environmental logic, because it provides a mechanism for the prevention of a "race to the bottom" in environmental standards. However, this incidental benefit does not provide, I believe, a sufficient justification for translating Bagwell *et al's* idea into a scheme of actionable legal rights. First, as was pointed out in chapter two, the empirical case for a negative competition in environmental standards is still rather weak. It is doubtful, therefore, whether one should allow such radical legal remedies, when the ecological benefit is slight. Second, it is doubtful whether the WTO tribunals have the capacity to determine whether a strategic lowering of standards has taken place. This reflects the fact that standards can be lowered not just through legislative measures, which are relatively easy to detect, but also through changes in a country's enforcement efforts, which are much harder to detect. Further, to reach the conclusion that the relaxation of environmental standards has breached a country's original market access commitments one has to consider the complete regulatory map that influences the production costs of domestic firms—as it existed at the inception of agreement and at the point of dispute—clearly a very difficult exercise.

A second proposal for making the WTO "greener" focuses on using the WTO legal system to *enforce the environmental provisions* of Multilateral Environmental Agreements (Bagwell, Mavroidis, and Staiger 2002: 72). More specifically, the idea is to create an explicit linkage between the WTO and certain MEAs whereby violation of environmental commitments would trigger retaliatory trade measures authorised by the WTO. This proposal, which requires explicit changes to the WTO rule-book and to the constitution of the associated MEAs, overestimates, I think, the institutional capacities of the WTO legal system. Thus, despite its consistency with the "institutional asymmetry" thesis I do not think that it is feasible under the current political-legal structure of the WTO (see sections 3.4.2–3.4.4 below). This proposal raises however another question: how should the WTO respond to a case involving the use of a unilateral trade measure by a country (or group of countries) against a WTO member in order to enforce an environmental obligation, prescribed by MEA, but not authorised by it or the WTO? This is a hard question. On the one hand, if it is legitimate to use a unilateral trade measure in order to secure participation in a multilateral effort to resolve a global ecological problem (the *Shrimp* case) it is hard to see why it should not be legitimate to invoke this tool in order to secure compliance with the provisions of an existing agreement. On the other hand, one can argue that once an agreement has entered into force, the parties should abide by its provisions, including those governing the issues of compliance and dispute resolution. Acting unilaterally in these circumstances should, arguably, be categorised as an act of 'bad faith', which would deny the acting state(s) from the protection of Article XX.

Encouraging the WTO to take a more active role in the resolution of trade-environment conflicts faces however several institutional and structural barriers. These are explored below.

3.4.2 Political Barriers: Status Report

Despite the evident change in the place of the environment in the WTO normative horizon, the negotiation game continues to be dominated by mercantilist rules. An analysis of the recent negotiations—from Seattle to Cancun—demonstrates little willingness to link trade and environmental concerns. During the Seattle summit Bill Clinton stated that he does not believe "the United States has the right to ask India or Pakistan or China or any other country to give up economic growth", but the US does have the right to say that it will help these countries "finance a different path to growth", while putting environment and labour issues at the core of its trade concerns.[266] However, Clinton's advice was not followed in the actual negotiations. Indeed, one of the main reasons for the failure of the talks in Seattle was the uncompromising stance of the US toward the developing world.[267] The EU, despite presenting itself as more empathic toward the developing world, has contributed to this failure through its refusal to transform its system of agricultural subsidies. While the Doha round sought to repair the damage caused by the Seattle debacle,[268] by giving more attention to the special needs of developing countries, so far little was achieved in terms of actual measures. The developed countries remain reluctant to offer significant concessions to the developing world on issues such as agriculture, textile, intellectual property rights and anti-dumping.[269] The collapse of the 2003 summit in Cancun provided a vivid reminder to the continued influence of the mercantilist ethos on the WTO.[270]

[266] See, "Seattle Debacle Highlights Sharp Differences in WTO", *International Herald Tribune*, 6 Dec 1999, London, pp 1, 17, at 17.
[267] See "Modest WTO Talks Still Manage to Fail; Protestors Celebrate", Wall Street Journal Europe, 6 Dec 1999, pp 1, 9, at 9.
[268] See the Doha Declaration, Arts 2 and 3.
[269] See, "Seattle Debacle Highlights Sharp Differences in WTO", above n 266, "Special Report: The Doha squabble", *The Economist*, 29 Mar 2003, pp 63–64, "A Missed Chance To Trade Up From Poverty", *Wall Street Journal*, 8 Apr 2003, p A.14. This approach dominated also the 2003 meeting in Cancun. See, "Road from Cancun Leads to Brussels: The Hypocrisy of Rich Countries Blocks Trade Liberalisation", *Financial Times*, 16 Sep 2003, and "Alliance of the Poor Unites against West", *The Guardian*, 15 Sep 2003.
[270] The only achievement of the Cancun summit was the agreement, which was concluded on the eve of the summit on access to essential medicines for the poorest countries: see the Decision of 30 August 2003 (WT/L/540) on the Implementation of para 6 of the Doha Declaration on the TRIPS Agreement and public health.

Probably the only example of a change in the status of the "environment" in the negotiating process is the case of environmental goods, but even here the progress was rather modest. In Aticle 31 (iii) of the Doha Declaration the Members of the WTO have agreed to negotiate on "the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services".[271] The negotiation has been taking place simultaneously in three forums: the Committee on Trade and Environment (CTE), the Negotiating Group on Market Access for Non-Agricultural Products, and a special session of the Council on Trade in Services.[272] Theoretically the term "environmental good" could cover not only "end-use" product or services (eg, pollution abatement technology, environmental consulting or large-scale engineering services) but also products that were produced in an environmentally sound way or provide indirect ecological benefits (eg, organic foods, products produced via "clean" energy, or otherwise environmentally-friendly products such as energy-efficient light bulbs).[273] Such expansive definition could provide a way to reward countries which restructure their production methods in an environmentally-conscious way.

However, a review of the current negotiations suggests that any ensuing agreement is likely to be restricted to end-use products and services, limiting the economic significance of any proposed tariffs cut.[274] Such limited interpretation means that the main beneficiaries of the proposed cut would be the developed countries—the main exporters of green technology and services. In contrast, a broader definition of "green" goods, which would also embrace products made through "green" production methods, including, for example, organic agricultural products and sustainable forest products, could also benefit the developing world.[275] It should be noted, however, that most of the participants in the negotiations, particularly the developing

[271] There has been less progress in the other items of the Doha "trade and environment" agenda, regarding the relationship between WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs) or regarding the granting of permanent observer status to MEA Secretariats. See, the CTE special session's final report to the Trade Negotiations Committee, TN/TE/6, 6 June 2003.

[272] ICTSD, Trade and Environment, Doha Round Briefing Series, vol 1(9) (February 2003) 2 available at: www.ictsd.org/pubs/dohabriefings/doha9-trade-env.pdf, visited 27 July 2003). The negotiations on reductions in barriers to environmental services are still in their early stages. So far the parties continue to rely on a proposal from 1991 which outlines four categories of environmental services: sewage, refuse disposal, sanitation and "other". ICTSD, *ibid*.

[273] Other examples include sustainable harvested wood products, low-toxicity paints, products made from recycled materials etc. See Vaughan (2003: 3).

[274] A paper by New Zealand (TN/TE/W/6), which offers a list of environmental goods based on an "end-use" approach, received the support of most WTO Members at the CTE special session. See, ICTSD, Doha Round Briefing Series, vol 1(9), above n 272, at 2. For a similar approach see also the paper by Japan (TN/MA/W/15, 20 Nov 2002).

[275] See, UNDP (2003: 329) and Vaughan (2003: 5–7).

countries, object to the idea of broadening the list of environmental goods. The main concern of the developing countries is that production-based criteria could become a perverse tool, which would be used to undermine the market access or competitiveness of weaker countries.[276] These concerns seem justified if the adopted criteria will be limited to advanced "end-of-pipe" technologies, which would allow only the more advanced Members of the WTO to benefit from the proposed tariffs' cuts on environmental goods. In any case no decision has been made on this issue in the Cancun summit.

3.4.3 Cognitive Dilemmas in the Application of Article XX

(a) Exposition: The Appellate Body Approach to the Cognitive Problematic of Article XX

Implementing any of the proposals discussed in section 3.4.1 involves a difficult cognitive challenge. This challenge is ignored by some of the participants in the trade-environment debate.[277] This section explores the cognitive challenge associated with expanding the ecological sensitivity of the WTO legal system. As was elaborated in chapter two, trade liberalisation can affect the environment via four causal paths: the scale, composition, regulatory and technological effects. While the evaluation of concrete Article XX conflicts does not require necessarily an assessment of all of these paths, the trade-environment nexus remain very complex. While, as was demonstrated above, the legal system of the WTO is more open to empirical deliberations than that of the GATT, this cognitive expansion involves difficult questions, which have not yet been resolved. To evaluate these difficulties, we need to review, first, the cognitive tools that have been developed by the Appellate Body so far.

[276] ICTSD, Doha Round Briefing Series, vol 1(9), above n 272, at 2. See also WT/CTE/GEN/9 (21 Feb 2003), at paras 4 and 6. A similar concern was raised by India in a complaint it brought against the EU (see *European Communities: Conditions for the granting of tariff preferences to developing countries, Request for the Establishment of a Panel by India*, WT/DS246/4, 9 Dec 2002). India's complaint referred to the conditions under which the EU accords tariff preferences to developing countries. India noted in its complaint that the EU scheme of generalised tariff preferences includes special incentive arrangements for the protection of labour rights and the environment. These incentives are limited to countries that are determined by the EC to comply with certain labour and environmental standards. India argues that these restrictions are inconsistent with the GATT 1994 (in particular Art I(1)) and do not meet the requirements set out in the decision of 28 Nov 1979 of the GATT CONTRACTING PARTIES on Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries Clause ("the Enabling Clause", L/4903, GATT Doc 26S/203). The claims with regard to the environmental and labour conditions were consequently dropped by India and were not therefore discussed by the Panel. See the Panel's ruling, above n 258, at para 1.5.

[277] See, eg, Bagwell *et al* (2002).

With respect to the analysis of Article XX sub-paragraphs—the Appellate Body introduced a *very lenient means-ends test*. In the *Reformulated Gasoline* case the Appellate Body clarified that the availability of an Article XX(g) defence does not depend on some empirical "effects test".[278] It emphasised that the legal characterisation of conservatory measures *should not* be "reasonably made contingent upon occurrence of subsequent events" and that a measure would be considered as a "pseudo" conservatory measure only "should it become clear that realistically, a specific measure cannot *in any possible situation* have any positive effect on conservation goals".[279] A similar leniency with respect to the efficacy question can be found in the Appellate Body's ruling in the *Shrimp* case, in which it ruled that Section 609 fell within the ambit of Article XX(g), even though the causal contribution of the US import ban to the conservatory goals of Section 609 remained unclear.[280]

In its interpretation of Article XX(b), particularly regarding the necessity requirement, the Appellate Body has refrained likewise from adopting a strict test of causality. The general interpretative frame was laid out by the Appellate Body in the *Korea—Beef* report (where it addressed the issue of "necessity" under Article XX(d)), and later in the *Asbestos* decision.[281] The Appellate Body noted that in making a claim under Article XX(d) or (b) a WTO Member is required to demonstrate, first, that there is no alternative measure which it could reasonably be expected to employ and which is not inconsistent with other GATT provisions. Second, in cases where a measure consistent with other GATT provisions is not reasonably available, a Member is bound to use, among the measures reasonably available to it, that which entails the least degree of inconsistency with other GATT provisions.[282]

[278] Appellate Body Report, at 21 (my emphasis). The Appellate Body noted, in support of that conclusion, first, that "the problem of determining causation, well-known in both domestic and international law, is always a difficult one", and second, that "in the field of conservation of exhaustible natural resources, a substantial period of time, perhaps years, may have to elapse before the effects attributable to implementation of a given measure may be observable".

[279] *Ibid*, at 22, my emphasis.

[280] This point was made by one of the experts, Mr Michael Guinea (of Northern Territory University, Darwin, Australia) who observed that no attempt was made to ascertain whether the embargo has had the desired effect in the affected countries: "Has the embargo reduced sea turtle mortality from trawling in those countries that did not comply with the TED requirements on all shrimp trawl nets? Did shrimp prices in the USA increase to entice countries to comply with TED requirements so as to gain access to a more lucrative market for their products? And were other markets found for shrimp that were banned from the USA market? Were shrimp or shrimp products transshipped through third party countries to the USA?". See, para 19, Annex IV to the his remarks at paras 148–49.

[281] See, *Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef* ("*Korea—Beef*"), WT/DS161/AB/R, WT/DS169/AB/R, 11 Dec 2000 (Appellate Body Report), and *EC-Asbestos*.

[282] See, paras 160–67 to the *Korea—Beef* Report and paras 170–71 to *EC—Asbestos*.

Applying these dual elements in practice requires the tribunal hearing a case to undertake a hypothetical inquiry: an assessment of the ecological/health and trade effects of a hypothetical measure. A thorough hypothetical inquiry would require the construction of hypothetical models (simulations). In the *Korea-Beef* and *EC—Asbestos* Reports the Appellate Body showed willingness to relax the causal standard of Article XX(b) by noting that in evaluating the element of necessity a panel can also take into consideration "the importance of the common interests or values protected by that law or regulation", and that "the more vital or important these common interests or values the easier it would be to accept as 'necessary' a measure designed as an enforcement instrument".[283] By creating a link between the "pursued value" and the "necessity" measure, the Appellate Body has extended further the judicial discretion in making Article XX(b) causal determinations. In particular this should allow claimants to justify measures that are supported by "good causes" even when their "necessity" is not supported by strong evidence.[284]

The Appellate Body approach to the second tier of the analysis—the application of the chapeau of Article XX—reflected a similar reluctance to engage in detailed empirical deliberation. As noted above, the Appellate Body interpreted Article XX as setting a "good faith" standard, which was deconstructed into several *procedural requirements* that would have to be followed by any country adopting an environmentally motivated trade measure. The logic of this "procedural protocol" is clear—it seeks to provide the law with an "easy to use" algorithm that would, on the one hand, enable it to distinguish between "protectionist" and "genuine" environmentally-motivated trade measures, and, on the other hand, not burden the law with difficult empirical tasks. However, it is doubtful whether this strategy could relieve the Appellate Body on the long-run from the need to deal with empirical questions. In the first place, the second *Shrimp* ruling demonstrated that even the procedural aspects of a dispute (ie, the good faith element) could be subject to empirical dispute. This could happen, for example, if a panel has to rule which party was responsible for the failure of negotiations toward the conclusion of an environmental agreement. A second and more problematic challenge would arise once WTO Members incorporate these procedural requirements into their internal decision-making process. If it turns out that a trade measure was invoked in good faith, the only remaining basis for over-ruling this measure under WTO law is through the principles of "least-restrictive means" or "necessity" (either

[283] Paras 162 and 164 to the *Korea—Beef* report (quoted in para 172 to *EC—Asbestos*).
[284] The asbestos case is not a good example in that respect because there is overwhelming evidence of the harmful effect of asbestos fibres.

through Article XX sub-paragraphs or through the chapeau). This would *intensify* the cognitive burden of the WTO legal system.

It seems, therefore, that the interpretative schema, which was proposed by the Appellate Body in the *Shrimp* case, might not be able to cope with trade disputes that are triggered by deep disagreements over the objectives, means, and impacts of the contested environmental policies. In the long term, the law would find it difficult not to deepen its involvement in cognitive questions. I do not see how the Appellate Body can remain faithful to its new declared value ordering, without developing more sophisticated *cognitive apparatus*.[285]

(b) *The Difficulties of Forming a More Pro-active Cognitive Strategy: Overload, Scarcity of Ecological Data, Social Legitimacy and Cultural Distortions*

In forming a more pro-active cognitive strategy the WTO legal system is facing several problems.[286] The first problem, which is likely to be generated by an extension of the WTO cognitive horizon, is an "*overload*" problem: a probable side-effect of the need to select and process increasing amounts of information. A second problem concerns the scarcity of ecological data. Because ecological data is such a scarce resource, requiring the law to take into account the ecological impact of trade measures, could make it much more difficult to succeed in Article XX arguments—counter to what the Greens' campaign to "inform" the WTO was seeking to achieve.

The third problem has to do with the WTO social image. Extending the WTO cognitive horizon would impose new *responsibilities* on the WTO, and could, therefore, endanger its legitimacy—its perception in other social realms. The legal implication of the Greens attempt to "ecologically" inform the WTO is that the WTO judicial bodies would have to engage in result-oriented deliberation. This, in effect, would require the panels (and subsequently the Appellate Body, in the appeal stage) to resolve disputes about the future, whether by using statistical-probabilistic calculus, or through any other decision-making criteria. However, since no statistical or probabilistic methodology can really "predict" the future, entering into the realm of result-oriented jurisprudence could turn the

[285] Some writers are even willing to impose further cognitive burdens on the WTO by allowing Members to submit non-violations complaints against strategic lowering of environmental standards by importing countries (because this action breaches prior market-access commitments) and to introduce eco-dumping duties against exports subsidised through strategically low standards (because not allowing such duties would give exporting countries, in effect, broader market access levels than the ones originally negotiated for) (Bagwell, Mavroidis, and Staiger 2002; Bagwell and Staiger 2001: 58–59).

[286] For a general analysis of this cognitive problematic, see Teubner (1990: 106).

decision-making process within the WTO legal system *into a risky exercise*.[287] In a result-oriented deliberation the WTO can easily find itself "on the wrong": whereas legal objects are mute, docile creatures, ecological objects are much more recalcitrant. The dolphin population might expand or shrink, growth-hormones might be found to be carcinogenic (after all), sea turtles might unexpectedly flourish, etc. The WTO legal system would thus have to bear the responsibility for its futuristic extrapolations; however—unlike decisions in other social realms—legal decisions, at least in the usual case, cannot be changed if they are found, in the future, to be wrong. Forcing the WTO legal system into the realm of probabilistic argumentation, might not, therefore, produce a stable resolution to the trade and environment debate.[288]

A fourth problem, which must be taken into account in this context, concerns the method, which should be used to incorporate ecological considerations into the legal process. Any particular mechanism, with which the law might pursue the goal of cognitive expansion, could expose the law to new types of *cultural distortions*, or *blindness*. Two examples can illustrate this problem. Consider first the economic methodology of cost-benefit analysis. This methodology enables, indeed, a more empirically oriented discussion of trade and environment problems. However, its underlying assumptions are at odds with certain environmental perceptions and its inability to take into account values without a monetary "tag" generates a limited image of nature.

The ecological critique of the WTO has its own blind spots. One such blind spot, which was particularly evident in the "Green" critique of the *Shrimp* decision (and in the decision as well), concerns the manifest disregard for the social aspects of the shrimp-turtle conflict.[289] Neither the Appellate Body, nor the "Greens" who criticised it, gave enough attention to the human aspect of this story, although it was pointed out by some of the experts who testified before the Panel. Mr Hock-Chark Liew, the Malaysian expert, emphasised that the question of TEDs need to be considered *not only from the perspective of sea turtles, but also from the perspective of the fishermen in developing countries*. He argued that there is a great difference between fishermen in the developed world and the developing world. Fishermen in the US are only interested in catching

[287] This kind of decision-making is much more problematic than resolving disputes about the meaning of domestic legal instruments. See, further, on this issue, Luhmann (1985: 124; Luhmann Unpublished: Ch 1, section II, p 5) and Teubner (1990).

[288] For the empirical difficulties of assessing environmental questions, see, eg, the report of the Southwest Fisheries Science Center, assessing the abundance of dolphins that are affected by the purse-seine tuna fishery for yellowfin tuna (Gerrodette and Forcada 2002).

[289] See, for example, the discussion of the *Shrimp* case in the following report of Public Citizen (1998). Public Citizen is one of the more influential US consumer advocacy organisations. It was founded in 1971 by Ralph Nader.

shrimp. For them any bycatch is simply trash: losing this bycatch as a result of using TEDs does not involve, therefore, any commercial loss. This is not true, however, for fishermen in developing countries. Mr Liew argued that

> Almost all the catch from these trawlers are landed: the large commercially important fishes, the prawns and the trash fish … All this is to provide the badly needed protein in these developing countries—that is why they catch and use everything. The larger fish are important so they are sold in markets, the trash fish they convert to fishmeal or animal feed and then the prawns are also sold in markets and if they fetch a good price then they are exported for the country's foreign earnings. Thus, for many of these trawlers *the earnings they get from prawns is only a component of the total earnings*.[290]

You cannot expect, Liew argued, fishermen "to use a device and find they lose profits in terms of the large fish".[291] The evaluation of TEDs should have taken into account, then, not only the efficiency of TEDs in excluding turtles, but also their efficiency (or deficiency) in excluding other big fish that have substantial commercial value for fishermen in the developing world. In changing the legal discourse within the WTO it is not just non-humans that need better representation. It is also humans.

I believe that a deeper involvement of the judicial bodies of the WTO in the empirical aspect of trade-environment disputes is inevitable. The current move toward greater cognitive openness is in line with the adamant social demand to incorporate a wider spectrum of social concerns into the WTO universe (which would transcend its historic economic focus). Resisting this demand and reverting to the GATT's *cognitive reticence* could adversely affect the social credibility of the WTO, and consequently, jeopardise its capacity to pursue its trade objectives. However, as the foregoing discussion demonstrates, broadening the cognitive gaze of the WTO is not an easy move. Unless the various difficulties that surround such a move are acknowledged and dealt with this move could not only be counter-productive from an environmental perspective, but also put in danger the structural unity of the WTO system itself.

3.4.4 Judicial Activism: Structural Constraints in the Design of the DSU

A further difficulty that is facing the law of the WTO in developing a more pro-active environmental strategy is the structure of the dispute

[290] Para 165, Annex IV to the First Panel Report, *Transcript of the Meeting With Experts Held On 21 and 22 January 1998*.
[291] *Ibid*, at para 166.

settlement system, which was codified in the new "Understanding on Rules and Procedures Governing the Settlement of Disputes" (DSU). The DSU which guarantees that any complainant can get a legal decision on his complaint within a very strict time-table, transformed the dispute settlement process into a highly adversary contest. According to the DSU, the period, from the establishment of a panel until the date the final report is issued to the parties to the dispute, should not, as a general rule, exceed six months, and in no case shall exceed nine months.[292] In the case of an appeal, the period from the filing of a notice of appeal, to the circulation of a final Appellate Body Report, should not, as a general rule, exceed 60 days, and in no case shall exceed 90 days.[293] Neither panels, nor the Appellate Body have the power to postpone the issuance of a report beyond the nine months/90 days limits; a panel may suspend its work only on the request of a complaining party.[294] The adversarial nature of the dispute settlement process is also reflected in a higher appetite for litigation (and a lower willingness to compromise). The consultation stage of the dispute settlement process has been treated so far more like a procedural phase in the litigation process (an opportunity for "discovery" requests), than an opportunity for reaching conciliatory solutions (Kim 1999: 462).

The deeply *adversarial* nature of the WTO legal process is, of course, at odds with the need for *cooperation*, which is present in almost any transnational ecological dilemma. This feature of the WTO legal process inhibits the ability of the system to provide innovative solutions to trade and environment conflicts. Indeed, furthering the ability of the WTO to cope with ecological challenges would probably require the WTO to make some changes in the deeply *adversarial make-up* of the dispute settlement system, and to endow this process with broader flexibility.

3.5 ENVIRONMENTAL SENSITISATION: INSTITUTIONAL SOLUTIONS

Making the WTO more sensitive to environmental concerns faces, therefore, various institutional challenges. Sensitising the WTO to environmental concerns cannot be achieved simply by changing the wording or interpretation of Article XX (in the spirit of the ideas of section 3.4.1 above); it requires novel institutional solutions, which would facilitate

[292] Arts 12(8), 12(9) to the DSU.
[293] Art 17(5) to the DSU. According to Debra Steger, the Director of the Appellate Body secretariat, of the 25 cases that were heard by the Appellate Body until November 1999, all but one (the *Hormone* case) were completed within the 90 days limit (1999: 46).
[294] Art 12(12) to the DSU.

this normative transformation. Given the current architecture of the WTO, it does not seem that the legal system of the WTO has the capacity to lead this process without parallel institutional changes; indeed, such a move might endanger its stability.

This concluding section considers two types of institutional changes. The first involves an expansion of the organisational setting in which trade and environment disputes are deliberated. This expansion is based on the notion of "sharing". By *sharing* the augmented *cognitive* and *decision-making burdens* associated with trade-environment disputes with *other* players, such as the United Nations Environment programme (UNEP) or environmental non-governmental organisations, the WTO can enhance its capacity to cope with the difficult challenges these disputes raise. Such extension can improve the problem-solving capacities of the WTO legal system, increase its legitimacy, and consequently enhance its structural stability. The notion of sharing does not reflect just functional considerations; it can also be read as a response to the challenge of "political ecology" (Latour 1998). Expanding the institutional space in which trade-environment disputes are deliberated can be seen as an expansion of the WTO political community. It offers an opportunity to experiment with new institutional structures which would allow "nature", through various intermediaries, to participate in the deliberation of environmental issues in the WTO. The main challenge in this context lies in developing institutional modalities that would facilitate this "sharing", without requiring, at the same time, radical changes in the architecture of the WTO.[295] This challenge is taken in section 3.5.1.

The second institutional change involves the structure of the evidentiary process. Coping with a richer cognitive horizon does not involve just the question of processing (understanding). It also requires us to consider how to deal with situations of "ignorance"—which in the context of trade-environment disputes should be quite prevalent given the scarcity of ecological data. This requires a careful consideration of the rules regarding onus of proof (see section 3.5.2).

3.5.1 New Structural Arrangements

Extending the institutional space in which trade-environment disputes are deliberated should proceed, I will argue, in three parallel moves.

[295] For Latour's "political ecology" see also, ch 1, section 1.1.2(b) and ch 5, section 5.3.4. A similar focus on "sharing" can be also found in a report published by the Commission for Environmental Cooperation (CEC) of North America, discussing trade–environment linkages in NAFTA (CEC 2002: 10–12, 27), available at: www.cec.org/files/PDF/ECONOMY/FreeTrade-en-fin.pdf (visited 28 July 2003).

The first involves strengthening the linkage between the WTO and international organisations, such as the United Nations Environment Programme (UNEP), the World Bank, and the secretariats of Multilateral Environmental Agreements. The second focuses on the potential contribution of non-governmental organisations (NGOs), such as Greenpeace and Friends of the Earth. The third involves delegating some of the decision-making and cognitive burdens to the parties themselves. Before moving to the detailed analysis of these different modalities it is important to emphasise that the idea of "sharing" is not based on a naive image of a "democratic WTO". Indeed, I do not believe that it makes sense to think about possible reforms of the WTO through the (utopian) prism of directly deliberative democracy, or inclusive stakeholder governance.[296] None of the proposals that were discussed in the literature,[297] or which will be proposed here, bring the WTO any closer to this democratic ideal. As noted above, it is better to think of the attempt to expand the WTO legal community in terms of the functional advantages that such expansion is likely to yield (in terms of the system's stability and innovative capacity) and as a way to break the WTO highly anthropocentric and mercantilist inclination.

(a) Linking with Environmental International Organisations (IGOs)

Consider, first, the idea of establishing stronger links between the WTO and environmental IGOs. UNEP should fulfil a key role in any such scheme because it serves as the leading international environmental agency.[298] This move has several advantages. First, it will create a permanent institutional representation for the environmental cause within the WTO. Second, it should reduce the potential tension between

[296] See, in the context of the WTO, Shell (1996). Richard Shell advocates a new model for the WTO—a Stakeholders Model—which is structured after the EU model (*ibid*: 370). The comparison between the WTO and the European Union is problematic for a number of reasons, the most important of which is the political/cultural cohesion of the EU, and its much broader normative/political powers. Furthermore, even if such proposal was practical it is still questionable whether the WTO should be the international institution that should lead the process of global integration.

[297] See, for example, the proposals of Esty (1999) and Charnovitz (1996).

[298] The 1997 Nairobi Declaration calls to promote UNEP's mandate "to advance the implementation of agreed international norms and policies, [and] to monitor and foster compliance with environmental principles and international agreements" and to strengthen UNEP's role "in the co-ordination of environmental activities". See paras 3(c) and 3(d) to the Nairobi Declaration on the Role and Mandate of The United Nations Environment Programme (UNEP 1997). Of course, there are certain elementary conditions—such as proper budget—that must be in place if we want UNEP to play a bigger role in the international realm. These conditions do not seem to exist at the moment. UNEP suffered in the last years from severe financial shortage, which was prompted by cuts in the financial contributions of several western countries (*the Independent on Sunday*, 15 March 1998, p 13).

Multinational Environmental Agreements (MEAs), such as the Biosafety Protocol and the Basle Convention, and the WTO. Third, a deeper integration between the WTO and environmental IGOs should relieve the WTO legal system of some of its cognitive burden. MEAs such as the Ozone regime and the Climate Change Convention have a cognitive credibility that the WTO is lacking.[299] In terms of political feasibility this move is likely to get wider support than extending the linkage with NGOs. UNEP, unlike many international environmental NGOs, enjoys also the trust of most of the developing world.[300] There is already some willingness within the WTO to strengthen the links between the WTO and UNEP and other environmental IGOs.[301] Although, as will be depicted below, this willingness has not been translated yet into concrete institutional arrangements.

Ensuring that the emerging linkage between the WTO and environmental IGOs would enrich indeed the discursive horizon of the WTO, and not serve just as a vacuous gesture towards the "greens", requires careful institutional design. It is important, that the status of environmental IGOs within the WTO will not be limited to that of mere "observers". If the argument for shared responsibility is to be taken seriously, it must be accompanied by a real change in the decision-making structure of the WTO. It is not enough to give UNEP or any other organisation observer status in the meetings of the Committee on Trade and Environment (CTE) (or other WTO forums).[302] The role of environmental IGOs should be elevated beyond that of mere discussants.

[299] Which reflect their success in creating innovative institutional structures that include scientists, bureaucrats and politicians. See, eg, Canan and Reichman (2002) for the case of the Ozone treaty. In the case of the Climate Change Convention the Intergovernmental Panel on Climate Change (IPCC)—a multi-disciplinary group of scientists from all over the world—has played a key role in the evolution of the regime. The IPCC has provided scientific, technical and socio-economic assessments of the risks of climate changed. Its various reports provided an important impetus to the normative evolution of the Climate Change Convention. For further details see the IPCC web-site at: www.ipcc.ch.

[300] Developing countries remain suspicious of allowing environmental NGOs a formal standing in the WTO legal domain, mainly because of the perception that the NGOs community is dominated by Western groups. See, for example, the statements of India and Brazil in the WTO's High-Level Symposium on Trade and Environment, 15–16 March 1999 (IISD 1999: 3, 8).

[301] See the concluding remarks of Renato Ruggiero (the former WTO Director-General) and the statement of Mr Klaus Topfer, UNEP Executive Director at the WTO's High-Level Symposium on Trade and Environment, 15–16 March 1999 (Topfer 1999; Ruggiero 1999). The statements are available at: www.wto.org/english/tratop_e/envir_e/hlmenv_e.htm (visited 28 July 2003).

[302] In addition to UNEP an observer status was given to several other international organisations. These include the Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Food and Agriculture Organization, International Commission for the Conservation of Atlantic Tunas, Southeast Asian Fisheries Development Center, United Nations Commission for Sustainable Development, United

It is possible to envisage several ways in which environmental IGOs—prominently UNEP—can be incorporated into the decision-making process within the WTO.[303] In the legal context, this incorporation would require giving UNEP the right to intervene, as a formal party, in legal proceedings before the WTO (this does not mean, necessarily, that UNEP should also be given the right to initiate legal proceedings). UNEP could also be used to organise expert review groups under Article 13(2) of the DSU.[304] However, the incorporation of experts into the legal process does not guarantee that the information they provide will be properly interpreted. It is thus important to give the environmental IGOs—as mentioned above—a "voice" in the bodies that make the decisions. Thus, another possible step would be to appoint to the Appellate Body and to any panel deliberating a trade-environment dispute a judge with environmental expertise (and to give UNEP a role in the selection process).[305] In addition to a representative "on the bench" UNEP should be given a formal standing (and a right to vote) within the negotiation process and the different decision-making forums of the WTO.[306]

A possible blue-print for the incorporation of UNEP into the WTO decision-making apparatus is Article XV:2 of the GATT 1947, which requires the CONTRACTING PARTIES to consult with the IMF "In all cases in which the CONTRACTING PARTIES are called upon to consider or deal with problems concerning monetary reserves, balances of payments or foreign

Nations Framework Convention on Climate Change. For a detailed list of IGOs with observer status see WT/CTE/INF/6, 4 Feb 2003. Several other MEAs were invited to attend the meetings of the CTE special session on an ad hoc basis: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; the Montreal Protocol on Substances that Deplete the Ozone Layer; the International Tropical Timber Organization. See TN/TE/5, 28 Feb 2003, at para 14. An observer status was also given to several non-environmental IGOs; prominent examples are the International Monetary Fund, the International Organization for Standardization, UNCTAD, and the World Bank, WT/CTE/INF/6, *ibid*. However, in most cases the observer status was given on an ad hoc basis.

[303] See, also the suggestions in WTO-UNEP (2002: paras 47–59).

[304] Panels are already consulting with international organisations on the question of selection of scientific experts. Thus, for example, in the *Asbestos* case the Panel consulted with the World Health Organization, the International Labour Organization, the International Programme on Chemical Safety, the International Agency for Research on Cancer and the International Organization for Standardization (para 5.20 to the Panel Report); in the *Hormones* case the Panel consulted with the Codex Commission and the International Agency for Research on Cancer (paras 8.7–8.9 to the Panel Report).

[305] Arts 8(1), and 17(3) of the DSU, which deal, respectively, with the composition of panels and the Appellate Body, seems to allow for the appointment of panelists whose field of expertise cover both trade and environmental issues. For a similar argument, see Nichols (1996: 328–29) and WTO-UNEP (2002: para 58).

[306] It seems quite sensible to apply this approach to several other key international organisations, such as the World Bank, the International Monetary Fund, the World Health Organization, and the International Labour Organization. Of course one would expect these

exchange arrangements". The Article stipulates further that the opinion of the IMF shall be given special weight by the authorities of the GATT (WTO):

> In such consultations, the CONTRACTING PARTIES shall accept all findings of statistical and other facts presented by the Fund relating to foreign exchange, monetary reserves and balances of payments, and shall accept the determination of the Fund as to whether action by a contracting party in exchange matters is in accordance with the Articles of Agreement of the International Monetary Fund, or with the terms of a special exchange agreement between that contracting party and the CONTRACTING PARTIES.[307]

While this Article still awaits formal interpretation by the WTO judicial bodies,[308] it seems unlikely that it will be interpreted as requiring panels to accept, unconditionally, the opinion of the IMF. Such total deference would be inconsistent with Article 11 of the DSU, which requires panels to exercise independent judgement in the cases they hear.[309] Nonetheless it is clear that the opinion of the IMF, regarding the facts of the matter, and any required actions, deserves careful consideration.

Article 31(ii) of the Doha Declaration goes some way toward the foregoing vision. It includes an agreement to negotiate on "procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status". The cooperative vision of Article 31(ii) is quite modest—it refers to "information exchange" and "observer status". It does not seek to give UNEP (or any other environmental IGO) a formal voice in the decision-making process within the WTO (not even in an advisory role following the example of the IMF in Article XV:2). The Cancun

organisations to accord the WTO similar rights in their own spheres of competence. This reciprocal logic was accepted by UNEP, see: (WTO-UNEP 2002: para 36).

[307] The Art concludes that: "The CONTRACTING PARTIES in reaching their final decision in cases involving the criteria set forth in paragraph 2 (*a*) of Art XII or in paragraph 9 of Art XVIII, shall accept the determination of the Fund as to what constitutes a serious decline in the contracting party's monetary reserves, a very low level of its monetary reserves or a reasonable rate of increase in its monetary reserves, and as to the financial aspects of other matters covered in consultation in such cases".

308 Thus the panel in *India—Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WT/DS90/R, 6 Apr 1999 (Panel Report), left undecided the proper interpretation of Art XV:2 (eg, whether Art XV:2 applies to the WTO judicial bodies, and what weight should be given to specific determinations of the IMF). It did not find it necessary to tackle these questions for the purposes of this dispute, since it found that its consultation with the IMF could also be based on Art 13 of the DSU. See, para 5.12 to the Panel report. The Appellate Body did not consider this issue either, see, para 152 to the Appellate Body Report, WT/DS90/AB/R, 23 Aug 1999.

309 See: the Appellate Body report, *ibid*, at paras 146–52.

summit has left this issue unresolved, delaying a decision to the next ministerial conference.[310]

Giving environmental IGOs a right to speak for the environment in the WTO, does have however, certain shortcomings. First, international organisations, unlike NGOs, are much more susceptible to pressure from national governments. This could prevent them from taking controversial positions in sensitive disputes. Second, while this proposal definitely extends the WTO community, it still leaves it within the close boundaries of the new "transnational bureaucracy".[311] The human profile of this bureaucracy and its susceptibility to political pressure could limit the contribution of environmental IGOs to the resolution of trade-environment disputes.

(b) Environmental Non-Governmental Organisations (NGOs)

The various limitations that surround the work of environmental IGOs indicate that environmental NGOs—which are politically independent—could make an important contribution to the deliberation of trade-environment disputes. Because environmental NGOs are not part of the global state-to-state politics they constitute a valuable source of non-politicised information—from scientific analysis, to data about public preferences and moods—which can enrich the discursive horizon of the WTO.[312] To some extent environmental NGOs already take part in the legal game within the WTO through the mechanism of *amicus briefs*, although as will be indicated below, their impact has been, so far, quite limited.[313]

Incorporating NGOs into the decision-making structure of the WTO, however, raises various questions, which refer to the cognitive and political credibility of NGOs. The first question concerns the political legitimacy of NGOs. One of the implications of NGOs' political independence is the lack of a clear social basis—a "public" whose views and concerns they represent. This missing "social grounding" is particularly

[310] See the Cancun Ministerial Statement, 14 Sep 2003. For a detailed description of the negotiations status leading to Cancun, see the CTE special session's reports to the Trade Negotiations Committee TN/TE/5, 28 Feb 2003 and TN/TE/6, 6 June 2003. One of the reasons for the lack of progress on this issue is the deep resistance of some Members to the formalisation of the linkage with environmental IGOs, even in the modest format of Doha Declaration Art 31(ii). See, TN/TE/6, *ibid*. An updated review of the negotiations can be found in BRIDGES Weekly Trade News Digest (at www.ictsd.org).

[311] For a detailed account of this "transnational bureaucracy" in the context of the Ozone regime, see, Canan and Reichman (2002).

[312] Studies of environmental NGOs emphasised their capacity to generate environmental knowledge, to act as information conduits between scientists, the media and the public and to monitor the work of public agencies. See Wapner (1995), Jamison (1996), and Banks and Weingast (1992).

[313] See, in particular paras 79–91 and 99–110 to the first *Shrimp* Report and paras 50–57 to *EU—Asbestos* (Appellate Body).

problematic in the case of transnational environmental NGOs, such as Greenpeace and WWF, which claim to represent global concerns (and not just the concerns of the Northern societies in which they evolved). This argument was raised by developing countries, which are highly sceptical about the ability of these groups to transcend their northern origins.[314] They argue that incorporating NGOs into the WTO legal process, through, for example, the mechanism of amicus briefs, would *distort* the legal process, by giving undue emphasis to the perspectives and interests of Northern societies.[315]

One possible response to the foregoing critic is to argue that the legitimacy of environmental NGOs does not stem from public support, but from their ideological commitment to the environmental cause, and their ability to represent this cause in the WTO arena. But even if one would take this path, some doubts remain. Despite their political independence environmental NGOs are not driven just by ideological concerns. Their choice of issues and modes of operation are also influenced by various organisational pressures. The issue of organisational survival is especially important in this context. The "collective action" demon presents environmental groups, especially the more established ones, with a continuous challenge—they have to cope with the formidable task of maintaining a viable membership (and persistent funding), despite the lure of "free riding".[316] This organisational pressure can lead to different selective biases.[317] Issues like recruitment of new members, rivalry with other groups, and stable funding can overshadow the organisation's original agenda.[318] These institutional constraints can have a large impact on the

[314] Thus, for example, in a special meeting of the WTO General Council on 22 Nov 2000 (WT/GC/M/60) the members warned the Appellate Body to proceed with extreme caution in the future with respect to how it deals with NGO's participation in the dispute settlement process. See, further, on this debate the meeting of the Dispute Settlement Body on 23 Oct 2002 (WT/DSB/M/134).

[315] This is because Northern NGOs, which are richer and better organised than their Southern counterparts, are likely to use this participatory option more often and more effectively. Against this argument one could argue that Northern NGOs do defend, in many cases, the interests of developing countries. Further, in many cases Northern NGOs cooperate with Southern NGOs. See, eg, the NGOs' submissions to the Panel in the second *Shrimp* case.

[316] While the "collective action" problem, which was first noted by Mancur Olson in "The Logic of Collective Action" (1965), has not barred the emergence of influential environmental groups (Prahl, Marwell, and Oliver 1991; Mitchell 1979) it still constitutes a permanent threat to their viability.

[317] By focusing on the selectivity of the group, I am taking a *group perspective*, rather than an individual perspective, which was the basis for Mancur Olson's work. For a similar viewpoint, see Jordan and Maloney (1998).

[318] The ways in which environmental groups tackle (and are influenced by) the problems of recruitment and fluctuation in membership are discussed in Prahl *et al* (1991), and Jordan and Maloney (1998). For further discussion of the way in which financial pressures influence transnational NGOs, see "Sins of the Secular Missionaries", *The Economist*, 29 Jan 2000, pp 25–28

group's agenda and priorities: they can influence both the type of ecological issues that are picked by the group, and the way in which these issues are framed—whether internally (to the group's members) or externally (to the media, politicians etc).[319]

The problematic status of NGOs' knowledge claim creates a difficult dilemma for the law in designing a mechanism for integrating NGOs into the WTO. How should the panels—the WTO "fact finders"—determine the credibility of NGOs' cognitive claims and distinguish between competing empirical claims of NGOs, Governments and IGOs? How should the WTO tribunals ensure that Southern NGOs are given equal opportunity to participate in the legal process? A further difficulty in this context concerns the social burden that would be imposed on the WTO by opening the legal process to NGOs. Giving the legal tribunals of the WTO the power (and discretion) to allow NGOs into the legal process requires these tribunals not just to evaluate their claims against the claims of other participants, but also to make the initial decision of whether to "let them in" at all. Devising a fair "screening" criterion—which should apply to environmental NGOs and other organisations such as business associations and trade unions—is a difficult task.[320] Moreover, giving the WTO the power to apply these criteria and decide which NGO is "worthy" of an "entry-ticket" into the trade world could intensify its tyrannical image.[321]

The response of the legal system to these questions was based on a strategy of "incorporate but ignore". Whereas the abstract formulations of the panels and Appellate Body reflected an increasing openness toward NGOs, their actual practice pointed to a different direction. The Appellate Body clarified that both it and the panels have a wide discretion to accept

[319] The group's agenda can reflect, then, not just its original substantive goals, but also its recruitment or funding needs. These institutional needs can motivate the group to manipulate the perception of the value of the collective good (or bad), if such manipulation can serve its organisational needs (Jordan and Maloney 1998: 400–3).

[320] It is possible of course to look to the practice of other international bodies such as the United Nations. See ECOSOC Resolution 1996/31, Consultative Relations between the UN and Non-Governmental Organizations (available at: www.hri.ca/uninfo/resolutn/res31.shtml, visited 9 June 2003). Discussing this resolution is beyond the scope of this chapter. However, it should be noted that the structure of Resolution 1996/31 might not be suitable to the context of the WTO (see, eg, the requirement in Part II, Art 20, and the wide-ranging powers it accords to the UN to decide on NGOs applications which might not be acceptable in the WTO context).

[321] A good example of this risk is the Asbestos case discussed above, in which the Appellate Body decided, ultimately, to deny all the requests for leave to file a written brief (paras 55–57 to the Appellate Body Report). In rejecting the requests the Appellate Body exercised its authority under para 4 of the Submission Procedure which was devised by the Appellate Body pursuant to rule 16(1) of the *Working Procedures*. Para 4 provided that: "The Appellate Body will review and consider each application for leave to file a written brief and will, without delay, render a decision whether to grant or deny such leave". *Ibid*, at para 52.

amicus curiae briefs.[322] With respect to panels this authority was grounded in Articles 12 and 13 of the DSU;[323] the Appellate Body's power to accept amicus briefs was based on the Appellate Body's general power to regulate the appeal process. This self-regulatory authority is given in Article 17.9 of the DSU which provides:

> Working procedures shall be drawn up by the Appellate Body in consultation with the Chairman of the DSB and the Director-General, and communicated to the Members for their information.[324]

In practice, however, and in complete contrast to these seemingly liberal statements, there was only one case (as far as I could ascertain) in which a panel actually took into account in its decision the submissions of an NGO.[325] In most of the cases in which *amicus curiae* briefs were admitted into the judicial process, the panels or Appellate Body made no reference to them in their ultimate reasoning.[326] Probably the most powerful example of this practice of "incorporate but ignore", can be found in the ruling of the Appellate Body in the *Asbestos* case, which emerged from a dispute

[322] This decision is, in itself, an important sign-post in the development of international law because international dispute settlement procedures of strictly inter-state institutions (eg, the International Court of Justice) tend not to recognise this concept. The practice of *amicus curiae* briefs was limited, so far, to international tribunals where individuals have standing, in particular human rights courts (Umbricht 2001: 781).

[323] First *Shrimp* Report (Appellate Body), at para 108.

[324] Art 17.9 was interpreted by the Appellate Body as giving it "broad authority to adopt procedural rules which do not conflict with any rules and procedures in the DSU or the covered agreements". See *United States—Imposition of Countervailing Duties on Certain Hot-Rolled Lead and Bismuth Carbon Steel Products Originating in the United Kingdom*, WT/DS138/AB/R, 10 May 2000, para 39. The Appellate Body also referred in this context to rule 16(1) of the *Working Procedures*, which allows a division hearing an appeal to develop an appropriate procedure in certain specified circumstances where a procedural question arises that is not covered by the *Working Procedures*, *ibid*, fn 33. See also EC-Sardines, paras 157–59. The panels and the Appellate Body have also admitted *amicus briefs* which were attached to the submissions of the parties. See the first *Shrimp* ruling, at para 89.

[325] The case is *European Communities—Trade Description of Sardines*, WT/DS231/AB/R, 26 Sep 2002. The United Kingdom Consumers' Association submitted a brief that supported the position of the complainant—Peru. The brief was attached to the Peruvian submissions. The Panel relied on that brief as evidence for the views of the European consumers (regarding the definition of Sardines). The position of the Consumers' Association sharply *contradicted* the position of the EU authorities. The Appellate Body accepted the Panel's decision in that context. See, *ibid*, paras 293, 300.

[326] With respect to panel proceedings, see, eg: the second *Shrimp* Report (para 5.16). With respect to Appellate Body proceedings, see, eg: the first and second *Shrimp* Reports (para 91 to the first Report, paras 75–78 to the second Report), *Thailand—Anti-Dumping Duties on Angles, Shapes and Sections of Iron or Non-Alloy Steel and H-Beams from Poland* , WT/DS122/AB/R, 12 March 2001 (para 78), and *EC—Sardines*, paras 160, 170 and 314 (regarding other *amicus* briefs than the one discussed at n 325 above). *Amicus curiae* briefs can of course influence the sitting tribunal even if this influence is not explicitly admitted—but it is hard to detect such influence.

between the EU and Canada over a French ban on the import of asbestos and asbestos products from Canada.[327] In a controversial move the Appellate Body allowed NGOs and other non-parties to apply for leave to file an amicus brief.[328] Several leading environmental groups and research institutions,[329] accepted the Appellate Body's "invitation", and filed requests to make legal submissions in the case. The ultimate result of this intricate process was disappointing: the Appellate Body decided, eventually, to refuse all the applications, giving no reasons for its refusal.[330]

The strategy of "incorporate but ignore" has several advantages. It constitutes a compromise between the competing demands of the anti-globalisation movement for deeper "democratisation" and the opposition of the developing countries to the incorporation of NGOs. It also relieves the WTO from the cognitive burden of assessing the claims of NGOs. However, this compromise, by rendering the contributions of NGOs irrelevant, undermines the whole *purpose* of this incorporation—enriching the discursive horizon of the WTO.[331] To the extent that one believes that NGOs can contribute to the deliberative process within the WTO, it is clear that this continual disregard is unacceptable.

Resolving the problem of NGO's participation is not easy, especially in view of the opposition from developing countries. These difficulties suggest that it might be wrong to give NGOs a deeper role in the WTO dispute settlement process. The following observations offer several ideas for improving the mechanism of *amicus curia* briefs, moving it beyond the current practice of "indifferent incorporation". One way by which the WTO can remove some of the political and cognitive burdens associated with NGO's participation is to assign some of these burdens to the NGO's community itself. This could be achieved, for example, by allowing access to the legal process to alliances of NGOs,[332] for example, to coalitions of five groups or more. The fact that a certain declaration of fact or legal argument is supported by several NGOs would render that submission

[327] *European Communities—Measures Affecting the Prohibition of Asbestos and Asbestos-Containing Products*, 12 March 2001, WT/DS135/AB/R. The Appellate Body has rejected the Canadian complaint, accepting the French Art XX(b) argument.

[328] The application procedure is depicted in a *Communication from the Appellate Body*, WT/DS135/9, 8 Nov 2000, quoted in para 52 to the *Asbestos* Report. The procedure is reproduced in Annex B to this chapter.

[329] The organisations included Greenpeace international, World Wide Fund for Nature—International, Ban Asbestos Network, the International Ban Asbestos Secretariat, the Foundation for International Environmental Law and Development ("FIELD") and the Center for International Environmental Law ("CIEL"). See, paras 55–57 to *EU—Asbestos*, and fns 31 and 32.

[330] Paras 55–56 to the Appellate Body Report.

[331] Even if one believes that the justification for opening the WTO to NGOs is that it would make the WTO more "democratic", it is clear that the concept of democracy requires that NGOs be given an opportunity to influence the decision-making process.

[332] Or any other interested non-parties, eg, academics.

more credible—both in empirical and political terms.[333] This "grouping" requirement should also limit the number of amicus briefs submitted to the WTO tribunals. The problem of under-representation of developing countries could again be solved by delegating some of the responsibility to the civic society itself. Thus, a possible rule could require any coalition of NGOs to include an NGO from a developing country or condition the admissibility of a brief from a northern coalition on there being an additional brief from a developing country coalition.[334]

Meaningful participation of NGOs in the legal process—even in the limited format of *amicus* briefs—also requires changing the DSU in order to create the necessary conditions for such participation. In particular the DSU would have to be changed so as to allow NGOs to observe the panel and Appellate Body sessions and to view the parties' submissions.[335] This would require a change in the wording of Articles 17.10 and 18.2 of the DSU, which currently provides for the confidentiality of the legal process.[336]

(c) Sharing Responsibility with the Parties

Another way in which the WTO legal system could share some of its decision and cognitive burdens is by placing more responsibility on the disputant parties themselves, both with respect to empirical questions, and

[333] Because different NGOs face distinct institutional pressures, their ability to submit a joint brief reduces the risk that the brief would be the product of internal organisational pressures (rather than "pure" environmental reasoning). To some extent such cooperation already occurs. Thus, for example, in the panel proceedings in the second *Shrimp* case the panel received two amicus submissions, the first from Earthjustice Legal Defense Fund on behalf of Turtle Island Restoration Network, The Humane Society of the United States, The American Society for the Prevention of Cruelty to Animals, Defenders of Wildlife, and Fiscalia del Medio Ambiente (Chile), the second, by the National Wildlife Federation on behalf of the Center for Marine Conservation, Centro Ecoceanos, Defenders of Wildlife, Friends of the Earth, Kenya Sea Turtle Committee, Marine Turtle Preservation Group of India, National Wildlife Federation, Natural Resources Defense Council, Operation Kachhapa, Project Swarajya, Visakha Society for Prevention of Cruelty to Animals. Para 5.14 to the Panel Report. Such cooperation also takes place outside the legal process, see, eg, the joint statement by AMERICAN-LANDS-ALLIANCE *et al* (2002).

[334] The wide discretion of the WTO tribunals to accept and consider amicus briefs means that the above proposals can be adopted without making any changes to the WTO rulebook.

[335] The WTO secretariat is involved in several initiatives which aim to achieve greater transparency and an enhanced dialogue with the NGOs. However, these projects fall short of giving NGOs a significant "say" within the WTO universe. For more details see the Guidelines for Arrangements on Relations with Non-Governmental Organizations (WT/L/162) and the NGOs portal in the WTO website: www.wto.org/english/forums_e/ngo_e/ngo_e.htm (visited 28 July 2003).

[336] See, *Thailand—Anti-Dumping Duties on Angles, Shapes and Sections of Iron or Non-Alloy Steel and H-Beams from Poland* , WT/DS122/AB/R, 12 March 2001, at para 74. The transparency of the dispute settlement process was one of the items that were deliberated by the Members in the context of the post-Doha negotiations (under Art 30 of the Doha Declaration).

with respect to the possibility of resolving the dispute through direct negotiations. While the Appellate Body's interpretation of the "good faith" requirement in Article XX has already advanced this goal by clarifying that a failure to negotiate in good faith could have legal consequences under Article XX, giving the WTO judicial bodies broader discretion in structuring the dispute settlement process could further advance this goal. This would require, however a change in the rules that govern the dispute settlement process. There are several procedural mechanisms that could enable the WTO tribunals to shift part of the responsibility for resolving a dispute to the parties. One potential mechanism is to allow the WTO judicial bodies to postpone their decision or to suspend the proceedings.[337] Thus, for example, in the *Shrimp* case, the Panel[338] could have postponed its decision for a year, and ordered the US to present within this period more information on the efficacy of TEDs and the impact of the import ban on sea turtle mortality. The complainants, on their part, might have been asked to explain their reluctance to conclude a multilateral agreement, and to present an assessment of the costs of equipping their fishing fleet with TEDs.

Another potential mechanism is to introduce a notion of "*provisional*" decision into the WTO. Provisional decisions can be made effective only for a limited period, and their extension could be made conditional upon the presentation of certain data. The onus for presenting that information would be imposed on the party which benefited from the provisional decision. In the *Shrimp* case, for example, the Panel or Appellate Body could have issued a provisional ruling for the claimants, conditioning the extension of the provisional order on a demonstration by the claimants that they have made, during this period, substantial effort to conclude a multilateral agreement, or could present convincing evidence to show that the specific conditions in their fishing grounds do not require the use of TEDs, or, that the costs of fitting TEDs into their fishing fleet are so high as to make such a demand unreasonable.[339]

The US proposed to open the dispute settlement hearing to the public and to make submissions publicly available (TN/DS/W/13, 22 Aug 2002). It noted further that other international dispute settlement fora such as the International Court of Justice, the International Tribunal for the Law of the Sea, and the European Court of Human Rights are open to the public. The US proposal was rejected by developing countries. See, ICTSD, Review of the Dispute Settlement Understanding, Doha Round Briefing Series, vol. 1(8) (Feb 2003) at 2.

[337] Currently there is no provision for suspending Appellate Body proceedings once they have commenced, and panel proceedings can only be suspended at the request of the complaining party.

[338] Or, to that effect, the Appellate Body.

[339] Similarly, a provisional ruling favouring the US (in effect, a postponement) could have imposed certain burdens on the US.

A more "flexible" design of the legal process would give the WTO judicial bodies more leverage in pursuing conciliatory solutions to trade disputes and allow the panels to collect more data. The Doha negotiation framework also includes a review of the Dispute Settlement Understanding (Article 30 of the Doha Declaration). However, the foregoing proposals, which expand the powers of the WTO tribunals, have not been discussed so far in the negotiations.[340]

3.5.2 Procedural Changes: Shifting the Burden of Proof

Implementing the various proposals, which were made above, and the new interpretation to Article XX which was offered in section 3.4.1,[341] would require the WTO be more open to empirical deliberations. However, because ecological data is such a scarce resource, extending the WTOs cognitive horizon could actually lead to the preservation of the current imbalance between trade and environmental concerns. A possible response to this scarcity is to change the way in which the onus of proof is allocated in trade-environment disputes.

My proposal builds on the Appellate Body's two-tiered framework for considering Article XX claims. It argues for a change in the allocation of the burden of proof under Article XX.[342] In the *first tier* of the analysis, the

[340] Quite to the contrary, Chile and the US have proposed limiting the powers of the legal system by giving the parties to a dispute more control over the dispute settlement process (TN/DS/W/28, 23 Dec 2002). Their six point proposal seeks, in effect, to politicise the legal process by giving more powers to the WTO political sphere. The proposal's key points are: making provision for interim reports at the Appellate Body stage; providing a mechanism for parties, after reviewing the Appellate Body interim report, to delete by mutual agreement findings in the report that are not necessary or helpful in resolving the dispute; making provision for some form of "partial adoption" procedure, where the DSB would decline to adopt certain parts of reports while still allowing the parties to secure the DSB recommendations and rulings necessary to help resolve the dispute; providing the parties a right, by mutual agreement, to suspend panel and Appellate Body procedures to allow time to continue to work on resolving the dispute. Repoliticising the dispute settlement process would enable powerful states, such as the US and EU to influence the results of the dispute settlement process—as it was in the GATT. At its meeting on 24 July 2003, the General Council agreed to extend the time-frame for the negotiations on the review of the WTO dispute settlement rules from 31 May 2003 to 31 May 2004.

[341] This proposal consists of two chief elements. First, in applying Art XX to extra-territorial trade measures the panels should recognise the possible role of such measures in securing participation in and compliance with multilateral environmental agreements. Second, in assessing the legality of inward-oriented measures panels should take into account the general weakness of environmental regulators. This means that the principle requiring the adoption of the "least trade restrictive measure" should not be applied too strictly, since such interpretation could reflect unreasonable expectations from domestic regulators.

[342] Note that the initial burden to establish a prima facie case of inconsistency with a particular provision of the GATT (or any other of the WTO agreements) lies with the complaining party. *EC—Hormones*, at para 98 and *EC—Sardines*, at paras 181, 287–88.

party *invoking* the "environmental" exemption would have to provide a more extensive empirical basis for its measures (this extended empirical requirement would focus on the alleged ecological problem and would stop short of introducing a strict probabilistic-effectiveness test).[343] The onus, at this stage would still be on the party invoking the exemption. The onus of proof in the *second tier* of the analysis—the application of the chapeau of Article XX (or similar provisions, which may be contained in the other agreements annexed to the WTO Agreement)—would be decoupled. First, the party invoking the exemption would have to satisfy the procedural aspects of the "good faith" requirement.[344] If the party invoking the exception satisfied these procedural requirements the onus will be transferred to the complainant to show, and to support in evidence that the measure which was chosen by the respondent is not "necessary" or the "least trade restrictive". Such evidence would have to be stronger than the intuitive reasoning, which was employed by GATT and WTO panels in past rulings.[345]

The changes proposed in this section can be incorporated into the dual structure, which was devised in the *Shrimp* case, for interpreting Article XX. It might be better, however, to introduce them in the form of a change to Article XX, or as a formal interpretation to the WTO Agreement.[346]

3.6 EPILOGUE: AFTER CANCUN?

It is hard to draw conclusive conclusions from the failure of the Cancun summit. Nonetheless, I believe that that the observation that this failure reflects a deep crisis in the WTO political structure has wide support. The decision-making rules and consensual tradition of the WTO are not capable of coping with the weight of the organisation's tasks and its growing membership, leading to disagreements rather than consensus. However,

[343] A similar idea can be found in the Appellate Body statement in *EC—Asbestos*, referring to Art XX(b): "In justifying a measure under Art XX(b) of the GATT 1994, a Member may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion. A Member is not obliged, in setting health policy, automatically to follow what, at a given time, may constitute a majority scientific opinion. Therefore, a panel need not, necessarily, reach a decision under Art XX(b) of the GATT 1994 on the basis of the 'preponderant' weight of the evidence", para 178. See also section 3.4.3(a) above.

[344] See, section 3.4.1 above, at p 82.

[345] Eg, *Thailand-Cigarettes* and *Reformulated Gasoline*. The Appellate Body came close to this formulation in its decision in *Australia—Measures Affecting Importation of Salmon*, WT/DS18/AB/R, 20 Oct 1998 (at paras 209–13). However, the *Australia—Salmon* decision referred to the SPS Agreement, in particular Art 5.6 thereof. The SPS Agreement and the *Australia—Salmon* decision are discussed in more detail in the next chapter.

[346] Art X of the WTO Agreement deals with the issue of amendments; Art IX(2) deals with the procedure of adopting formal "interpretations".

the prospects for a radical change in the WTO institutional make-up do not seem high. As was noted by the Financial Times after Cancun "If 146 members of the WTO cannot agree on trade liberalisation, they are hardly likely to do so on institutional reform".[347] The weakness of the WTO political and administrative realms could have two significant consequences. First, the pressure on the WTO legal system is likely to increase as the political system fails to deliver solutions to the various problems facing the WTO. As the legal system cannot refuse to give rulings on cases submitted to it, one can anticipate an increasing tension between the legal and political realms. This tension could endanger the stability of the institution as a whole: the WTO legal system, despite its innovative powers, is still highly fragile, and does not enjoy strong public support (Ehlermann 2003: 483–88). This tension may lead the panels and the Appellate Body to adopt conservative positions on contentious matters, reducing further the prospects of judicially-instigated breakthroughs in the environmental front. A second possible result is that a weakened WTO would increase the importance of other international trade institutions.[348] This possibility adds force to the pluralistic thesis of this book.

[347] Above, n 269. See also, Martin Wolf, "The Abominable No-Men Menacing World Trade", *The Financial Times*, 24 Sep 2003.

[348] Indeed, the US Trade Representative, Robert B Zoellick, stated after the collapse of the summit that the US intends to pursue bilateral and regional trade agreements in the absence of multilateral movement forward. See, Robert B. Zoellick, "America Will Not Wait for the Won't-do Countries", *The Financial Times*, 16 Sep 2003.

Annex A

Article XX

General Exceptions

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;
(*c*) relating to the importations or exportations of gold or silver;
(*d*) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies operated under paragraph 4 of Article II and Article XVII, the protection of patents, trade marks and copyrights, and the prevention of deceptive practices;
(*e*) relating to the products of prison labour;
(*f*) imposed for the protection of national treasures of artistic, historic or archaeological value;
(*g*) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;
(*h*) undertaken in pursuance of obligations under any intergovernmental commodity agreement which conforms to criteria submitted to the CONTRACTING PARTIES and not disapproved by them or which is itself so submitted and not so disapproved;
(*i*) involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; *Provided* that such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination;
(*j*) essential to the acquisition or distribution of products in general or local short supply; *Provided* that any such measures shall

be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist. The CONTRACTING PARTIES shall review the need for this sub-paragraph not later than 30 June 1960.

Annex B

The application procedure, as promulgated by the Appellate Body in *EC—Asbestos*.[349]

1. In the interests of fairness and orderly procedure in the conduct of this appeal, the Division hearing this appeal has decided to adopt, pursuant to Rule 16(1) of the *Working Procedures for Appellate Review*, and after consultations with the parties and third parties to this dispute, the following additional procedure for purposes of this appeal only.
2. Any person, whether natural or legal, other than a party or a third party to this dispute, wishing to file a written brief with the Appellate Body, must apply for leave to file such a brief from the Appellate Body *by noon* on *Thursday, 16 November 2000*.
3. An application for leave to file such a written brief shall:
   (a) be made in writing, be dated and signed by the applicant, and include the address and other contact details of the applicant;
   (b) be in no case longer than three typed pages;
   (c) contain a description of the applicant, including a statement of the membership and legal status of the applicant, the general objectives pursued by the applicant, the nature of the activities of the applicant, and the sources of financing of the applicant;
   (d) specify the nature of the interest the applicant has in this appeal;
   (e) identify the specific issues of law covered in the Panel Report and legal interpretations developed by the Panel that are the subject of this appeal, as set forth in the Notice of Appeal (WT/DS135/8) dated 23 October 2000, which the applicant intends to address in its written brief;
   (f) state why it would be desirable, in the interests of achieving a satisfactory settlement of the matter at issue, in accordance with the rights and obligations of WTO Members under the DSU and the other covered agreements, for the Appellate Body to grant the applicant leave to file a written brief in this appeal; and indicate, in particular, in what way the applicant will make a contribution to the resolution of this dispute that is not likely to be repetitive of what has been already submitted by a party or third party to this dispute; and

[349] Para 52 to the Appellate Body Report.

(g) contain a statement disclosing whether the applicant has any relationship, direct or indirect, with any party or any third party to this dispute, as well as whether it has, or will, receive any assistance, financial or otherwise, from a party or a third party to this dispute in the preparation of its application for leave or its written brief.

4. The Appellate Body will review and consider each application for leave to file a written brief and will, without delay, render a decision whether to grant or deny such leave.
5. The grant of leave to file a brief by the Appellate Body does not imply that the Appellate Body will address, in its Report, the legal arguments made in such a brief.
6. Any person, other than a party or a third party to this dispute, granted leave to file a written brief with the Appellate Body, must file its brief with the Appellate Body Secretariat *by noon* on *Monday, 27 November 2000*.
7. A written brief filed with the Appellate Body by an applicant granted leave to file such a brief shall:
   (a) be dated and signed by the person filing the brief;
   (b) be concise and in no case longer than 20 typed pages, including any appendices; and
   (c) set out a precise statement, strictly limited to legal arguments, supporting the applicant's legal position on the issues of law or legal interpretations in the Panel Report with respect to which the applicant has been granted leave to file a written brief.
8. An applicant granted leave shall, in addition to filing its written brief with the Appellate Body Secretariat, also serve a copy of its brief on all the parties and third parties to the dispute *by noon* on *Monday, 27 November 2000*.
9. The parties and the third parties to this dispute will be given a full and adequate opportunity by the Appellate Body to comment on and respond to any written brief filed with the Appellate Body by an applicant granted leave under this procedure.

4

Science, Standardisation and the SPS/TBT Agreements

ARTICLE XX, WHICH was discussed in the previous chapter, constitutes only one of the several junctions in which economic and environmental considerations collide within the WTO. The Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement),[350] which are part of the WTO "single package", created a new arena for environmental disputes through their intervention in the field of technical and sanitary standards.[351] The SPS/TBT regimes extend,

[350] The SPS Agreement deals, primarily, with measures to protect human, animal or plant health from hazards relating to agricultural products. Regulations that cover other types of products are covered by the TBT Agreement. The Agreement on Technical Barriers to Trade ("Standards Code"), which was negotiated during the Tokyo Round, was only signed by a limited group of countries, and made very little impact on the international arena.

[351] I will use the terms standards and regulations interchangeably. The TBT Agreement defines *technical regulation* as a "Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method", Annex 1, Art 1 of the TBT Agreement. The SPS Agreement uses the term *sanitary or phytosanitary measures* instead of standards. These are defined to include all regulations pertaining to "end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety", annex A, Art 1, of the SPS Agreement. Typical SPS measures include quarantine requirements, measures prescribing maximum residue standards for pesticides on fresh horticultural products and eco-labelling requirements for processed foods. The TBT Agreement makes a distinction between technical regulations—which are mandatory, and standards—which are voluntary, annex 1, Arts 1 and 2 of the TBT Agreement. The Appellate Body has interpreted the term "mandatory" broadly, see, *Japan—Measures Affecting Agricultural Products*, WT/DS76/R, 27 Oct 1998 (Panel Report), WT/DS76/AB/R, 22 Feb 1999 (Appellate Body Report) at paras 102–108 (*"Japan—Agriculture"*). The term "technical regulation" is also discussed by the Appellate Body in its report in *European Communities—Measures Affecting the Prohibition of Asbestos and Asbestos-Containing Products*, WT/DS135/R, 18 Sep 2000 (Panel Report), WT/DS135/AB/R, 12 Mar 2001 (Appellate Body Report), at paras 59–83 (*"EC—Asbestos"*).

dramatically, the grounds according to which the WTO may intervene in domestic regulatory processes. These grounds include not just the principle of equal treatment but also the substantive reasoning underlying the disputed regulatory regime.[352]

The power to strike out national environmental or health regimes has transformed the WTO into a key player in the global debate about risks.[353] The new and extensive involvement of the WTO in the regulation of environmental and health risks, generated a wide-ranging debate. Within the mercantilist-economic universe of the WTO technical standards appear as *instruments of protection* or *barriers to trade*.[354] Their possible role as mechanisms for achieving legitimate *social objectives* is of little interest to the WTO, in and by itself.[355] Civic groups object to this approach, arguing that trade concerns should not interfere with the attempt to control the various environmental and health risks which confront the modern society. Thus, for example, Public Citizen, the well-known US consumer organisation, argued that the WTO:

> enforces subjective rules that undercut countries' democracies by limiting the subject matter, level of protection and design of domestic food safety policies. Health and safety rules are deemed barriers to trade and countries are required to abandon them or face stiff fines (Public-Citizen 2003: 2).

The SPS/TBT regimes seek to resolve the tension between these conflicting visions by distinguishing between "protectionist" and "legitimate" standards. The normative framework with which the SPS/TBT regimes seek to implement this distinction consists of two major elements. First, the agreements embrace the idea of standards harmonisation. This is driven by the belief that better global coordination can reduce, *ex ante*, the number of transnational risk disputes, and, provide the WTO, *ex post*,

[352] Under the SPS/TBT regimes, national regulations can be found to be inconsistent with WTO law even if they *do not* discriminate between imports from different states, or between domestic and imported products. A regulatory measure can thus be found to be inconsistent with the SPS/TBT Agreements even if it is compatible with GATT Arts I and III. In that sense these regimes go beyond the traditional rules of the GATT. See, also Quick and Bluthner (1999: 627).

[353] The SPS/TBT regimes apply also to non risk-reducing measures, such as compatibility standards or standards pertaining to quality. I will not discuss in this chapter the rationale behind this type of standards or the principles that should guide their treatment under the SPS/TBT regimes. They do generate, however, different questions; see, eg, Roberts *et al* (1999: 15–18).

[354] The trade-barrier effect is caused by the fact that technical standards also apply to imported products, restricting the import of products that fail to meet them. For this characterisation of technical standards see, for example, the First Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade (TBT-Committee 1997) at para 4 and USTR (2003: 115–17).

[355] See, also Joerges *et al* (1999: 32–33).

with a mechanism for distinguishing between legitimate and protectionist standards (by creating a homogenous platform of global standards). To facilitate the goal of global harmonisation the SPS/TBT regimes support the standard-setting processes that take place within several international standardisation bodies. This support expands, implicitly, the organisational framework in which WTO law is made. It creates a new transnational hybrid of treaty-based and private legal systems, which was not envisaged by the WTO Agreement.[356] The second element of the SPS/TBT regimes focuses on the administrative process that precedes the introduction of national regulations. The SPS and TBT Agreements set up a normative framework which seeks to discipline this administrative process by regulating the way in which technical standards are created and implemented. The notions of *risk assessment* and *scientific justification* play a central role in this normative framework. Science holds, then, a *key role* in turning the distinction between "protectionist" and "legitimate" regulations into an operationable legal construct. In contrast to the other fields of international economic law that are discussed in this book, economic reasoning—eg, cost-benefit analysis—does not play a significant role in the SPS/TBT domain (ie, in resolving the dilemma of distinguishing between "protectionist" and "legitimate" standards).[357]

The SPS/TBT regimes seek, then, to resolve the problem of how to distinguish between legitimate and protectionist regulations, by referring to *two external sources*: international standardisation bodies and science. To a large extent, these two sources are conflated within the SPS/TBT universe: the standardisation establishment is seen as an institutional embodiment of science. But deferring to these external sources represents more than a

[356] Marrakesh Agreement Establishing the World Trade Organisation. See, in particular Art IV, which deals with the structure of the WTO, and Art V, which deals with relations between the WTO and other organisations. Art V states that the General Council shall make appropriate arrangements for cooperation with intergovernmental and non-governmental organisations, which are concerned, or have responsibilities, that relate to those of the WTO. Art V reflects, however, only a loose promise for future action, while the provisions of the SPS/TBT Agreements that refer to external organisations were made effective from 1 Jan, 1995.

[357] Cost-benefit analysis of risk-reducing measures should allow the regulator to assess whether losses in consumer surplus caused by restricting trade, and the administrative costs associated with the implementation of a certain measure, are offset by its benefits—the prevention of negative external effects of foreign production on the domestic economy (Beghin and Bureau 2001: 17; Roberts, Josling, and Orden 1999: 12). These negative effects could reflect risks to human health or to domestic production (prominently—agriculture). Cost-benefit analysis depicts technical standards, then, as directed toward "the correction of market inefficiencies stemming from externalities associated with the production, distribution, and consumption of [foreign] products. These externalities may be regional, national, trans-national, or global" (Roberts, Josling, and Orden 1999: 3). From this perspective a risk-oriented SPS/TBT measure would be justified only if its benefits exceed its costs. I will comment in more detail on this approach in sections 4.3.1 and 4.4 below.

functional appeal for knowledge; it is also an appeal for *legitimacy*. This chapter seeks to expose the problematic of the SPS/TBT *deference strategy*. I will argue that both as an instrument for resolving the protectionist dilemma and as a mechanism for generating legitimacy, this strategy is dubious.

The *functional* facet of this strategy is based on two problematic assumptions. First, that either science—as the ultimate interpreter of nature—or the standardisation establishment as one of science's institutional embodiments—has a definite answer to the legitimate/protectionist dilemma. Second, that the criterion of validation which is used by these two epistemic systems to judge knowledge claims, is the criterion that should be used by the law to resolve risk disputes. But one should also be sceptical of the capacity of this strategy to produce *"legitimacy"*. First, the hope that, by referring to these two authorities, the WTO might be able to avoid taking any responsibility for the application of the legitimate/protectionist distinction is based on a misjudged reading of the modern discourse of risk. In particular it disregards the common interpretation of the concepts of blame and responsibility. Second, the appeal to the cognitive authority of science and the international standardisation bodies disregards the democratic critique of these bodies and the deep public distrust of the global standardisation establishment.

But is there a tenable alternative to the deference strategy? The chapter's main thesis is quite simple: the elusive reliance on extra-legal resources should be replaced by a strategy of *active engagement*, which would be based on more open and pluralistic approach to the deliberation of knowledge claims. This strategy would not only be more credible as an attempt to achieve legitimacy but should also enable the WTO legal system to cope more successfully with the instrumental tasks of the SPS/TBT regimes.

The chapter is organised as follows. The first section considers the social milieu in which the SPS and TBT Agreements operate. It examines the features of the contemporary risk discourse and the way in which it collides with the practices of the SPS/TBT regime's. The next section examines the SPS/TBT regimes drive for harmonisation and questions the capacity of this strategy to produce legitimacy. The third section considers the Appellate Body's relevant case law. It opens with a general reflection on the fallibility of science and the value of pluralism in the deliberation of risk claims. It proceeds with an exploration of the way in which the law of the WTO has reconstructed the notions of science and standardisation. This exploration focuses on cases that invoked the SPS Agreement; however, its conclusions can be applied, to a large extent, to the TBT regime. The final section concludes with some general reflections.

4.1 THE SOCIAL MILIEU OF THE SPS AND TBT AGREEMENTS: THE UNAVOIDABLE RISK OF BLAME

The risk disputes which were adjudicated by the WTO in the context of the SPS/TBT regimes—in particular those involving issues of human health—reflect a much wider problematic, which goes deep into the "heart" of the contemporary society. Contemporary risk disputes are driven by a deep desire for *controllability*—by a collective desire to tame and control the multifarious risks that confront human beings in their daily life.[358] Whereas in the pre-industrial society the aspiration to control the future was sustained by the practices of magic and religion, in the modern society these practices have been substituted by "a new faith in the potentialities of human initiative" (Thomas 1971, 1991: 791–91). The modern "fetishisation of control and determination" imposes increasing demands on the regulatory establishments of the Western societies.[359] This social pressure has two key features: first, a persistent challenging of the risk-spectrum, that is, the types of risks deserving regulatory attention, and, second, a critique of the assessment techniques, which are used by the regulatory establishment to analyse risks.[360]

The public pressure regarding the *delineation* of the regulatory risk spectrum is driven by two main factors: science and globalisation. Science contributes to this process through its intense search *for*, and successful production *of* new objects. These new "things"—from genetically modified organisms to prions[361]—are designated as sources of risk the moment they emerge from the laboratory into the social realm. Globalisation, that is, the increase in the scale and scope of cross-border interactions, contributes to this process both through the production of new risks—from SARS to invasive organisms—and through the facilitation of cross-border risk-communication.[362]

But, as noted above, the criticism of risk-regulation extends also to the way in which risks are *assessed*. Consider, for example, the regulation of toxic chemicals. The traditional regulatory approach to toxic risks was

[358] See, Thomas (1971, 1991: 761–800) and Douglas (1990: 4–8).
[359] See, O'Connor (1994: 610) and Roberts *et al* (1999: 1).
[360] See, for example: Giddens (1998: 24), Luhmann (1993: 28) and the 2003 report of the Royal Commission on Environmental Pollution "Chemicals in Products: Safeguarding the Environment and Human Health" (2003: 48–128).
[361] Prion: the suspected agent of the human form of mad-cow disease. See, Chesebro (1998).
[362] The eruption of the SARS epidemic in 2003, and its rapid dispersal around the world provided a vivid illustration of the risks of globalisation. See the web-site of the US Centers for Disease Control and Prevention at www.cdc.gov. Another example of the risks of globalisation is the problem of invasive organisms—that is, human induced introduction of species into foreign eco-systems. This problem creates a serious risk to eco-systems around the world. It is one of the major causes of species extinction—second only to habitat loss (Mumford 2002: 329).

based on a *discrete strategy.* It dealt with one chemical at a time, in one environmental medium and examined each of the possible risks (eg, cancers, birth defects and ecological hazards) in isolation. This discrete approach is not acceptable today. Regulators are expected to assume that risks are *additive* and that different chemicals might produce *synergetic* effects. They are expected to employ a much more complex vision of risk assessment, which is based on a mutimedia, multisource and multiagent approach.[363]

Another "side-effect" of the aspiration for controllability is a never-ending legal, moral and political game of *blame* and *attribution*. The blame-game ensues almost immediately once the attempt/demand to achieve controllability has failed. In that sense, the notions of controllability and responsibility are the constituting elements of the modern discourse of risk.[364] The discourse of blame is, in itself, a source of *ex post* risk. Any actor that produces, regulates or controls health and environmental risks is a potential addressee of this unmerciful discourse. Being "in blame" can cause one to lose his political office, bring a business to bankruptcy and trigger various legal sanctions.[365] The attribution process does not reflect, necessarily, the causal path of the particular risk (whatever definition of causality is adopted), and is, in that sense highly unpredictable.

The SPS/TBT regimes thus take the WTO into a highly sensitive social frontier. However, to the extent that these agreements have envisaged the WTO as a mere bystander to the global debate about risks (which is only interested in the economic side effects of technical regulations), they have misjudged the nature of the contemporary discourse of risk.[366] What the drafters of the SPS and TBT Agreements had probably failed to realise is that by bringing the WTO into the regulatory network which

[363] See, Ohanian *et al* (1997: 83). As Ohanian *et al* note, the public regulator is now confronted with impossible dilemmas. On the one hand, public agencies usually do not have "the mandate, time, resources, or the expertise to address all aspects of environment". On the other hand, they do not want "to walk away from important health or ecological concerns", *ibid*, at 82. This public pressure has motivated the EU Commission to propose a new policy for the regulation of chemicals (EU-Commission 2001). The US Trade Representative has already indicated its concerns about the possible trade implications of the new EU policy (USTR 2003: 116).

[364] Thus Mary Douglas notes in one of her papers that "Blaming ranges the universe, with all its benefits and hazards, on one side or another. Under this optic it is implausible that risks be perceived except through the accountability that they activate" (1990: 129).

[365] The "blaming discourse" provides a continuous challenge to traditional legal concepts—whether by challenging the limits of public agencies' responsibility, or by questioning the limits of civil liability. Thus, for example, the emerging field of mass torts (particularly in the US) has reshaped the concept of liability in cases involving multiple plaintiffs. See, eg, Feldman (1995) and Rodricks and Rieth (1998).

[366] The idea that the WTO can succeed in maintaining the façade of a disinterested economic observer was also adopted by some legal commentators; see, for example, Sykes (1999: 23).

shapes the global response to risks—even if in a limited role—they have *re-presented* the WTO as a potential addressee of risk claims.[367] The WTO was brought into the institutional network to which demands for controllability, and allegations of blame can be directed. The fact that the SPS/TBT regimes envisage only a limited role for the WTO in this global institutional framework will not prevent this process.[368]

The attempt to insulate the WTO from the substantive risk debate by relying on either the prestige of international standardisation bodies, or on the competence of science was based, therefore on a misjudged reading of the contemporary risk discourse.

4.2 THE DRIVE FOR HARMONISATION: A QUESTIONABLE PATH FOR LEGITIMACY

The SPS Agreement and the TBT Agreement reflect an ambitious attempt to achieve global harmonisation in the field of technical standards. The project of harmonisation builds on the idea that if countries share similar objectives in coping with risks, there is no reason why they should not be able to agree on measures to cope with them. From this perspective the wide disparity in regulatory standards, which still characterises the international map, is seen as unnecessary source of costs[369] that can be eliminated by direct policy efforts. The attempt to present regulatory heterogeneity as arbitrary or irrational is, however, highly problematic. It ignores the fact that regulatory heterogeneity is caused by a variety of causes, which include differences in risk factors,[370] differences in the way risks are perceived and assessed,[371] and differences in preferences

[367] The deep involvement of the WTO in this regulatory network is reflected in the number and extent of SPS-related complaints which were discussed in the SPS Committee. A recent WTO report summarises the complaints that had been brought to the Committee's attention from 1995 to Nov 2002. Altogether, 154 specific trade concerns were raised in the Committee. These included issues, which were high on the public list of risk concerns, such as BSE (mad cow disease) related measures, traceability and labelling of genetically modified organisms in food and feed, and ban on hormones in animal production. See, WTO-Secretariat (2003).

[368] To illustrate this point, consider the following quote from a report of Earthjustice Legal Defense Fund, which examined the impact of the SPS/TBT regime on the regulation of toxic substances: "In its one-sided rush to promote trade whatever the cost, the WTO erects numerous obstacles to effective regulation of toxic substances. The WTO's rules stand in the way of strong health and safety standards…" Goldman and Wagner (1999: 1–2).

[369] These reflect the costs on global producers who must comply with multiple regulatory regimes, and the inability of national regulators to enjoy the economies of scale associated with a harmonised risk regime (eg, the ability to rely on risks assessments carried out by foreign regulators).

[370] Eg, geological or climatic conditions and spatial distribution of production centres or natural habitats (Roberts, Josling, and Orden 1999: 14).

[371] Which leaves substantial scope for disagreement among participants in risk discourse, see the discussion in section 4.3.1(a) and Roberts *et al* (1999: 14).

regarding the management of risks. The latter two reflect both cultural disparities and scientific uncertainties.[372] It is wrong to assume, therefore that existing divergences in regulatory structures can be completely removed through better coordination or by the centralisation of regulatory decision-making. Any attempt to impose unconditional harmonisation on the global society, without taking notice of these underlying differences is likely, therefore, to generate deep social tensions.

Building on the foregoing observations I will argue, in the next parts of this chapter, that risk regulation, and its judicial review within the WTO, should be based on a pluralistic vision. In this section, I would like to focus on a different aspect of the SPS/TBT drive for harmonisation: the institutional profile of this process. I will argue that the institutional mechanisms through which these agreements pursue the goal of global harmonisation are highly problematic as instruments of legitimisation. The goal of global harmonisation is pursued through two parallel mechanisms: first, by encouraging the work of key international organisations, and, second, by calling Members to coordinate their regulatory regimes through bilateral agreements. I will focus here on the first of these two mechanisms.[373] In order to promote the (private) process of transnational standard-making the TBT and SPS Agreements use several legal techniques.[374] First, both the TBT and SPS Agreements call upon WTO

[372] Such differences in the perceptions and preferences regarding risks—reflecting dissimilarities in income levels and in cultural and ethical norms—have been the trigger of the *Hormones* and *Asbestos* disputes.

[373] The SPS/TBT regime foresees two types of bilateral agreements. The first mode of cooperation is based on mutual recognition of standards. Members are encouraged to accept as *equivalent* the technical regulations or sanitary measures of other Members, even if these regulations differ from their own, provided that these regulations adequately fulfil the *objectives* of their own regulations (Art 4.1 to the SPS Agreement, Art 2.7, to the TBT Agreement). A second type of bilateral cooperation takes the form of mutual recognition of conformity assessment ("MRCA"). Unlike equivalence agreements MRCAs are not based on substantial harmonisation. Rather, they require that each side would be willing to *delegate* to its counterpart's competent authorities the power to *certify* products and production methods, in accordance with its own substantial requirements (Art 6, the TBT Agreement). The SPS Committee has adopted several decisions in an effort to promote the conclusion of "equivalence" agreements (Decision on the Implementation of Art 4 of the Agreement on the Application of Sanitary and Phytosanitary Measures, G/SPS/19, 26 Oct 2001, and decisions G/SPS/19/Add.1 and G/SPS/7/Rev.2/Add.1).

[374] There are substantial similarities between the approach of the TBT and SPS Agreements toward global harmonisation and the EC's attempt to achieve European harmonisation of technical standards through the 1985 "New Approach to Technical Harmonisation and Standards". The "New Approach" has relied, to a large extent, on the technical competencies of the European standard-setting bodies (CEN and CENELEC). According to the New Approach, technical directives were expected just to provide a general framework of "essential" health and safety requirements; the task of developing the detailed harmonised standards was left to these (private) standard-setting bodies. There are, however, important differences between the WTO and the EU. Unlike the EC, the WTO has no competency to act in the substantive fields (eg, public health, environment and technical compatibility), in

Members to base their domestic regulations on international standards when they exist.[375] The SPS Agreement even goes further, by recommending, in Article 5.1, that Member States should take into account "*risk assessment techniques* developed by the relevant international organisations" (my emphasis). WTO Members are thus expected to take into account, in designing their domestic regulatory regimes, not only the international standards which are relevant to the *specific* regulatory problem under concern (eg, whether a specific chemical can be consumed by humans and to what extent), but also the *methodological framework*, which was developed by the relevant international bodies. [376]

In the second place, in order to facilitate the process of positive harmonisation, the SPS/TBT regimes encourage WTO Members, as well as the non-governmental organisations which lead the standardisation process in the national level, to play a full part in the preparation of international standards by the relevant international organisations.[377] In the context of the SPS Agreement these organisations include the Codex Alimentarius Commission (Codex Commission), the International Office of Epizootics (IOE) and the organisations that operate within the framework of the International Plant Protection Convention (IPPC).[378] The International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC) are the leading international institutions in the context of the TBT Agreement.[379] The SPS Committee adopted a provisional procedure to monitor the process of international harmonisation and the use of international standards, guidelines or recommendations.[380]

A further key element of the SPS/TBT harmonisation strategy is the creation of a presumption in favour of measures that *conform* to

which the harmonisation process proceeds. The WTO does not have, therefore, a clear *mandate* to interfere in the international process of technical harmonisation. The "New Approach" was subject to a "hot" debate within Europe, see eg, Pelkmans (1987) and Joerges *et al* (1999).

[375] Art 3.1, SPS Agreement; Art 2.4, TBT Agreement.

[376] Such reference to methodological guidelines (in relation to the definition of "risk assessment"), can be found in both *Australia—Salmon* and *Japan—Agriculture* cases. See the Panels' decisions, para 8.78, and paras 2.25–2.33, respectively. *Australia—Measures Affecting Importation of Salmon*, WT/DS18/R, 12 June 1998 (Panel Report), WT/DS18/AB/R, 20 Oct 1998 (Appellate Body Report). The first triennial review of the SPS Agreement refers explicitly to the work that was undertaken by Codex, OIE and IPPC in developing guidelines on risk analysis (SPS-Committee 1999: para 22).

[377] Art 3.4, SPS Agreement; Art 2.5, TBT Agreement, and Annex 3 of the TBT Agreement, 'Code of Good Practice for the Preparation, Adoption and Application of Standards, Art G.

[378] Art 3.4, SPS Agreement.

[379] The TBT Agreement does not contain a direct reference to the ISO or the IEC. It includes, instead, a general definition of an "international body", see Annex 1, Art 4.

[380] Procedure to Monitor the Process of International Harmonisation, Decision of the Committee, G/SPS/11, 22 Oct 1997. See, Arts 3.5 and 12.4 of the SPS Agreement.

international standards, guidelines and recommendations. According to this presumption such measures or standards shall be considered as *consistent* with the provisions of the TBT and SPS Agreements and the GATT 1994.[381] This should provide further incentive for the harmonisation process. In the *Hormones* case[382] the Appellate Body clarified, however, that this presumption does not limit the freedom of WTO Members to adopt measures, which result in a higher level of environmental or health protection than the level that is established in the relevant international standards. The Appellate Body emphasised that WTO Members have an *autonomous right* to establish their own level of protection.[383] In terms of "burden of proof" this ruling clarifies that pointing to a discrepancy between national and international standards *does not* absolve complainants from the necessity to establish *a* prima facie case[384] showing an inconsistency between the national regulatory scheme and the substantive provisions of the SPS or TBT Agreements.[385]

The attempt of the Appellate Body to protect the regulatory autonomy of WTO Members does not detract from the general commitment of the SPS/TBT regimes to the project of harmonisation. The harmonisation process should be led, it is assumed, by international organisations such as the Codex Commission and the ISO; these organisations are also expected to play a leading role in the deliberation of risk-disputes within the WTO. However, the deference to these external sources is based on several problematic assumptions. First, even if one accepts the idea that

[381] Art 3.2 SPS Agreement; Art 2.5 TBT Agreement.

[382] The European ban on hormone treated beef—the subject of the *Hormone* case—was not based on international standards, and thus could not have been justified on this ground, see, *US Panel Report*, paras 2.17–2.25. *EC Measures Concerning Meat and Meat Products (Hormones),* WT/DS26/R/USA, 18 Aug 1997 (Panel Report) WT/DS26–DS48/AB/R, 16 Jan 1998 (Appellate Body Report) ("*EC—Hormones*").

[383] Moreover, The Appellate Body emphasised that this autonomous right should not be conceived as an exception to some general obligation to conform to international standards; see para 172, Art 3.3 of the SPS Agreement, and Art 2.4 of the TBT Agreement. See, also, *European Communities—Trade Description of Sardines*, WT/DS231/R, 29 May 2002 (Panel Report), WT/DS231/AB/R, 26 Sep 2002 (Appellate Body Report), at para 274 ("*EC Sardines*") (applying the *Hormones*' reasoning to the TBT Agreement).

[384] In the GATT/WTO jurisprudence a prima facie case is one which, in the absence of effective refutation by the defending party, would require, as a matter of law, a ruling in favour of the complaining party presenting the *prima facie* case. See the Appellate Body Report in *EC—Hormones*, at para 104. For a more detailed discussion of the "burden of proof" issue, see, Quick and Bluthner (1999: 607–10).

[385] Appellate Body Report, *EC—Hormones*, at paras 108–09. The Appellate Body emphasised therefore that the SPS Agreement does not confer on international standards a status of binding norms (para 165). This clarification did not have much impact on the final outcome of the *Hormones* case as the Appellate Body found that the United States and Canada did make the necessary prima facie case against the EC, *ibid*, at para 197, fn 180. The Appellate Body further clarified the burden that lies on a complainant in case of such a discrepancy in *EC—Sardines*, at paras 284–91 (interpreting Art 2.4 of the TBT Agreement).

science should have a leading—even exclusive—role in resolving the protectionist/legitimate dilemma (an idea which will be criticised in the next sections) the assumption that the global standardisation bodies are representatives of "science" is highly questionable. It disregards the fact that the work of these bodies is deeply entangled with political and economic calculations, and is subject to various non-scientific pressures.[386] The standard-setting process which these bodies facilitate and coordinate is only partially governed by scientific considerations. Furthermore, part of the standards promulgated by these organisations do not deal with scientific questions—the truth of propositions—but with problems of meta-science (eg, how to conduct a proper risk-assessment), or purely regulative/managerial issues (eg, environmental management systems).[387] These questions do not fall naturally within the scientific domain, and it is thus not clear why scientists should be given a privileged status in making decisions about them.

Second, by disregarding the political nature of global standardisation bodies the WTO has side-stepped the controversy revolving their constitutional framework. This framework was widely criticised for being highly exclusionary—particularly with respect to civic groups and developing countries.[388] A detailed examination of the various international standardisation bodies which are involved in SPS/TBT disputes is beyond the scope of this work.[389] It is clear, however, that if these international bodies are expected to confer legitimacy upon the WTO, the

[386]Both the ISO and the Codex Commission make decisions through a semi-political process of sequential negotiations, culminating in formal voting. While in both cases this process is supported by scientific advice (see, eg, Codex Statement of Principle on the Role of Science in the Codex Decision-Making and the Extent to which Other Factors are taken into Account), the ultimate decisions about standards are not taken by scientists. Furthermore, both organisations are subject to fierce lobbying from interested global corporations. See, eg, Murray (1999: 52) and Wallach (2002: 836–40, 847–49). The way in which these organisations make decisions is thus very different from the non-centralised, peer-review and publication-led process, which characterises the work of scientists. The constitutional structure of the ISO is set in ISO/IEC Directive (part 1) and that of the Codex Commission in the Statutes of the Codex Alimentarius Commission. These documents are available through the websites of both organisations: www.ISO.ch and www.codexalimentarius.net. The Codex Statement on the Role of Science can also be found at the Codex Web-site, *ibid*.

[387]Thus, for example, the Codex Commission is currently considering new Draft Working Principles for Risk Analysis for Application in the Framework of the Codex Alimentarius, which are due to be adopted by the end of 2003 (Codex-Commission 2003). The ISO has promulgated a standard for environmental management system called ISO 14001. See, eg, Murray (1999).

[388]For an NGO critique of the non-participatory character of international standardisation bodies, and the additional power that they have received under the SPS/TBT regimes, see the report of Earthjustice Legal Defense Fund, Goldman and Wagner (1999: 7). For a review of the developing countries view, see Jensen (2002: 14–28).

[389]See, Zarrilli (1999: 11–17) for a discussion of the different organisations that are referred to by the SPS Agreement, and Clapp (1998) for a discussion of the ISO.

aforementioned critique cannot be disregarded.[390] The WTO would have no choice but to get involved in this debate.[391] The problem, however, is that there is no clear solution to this democratic critique. First, even if one accepts the argument that the standardisation process should be made more inclusive it is not clear how this goal could be achieved in practice. Making the complex transnational processes through which international standards are prepared intelligible to the general public, and opening these processes to wide participation, constitutes a difficult challenge. It is hard to envisage a model, which would be both feasible and satisfying from the perspective of pure democratic theory. Furthermore, any attempt to democratise the global standardisation process, is not likely to be welcomed by the institutions which currently control this process.[392] This means that the capacity of these bodies to act as a source of legitimacy will remain limited.

4.3 DETERMINING THE LIMITS OF STATE REGULATORY POWER

The deep gap between the SPS/TBT abstract aspiration for harmonisation, and the current reality of broad regulatory heterogeneity, creates a wide scope for risk/trade disputes.[393] The adjudication of these disputes within the WTO requires the legal system to pass judgement on the (domestic) regulatory processes, which led to the introduction of a certain risk regime. The SPS and TBT Agreements employ two sets of rules in

[390] The *Hormones* dispute has already produced some deliberation over these issues, see Zarrilli (1999: 14).

[391] The Committees that supervise the operation of the SPS and TBT Agreements should lead this process within the WTO. To some extent, the constitutional structure of these transnational standard-setting bodies was already subject to discussions within these Committees, focusing, in particular on the difficulties of developing countries to take an active part in the development of international standards. See the SPS-Committee Review of the Operation and Implementation of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS-Committee 1999: para 18) and the TBT Committee First Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade (TBT-Committee 1997: para 19). For a detailed examination of the problems faced by developing countries in the context of the SPS/TBT regime, see Zarrilli (1999: discussing the SPS Agreement) and the World Bank report (2000: discussing the TBT Agreement). The World Bank has initiated in 2000 a major research programme, which seeks to develop a better understanding of the *quantitative* significance of standards and regulations as barriers to trade (World-Bank 2000: para 21).

[392] Thus, for example, in the mid-1990s, the EU Commission was forced to drop its plan to impose a new institutional superstructure on the European standard-setting community, because of the strong resistance of the European industry and standardisation communities. See, Joerges *et al* (1999: 18–22).

[393] In legal terms this gap is produced by the right of WTO Members to adopt standards that are stricter than international standards, and by the fact that international standards do not cover all the fields subject to standardisation.

order to determine whether a disputed SPS/TBT measure fulfils a legitimate objective. The *first set* examines the *substantive* justification behind the regulatory measure. This investigation is pursued through the concepts of *risk assessment*, *scientific justification* and the "*least trade-restrictive*" principle.[394] This set of rules reflects a strong deference to science. This section explores the way in which the Appellate Body, particularly in its decisions pertaining to the SPS Agreement, has applied these concepts, and criticises the vision of science that underlies these rulings.[395] I will argue that the legal strategy of deference to science (in its legally reconstructed image) is inadequate both as a mechanism for coping with uncertainty and as an instrument for attaining legitimacy. This strategy should be replaced by a more pluralistic approach for the assessment and adjudication of risks.

The second set of rules is based on the principles of "most favoured nation" and "national treatment". It incorporates these two principles into the SPS/TBT regime by introducing a broad non-discrimination requirement.[396] This strategy relies on basic legal notions, and as such, depends less on science. The links between these strategies will be explored below.

4.3.1 The Fallibility of Science and the Value of Pluralism

The deference to science and to the standardisation establishment as its institutional agent is based on a naive conception of science. It presumes that science can give a determinate answer to the regulatory dilemma of the SPS/TBT regimes, that is, whether a particular regulatory mechanism is *justified* in view of its *stated objective* and whether a *less restrictive measure* (satisfying the same objective) can be found. This conception is extremely problematic. It is based on an unwarranted belief in the capacity of science to cope with the uncertainty that underlies environmental and health risks, and it sidesteps the question of the possible contribution of non-scientific discourses (eg, ethical, cultural, "lay" knowledge) to the resolution of risk disputes.

The problematic of this legal reconstruction of science can be explicated through the distinction between *completable* and *incompletable* universes (or "closed" and "open").[397] The concept of incompleteness designates a

[394] See, Arts 2.2, 3.3, 5.1, and 5.6 of the SPS Agreement, and Arts 2.2—2.4 of the TBT Agreement.
[395] While the discussion focuses on the SPS case law, its conclusions can be applied also to the TBT Agreement because of the large similarities between the two agreements. See the Appellate Body Report, *EC—Sardines*, at para 275.
[396] See, Arts 2.3 and 5.5 of the SPS Agreement, and Art 2.1 of the TBT Agreement.
[397] For this distinction see, Binmore (1993).

universe whose domain of uncertainty cannot be described completely or precisely. There are two aspects to this indeterminacy: (1) *ontological indeterminacy*—uncertainty about the correctness of our description of reality, and (2) *time indeterminacy*, which refers to uncertainty about the future.[398] The idea of *incompletable* universe describes, then, a world in which the possibility of surprises cannot be discounted. Such *strong uncertainty* implies not only that we cannot be sure whether it will be rainy or sunny tomorrow, but also that our theories of the world are inherently fallible. It requires us to consider our understanding of the world as inherently transient—there is always the risk that discovering new data will force us to revise our theories of the world.[399] In contrast, living in a *completable* or *closed* universe means that those who operate within it can specify, beforehand, *all* the possible outcomes of a particular action and assign to *each* outcome a unique probability.

I believe that the notion of *incompletable* universe corresponds better to our intuitive experience of living in the world.[400] The naive view of science, which underlies the deference strategy of the SPS/TBT regimes, is problematic because it disregards the fact that science does not offer a definite algorithm for *"closing"* the *incompletable* universe in which law operates. Science—especially in the context of the issues which are of interest to the SPS and TBT Agreements, ie, health and environmental risks—does not offer definite "solutions" to the problem of indeterminacy.[401] Science uses several techniques to confront problems of indeterminacy: induction, probabilistic modelling, and—when uncertainty seems too pervasive—deferring judgement until more data can be gathered or a better model developed. None of these techniques provide, however, a sure guarantee against surprises.[402] Note that this inherent fallibility of science influences also the attractiveness of economic techniques such as cost-benefit analysis. Cost-benefit analysis requires the analyser to decompose the welfare effects of the examined regulatory measures, differentiating between costs and benefits. In assessing the benefits of a certain measure the analyser must evaluate the various probability

[398] See, Faucheux *et al* (1997: 52).
[399] See, Binmore (1993: 325) and Harremoes *et al* (2001: 169).
[400] The distinction between closed/open universes has no privileged philosophical status. Its usefulness lies in the way in which it conforms to our experience of observing the world through different modes of inquiry. A legitimate question in this context is whether the *incompletability* of the world is a product of the bounded rationality of human beings, or is it, rather, an intrinsic feature of the world. This question seems to me to be less important in the context of legal research; law is a pragmatic discipline, which is driven by the need to produce immediate solutions to concrete social dilemmas.
[401] On the extent of our scientific "ignorance", see Jellinek (1981), Binmore (1993: 326) and the Royal Commission on Environmental Pollution 24th Report (2003: 11–46).
[402] For a comprehensive historical study of scientific failures to predict the adverse effects of various technologies or substances (such halocarbons, DES, and PCBs), see Harremoes *et al* (2001).

aspects of the risk, which is tackled by the SPS measure. These may include the probability that a certain food-additive is carcinogenic, or the probability of infestation in the case of the importation of certain agricultural products, as well as the extent to which the SPS measure under scrutiny can reduce the relevant risk (Beghin and Bureau 2001: 18). Economists get these probabilities from scientific studies—which means that their cost-benefit analyses are as good as the science on which they rely (Roberts, Josling, and Orden 1999: 34).[403]

To clarify the idea of *incompleteness* consider the example of toxicology—a field which provides justification for many health and environmental regimes. Toxicology draws, heavily, on two research methodologies: bioassays (studies of laboratory animals) and epidemiology (study of human population). These methods rely on two important types of extrapolations, or "short-cuts", in their effort to study the effect of different substances on humans.[404] The first type of "short-cut" concerns an extrapolation from animals to humans. The reliance on bioassays means that toxicology uses data from animal toxicity studies in order to estimate dose/response relationships in humans. The second type of "short-cut" concerns an extrapolation from *routes* and *scales* of exposures to others. This means, for example, that epidemiological studies of occupational hazards are used to identify risks for the general population, despite the existence of substantial differences in the exposure conditions. The reliance of toxicology on this type of extrapolatory inferences, means that "toxicological" determinations are inherently uncertain and to some extent arbitrary.[405]

If science cannot shield us from indeterminacy, giving it a privilege role in the resolution of the legitimate/protectionist dilemma does not seem justified. It might make more sense to look at the way in which other domains of explanation have responded to the problem of indeterminacy.[406]

[403] Or worse because cost-benefit studies face additional problems, see, eg, Beghin and Bureau (2001: 20 noting the intractability of the mathematical models necessary to study the economic influence of SPS/TBE measures).

[404] See Rodricks and Rieth (1998) and Pollak (1995: 183–85).

[405] Thus, even authors who support the use of extrapolation in ecological risk assessment are highly critical of the way in which it is used in regulatory decisions today (Forbes and Calow 2002). Another question is whether bioassays or epidemiological studies should be treated as "science" in the first place. Maturana, for example, argues that any scientific explanation must include a description of a *generative mechanism* that would give rise to the phenomenon to be explained (1988: 34). Neither bioassays nor epidemiological studies produce a description of the mechanism through which specific substances produce particular health results (Forbes and Calow 2002: 253; Pollak 1995: 185).

[406] By referring to other explanatory domains I implicitly reject the idea that science holds any privileged access to reality. This rejection presupposes the existence of multiple explanatory domains, which are constituted by different set of distinctions, and different criteria of acceptability. See, Maturana (1988: 32), Jasanoff (2001: 32–34) and Harremoes *et al* (2001: 174, 177).

This pluralistic conclusion is supported also by the fact that some risk disputes (involving questions of animal welfare or genetically modified organisms) are driven, at least partially, by ethical and cultural considerations, in which scientists do not have special expertise. The challenge for the law lies, therefore, in forging—out of this multiplicity of responses—that strategy which would be most suitable to the scientific, ethical and cultural uncertainties that are faced by the SPS/TBT regimes. The *pretence* that science holds a perfect solution to the problem of risk-control impedes any attempt to devise such a composite strategy. I will argue that one possible legal response to the deep indeterminacies with which the SPS/TBT regimes have to cope, is to focus on the *procedural aspects* of the domestic decision-making process. From this perspective, the key to the SPS/TBT dilemma lies in devising appropriate guarantees for *institutional reflexivity*, rather than trying to establish universal criteria (scientific or economic) for determining the *truth* of the risk-oriented propositions that underlie different regulatory measures.

4.3.2 The Appellate Body SPS Case Law

This section explores the role which was played by science in the Appellate Body SPS case law. It focuses on three key decisions: the *Hormones* dispute, *Australia—Salmon* and *Japan—Agriculture*.[407] A further and highly controversial dispute, involving the European moratorium on the approval of biotech products is currently at the early stages of the dispute resolution process, and if pursued to conclusion is likely to be one of the more important decisions to be made by the WTO.[408] Science has played a key role in each of these cases. Indeed, the Appellate Body viewed the requirements of "sufficient scientific evidence" and "risk assessment" (of Articles 2.2 and 5.1 of the SPS Agreement) as essential requirements "for the maintenance of the delicate and carefully negotiated balance in the SPS Agreement between the shared, but sometimes competing, interests of promoting international trade and of protecting the life and health of human beings".[409] The language and methodology of economics (eg, cost-benefit analysis) have played a relatively

[407] While the latter two cases—unlike the *Hormones* case—do not deal with issues of public health, but with the less controversial and "more technical" topics of animal and plant health, their approach to the question of risk assessment is relevant also to the field of public health. I will also comment briefly on a more recent case: *Japan—Measures Affecting the Importation of Apples*, WT/DS245/R, 15 July 2003 (Panel Report), WT/DS245/AB/R, 26 November 2003 (Appellate Body Report) ("*Japan—Apples*").
[408] *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, Request for Consultations by the United States, WT/DS291/1, 20 May 2003.
[409] Appellate Body Report, *EC—Hormone*s, at para 177.

minor role in this case law.[410] Despite the general reliance on science these decisions also include several insights, which can form the basis for a more reflexive approach to the resolution of risk-disputes. The Appellate Body decision in *EC—Hormones*—the first SPS dispute to reach the appeal stage—laid the basic interpretative framework for the resolution of SPS disputes. The Appellate Body subsequent decisions in the *Australia—Salmon* case and the *Japan—Agriculture* case relied, and further interpreted this basic interpretative schema.

Before considering the Appellate Body case law, it might be worthwhile citing the main provisions of the SPS Agreement, which deal with the "scientific" requirements. These include Articles 2.2, 3.3, 5.1:

Article 2.2:

> Members shall ensure that any sanitary or phytosanitary measure is applied *only to the extent necessary* to protect human, animal or plant life or health, is *based on scientific principles* and is not maintained without *sufficient scientific evidence*, except as provided for in paragraph 7 of Article 5. (my emphasis)

Article 3.3:

> Members may introduce or maintain sanitary or phytosanitary measures which result in a higher level of sanitary or phytosanitary protection than would be achieved by measures based on the relevant international standards, guidelines or recommendations, *if there is a scientific justification, or as a consequence of the level of sanitary or phytosanitary protection a Member determines to be appropriate in accordance with the relevant provisions of paragraphs 1 through 8 of Article 5* … (my emphasis)
>
> 2. For the purposes of paragraph 3 of Article 3, there is *a scientific justification* if, on the basis of an examination and evaluation of available scientific information in conformity with the relevant provisions of this Agreement, a Member determines that the relevant international standards, guidelines or recommendations are not sufficient to achieve its appropriate level of sanitary or phytosanitary protection.

[410] The SPS/TBT "balancing spectrum" does not seem to allow the WTO to engage in "direct" economic balancing, in which the regulatory benefits of a specific regulatory measure are compared to its economic costs, see Sykes (1999: 7). However, economic considerations are included, to some extent, in the SPS Agreement. Thus, according to annex A risk assessment should evaluate also the economic consequences of infestation or similar risks, in assessing the risk to animal/plant life or health and in determining the measure to be applied, members are required take into account various economic factors (Art 5.3), and finally according to Art 5.6 members are also required to ensure that their chosen SPS measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility. However, these factors do not amount to a full-blown cost-benefit analysis (see n 357 above).

Article 5.1:

> Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations.

a) The Hormones *Case: Opening the Door for Open-Ended Risk-Assessment?*

The *Hormones* dispute between the United States and the European Union (EU) was the first SPS dispute to reach the Appellate Body.[411] It was the culmination of a long and intricate trade dispute, which began in the 1980s, when the EU first introduced a ban on the import of hormones-treated beef from the United States.[412] The goal of the ban was to protect European consumers against the risks associated with the usage of growth hormones in beef products. The ban was reintroduced in 1997 by a new directive—Council Directive 96/22/EC.[413] The directive prohibited the placing on the European market of both domestically produced and imported beef products, derived from cattle to which either natural or synthetic hormones[414] had been administered for growth promotion purposes. The US has strongly contested the scientific basis of the European measure, rejecting the claim that hormones-treated beef had a carcinogenic potential.

As a food safety regulation the ban was regulated by the SPS Agreement. The Appellate Body accepted the US (and Canadian) arguments and recommended that the EU should bring its regulatory regime (that is, Directive 96/22) into conformity with the provisions of the SPS Agreement. A consequent arbitration between the EU, US and Canada,[415] determined that the EU should implement the Appellate Body's decision within 15 months from the date of its adoption by the Dispute Settlement Body (13 February 1998).[416] After the EU failed to meet this dead-line the

[411] *EC Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/R/USA, 18 Aug 1997 (Panel Report) WT/DS26–DS48/AB/R, 16 Jan 1998 (Appellate Body Report) ("*EC—Hormones*").

[412] For a detailed account of the history of the dispute see: Hammonds (1990: 840–44) and Meng (1990: 819–39).

[413] 29 April 1996, OJ 1996, L 125/3.

[414] The natural hormones: Oestradiol-17β, progesterone or testosterone; the synthetic: Trenbolone acetate, zeranol or melengestrol acetate (MGA).

[415] *EC Measures Concerning Meat and Meat Products (Hormones)*, Arbitration under Art 21:3(c) of the DSU, WT/DS26/15–WT/DS48/13, 29 May 1998.

[416] The arbitrator rejected the EC request that the reasonable period of time shall include time to conduct further risk assessment studies. Allowing the EC additional time to conduct studies or to consult experts to demonstrate the *consistency* of a measure already judged to be *inconsistent* would not be, the arbitrator ruled, in line with the DSU requirement of

US and Canada were allowed to introduce punishment measures, in the form of increased tariffs, against the EU.[417] By December 2002 the EU ban was still in place, and the search for possible solutions was still continuing (USTR 2003: 113).

The Appellate Body started its analysis by noting that the requirement—in Articles 2.2 and 5.1 of the SPS Agreement—that SPS measures should be based upon scientific principles and risk assessment constitutes *a single conceptual obligation*.[418] The Appellate Body refrained, however, from providing a *precise definition* to the concept of "scientific justification". The Appellate Body approached the question of "risk assessment" in three consecutive steps. First, it noted that the requirement that a given SPS measure should be "based on" a risk assessment does not amount to a requirement to establish a certain *magnitude* or *threshold level* of risk in the assessment process.[419] Second, it noted that the obligation to provide scientific justification is not limited to laboratory research or quantitative analysis:

> … to the extent that the Panel purports to exclude from the scope of a risk assessment in the sense of Article 5.1, all matters not susceptible of quantitative analysis by the empirical or experimental laboratory methods commonly associated with the physical sciences, we believe that the Panel is in error … It is essential to bear in mind that the risk that is to be evaluated in a risk assessment under Article 5.1 *is not only risk ascertainable in a science laboratory operating under strictly controlled conditions, but also risk in human societies as they actually exist, in other words, the actual potential for adverse effects on human health in the real world where people live and work and die* (para 187, my emphasis).

The Appellate Body's non-quantitative understanding of risk-assessment was reflected also in its willingness to acknowledge that the management of risks is, in itself, a source of risk. The Appellate Body accepted

prompt compliance. While the commissioning of further scientific studies can form part of a domestic implementation process in a particular case, such considerations "are not pertinent to the determination of the reasonable period of time", *ibid*, at para 39.

[417] The Dispute Settlement Body has authorised the US and Canada to impose sanctions worth $116.8m, and C$11.3m, respectively ("US Wins Approval for Beef Sanctions", *Financial Times*, 27 July, 1999, p7). See, *EC Measures Concerning Meat and Meat Products (Hormones),* Arbitration under Art 22.6 of the DSU, WT/D26–DS48/ARB, 12 July 1999.

[418] Appellate Body Report, at para 180.

[419] Para 186. In its decisions in *Australia—Salmon* and *Japan—Agriculture* the Appellate Body has reiterated its commitment to this non-quantitative understanding of risk assessment, see paras 124, and 63, respectively. In its *EC—Asbestos* Report the Appellate Body noted that this principle holds also to Art XX(b) stating that "there is no requirement under Art XX(b) of the GATT 1994 to *quantify*, as such, the risk to human life or health. A risk may be evaluated either in quantitative or qualitative terms", para 167.

the EC's argument that the risk assessment process should take into account also the risks arising from a failure to observe the requirements of good veterinary practice on the *farmers' level* as well as the associated *administrative* problems of detecting and controlling such failures.[420] In its opinion, the language of the SPS Agreement allows Member States to take into account "management" risks in their risk assessment procedures.[421]

After these observations, which were prominently negative (risk assessment should not be limited to …), the Appellate Body proceeded to develop a positive understanding of the requirement for scientific justification. The Appellate Body approached this dilemma by putting forward the idea of *"reasonable"* or "*rational relationship*":

> We believe that Article 5.1 … with … Article 2.2 of the *SPS Agreement*, requires that the results of the risk assessment must *sufficiently warrant*—that is to say, *reasonably support*—the SPS measure at stake. The requirement that an SPS measure be "based on" a risk assessment is a substantive requirement that there be a rational relationship between the measure and the risk assessment (para 193). We do not believe that a risk assessment has to come to a monolithic conclusion that coincides with the scientific conclusion or view implicit in the SPS measure … Article 5.1 does not require that the risk assessment must necessarily embody only the view of a majority of the relevant scientific community … In most cases, responsible and representative governments tend to base their legislative and administrative measures on "mainstream" scientific opinion. In other cases, equally responsible and representative governments may act in good faith on the basis of what, at a given time, may be a divergent opinion coming from qualified and respected sources. By itself, this does not necessarily signal the absence of a reasonable relationship between the SPS measure and the risk assessment, especially where the risk involved is life-threatening in character and is perceived to constitute a clear and imminent threat to public health and safety. Determination of the presence or absence of that relationship can only be done on a case-to-case basis, after account is taken of all considerations rationally bearing upon the issue of potential adverse health effects (para 194, my emphasis).

The notion of "rational relationship" is a *sui generis* legal formulation. Because the Appellate Body was careful not to associate this concept with

[420] Such observance was assumed both by the studies that found that the use of growth-hormones pose no risk to humans, and by the relevant Codex standards, *ibid*, at para 206.
[421] Para 205. This conclusion can be applied also to the TBT Agreement, which explicitly allows Members to consider "related *processing* technology" (Art 2.2, my emphasis). The Appellate Body further noted in this context that "the object and purpose of the SPS Agreement justify the examination and evaluation of all such risks for human health whatever their precise and immediate origin may be", *ibid*, at para 206.

a particular strand of philosophy of science, it is hard to associate this formulation with any concrete understanding of scientific proof.[422] The Appellate Body's earlier critique of laboratory knowledge means that the notion of "rational relationship" cannot be interpreted as a simple requirement for "*empirical support*".[423] Neither can the requirement of "rational relationship" be interpreted as an invocation of some *communitarian criterion*—the Appellate Body was very clear in its rejection of the principle of "social acceptance" as a criterion for validating scientific explanations.[424] The only positive thing the Appellate Body had to say about the requirement of "rational relationship" was contained in the last part of the aforementioned paragraph, which says:

> Determination of the presence or absence of that relationship can only be done on a case-to-case basis, after account is taken of all considerations rationally bearing upon the issue of potential adverse health effects.

This definition of "rational relationship" leaves, of course, many open questions.

By recognising that "laboratory knowledge" may not always reflect the "actual risks" of the "real world" the Appellate Body seems to acknowledge that science operates in an *open* or *incompletable* universe, which is ruled by *strong uncertainty*. However, because the Appellate Body's ruling does not contain a *precise definition* to the concept of "scientific justification", the practical significance of these comments remained unclear.[425] It is not clear what would constitute a reasonable way of complementing the shortcomings of laboratory research. Should we look for these complementary strategies in the realm of science, maintaining in that way

[422] In that context the Appellate Body *rejected* the EC's argument that the *precautionary principle* (rather than "rational relationships") should guide the examination of whether a specific measure is scientifically sound, *ibid*, at paras 120–125. I will return to this issue below, in the discussion of the *Japan—Agriculture* case, in which the issue of the precautionary principle was discussed in more detail.

[423] Thus, the Appellate Body seemed to reject the criteria of validation, which were developed by the school of logical empiricism, which emphasised the notions of *testability* or *falsifiability* as the distinguishing features of "proper science". For a discussion of logical empiricism, see, Feldman (1995: 9–16).

[424] The Appellate Body reiterated this idea in its decision in *EC—Asbestos*, referring to Art XX(b): "In justifying a measure under Article XX(b) of the GATT 1994, a Member may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion. A Member is not obliged, in setting health policy, automatically to follow what, at a given time, may constitute a majority scientific opinion. Therefore, a panel need not, necessarily, reach a decision under Article XX(b) of the GATT 1994 on the basis of the "preponderant" weight of the evidence", para 178.

[425] The Appellate Body's deliberate vagueness on this point, differs from the approach of the US Supreme Court, which in three important decisions of the recent years, has attempted to provide a definitive answer to the problem of how to distinguish between "pseudo" vis-a-vis "good" science (and, consequently, between scientific and non-scientific explanations).

the status of science as the ultimate source of cognitive authority? Or, rather, should we read this acknowledgement of the limits of science as an invitation to conduct the risk assessment process in a pluralistic fashion, which would give a meaningful "say" to non-scientific modes of explanation?[426]

These reflections of the Appellate Body went some way toward developing a framework of active engagement with science, and constructing a more pluralistic doctrinal framework.[427] However, the ultimate ruling of the Appellate Body in the *Hormones* case, and its subsequent decisions in *Australia—Salmon* and *Japan—Agriculture*, seem to abandon the path of pluralistic engagement, adopting instead an approach of uncritical deference to science and to the standardisation establishment.[428] Consider, first, the Appellate Body's ultimate ruling in *EC—Hormones*, in which it concluded that the scientific reports, which were submitted by the EC, did not rationally support the EC's import ban.[429]

This conclusion was supported by two different arguments. First, most of the scientific studies which were referred to by the EC concluded that their use for growth promotion purposes is "safe"—a communitarian criterion.[430] Second, the Appellate Body based its conclusions on a new requirement of *specificity*.[431] While the EC presented several general studies and opinions which *did* show the existence of a general risk of cancer, the Appellate Body ruled that these studies *did not* support the Hormones ban, because they *failed* to address the *particular risk*, which was at stake in

See: *Daubert v Merrell Dow Pharmaceuticals Inc* 509 US 579 (1993), *General Electric v Joiner* 521 US 1150 (1997) and *Kumho Tire Co v Carmichael* 525 US 959 (1999). The *Daubert* decision replaced the previous standard for admitting scientific testimony—general acceptance within the scientific community—with a more flexible approach, which emphasises four main factors in the establishment of admissibility: testability, peer review and publication, rate of error and general acceptance. For a discussion of the *Daubert* decision see Feldman (1995) and Jasanoff (2001).

[426] The problem of how to deal with "non-scientific" forms of knowledge is not just a hypothetical construct. Consider, for example, the issue of "risk management". Achieving a better understanding of the problems of control and enforcement, which are the corner-stone of the "risk management" dilemma, depends, largely, on non-scientific knowledge. It depends on the "subjective" views of the communities that are closely related to the risks in question—what Wynne (1996) calls "local-knowledge"—and on sociological and anthropological studies of these communities.

[427] Another indication of this pluralistic orientation can be found in para 187 where the Appellate Body states that the list of factors that may be taken into account in a risk assessment, which is provided in Art 5.2 of the SPS Agreement, was not intended "to be a closed list". For a different view on this issue, and a critique of the Appellate Body's pluralistic turn, see, Quick and Bluthner (1999: 618–19).

[428] See, in particular, paras 121–36 to *Australia-Salmon*, and para 78 to *Japan—Agriculture*.

[429] Appellate Body report, at paras 195–209.

[430] *Ibid*, at para 206.

[431] The notion of specificity was invoked again by the Appellate Body in *Japan—Apples* (paras 202–6).

these proceedings—namely, the "carcinogenic or genotoxic potential of the *residues of those hormones found in meat* derived from cattle to which the hormones had been administered for growth promotion purposes".[432] The studies that were relied upon by the EC, were not, therefore, *sufficiently specific* to justify the import ban that was imposed by the EC. The Appellate Body also rejected the EC arguments on the issue of "good veterinary practice". Although these arguments were theoretically admissible, the EC did not submit studies that examined this problem on the facts of this case.[433]

The final part of the Appellate Body decision seems to discount the difficulties of making decisions about risks in an incompletable universe. Particularly problematic in this context is the Appellate Body's insistence on "*specificity*". The Appellate Body rejection of the EC argument seemed to be based on the assumption that by conducting more specific studies, the EU could have removed the indeterminacy that characterised the studies it relied upon. This assumption overestimates the capacity of regulatory sciences—such as toxicology and epidemiology—to cope with the uncertainty around SPS measures. As was noted in section 4.3.1, these fields, which form the basis for many health and environmental regimes, are based—because of their reliance on bioassays and statistics—on extrapolatory inferences (Forbes and Calow 2002). In that sense, a study which would have looked specifically at the impact of *hormone residues* would not have been "clean" of extrapolatory (and inherently uncertain) inferences.

The difference between the kind of inference which was used in the EC argument (from hormones to hormones residues), and the inferences that would have been used in a more "specific" study of hormones residues, does not lie, therefore, in their intrinsic *logic*—both rely on extrapolation. The difference lies, rather, in the "reasonableness" of the extrapolation. By disregarding the inherent uncertainty of toxicological studies (specific or not), the notion of "specificity" circumvents the difficult question of "reasonableness". The field of toxicology itself does not have a definite answer to the question of how to judge the "reasonableness" of particular extrapolations (eg, what levels of exposure in rats make inferences to humans reasonable).[434] Indeed, one can argue that the law has more experience in making judgements about "reasonableness" than science. However, in devising a criterion of "reasonableness" the inherent shortcomings of the underlying science must be fully acknowledged.

[432] *Ibid*, at para 200, my emphasis.
[433] *Ibid*, at paras 207–8.
[434] See, eg, Forbes and Calow (2002).

b) Australia—Salmon*: from Pluralism to Deference*

The decision of the Appellate Body in *Australia—Salmon* reflects further erosion in the willingness of the law to engage in pluralistic dialogue with science. The *Australia—Salmon* case[435] involved a dispute between Australia and Canada over quarantine requirements that were imposed by Australia on imports of fresh, chilled or frozen ocean-caught Pacific salmon. These requirements were motivated by the Australian concern that the import of salmon would expose its local (thriving) salmon industry to various diseases.[436] The Appellate Body found that Australia maintained the import prohibition without a proper risk assessment, and ruled that it had acted inconsistently with Articles 5.1 and 2.2 of the SPS Agreement.[437] In addition, the Appellate Body has upheld the Panel's finding that Australia had acted inconsistently with its obligations under Articles 5.5 and 2.3 of the SPS Agreement, because Australia kept a different import regime with respect to certain other types of fish that presented similar or greater risks.[438] Australia was required to implement the Appellate Body's decision by 6 July 1999. [439] An Article 21.5 panel determined that it failed to do so.[440]

The most problematic element of this decision concerns the Appellate Body's discussion of "risk assessment". Unlike the *Hormones* case, in which the Appellate Body's ultimate rejection of the EC argument was based on an assessment of the relationship between the scientific data and the disputed regulatory measures, in this case the Appellate Body rejected the Australian argument because it found that the study, which was relied upon by the Australian administration, did not amount to a "risk assessment" under the terms of the SPS Agreement. The Appellate Body based its analysis on Annex A of the SPS Agreement (paragraph 4), which defines risk assessment as:[441]

> The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the

[435] *Australia—Measures Affecting Importation of Salmon*, WT/DS18/R, 12 June 1998 (Panel Report), WT/DS18/AB/R, 20 Oct 1998 (Appellate Body Report) (*"Australia—Salmon"*).
[436] Panel Report, at paras 2.6–2.13.
[437] The Appellate Body reversed the panel's decision on this point because it found that the panel had mis-characterised the SPS measure under dispute. The Appellate Body concluded that the SPS measure at issue in this dispute was the import prohibition on fresh, chilled or frozen salmon, which was set forth in an order from 1975, Quarantine Proclamation 86A, rather than the heat-treatment requirement which was introduced by the Australian government in 1988, *ibid*, at paras 279(a) and (c).
[438] Appellate Body Report, at paras 279(d) and (e).
[439] *Australia—Measures Affecting Importation of Salmon*, Arbitration under Article 21:3(c) of the DSU, WT/DS18/9, 23 Feb 1999.
[440] *Australia—Measures Affecting Importation of Salmon, Recourse to article 21.5 by Canada*, WT/DS18/RW, 18 Feb 2000. For reasons of space I will not discuss this decision.
[441] Appellate Body Report, at para 120.

> sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs.

This definition refers to two different types of assessments. Only the first, which refers to the "spread of a pest or disease", was applicable to this case. The second which refers to risks arising from the presence of "additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs", applies to *Hormones*-like disputes. On the basis of the first definition in paragraph 4 of Annex A, the Appellate Body considered that a risk assessment within the meaning of Article 5.1 must satisfy, in this case, three cumulative requirements:

(1) *identify* the diseases whose entry, establishment or spread a Member wants to prevent within its territory, as well as the potential biological and economic consequences associated with the entry, establishment or spread of these diseases;
(2) *evaluate the likelihood* of entry, establishment or spread of these diseases, as well as the associated potential biological and economic consequences; and
(3) evaluate the likelihood of entry, establishment or spread of these diseases *according to the SPS measures which might be applied*.[442]

The Appellate Body interpretation of the two last requirements was particularly problematic. It first noted that

> for a risk assessment to fall within the meaning of Article 5.1 and the first definition in paragraph 4 of Annex A, it is not sufficient that a risk assessment conclude that there is a *possibility* of entry, establishment or spread of diseases and associated biological and economic consequences. A proper risk assessment of this type must evaluate the 'likelihood', ie, the 'probability', of entry, establishment or spread of diseases and associated biological and economic consequences as well as the 'likelihood', ie, 'probability', of entry, establishment or spread of diseases *according to the SPS measures which might be applied*.[443]

The Appellate Body based this argument on the different "dictionary" readings of the terms "likelihood" and "potential" and on the definition of "risk" and "risk assessment" in the technical guidelines of the

[442] Appellate Body Report, at para 121.
[443] Appellate Body Report, at para 123.

International Office of Epizootics (OIE), in particular the OIE *Guidelines for Risk Assessment*.[444] It distinguished, in this context, between the two types of risk assessment that are described in paragraph 4 of Annex A, noting that these two types of risk assessment are *substantially* different from each other.[445] While the second requires only the evaluation of the *potential* for adverse effects on human or animal health, the first type requires the evaluation of the *likelihood* of entry, establishment or spread of a disease, and of the associated potential biological and economic consequences. The Appellate Body has rejected, in that context, the argument of the EC that the two types of risk assessment are, in effect, identical. It is doubtful, however, whether the strict distinction advocated by the Appellate Body can indeed be maintained in the "real world".[446]

The OIE guidelines, which were quoted in detail by the Panel, are based on a highly probabilistic view of the process of risk assessment. Thus, the OIE defines "risk" and "risk assessment" in the following fashion:

> Risk—means the probability of an adverse event of aquatic animal health, public health or economic importance, such as a disease outbreak, and the magnitude of that event.
>
> Risk assessment—means the processes of identifying and estimating the risks associated with the importation of a commodity and evaluating the consequences of taking those risks.[447]

In its guidelines for risk assessment the OIE further clarifies how a country should proceed with the task of "risk estimation". This involves the *construction* of *several risk scenarios* and the attachment of *probabilistic estimates* to each of these scenarios:

> In the risk assessment of an importation, the risk associated with one or more disease agents may have to be considered. The importing country should elaborate the *scenarios* that could be involved in the introduction of a disease agent in an imported commodity and its subsequent exposure and transmission to aquatic animals and humans … Each scenario would

[444] Appellate Body Report, at para 123. The Appellate Body noted that its reference to OIE guidelines is based on Art 5.1, which provides that risk assessments should take "into account risk assessment techniques developed by the relevant international organisations", *ibid*, at fn 72.

[445] Appellate Body Report, fn 69, para 123.

[446] The Appellate Body noted that "In view of the very different language used in paragraph 4 of Annex A for the two types of risk assessment, we do not believe that it is correct to diminish the substantial differences between these two types of risk assessments, as the European Communities seems to suggest when it argues that 'the object, purpose and context of the *SPS Agreement* indicate that no greater level of probability can have been intended for the first type of risk assessment than for the second type, [as b]oth types can apply both to human life or health and to animal or plant life or health' ", *ibid*.

[447] Panel Report, at para 8.78.

> comprise a set of factors that should be identified for the *estimation* of the likelihood of some risk. In these guidelines, the factors are loosely grouped into four categories, namely country factors, commodity factors, exposure factors and risk reduction factors. Depending on the commodity and disease agent, any number of these factors may be used to *estimate the probability* of an adverse event for the importing country. *Point estimates or probability distributions* are employed to represent the values associated with each factor … [448]

Echoing the OIE guidelines the Appellate Body has introduced a new requirement of *completeness* into its risk assessment lexicon. According to this new requirement the evaluation profile must provide a *complete* evaluation of *all* the relevant risks: "The definition of this type of risk assessment in paragraph 4 of Annex A refers to "the evaluation of the likelihood" and not to *some* evaluation of the likelihood".[449] The Appellate Body clarified, however, that the likelihood may be expressed either quantitatively or qualitatively and that there is no requirement for a risk assessment to establish a certain magnitude or threshold level of degree of risk.[450]

Applying the *completeness* requirement to the Australian risk analysis,[451] the Appellate Body concluded that this study *does not* satisfy the SPS Agreement requirements for a risk assessment. While the Australian study has identified the diseases, which the Australian regulation was targeting, it has failed to provide a sufficiently detailed probabilistic mapping of both the original risks associated with the import of salmon, and of the potential (risk reduction) impact of the different regulatory measures that were considered in the study.[452]

The idea of "*completeness*" has also influenced its interpretation of Article 5.6—the SPS version of the "least restrictive principle". Article 5.6 provides (my emphasis):

> Without prejudice to paragraph 2 of Article 3, when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such

[448] *Ibid*, my emphasis. The experts that testified before the Panel also emphasised the importance of providing some sort of probability estimates in the risk assessment process, *ibid*, para 8.79.
[449] Appellate Body Report, at para 124. The *completeness* requirement applies both to the second and the third prongs of the definition of risk assessment in Annex A, para 4, first part, see Appellate Body Report, at paras 127–35.
[450] Appellate Body Report, at para 124.
[451] Department of Primary Industries and Energy, *Salmon Import Risk Analysis: An assessment by the Australian Government of quarantine controls on uncooked, wild, adult, ocean-caught Pacific salmonid product sourced from the United-States of America and Canada*, Final Report, December 1996. See Appellate Body Report, at para 2.
[452] Appellate Body Report, at paras 126–35.

> measures are *not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility*.

The Appellate Body made two important observations in that context. First, the Appellate Body emphasised that the determination of the appropriate level of protection is "a *prerogative* of the Member concerned and not of a panel or of the Appellate Body".[453] What is required under Article 5.6, the Appellate Body noted "is an examination of whether possible alternative SPS measures meet the appropriate level of protection *as determined by the Member concerned*".[454] However, WTO Members are obliged, under, the SPS Agreement to make an *explicit* determination of their appropriate level of protection.[455] With respect to the scope of this obligation the Appellate Body noted that while it does not require a quantitative determination, Member States are *not* free to determine their level of protection "with such vagueness or equivocation that the application of the relevant provisions of the *SPS Agreement*, such as Article 5.6, becomes impossible".[456]

Next, the Appellate Body clarified—relying on its earlier comments regarding the "*completeness*" requirement—how panels should review the "appropriateness" of any alternative measures. Article 5.6 requires the panels to examine whether any of the possible *alternative SPS measures* would achieve the Member's appropriate level of protection. Such examination requires the WTO judicial bodies "to *know* what level of protection could be achieved by *each* of these alternative SPS measures".[457] In this case Australia determined its appropriate level of protection, with sufficient precision to apply Article 5.6. However, since the Panel has concluded that the Australian risk analysis did not substantively *evaluate* the relative risks associated with the different quarantine options, the

[453] Appellate Body Report, at para 199.
[454] Appellate Body Report, at para 204. The notion of "appropriate level of protection" is defined in paragraph 5 of Annex A, as "the level of protection deemed appropriate by the Member establishing a sanitary … measure".
[455] The Appellate Body stated that such an obligation is implicit in several *provisions of the SPS Agreement* (eg, para 3 of Annex B, Art 4.1, Art 5.4 and Art 5.6), *ibid*, para 205. Indeed, the Appellate Body emphasised that "it would clearly be impossible to examine whether alternative SPS measures achieve the appropriate level of protection if the importing Member were not required to determine its appropriate level of protection", *ibid*.
[456] *Ibid*, para 206. While the determination of the level of protection remains a national *prerogative*, the Appellate Body emphasised that in cases where a Member refrains from making such determination, or does so with insufficient precision, the appropriate level of protection may be established by panels on the basis of the level of protection reflected in the SPS measure actually applied. Otherwise, "a Member's failure to comply with the implicit obligation to determine its appropriate level of protection—with sufficient precision—would allow it to escape from its obligations under this Agreement and, in particular, its obligations under Arts 5.5 and 5.6", *Ibid*, at para 207.
[457] *Ibid*, at para 208, my emphasis.

Appellate Body concluded that it was impossible to verify, on the basis of the facts that were before it, whether any of the alternative (and less restrictive) policy options would achieve Australia's appropriate level of protection for ocean-caught Pacific salmon.[458] The Panel's finding that Australia had acted inconsistently with Article 5.6 was therefore reversed.[459]

The *Australia—Salmon* decision is problematic in several respects. First, the submissive attitude toward the standardisation establishment—reflected in the uncritical reliance on the OIE definition of risk assessment—undermines the ability of the law to engage in a reflexive dialogue with science and works against the idea of pluralistic risk-assessment. Second, the perception that the risk assessment process can identify *every* possible contingency and *assign* it with a *unique* probabilistic measure is based on a naive belief in the capacity of science to cope with situations of uncertainty or ignorance. It reconstructs science in a special (legal) form, which is influenced by the pragmatic approach of the standardisation establishment (in our case—the OIE guidelines). This reconstruction does not reflect the way in which science perceives itself (Maturana 1988; Forbes and Calow 2002). While the pragmatic approach of the standardisation bodies can constitute a plausible starting point for a risk inquiry, interpreting it—as the Appellate Body did—as prescribing a strict completeness requirement is problematic because it disregards the intrinsic inability of regulatory science to cope with the deep uncertainty that underlies risk disputes.[460] One positive aspect of this approach is that it led to the adoption of a strict interpretation of Article 5.6; this should deter panels from speculating on the reasonableness of alternative (hypothetical) regulatory measures in the context of the "least-restrictive-trade-measure" requirement.

c) Japan—Agriculture*: The Precautionary Principle and the Incompleteness of Scientific Knowledge*

The third SPS case involved a dispute between Japan and the United States with respect to certain quarantine measures concerning agricultural products (*"Japan—Agriculture"*).[461] The subject of the dispute—the Japanese "varietal testing requirement"—imposed, as a condition for an

[458] *Ibid*, at para 209–13.
[459] *Ibid*, at para 213.
[460] Moreover, it is not clear why the Appellate Body found it necessary to introduce the concept of completeness, when there were convincing indications that the Australian measures were motivated by protectionist rather than legitimate reasons. More on this in section 4.3.3 below.
[461] *Japan—Measures Affecting Agricultural Products*, WT/DS76/R, 27 Oct 1998 (Panel Report), WT/DS76/AB/R, 22 Feb 1999 (Appellate Body Report).

import license, a *separate* testing requirement for each *variety*[462] of any agricultural product that was subject to a general quarantine treatment requirement. The varietal testing requirement was applied even if the quarantine treatment[463] was found to be effective with respect to *other varieties* of the same product. The Panel found that that the United States had raised a presumption that Japan's varietal testing requirement was maintained without sufficient scientific evidence and that this presumption had not been sufficiently rebutted by Japan. It concluded, therefore, that the Japanese measure was maintained without sufficient scientific evidence in the sense of Article 2.2.[464] The Panel's conclusions were upheld by the Appellate Body.[465]

The Appellate Body did not introduce any major changes to the conceptual framework that was developed in the *Hormones* and *Australia—Salmon* Reports.[466] The more interesting part of this case concerns the Appellate Body's discussion of Article 5.7 of the SPS Agreement, which is the SPS "version" of the precautionary principle. Article 5.7 was invoked by Japan in support of its varietal testing requirement. This has forced the Appellate Body to confront the problem "incompleteness". Article 5.7 of the SPS Agreement reads as follows:

> In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organisations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.

The Appellate Body made no comments with respect to the precautionary principle in general. Rather, it focused exclusively on the language of Article 5.7, treating it as a stand-alone obligation. The Appellate Body distinguished between two sets of requirements which are set out in

[462] Variety—"A category within a species, based on some hereditary difference", the Panel decision, at para 2.17.
[463] Usually, fumigation with methyl bromide—sometimes combined with cold storage. For a detailed description of Japan's plant protection regime see the Panel Report, paras 2.18–2.24. The history of US efforts to export apples, cherries, walnuts and nectarines to Japan illustrates the way in which the Japanese insistence on varietal testing served as a significant barrier to trade. See, the US arguments, para 4.20, table 2, to the Panel Report.
[464] Panel Report, at paras 8.42–8.43.
[465] Appellate Body Report, at paras 84–85. On Aug 2001 the US and Japan notified the Dispute Settlement Body that they had reached a mutually satisfactory solution. See, Communication from Japan and the United States, WT/DS76/12, 30 Aug 2001.
[466] See the Appellate Body's comments in paras 72–83. Its comments in para 78 suggests an inclination toward a strict "scientific" interpretation of the SPS Agreement.

Article 5.7.[467] Pursuant to the first sentence of Article 5.7, a Member may provisionally adopt an SPS measure if this measure is:

(1) "imposed in respect of a situation where relevant scientific information is insufficient"; and
(2) adopted "on the basis of available pertinent information".

Pursuant to the second sentence of Article 5.7, such a provisional measure may not be maintained unless the Member that adopted the measure:

(1) "seek[s] to obtain the additional information necessary for a more objective assessment of risk"; and
(2) review[s] the … measure accordingly within a reasonable period of time'.

The Appellate Body emphasised that these four requirements are *cumulative* in nature and are equally important for the purpose of determining consistency with Article 5.7's. Thus "Whenever *one* of these four requirements is not met, the measure at issue is inconsistent with Article 5.7".[468] Although the Appellate Body does not say so explicitly, the separation between these two sets of requirements seems to be based on a distinction between *substantial* and *procedural* understandings of the precautionary principle. The *first sentence* of Article 5.7 deals with the *substantive* element; it defines a set of circumstances in which a WTO member may use precautionary measures. The *second sentence* of Article 5.7 deals with the *procedural* element. It prescribes several actions, which should be followed by a Member State once it concludes that the use of precautionary measures is warranted.

The substantive part of Article 5.7 is highly enigmatic and provides poor guidance in terms of judging the legitimacy of precautionary measures. The first prong of Article 5.7's first sentence requires the panels to assess the *sufficiency* of the available scientific knowledge. Only if the existing information is judged to be "insufficient", would the use of precautionary measures be justified. However, the idea of incompleteness casts doubts on the usefulness of the distinction between sufficient and insufficient scientific knowledge. Indeed, the notion of incompleteness suggests that most of the scientific propositions that are invoked in the regulatory context of the SPS Agreement are to some extent "insufficient". Thus, the problem facing the law is not to distinguish between conditions of "full knowledge" and "insufficient knowledge", but between *different levels* of

[467] Appellate Body Report, at para 89.
[468] *Ibid*.

insufficiency.[469] But if insufficiency is a general property of scientific knowledge it might be more reasonable to formulate the problem facing the law in different terms: to distinguish between *reasonable* and *unreasonable* inferences, taking into account the different eco-social contexts in which they are undertaken. This distinction formulates the precautionary principle as an instrument for determining the conditions under which it might be legitimate to base regulatory action on *more "risky" inferences*, that is, inferences that are more likely to prove wrong in the future. The problem is that science itself does not provide a clear answer to this question.[470]

The second requirement of Article 5.7 (first sentence) is even harder to digest. After a panel is satisfied that the existing knowledge is indeed insufficient, it is asked to examine whether the precautionary measures that were adopted were *properly based* on the available information. Since, in order to reach this stage the panel had to conclude that the available information was *insufficient*, it is not clear on what grounds such an assessment should be made.[471] The concept of "reasonable support", which was used by the Appellate Body in the context of Articles 2.2 and 5.1, might not be applicable here, since it was used in a context where the information was judged to be sufficient. Again, this difficulty leads to the conclusion that Article 5.7 should be interpreted as licensing—in certain circumstances—more "risky" inferences/decisions. The problem is that Article 5.7 does not provide any guidance with respect to the kind of circumstances in which such "risky" inferences/decisions would be justified (eg, magnitude of harm, irreversibility of actions, level of societal anxiety …).

[469] "No matter how sophisticated knowledge is, it will always be subject to some degree of ignorance" (Harremoes *et al* 2001: 169).

[470] See also, in that context, the wide-ranging discussion of the precautionary principle in the report of the European Environment Agency (EEA) (Harremoes *et al* 2001). The WTO case law has so far disregarded the inherent problematic of the notion "sufficiency". In *Japan—Agriculture* the Appellate Body (para 76) made a connection between the notion of "sufficiency" and the idea of "rational relationship", which was developed in the *EC—Hormones* Report. However, as was noted above, the idea of rational relationship is in itself highly vague; linking between these notions thus has little explanatory power. In *Japan—Apples* the Panel adopted a technical test, referring both to the quantity of the available scientific studies and to the confidence of the scientific community in the conclusions of these studies (para 8.219). This test was implicitly adopted by the Appellate Body (para 182). The Panel's view circumvents the philosophical problematic of the idea of sufficient scientific knowledge. However, it leaves open the question, under what conditions should countries be allowed to use precautionary measures when the available knowledge is *insufficient*.

[471] The EEA report mentioned above raises a similar question with respect to the lack of data and understanding (ie, ignorance) which characterises the fields of environmental and health and safety law: "At first sight, responding to ignorance may seem to ask the impossible. How can strategies be devised to prevent outcomes, which, by definition are not known?" (Harremoes *et al* 2001: 170). The report also provides tentative answers to this question, *ibid*, at 168–91.

The most comprehensive observations regarding Article 5.7's *substantive* part were made by the Appellate Body in the *Hormones* case. The Appellate Body noted that while it does not accept the EC's argument that the *precautionary principle* (rather than "rational relationships") should guide the examination of whether a specific measure is scientifically sound, the idea of precaution is still relevant to the interpretation of the SPS Agreement.[472] It noted in that context that Article 5.7 does not exhaust the relevance of the precautionary principle to the SPS Agreement.[473] A panel charged with determining whether "sufficient scientific evidence" exists to warrant a particular SPS measure thus:

> may … and should, bear in mind that responsible, representative governments commonly act from perspectives of prudence and precaution where risks of *irreversible*, eg *life-terminating*, damage to human health are concerned.[474]

In view of the difficulties associated with the substantive facet of Article 5.7, it is not surprising that the Panel and the Appellate Body have chosen to emphasise the procedural requirements of Article 5.7. Article 5.7 establishes *two procedural requirements*: first, an obligation to seek additional information, and, second, an obligation to review the provisional measure within a reasonable period of time. These two requirements can be seen, as setting a basic framework for *reflexive regulation*. They correspond to our intuitive expectations with respect to the way in which a "responsible" regulator should behave in cases of strong uncertainty. Since, as I have argued earlier, the insufficiency noted in Article 5.7 also applies to "normal" regulatory decisions, these procedural requirements could also be applied to "normal" circumstances. I will return to the idea of reflexive regulation in the concluding section. As far as the current

[472] The EC based its claim on the argument that the precautionary principle is a general customary rule of international law (para 16). While the Appellate Body did not object, in principle, to the suggestion that it should take into account general principles of international environmental law, it noted that the legal status of the precautionary principle is still an open question, and that this appeal is not the proper place to resolve it (para 123).

[473] *Ibid*, at para 124. This view is consistent with Principle 15 of the Rio Declaration, which provides that "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 full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (my emphasis).

[474] *Ibid,* my emphasis. A similar interpretation was offered by a group of leading economists and ecologists, including Gretchen C Daily, Kenneth Arrow, Partha Dasgupta, Paul R Ehrlich, Simon Levin and Karl-Göran Mäler, in an article in *Science.* They argue that "the level of uncertainty in our understanding of ecological processes suggests that it would be prudent to avoid courses of action that involve possibly dramatic and irreversible consequences and, instead, to wait for better information" (Daily 2000: 396). For a similar focus on *irreversibility* see Harremoes *et al* (2001: 171).

case is concerned the Appellate Body ruled that Japan had failed to meet both of these procedural requirements. It upheld the Panel's findings that Japan did not seek to obtain the additional information necessary for a more objective risk assessment, and had also failed to review its varietal testing requirement "within a reasonable period of time".[475] It also agreed with the Panel's ruling that as Japan's varietal testing requirement failed to meet the requirements of Article 5.7 second sentence, there was *no need* to examine whether it had failed to meet the requirements of Article 5.7 first sentence.[476]

4.3.3 The Non-Discrimination Requirement

The non-discrimination requirement, the second ground for intervention set by the SPS regime, should allow the law of the WTO to circumvent in some cases the need to engage in the difficult (and risky) dialogue with science. The non-discrimination requirement is introduced in Articles 2.3 and 5.5 of the SPS Agreement.[477] These provisions incorporate into the SPS and TBT Agreements the most favoured nation and national treatment principles of the GATT. There are also clear similarities between these provisions and the *chapeau* of Article XX of GATT. For some (unclear) reason the Appellate Body did not use in its SPS rulings the concepts of "good faith" or "abuse of right", which were introduced in the *Reformulated Gasoline* and *Shrimp* Reports.[478] The following paragraphs try to link between the SPS Agreement and the Article XX case law, and to point out, further, how the non-discrimination principle could be incorporated into the reflexive approach advocated in this chapter.

[475] Appellate Body Report, at paras 92, 93. The Panel noted, in that context, that the varietal testing requirement had been in place since 1969, and was first applied to the relevant US products in 1979. Japan had, therefore, almost 30 years within which it could have gathered data on the scientific justification of the varietal testing requirement, *ibid*, at para 8.57. This fact was important even though the obligation "to review" the SPS measure has only been in existence since 1 Jan 1995,

[476] Appellate Body Report, at para 91.

[477] And in Art 2.1 and Annex three, Art D of the TBT Agreement. These similarities were explicitly pointed to by the Appellate Body, see, para 251 to the *Australia—Salmon* Report.

[478] The decision in *Reformulated Gasoline* was issued on 29 April 1996, *EC—Hormones* on 16 Jan 1998; the *Shrimp* Report on 12 Oct 1998, *Australia—Salmon* on 20 Oct 1998, and *Japan—Agriculture* on 22 Feb 1999. The good-faith principle is discussed in paras 151–60 to the *Shrimp* Report. See, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/R, 12 Oct 1998 (Panel Report), WT/DS58/AB/R, 12 Oct 1998 (Appellate Body Report). In the *Hormones* case the Appellate Body attributed this reluctance to the "the structural differences between the standards of the *chapeau* of Art XX of the GATT 1994 and the elements of Article 5.5 of the *SPS Agreement*" (para 239)—a statement which provides very little in terms of explanation. For a more detailed critique of this aspect of the SPS jurisprudence, see, Quick and Bluthner (1999: 629–32).

It would be useful at this stage to provide the full texts of Articles 2.3 and 5.5:
Article 2.3 provides that:

> Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members. Sanitary and phytosanitary measures shall not be applied in a manner which would constitute a disguised restriction on international trade.

Article 5.5 provides that:

> With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade …

The Hormones case

The Appellate Body found that the European Union had unjustifiably refrained from applying the ban against growth hormones to a similar agricultural field (by not banning the practice of administering certain anti-microbial agents to piglets; paras 226–35).[479] The finding of this unjustifiable discrimination raised the question whether the European ban was a discriminatory measure constituting a "disguised restriction on international trade" in the sense of Article 5.5. The Appellate Body decided that it was not. The Appellate Body emphasised in this context that a finding of differential treatment between products does not constitute, in itself, a violation of Article 5.5. Rather, it must also be shown that the implementing measure was "applied in such a manner as to result in discrimination or a disguised restriction on international trade".[480] In that context the Appellate Body noted that:

> The documentation that preceded or accompanied the enactment of the prohibition of the use of hormones for growth promotion … makes clear

[479] The Appellate Body noted that in both cases the scientific studies, which were available to the European Commission have reached similar conclusions; that is both the growth hormones that were given to cattle and the anti-microbial agents that were given to piglets, were found to induce cancer (see para 226).
[480] The Appellate Body decision, at para 215. In the *Australia—Salmon* case, the Appellate Body noted, however, that this additional requirement might not be necessary for a finding of arbitrary or unjustifiable discrimination under Art 2.3 of the SPS Agreement (paras 251–2).

> the depth and extent of the *anxieties experienced* within the European Communities concerning the results of the general scientific studies (showing the carcinogenicity of hormones), the dangers of abuse (highlighted by scandals relating to black-marketing and smuggling of prohibited veterinary drugs in the European Communities) of hormones and other substances used for growth promotion and the *intense concern of consumers* within the European Communities over the quality and drug-free character of the meat available in its internal market (para 245, my emphasis).

In view of the "intense concern" among the European public, the Appellate Body accepted the EC argument that the *predominant motivation* for the introduction of the hormones ban was to protect the health and safety of the European population (paras 244–46). The Appellate Body thus stated that it cannot:

> share the inference that the Panel apparently draws that the import ban on treated meat and the Community-wide prohibition of the use of the hormones here in dispute for growth promotion purposes in the beef sector were not really designed to protect its population from the risk of cancer, but rather to keep out US and Canadian hormone-treated beef and thereby to protect the domestic beef producers in the European Communities (para 245).

The Appellate Body interpretation attributes then substantial weight to the *societal anxiety*, which was associated with the hormones issue. The public perception of the disputed risks was an important factor in the ultimate characterisation of the European measure as *non-protectionist (yet unjustified)*.[481] The Appellate Body refrained, however, from constructing its judgement using the "good faith" or "abuse of right" schema.

Australia—Salmon and Japan—Agriculture

In *Australia—Salmon* the Appellate Body approached the interpretation of Articles 2.3 and 5.5 by devising a new methodology of "warning signals"—refraining, again, from using the concepts of "good faith" or "abuse of right".[482] This doctrine stipulates that the accumulation of

[481] For a similar emphasis on the public perception of risk see *EC—Asbestos*, at para 130.
[482] The Appellate Body was following in the Panel's footsteps, and relying on an embryonic comment it made in *EC—Hormones*, in which it noted that: "The presence of the second element—the arbitrary or unjustifiable character of differences in *levels of protection* considered by a Member as appropriate in differing situations—may in practical effect operate as a "warning" signal that the implementing *measure* in its application *might* be a discriminatory measure or *might* be a restriction on international trade disguised as an SPS measure for the protection of human life or health. Nevertheless, the measure itself needs to be examined and appraised and, in the context of the differing levels of protection, shown to result in

"warning signals"—which are only defined by way of illustration by the Appellate Body—is an indication of the "true" nature of the Member's regulatory measures.[483] The Appellate Body made no attempt, however, to position this methodology in the context of a general conceptual framework. In the *Australia—Salmon* case these "warning signals" included several items: the difference in the levels of protection between salmon products and four categories of other fish,[484] difference in the levels of protection (prohibition *versus* tolerance)[485] the finding that the Australian measure was not based on a risk assessment in terms of Article 5.1,[486] the substantial, but unexplained change in conclusion between a 1995 Draft Report (which recommended allowing the importation of Pacific salmon under certain conditions) and the 1996 Final Report (which recommended continuing the import prohibition)[487] and, finally, the absence of controls on the internal movement of salmon products within Australia.[488]

It is not clear why the Appellate Body refrained from invoking in this context the concept of "good faith", which was used in the similar context of Article XX. The concept of "good faith" could have provided a conceptual framework for the identification and interpretation of these different signals. From a "good faith" perspective these warning signals could have been interpreted as either direct indications of ill-faith or protectionist intent (eg, the changes between the 1995 and 1996 reports) or as evidentiary clues, which—in the absence of contradictory evidence—will raise a presumption of ill-faith (eg, the difference in the level of protection between Salmon and other fish). Nothing in the SPS Agreement seems to prevent the invocation of the good-faith principle. The concept of good faith could further enrich the notion of *reflexive regulation*, which was suggested above. Indeed, another way in which the procedural requirements of Article 5.7 can be interpreted is as a manifestation of the principle of good faith. Thus, the failure of Japan, in the *Japan—Agriculture* case, to seek additional information or to review its SPS regime, could have been interpreted as an indication that the Japanese regime was not motivated by "good faith" reasons.

discrimination or a disguised restriction on international trade", para 215, Quoted in para 161 of *Australia—Salmon* Appellate Body Report.

[483] Appellate Body Report, at para 177.
[484] Appellate Body Report, at paras 161–62.
[485] Appellate Body Report, at para 164.
[486] Appellate Body Report, at para 166.
[487] Appellate Body Report, at paras 170–73. The Panel suggested that the decisive reason for the reversal of the 1995 draft recommendation "might well have been inspired by domestic pressures to protect the Australian salmon industry against import competition", Panel Report, at para 8.154.
[488] Appellate Body Report, at paras 174–76.

4.4 TOWARD AN ALTERNATIVE DISCIPLINARY FRAMEWORK

I argued above that the SPS/TBT deference strategy is problematic both in terms of its capacity to provide legitimacy for the WTO and in terms of its capacity to resolve the problem of uncertainty underlying disputes about risks. The elusive reliance on extra-legal resources should be replaced, I argued, by a strategy of *active engagement*, which would focus on creating the necessary institutional conditions (reflexivity) for a more pluralistic deliberative process.[489] In this last section I would like to give an outline of such an alternative strategy for resolving the legitimate/protectionist dilemma of the SPS/TBT regimes. It should be noted that the following observations focus on the judicial review of risk regulation. They are not meant to provide a comprehensive framework for the regulation of environmental and health risks.[490]

The starting point of such a strategy would be a pluralistic understanding of knowledge, which would interpret the notions of "risk assessment" and "scientific principles" in a broad fashion, recognising that the *process of risk assessment* can (and should) be informed by different types of knowledge claims. This pluralistic worldview is based on the understanding that science does not have an absolute answer—at least not in the fields which are relevant to the SPS/TBT regimes—to the problem of indeterminacy. It therefore makes little sense to give science—or the standardisation establishment as its institutional embodiment—exclusive power over questions of risk.[491] Because cost-benefit analysis of SPS measures builds on scientific measures of probability, it seems

[489] The Appellate Body demonstrated its capacity to engage in a critical dialogue with external sources in its anti-dumping jurisprudence (in that context—national investigating authorities). See, in particular, *European Communities—Anti-Dumping Duties on Imports of Cotton-Type Bed Linen from India—Recourse to Article 21.5 of the DSU by India*, WT/DS141/AB/RW, 8 April 2003, at paras 113–14 (*"EC—Bed-linen"*) and *United States—Antidumping Measures on Certain Hot-Rolled Steel Products from Japan*, WT/DS184/AB/R, 24 July 2001, at paras 192–93 (*"US—Hot-Rolled Steel from Japan"*).

[490] Proposals for new models for risk regulation can be found, for example, in the EEA Report (Harremoes *et al* 2001) and in the Royal Commission on Environmental Pollution Report (2003: 48–128).

[491] It should be noted that the Cartagena Protocol on Biosafety to the Convention on Biological Diversity 2000 ("Biosafety Protocol"), which is commonly invoked by environmentalists as an example of a more environmentally-friendly form of risk-regulation, reflects, in effect, a similar deference to science (Safrin 2002: 625). This is reflected in the Protocol's strong science-based risk assessment provisions. See, for example, Art 10(1) which requires risk assessment for decisions on living modified organisms ("LMOs") subject to the advance informed agreement ("AIA") procedure, Art 15(1, 2) which requires that risk assessments under the Protocol be carried out in a scientifically sound manner, Art 16(1, 2) which links between the regulation and management of risks and risk assessments, and Annex III(3) which requires that risk assessment be carried out in a scientifically sound manner (see also Art 11(6(a)). The criticism of the SPSs narrow approach to "risk assessment" thus applies, to a large extent, also to the Biosafety Protocol.

equally problematic to give this power to economists. This pluralistic understanding of risk assessment is consistent with recent developments in the field of regulatory toxicology. Thus, for example, the US Presidential/Congressional Commission on Risk Assessment and Risk Management has concluded in a recent report that:

> community stakeholders not only have a right to know, but also have crucial knowledge about sources of exposure, cultural practices, and behavioural patterns that are omitted in standard risk assessment models.[492]

A similar appeal to pluralistic decision-making can be found in a 2001 report of the European Environment Agency (2001). This pluralistic vision should be seen as a positive step by the democratic critiques of the WTO, and could thus contribute to its overall legitimacy. It should also extend the ability of the WTO to cope with the complex challenges generated by SPS/TBT regulatory domains.[493]

What should be the practical consequences of this pluralistic vision? Two key consequences should be distinguished: the first focuses on the doctrinal level, the second concerns the institutional/procedural framework governing the adjudication of SPS/TBT claims. A pluralistic vision requires the Appellate Body, first, to reinterpret the requirement of "rational relationship" in a way that would recognise that the risk assessment process could be governed by different explanatory domains, of which science is only one.[494] The procedural consequence of this vision is a more liberal approach to questions of admissibility and evidentiary power. Thus, for example, expert testimony in sanitary disputes should not be limited to the fields of epidemiology and toxicology, but should also include other bodies of knowledge, such as sociological and anthropological studies of the communities closely related to the risks in question (eg, farmers, and veterinarians).

[492] This summary of the Commission report is from the Commission chairman Gilbert S Omenn, in Ohanian *et al* (1997: 83). See also the Commission Report "*Framework for Environmental Health Risk Management (Final Report, Volume 1)*" (1997: 3, 37–41). Another influential report which follows this line is the US National Research Council Report, "*Understanding Risk: Informing Decisions in a Democratic Society*" (1996). On the other hand, there is also substantial support to the view that science should be given an exclusive role in the resolution of risk disputes. See, for example: Angell (1996: 177–209) and Huber (1991: 198–204).

[493] For various examples of the possible contribution of "lay" knowledge to risk-regulation see, eg, Harremoes *et al* (2001: 177–78).

[494] In some of its statements the Appellate Body came close to this view, for example, in its willingness to recognise the significance of public perception of risk; see *EC—Hormones* and *EC—Asbestos* (paras 245 and 130 respectively). In this context one should also be conscious of the fact that science itself is not homogenous: distinct scientific disciplines may have different views about the world, with far-reaching policy implications (Harremoes *et al* 2001: 174).

Allowing WTO Members to incorporate different types of knowledge claims into the risk assessment process would, inevitably, complicate the deliberation process—both in the national regulatory context—and in any ad hoc adjudicative process within the WTO.[495] How can the law of the WTO judge the legitimacy of any particular regulatory regime in view of these multiple criteria of explanation? The way in which the Appellate Body has defined the criterion of "rational relationship"—as a requirement that "the results of the risk assessment must sufficiently warrant—that is to say, reasonably support—the SPS measure at stake" offers little guidance as to the way in which the law should actually examine the "soundness" of the national regulatory process.[496]

The following observations respond to this challenge. They refer both to the criteria according to which the law of the WTO should evaluate the regulatory regime of its Members, and to the structure of the adjudicative process within the WTO. My first comment concerns the criteria for evaluating the risk assessment process. I believe that a requirement for *institutional reflexivity* should form an essential part of any such criteria. Reflexivity means, first of all, a capacity for self-assessment or self-critique. The two principles which were identified by the Appellate Body in *Japan—Agriculture*, in the context of Article 5.7, namely, an obligation to seek additional information, and, an obligation to review the SPS measure within a reasonable period of time, illustrate what "institutional reflexivity" might mean in practice.[497] Second, reflexivity also requires an open mind to different types of knowledge claims, a willingness not to confine the risk assessment process to a single discursive universe. The implementation of this second form of reflexivity requires opening up

[495] Further support to this methodological pluralism can be found in the Appellate Body anti-dumping jurisprudence. In one of its rulings the Appellate Body states that in determining the volume of dumped imports the investigating authorities are free to adopt whatever methodology they see fit, as long as that methodology can "ensure that a determination of injury is made on the basis of 'positive evidence' and involves an 'objective examination' ", *EC—Bed-linen,* at para 113.

[496] Similar vagueness characterises the Appellate Body definition of "positive evidence" and "objective examination" in its anti-dumping case law. Thus "positive evidence" was defined as evidence that "must be of an affirmative, objective and verifiable character, and … must be credible". The Appellate Body noted that "the word 'objective', which qualifies the word 'examination', indicates essentially that the 'examination' process must conform to the dictates of the basic principles of good faith and fundamental fairness". *US—Hot-Rolled Steel from Japan*, at paras 192–93.

[497] Note that this sense of reflexivity applies to each of the various discursive worlds which might take part in the risk assessment process—including science. Thus, for example, in the context of scientific oriented risk-assessment, two major forms of internal reflexivity are peer review and post risk-assessment monitoring, in which the predictions of the initial induction-based estimations are matched against reality. For a discussion of post risk-assessment monitoring see the Royal Commission on Environmental Pollution 24th Report (2003: 116–22). For a similar idea see chapter 5, section 5.3.4.

the risk assessment process to speakers with various institutional and ideological affiliations—from the general public to academia.

Risk assessment, which was not produced under conditions of institutional reflexivity, *should not* be capable of "*warranting*" the relevant SPS measure. The notion of "institutional reflexivity" should replace the notion of completeness, which was suggested by the Appellate Body in the *Australia—Salmon* Report as a "mark" of proper risk assessment. The concept of good faith, which was developed in the context of GATT Article XX, can supplement the idea of *institutional reflexivity*, especially when there is evidence for differential treatment of similar products.[498]

The concept of *institutional reflexivity*, should allow the Appellate Body—in most cases—to avoid the much more problematic exercise of trying to establish the *truth* of the risk claims that underlie different regulatory regimes (substantively evaluating the conclusions of the risk assessment process). It is based on a purely procedural reading of the requirement of "rational relationship". However, as was noted in the previous chapter with respect to Article XX, procedure-based legal review cannot always ensure a legal solution to the problem at hand. In such cases the panels/Appellate Body may have no choice but to invoke the concept of "rational relationship". As noted above, developing a complete understanding of this notion is difficult, and will not be attempted here. Instead, the following observations offer a general criticism of contemporary risk-assessment practices, which, as such, could also guide the legal evaluation of claims about risks.

Risk assessment is an inherently *incomplete* process. The different explanatory criteria, which are commonly invoked in contemporary risk assessment processes, include various "short-cuts" or reasoning "leaps". Thus, as was noted earlier, the field of toxicology relies on two principal "short-cuts" (extrapolation from animals to humans, and extrapolation from routes and scales of exposures to others). Economic studies of technical barriers to trade, because they rely on scientific probabilities (eg, risk of infestation), are exposed to the same "short-cuts"; but in addition use various other short-cuts in order to translate scientific data into monetary terms.[499] It should be acknowledged, however, that other fields of knowledge, which are less frequently used in risk-assessment procedures, such as sociology and anthropology, do not escape from this problem—they only raise different concerns (consider the various difficulties associated with the practices of sampling, surveys and interviews).

[498] The notion of "good faith" was also used by the Appellate Body in the anti-dumping field, see, *United States—Antidumping Measures on Certain Hot-Rolled Steel Products from Japan*, at para 101.

[499] For a survey of these various short-cuts see Beghin and Bureau (2001).

By emphasising the shortcomings of the risk assessment process, the notion of "short-cuts" directs the law away from a search for an optimal regulatory structure (as the notion of "least trade restrictive" suggests). Rather it emphasises the importance of using various points of view (focusing on their complementary value), and encourages the law to question the *reasonableness* of the "short-cuts" that were used in the justification of a particular regulatory regime.

Evaluating the *reasonableness* of a certain "short-cut" constitutes a difficult challenge involving questions of both meta-theory, such as the concepts of induction and statistical inference in general, and actual practice (eg, the use of these concepts in a particular case). I will not attempt to devise a complete definition of *reasonableness* here, and I doubt whether a consistent and precise definition can be produced. This kind of deliberation necessarily involves arbitrary line-drawings, and is likely to produce inconsistencies (whenever the line shifts). From an environmental perspective one can only hope that any arbitrariness would be pro-environmental. Nonetheless, I would like to make two further observations, which refer to the institutional framework that should enfold the legal deliberation of *reasonableness*. First, I believe that the judicial bodies of the WTO should extend the institutional web with which they consult in the adjudication of risk-disputes. So far the panels have tended to over-rely on the technical expertise of transnational standardisation bodies. This was reflected both in the reliance on the methodological guidelines which these bodies produce,[500] and in the key role that was played by these bodies in the selection of experts that appear before panels.[501] This reliance is problematic, not only because the standardisation bodies are not scientific institutions, but also because they are subject to various non-scientific

[500] While Art 5.1 requires the "risk assessment techniques developed by the relevant international organisations" be "taken into account" in the national regulatory process, WTO Members are not obliged to comply with every aspect of them. Thus the Panel in *Japan—Apples* noted that "this expression does not impose that a risk assessment under Article 5.1 be "based on" or "in conformity with" such risk assessment techniques. This suggests that such techniques should be considered relevant, but that a failure to respect each and every aspect of them would not necessarily, *per se*, signal that the risk assessment on which the measure is based is not in conformity with the requirements of Article 5.1" (para 8.241). See also the Appellate Body's comment in para 205.

[501] Thus, for example, in the *Hormones* case the Panel consulted with the Codex Commission and the International Agency for Research on Cancer (paras 8.7–8.9 to the Panel Report); in *Australia—Salmon* the Panel consulted with the Office International des Epizooties (paras 6.1–6.6, 8.2 to the Panel Report), in *Japan—Agriculture* the Panel consulted with the International Plant Protection Convention (para 6.2 to the Panel Report), in the *Asbestos* case the Panel consulted with the World Health Organisation, the International Labour Organisation, the International Programme on Chemical Safety, the International Agency for Research on Cancer and the International Organisation for Standardisation (para 5.20 to the Panel Report) and in *Japan—Apples* the Panel consulted with the International Plant Protection Convention (para 6.2 to the Panel Report). In the *Shrimp* case the experts were chosen on the basis of the parties' proposals (paras 5.5–5.7 to the Panel Report).

constraints.[502] While these organisations are given a special role in the SPS/TBT Agreements, panels are given wide discretion in Article 13 of the DSU to structure the process of data collection. To rectify this over-reliance I suggest that panels shall consult also with non-standardisation international institutions such as UNEP or the World Health Organisation, and with leading academic institutions (a list of which could be prepared by the SPS/TBT committees). Such consultation could cover both procedural issues (selection of experts) and substantial questions (a request for written opinion).

A second measure should focus on the capacity of the adjudicative process to generate an elaborated platform of information. One way to achieve this is to extend the parties' disclosure obligations—from the early stages of a complaint. One of the current anomalies of the WTO legal system is the lack of a broad framework for disclosure.[503] This anomaly can produce problematic results. In the *Hormones* case, for example, the EC did not submit any evidence with regard to the hormone MGA. The Appellate Body noted that the US and Canada "declined to submit any assessment of MGA upon the ground that the material they were aware of was proprietary and confidential in nature" (para 201). Noting the complete lack of evidence, the Appellate Body upheld the Panel's finding that there was no risk assessment with regard to MGA (*ibid*). One can only guess what lay behind the US/Canadian refusal. Establishing an elaborated procedure for disclosure would be especially appropriate in disputes over environmental and health policies. Whereas the party with the more stringent policy can investigate the potential risks of suspected substances only through *experimentation or modelling*, the party with the more lenient regime constitutes, in itself, a large real-life laboratory, which can serve as a rich source of information.[504]

The Appellate Body made an important step toward developing such a system of disclosure by ruling in 1999 that a panel can draw adverse inferences from a refusal of a WTO Member to provide information to a panel.[505] The Appellate Body noted that under Article 13 of the DSU a panel has discretionary authority to seek and obtain information from any of the disputant parties.[506] The Appellate Body further noted that

[502] Leading to various institutional blind-spots. See n 386 above and Harremoes *et al* (2001: 171, 178–80).
[503] Neither Art 11 of the DSU nor the Working Procedures set out in Appendix 3 of the DSU provide such a framework.
[504] Indeed, the US administration established a National Residue Programme, which monitored the administration of synthetic hormones to cattle. However, neither the Panel nor the Appellate Body, mentioned any external critique of this programme, US Panel Report, paras 4.187–4.188.
[505] *Canada—Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, 2 Aug 1999.
[506] This authority, the Appellate Body further clarified, is *not* conditional upon the other party to the dispute having previously established a prima facie claim (para 185).

according to Article 13.1 of the DSU Members are under a duty and an obligation to "respond promptly and fully" to requests made by panels for information.[507] On the basis of these two general observations the Appellate Body concluded that a panel has the legal authority and the discretion to draw adverse inferences from the fact that a Member had refused to provide information sought by the panel.[508] In the *Hormones* case, such a rule would have enabled the Appellate Body to draw adverse inferences from the refusal of the US and Canada to furnish the MGA reports (ie, that the reports support the EU claims about the risks that this particular hormone poses to humans).

[507] *Ibid*, at para 187. To hold that a Member party to a dispute is not legally bound to comply with a panel's request for information, the Appellate Body noted, would amount, in effect, to a declaration that Members are "legally free to preclude a panel from carrying out its mandate and responsibility under the DSU. So to rule would be to reduce to an illusion and a vanity the fundamental right of Members to have disputes arising between them resolved through the system and proceedings for which they bargained in concluding the DSU" (para 189).
[508] *Ibid*, at para 203.

5

Environmental Conflicts in the Private Realm of International Construction Law

THE THESIS OF global legal pluralism reconstructs the "trade and environment" conflict as a multi-faceted dilemma, which is not limited to the WTO. It makes clear that international trade—with its various ecological side-effects—is governed by multiple systems of law, rather than by any single system. A proper analysis of the trade-environment conflict must be sensitive, therefore, to this multiplicity. The following three chapters seek to expand the analysis of the trade-environment conflict by considering three additional systems of global law: international construction law (the *lex constructionis*)—an important branch of the *lex mercatoria,*[509] transnational environmental (or tort) litigation and international financial law. In contrast to the treaty-based system of the WTO these three fields of law are dominated by private players.[510] The three chapters explore similar questions: first, to what extent these systems constitute an independent field of global law governed by universal themes, and second, what are their environmental blind-spots. In particular, the chapters will explore the capacity of these emerging systems to trigger a change in the approach of transnational corporations to ecological dilemmas.

This chapter focuses on the *lex constructionis*. The relevance of this field of law to the study of the environment stems from the fact that construction activities—particularly those associated with large infrastructure projects—can generate significant environmental damage.[511] Any construction activity modifies the land or habitat in which it is taking place. This damage, is highly varied, and includes loss of bio-diversity, reduction in the stability of land formations, and contamination of

[509] The term "lex constructionis" was first suggested by Molineaux (1997).
[510] The following discussion does not claim to be comprehensive. There are various other systems of economic law, which will not be discussed in this book, such as the field of competition law, see, eg, Mehra (2002) and Maher (2002).
[511] See, eg, the discussion in Ofori and Chan (1999).

water resources. The large volume of waste generated by construction operations can cause further environmental degradation.[512]

The interference of the construction activity in the eco-system and human community, which host it, could give rise to bitter social disputes, driven by conflicting interests, values and discourses. This chapter explores the way in which international construction law has confronted this construction-environment dilemma. While this exploration takes place in the context of a particular legal regime, its methodology and conclusions—in particular the critique of the private/public regulatory separation, and the cooperative regulatory model (which are developed in sections 5.3 and 5.4)—should be relevant to many other environmental dilemmas, taking place at the national or transnational levels. This alternative regulatory vision is consistent with the understanding—repeated in other places in this book—that to be successful environmental policy must adopt a multi-dimensional strategy.[513]

The chapter proceeds as follows. Section 1 outlines the environmental world-view, which would guide the discussion in the rest of the chapter. This world-view is based on a political interpretation of the ecological "project". Section 2 considers the nature of the *lex constructionis* as an autonomous system of law, and attempts to unravel the reflexivity structure of this legal system, focusing on two key factors: its communicative patterns and its organisational features. This dual exploration points to two prominent features of the *lex constructionis*: that its main communicative channel is standard model-forms; and that this norm-production process is controlled by few non-state actors. The chapter focuses on one key international player—the International Federation of Consulting Engineers (FIDIC)—which plays a dominant role in the international construction market.

Section 3 seeks to decode the linkage between the structural-cultural attributes of the *lex constructionis* and its *environmental (in)sensitivity*. I will argue here that the contractual tradition of the *lex constructionis,* in particular, its distinction between the "public" and "contractual" orders, has generated a legal culture that is highly inattentive to the ecological side-effects of construction activities. This has important practical consequences because of the deep environmental problematic of transnational construction projects. My goal in this chapter, however, is not merely to expose this institutional "blindness". I am interested also in developing

[512]Construction activities also have indirect environmental effects, related to the impact of the construction activity on the general sustainability of the local or global economy, due to their intensive resource utilisation and energy use. Ofori and Chan note, for example, that in monetary terms construction activity utilises up to seven times as much wood, minerals, water and energy as the rest of the economy, *ibid*, at 242.This chapter focuses, however, on the direct effects.

[513]See, eg, Tietenberg and Wheeler (1998).

pragmatic alternatives. To this end, I draw a distinction between the contractual heritage of the *lex mercatoria* and a counter-contractual vision, which depicts the construction contract as a *semi-political* mechanism, rather than a strictly private tool. This conceptual change seeks to break the traditional separation between the "public" and "private" realms—a division that characterises most of the standard contracts in the construction market.

Of course, the main challenge lies in developing detailed normative/institutional configurations that would enable the realisation of this "political/constitutional" understanding of the contract. These configurations should have a reasonable "fit" with the commercial constraints of the transnational construction market. The chapter offers some practical reflections, which seek to respond to this challenge.

5.1 THE POLITICS OF ECOLOGICAL CO-EXISTENCE

Construction activities constitute a highly visible ecological threat. Environmentalists tend to view this industry, primarily, as a source of ecological disturbance and disfigurement. Indeed, over the last years construction "practice" has been portrayed, increasingly, as an ecological culprit. This process of "demonisation" is at odds with the positive role that construction practice has played during human history—in providing basic human needs, such as safe dwelling and a tamed environment. The sharp contrast between these two articulations constitutes a difficult dilemma. In developing a legal response to this dilemma I would like to contrast between two different environmental world-views: deep ecology and Bruno Latour's ecological politics.[514] Both have emerged as a counter-response to the capitalist vision of "*nature-as-a-resource*", which has such a dominant place in the life of the twenty-first century society. The first world-view—"deep-ecology"—conceptualises "environmentalism" as a new form of *ethic*, which gives nature an independent non-instrumental value;[515] and considers the motif of "domination of nature" as the main malady of modern society. Deep-ecology leads to two possible resolutions of the nature/society discord. The first seeks to replace the hierarchical approach to nature, which is characteristic of contemporary society, with an ideology of *strict bio-egalitarianism*. The second seeks to conflate the nature/society distinction, and to replace it with a *holistic* vision, in which the boundaries between humanity and nature are completely dissolved.

[514] For a more elaborate analysis of these competing world-views see ch 1, section 1.1.2(b).
[515] Eder (1996) and Naess (1983).

The practical implications of these interpretations remain unclear. Strict bio-egalitarianism can only lead to *social paralysis*. If both humans and nature are sanctified, how are we supposed to mediate between them if a conflict arises? The holistic vision is no less problematic. If humanity and nature are conflated into a unitary (non-hierarchical) whole, which becomes the primary object and subject of moral deliberation, how should we understand its various components and envision their intricate relations (eg in the context of a construction-induced conflict?).[516]

Bruno Latour's environmental philosophy evolved as a counter-thesis to the ideas of deep ecology. It offers, I believe, a more interesting and pragmatic framework for thinking about the construction-environment dilemma. Instead of calling for bio-spherical egalitarianism or for the sanctification of nature, Latour argues that ecological dilemmas should be conceptualised as *political dilemmas*. This political vision is based on a radical shift in the way in which ecological dilemmas are observed; a shift from *essences* to *relations*. Latour is not interested in investigating the *essence* of things, in attributing a priori *labels* to either humans or non-humans. His interest lies elsewhere: in developing rich articulations of the intricate ways in which humans and non-humans commingle and interact, and of the ways in which this commingling transforms them both (in terms of preferences, properties etc).[517] Construction activity is a rich source of such commingling; it provides the setting for very "tight" or "intimate" (in terms of space and time) commingling between humans, eco-systems, and technologies.

But the move from *essences* to *associations* does not change just the way in which nature-society dilemmas are *observed*.[518] It also reformulates their *resolution path*—from the ethical to the political. To understand this change, Latour argues, "one has to abandon the false conceit that ecology has anything to do with nature as such." Rather, political ecology needs to be seen as "a new way to handle all the objects of human and non-human collective life"; it is "a collective experimentation on the possible associations between things and people without any of these entities being used, from now on, as a simple means by the others".[519]

[516] Both of these strands of deep ecology require a return to a pre-capitalist society, with radically reduced standard of living, in order to be implemented.

[517] You could feel, act, and be considered as a bourgeois, ecologically indifferent citizen for a long period, but, then, the risk of a bulldozer transgressing on your neighbourhood could turn you into a "green-warrior" or a green voter. And similarly, the bulldozer—once a "neutral" technical artifact—could be transformed into an anti-nature token. See, Latour (1999: 174–215).

[518] This move does not mean that we have to abandon all of our prior distinctions. One such basic distinction is between communicating beings, non-communicating beings and societies (networks of communications). See the discussion in ch 1, section 1.2. However, the political shift proposed by Latour provides one possible (and in no sense privileged) standpoint from which the relations between these distinct realms could be conceptualised.

[519] See, Latour (1998: 234).

By designating this new "collective", Latour seeks to reformulate our understanding of politics and polity. He thus challenges not just the deep ecologists' dance between sanctification and equality, but also the traditional conceptions of politics and democracy, which have constructed these notions as exclusively human constructs.

Conceptualising *ecology* as a political endeavour, means—in contrast to the visions of bio-spherical egalitarianism or human domination of nature—that the rights of both humans and non-humans cannot be decided a priori. Rather, these rights can only emerge and be negotiated through a revised—"ecologised"—political process. The main challenge lies, of course, in developing practical institutional structures, in which this new "*ecologised*" *polity* could be realised.[520] It is on this point that the law and legal scholars can make their most substantial contribution. Devising regulatory structures is, after all, what the law has been doing from the moment it emerged into the social plane.

From this perspective, the solution to the construction-environment dilemma lies in the *political* domain. My critique of the *lex constructionis* would follow this line of thought in that it will not attempt to proceed, deductively, from some universal solution to the trade and environment conflict. Rather, I will explore the cultural and institutional features of this body of law, and examine whether its current construction of the human-nature relations could be transformed, giving the voice of "nature" more weight.

5.2 THE FEATURES OF THE *LEX CONSTRUCTIONIS* AS AN AUTONOMOUS LEGAL SYSTEM

5.2.1 The Basic Structure of the International Construction Market

The international activity in the construction market takes place in a limited segment of the global construction market—that which involves large-scale projects (such as airports, harbours, sanitary schemes, mines, petrochemical plants, etc).[521] The international market for construction services has expanded substantially over the last decade;[522] supported by

[520] Latour, *ibid*, at 214.

[521] For a more detailed discussion see the WTO report "Construction and Related Engineering Services: Background Note by the Secretariat" (WTO 1998).

[522] See the WTO Report, *ibid*, at para 12. The size of this market is huge. In most industrialized economies the share of construction in total GDP is between 5–7%, *ibid*, at para 7. Construction services are traded, primarily, through the establishment of commercial presence at the site of the works, either by local subsidiaries or through joint ventures between foreign and domestic firms. A good proxy for the scale of the trade in construction services is the total revenues of the top 225 international contractors. According to the WTO total revenues have grown between 1994–96 from $62,219.4 millions to $126,777.2 millions, a 104% increase, *ibid*, table 1, at 9. This economic expansion is likely to yield a parallel expansion in the legal universe that supports the global trade in construction services.

the conclusion, in 1995, of the WTO Agreement.[523] Construction projects are a multi-party operation. As such they generate a complex web of contracts.[524] In international projects, the principal parties are generally the host nation's government, the project sponsors, lenders, contractors, operators and insurers. The contractual framework can vary, substantially, between different project types. However, most construction projects include the following three basic types of contracts: a *construction agreement*, in which the project company and the contractor agree on the terms of the project; *funding agreements* between the project company and the lenders, and *insurance contracts*. Where the construction project concerns either an infrastructure service (public utility) or the extraction of natural resources, the contractual framework might include, in addition, a *concession agreement* in which the host government grants the project company a long-term right to engage in the relevant industry, and an *operation agreement*, which sets the conditions for the operation of the service.[525]

Of this complex contractual web international construction law deals, principally, with the construction agreement. In that respect, the *lex constructionis* does not deal with the whole legal complexity of the construction endeavour. However, from an *environmental perspective*, the construction agreement is probably the most interesting element of this contractual web, as this is the "legal space" which deals directly with *the ecological-physical aspects of the project*. Any attempt to influence the environmental impact of a construction project should focus, therefore, on the structure and content of the construction agreement.

5.2.2 The Emergence of the *Lex Constructionis*: Basic Communicative Patterns

The *lex constructionis* is a product of standardised contracts, technical guidelines and arbitration awards.[526] Standard contractual forms constitute, however, the most important element in this discursive universe: they form the principal communicative channel through which the *lex constructionis* evolves, and maintains its reflexivity.[527] While even

[523] Particularly important in this context are the new General Agreement on Trade in Services ("GATS"), and the Plurilateral Agreement on Government Procurement (Annex 4 to the WTO Agreement), both signed at Marrakesh on 15 April 1994.
[524] For a more detailed description of this complex contractual framework see: Vinter (1998).
[525] A common type of *operation agreement* is an *output purchase agreement*, which commits the host country, over a specified period, to purchase a minimum quantity of the project's output at an agreed price.
[526] See, Tieder (1998) and Molineaux (1997).
[527] See, Sweet (1991) and Tieder, (1998: 552). There are significant linkages and cross-dependencies between domestic-oriented forms and internationally-oriented standard contracts, see, eg, Lloyd (1996). For reasons of space I do not consider these inter-linkages here.

the most popular forms are rarely used unamended,[528] they have a profound effect on the formation of *normative expectations* in this market. They underpin the negotiation process, and accompany the construction process from beginning to end. The common usage of standard contracts generates substantial economic advantages, which seem to ensure the durability of this practice. It has reduced the transaction costs of entering into an international project and has contributed to the evolvement of tendering as a conventional method of obtaining competing quotations.[529] Public international law (both customary and treaty law) has played, in contrast, a very limited role in the development of the *lex constructionis*.[530]

Standard model forms constitute, then, the main channel through which the *lex constructions* transforms itself. There are, however, several other important communicative channels. Of these the most important is international arbitration. Most of the transactions in the international construction market are subject to arbitration agreements. This means that the majority of construction-disputes are being adjudicated before private arbitrators, usually in one of the main international arbitration centres.[531] However, the capacity of the arbitration channel to instigate legal change is limited, due to several features of the international arbitration field: the lack of precedential practice, the absence of institutional cohesion (which prevents the evolvement of institutional routines), and the lack of a wide and timely circulation of judgments.[532] The increasing dominance of the International Chamber of Commerce (ICC) International Court of Arbitration might rectify, in the future, this lack of organisational cohesion, and could thus increase the role played by the arbitration channel in the evolution of the law.[533] The work of scholars constitutes

[528] See, Hughes and Greenwood (1996: 204).

[529] By ensuring a common basis for the evaluation of tenders, see Bunni (1991). The WTO Agreement on Government Procurement, which is based on the idea of *equal access* to governmental contracts, has also contributed to the expansion of the tendering method.

[530] The intervention of public international law in the construction market was generally limited to projects with transboundary effects. For a general discussion, see: Lefeber (1996: 19–46).

[531] See Lloyd (1996: 509). National Courts, particularly English courts are another source of interpretation. Arbitration awards frequently refer to decisions of national courts, see the extracts of ICC arbitral awards on construction contracts, which appeared in the *ICC International Court of Arbitration Bulletin*, vol 2(1); 9(1), and 9(2).

[532] Whereas new electronic forms of storing legal data, such as *Lexis* and *Westlaw*, have changed significantly the pattern of communication in other legal spheres (particularly in the United States), in the arbitration world, awards are still available only in a printed form, with poor devices for sorting and ordering, and even that only after a substantial delay. As was noted above the ICC has made some effort to rectify this problem by publishing extracts from ICC arbitral awards.

[533] The prominence of the ICC arbitration centre seems to be guaranteed by the common stipulation in FIDIC's contracts that a contractual dispute should be submitted to ICC arbitration, if it can not be resolved in a less contentious way, see Wade (2000: 9). Other

another important communicative channel. Scholarly publications are a particularly important source of internal observation for the *lex constructionis* because, unlike arbitration awards, which tend to provide an extremely scattered and episodic portrait of the law, the work of scholars provides a comprehensive and updated observation of the law—particularly of new standard forms.[534]

Unlike domestic legal systems, in which legal change is instigated through two different processes—legislation and judicial decisions—the *lex constructionis* changes, then, principally through the channel of standard contractual forms. Its reflexivity structure is thus much more limited than that of domestic legal systems. This observation leads to two related predictions. First, that the *lex constructionis* would be much more influenced by its history: legal practices might persist even when the historical conditions in which they were formed cease to be relevant. Second, the evolutionary path of the *lex constructionis* should be much more sensitive to the institutional nature and structure of the organisations, which control the production of standard forms.[535] I will revisit these predictions in the course of the discussion of the openness of the *lex constructionis* to environmental considerations (section 5.3 below). The following section examines the institutional structure of the *lex constructionis*.

5.2.3 The Institutional Setting of the *Lex Constructionis*: Exclusion and Dominance

The international market for standard construction contracts is dominated by a small group of international organisations.[536] This private control of the norm-production process stands in contrast to the WTO realm in which the norm-production process is divided between a contractual, inter-state realm, and an independent judicial system. The main players are the International Federation of Consulting Engineers (FIDIC),[537] the International European Construction Federation (FIEC), the British

arbitration centres, such as the London Court of International Arbitration, have failed, so far, to establish themselves as prominent players in the construction arbitration market.

[534] See, eg, the commentaries on FIDIC's Red Book by Corbett (1991) and Bunni (1991). Forums like the *International Construction Law Review* fulfil a similar role. The capacity of scholarly publications to trigger legal change remains, however, quite limited.

[535] Neither of these predictions should lead, a priori, to a conclusion that the *lex constructionis* is inefficient or ecologically indifferent. One cannot rule out the possibility that a legal system will develop very sensitive private-legislative mechanisms that will compensate for the absence of judicial innovations.

[536] For a recent survey of these organisations see Tieder (1998: 554–79).

[537] The acronym stands for the French title: the *Federation Internationale des Ingenieurs—Conseils*.

Institution of Civil Engineers (ICE), the Engineering Advancement Association of Japan (ENAA), the American Institute of Architects (AIA)[538] and the International Bank for Reconstruction and Development (World Bank).[539] Other key contributors are UNCITRAL and UNIDROIT, through their more general work on universal contract models.[540] UNCITRAL was involved also in specific work on the construction market.[541] International legal firms constitute another important player.[542]

I would like to focus, however, on one prominent player in this group—the International Federation of Consulting Engineers.[543] This does not imply that the other players are not important, but FIDIC enjoys a dominant position, which justifies, I believe, this special attention. The discussion that follows examines, closely, the structure of FIDIC's *contractual products*, and the *institutional framework* that facilitates the norm-production process.[544] I will nonetheless make comparative references to the contractual products of two other organisations: ENAA and the ICE. FIDIC was founded in Belgium in 1913.[545] It is an association of national Member Associations; thus, it does not include as members individual firms of consulting engineers. The original founding countries were

[538] Although AIA model forms are not meant to be used in international projects, their widespread use in the US market (Sweet 1991) has turned them into a significant transnational benchmark.

[539] The World Bank's operational directives have a large influence on the operations of other public lending bodies such as the Asian Development Bank, see Tieder (1998: 555). To some extent the World Bank also influences the lending practices of private financial institutions.

[540] See, Tieder (1998: 558–72). In that context, the publication, in 1994, of *UNIDROIT's Principles of International Commercial Contracts* was particularly important. UNIDROIT's principles set themselves the ambitious task of creating a model contract law for cross-border transactions, see Berger (1997). UNCITRAL most important contribution was the adoption, in 1993, of the *Model Law on Procurement of Goods, Construction and Services (Model Law)*. This model law deals, however, only with pre-contractual selection practices, and does not address contract performance issues or the settlement of disputes (Tieder 1998: 561–62).

[541] In 1988 UNCITRAL published its "Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works" (UNCITRAL 1988), which was quite widely used, especially by developing countries. Another more recent contribution is a "Legislative Guide on Privately Financed Infrastructure Projects" (UNCITRAL 2001).

[542] See, Dezalay and Garth (1995).

[543] For the central role of FIDIC in the construction market see, ICC, "Extracts of ICC Arbitral Awards on Construction Contracts Referring to the FIDIC Conditions" (ICC 1991). The ICC notes in the introduction to this collection that: "In recent years construction disputes have represented some 21 per cent of cases submitted annually to ICC arbitration. A significant portion of these construction cases is governed by the FIDIC … Contract (International) for Works of Civil Engineering Construction or on conditions modeled on the FIDIC Conditions" (*ibid*: 15).

[544] This aspect of FIDIC's work has received little attention in the legal literature. Most of the literature consists of legal analysis of FIDIC and other international standard forms.

[545] The following description is based on a paper by John Bowcock, who was the chairman of FIDIC's Contracts Committee at the time: Bowcock (1998).

France, Belgium and Switzerland. FIDIC's current membership circle transcends the limited European membership of its inception period. By September 2001 FIDIC's membership encompassed 65 National Member Associations representing some 560,000 professionals.[546] FIDIC is governed by an Executive Committee and several specific Committees and Task Groups.[547]

FIDIC has dominated the market for international construction documents since the 1960s, with its standard forms of contract for engineering construction and for the provision of mechanical and electrical plant. The first form, *Conditions of Contract for Works of Civil Engineering Construction,* which came to be known as the "*Red Book*", was used mainly for large projects, such as infrastructure and hydropower. The second form—*Conditions of Contract for Electrical and Mechanical Works including Erection on Site* (also called the "*Yellow Book*")—was used mainly for the construction of industrial sites. Both forms have been in widespread use for several decades.[548] FIDIC's *"Red Book"* was particularly dominant in the world market.[549] The prominent status of the *Red Book* was affirmed by the World Bank, which has incorporated it into its standard bidding documents for Procurement of Works.[550] Other private associations, such as the British Institution of Civil Engineers and ENAA of Japan have also produced important standard documents;[551] however, none of these documents has received the same kind of international stature that was achieved by FIDIC documents, in particular by the Red Book.

[546] The information was drawn from FIDIC's web-site (www1.fidic.org/federation, visited 24 July 2003).

[547] These include an Assessment Panel for Adjudicators, Business Practices Committee, Contracts Committee, Capacity Building Task Force, Governance Task Force, Integrity Management Task Force, and Sustainable Development Task Force. The data was drawn from FIDIC's web-site (www1.fidic.org/about/committees.asp, visited 24 July 2003).

[548] The Red Book was first published in 1957 and its 4th (and last) edition was published in 1987. The Yellow Book 3rd edition was published in 1987.

[549] For a comprehensive commentary on the "Red Book", see, Corbett (1991) and Bunni (1991). The Red Book was amended several times since 1987. In 1999 FIDIC published a new series of contracts, which replaced the Red Book. The detailed discussion below is based on FIDIC new contractual products, which, as will be explained below, are quite different from their predecessors.

[550] See the World Bank Standard Bidding Documents for Procurement of Works ("SBDW"), May 2000, revised March 2002, March 2003. An electronic version is available at www.worldbank.org/html/opr/procure/workspage.html (visited 24 July 2003). The SBDW are based on the fourth edition of Red Book (1987, reprinted 1992 with amendments), and thus do not reflect, as yet, FIDIC's most recent forms. See also: Molineaux (1997: 59). Additional indication of the normative status of FIDIC's model forms, can be found in the recent decision of the World Bank to base its new trial edition (Sept 2000) of Bidding Documents for Procurement of Simple Works (of Small Value, Short Duration and Low Risk) on FIDIC's "Short Form of Contract" (1999). A copy of this sample document can be obtained from the World Bank web-site, *ibid*.

[551] See Tieder (1998: 576–79).

The process through which FIDIC has produced its most recent contractual products provides a good illustration of the institutional closure of the *lex constructionis* (or, in other words, of the openness of the norm-production process). This closure tends to perpetuate the ecological insensitivity, which will be pointed out in the following section. In 1994 FIDIC decided to update the *red* and *yellow* books, by initiating a long and varied consultation process.[552] This consultation process was *restricted*, however, to FIDIC's natural audience: its members and other relevant groups such as law firms, contracting groups, and financing institutions.[553] It did not extend beyond the limited circle of the potential *users* of FIDIC's forms. FIDIC has not consulted other groups, such as environmental and labour groups, despite the fact that international construction projects can have a large influence on the life of the people that these groups represent.

The institutional process behind the production of FIDIC's new contracts, reveals, therefore, a clear pattern of exclusion: *the contracts were formulated in the closed organisational sphere of the construction industry* (including related affiliates like financial institutions).[554] Groups which were not part of this closed circle were left out. The exclusion of other voices, such as those of environmental groups, provides one explanation for the environmental insensitivity of FIDIC contracts, which will be considered in more detail in section 5.3 below. However, it would be wrong, I believe, to interpret this closure as a sign of cartelistic behaviour.[555] FIDIC's institutional goals and cultural inclinations cannot be reduced to the mere representation of its members' business interests. This institutional commitment to non-economic goals—which will be discussed in section 5.4 below—indicates that FIDIC's approach to the environment, and its openness to other voices, can be altered.

5.3. ENVIRONMENTAL CLOSURE AND STANDARD CONSTRUCTION CONTRACTS

5.3.1 FIDIC's Model Forms: A General Exposition

This section seeks to expose and criticise the environmental record of the *lex constructionis*. Whereas the domestic scene particularly in the

[552] See, Wade (2000).
[553] See, Wade, *ibid*, at 7.
[554] The drafting process within other professional associations seems to follow a similar pattern of exclusion. See, for example, the discussion of the American Institute of Architects model contracts, in Stipanowich (1998: 526).
[555] For this type of argument in the context of standardisation, see Spindler (1998).

United States and Europe, has experienced a burgeoning wave of legal innovations, covering different aspects of the environmental problematic—from corporate liability (moving from traditional notions of individual liability to new forms of collective liability), pollution control (using market mechanisms rather than strict emission standards), to new regulatory tools (such as broad disclosure requirements and eco-labeling),[556] the *lex constructionis* has shown little "environmental" innovation. It has maintained, in general, an attitude of indifference toward environmental problems. This section seeks to explore the nature of this indifference through a close examination of some of the model forms that dominate the global construction market, in particular the new series of contracts that was published by FIDIC in 1999. I will try to assess to what extent these model forms *incorporate*, and *give voice*, to general environmental concerns.[557] Two other model forms, ENAA's Model Form of International Contract for Process Plant Construction (ENAA Model Form), and the ICE New Engineering Contract (NEC) will be used as an additional comparative source. I have chosen these two model contracts as a second point of reference, because, although they do not enjoy the same universal stature as FIDIC's contracts, they are also used commonly in international projects.[558]

Before proceeding to review the environmental aspects of FIDIC's new contracts it might be worth while to consider the general structure of the three model forms, which constitute the core of FIDIC's new contracts-series. FIDIC's new line of contracts, which were published in 1999,[559] reflect a change of thought in FIDIC. The new contracts focus more on the *apportionment of responsibilities* between the parties, than on the *project's type*. Thus, the emphasis was shifted from "civil" versus "electrical & mechanical" works to "works being designed by the Employer" versus

[556] See, eg, Teubner (1994), discussing new doctrines of collective liability, and Tietenberg and Wheeler (1998), pointing to information strategies as a new form of environmental regulation.

[557] The analysis of FIDIC's new forms does not intend to provide a comprehensive analysis of their provisions. For a more general analysis, see, eg, Booen (2000) and Wade (2000).

[558] As was noted before one indication of the international status of FIDIC's Red Book was its adoption by the World Bank. The ENAA's Model Form of International Contract for Process Plant Construction was also adopted by the World Bank, and is used in its "Standard Bidding Documents for Supply and Installation of Plant and Equipment" (Nov 1997, Revised Jan 1999, March 2002, March 2003). An electronic version is available at www.worldbank.org/html/opr/procure/workspage.html, visited 24 July 2003. For a commentary on *ENAA's Model Form*, see Wiwen-Nilsson (1997). ICE New Engineering Contract ("NEC") series, which was first published in 1993 (a second edition was published in 1995), has also significant international profile; see, Barnes (1996: 95). The NEC series is comprised of six different options, which all share the same Core Clauses. I will use the NEC option F: Management Contract (Nov 1995) as my reference document.

[559] The contracts were published initially in 1998 in a test edition. All my comments refer to the 1999 edition of the contracts.

"works being designed by the Contractor". Accordingly, the special task-group established for this purpose decided to develop a new *Construction Book* (henceforth *"Construction Contract"*) to be used for building/civil/engineering works *designed by the Employer* or by his representative, the Engineer. Conversely the new *Plant & Design-Build Book* (henceforth *"Plant Contract"*) was designed to be suitable for plant/building/engineering works *designed by (or on behalf of) the Contractor*.[560] In addition, FIDIC issued a completely new model form, based on a two-party approach, entitled the "*EPC Contract*".[561]

Both the new *Construction Contract* and the *Plant Contract* kept the traditional three-party structure, which was used in the contracts' previous editions. Within this framework, the Engineer, whom the Employer (the procurer of the Works) employs for this purpose, administers the Contract, monitors the construction work and certifies payments. Whenever the Engineer is required to determine any contentious matter or settle any claim for time extension or extra costs he is first required to consult with each of the parties in an endeavour to reach agreement. If agreement is not achieved, the Engineer is required to make a fair determination in accordance with the Contract. If the Engineer's determination is rejected by either of the Parties, or if a dispute otherwise arises, the parties can forward the dispute to a Dispute Adjudication Board (DAB).[562] If either party does not accept the DAB's decision and the parties fail to reach an amicable settlement the matter must be finally settled by international arbitration, usually under the ICC Rules.[563]

During the work on "updating" the Red and Yellow Books it became apparent to the special Task Group that there is a demand in the market for a contract that takes a *two-party approach*, where the engineer plays a

[560] See, Wade (2000: 8). In the construction jargon the term "employer" refers to the entity, which initiated the project, in many cases this would be a governmental body of some sort; the term "contractor" refers to the entity which would be responsible for the actual execution of the project.

[561] These three short titles are used in FIDIC publications, the full names being: "Conditions of Contract for Construction (for Building and Engineering Works Designed by the Employer)"; "Conditions of Contract for Plant and Design-Build (for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor)"; and "Conditions of Contract for EPC Turnkey Projects" (the acronym EPC stands for "Engineering, Procurement, Construction"). See, FIDIC (1998: 2). A fourth form, which was also published in 1999—*Short Form of Contract*—deals mainly with small value and simple projects. It is thus less relevant to the international market, and will therefore not be referred to in the following discussion.

[562] The DAB is comprised of one or three persons, which should be jointly appointed by the parties, either at the commencement of the Contract or on an ad hoc basis. The concept of DAB was imposed on FIDIC by the World Bank, which was not happy with the original Red Book framework, which appointed the Engineer—despite being paid by the Employer—as the internal disputes-adjudicator of the contract. The DAB concept is discussed in more detail in section 5.3.4 below.

[563] See, Wade (2000: 8–9).

less prominent role in the administration of the contract,[564] resulting in the *EPC Contract*. This demand was a reflection of the increase in the number of privately financed international projects.[565] The move toward private forms of financing triggered the development of several new models of project delivery. These include the Build-Operate-Transfer, "BOT" model, and the Build-Own-Operate, "BOO" model. In these concession-type arrangements a private company[566] (the concessionaire) is granted the right and the obligation to provide an infrastructure service, usually by the state or a municipality.[567] The service, whether gas, power, water, transport, sanitation or telecommunications, is provided under terms and conditions specified in a contract or licence. The concessionaire takes over operational responsibility and at least part of the commercial risk of service provision.[568] By granting the concession the state eliminates the need to pay for the construction services once the work is completed.

In such projects, the concessionaire takes most of the responsibility for the financing, construction and operation of the project. The uncertainty associated with BOO or BOT projects includes, in addition to the "normal" risks associated with the construction process, also the risks associated with the project's *future cash flow*. In order to limit their risk exposure, the procurers seek to limit the uncertainties associated with the contract, both by *eliminating* the "engineer" as an *independent contractual persona with semi-arbitral powers*, and by placing the *majority of risks* associated with the construction of the facility (eg, market and technical risks) *on the construction contractor*.[569] The *EPC Contract* reflects the special requirements of privately financed models by placing the total responsibility for the design and construction of the infrastructure or other facility on the Contractor, and providing a higher degree of certainty that the agreed contract price and time will not be exceeded.

5.3.2 Environmental Concerns and FIDIC Model Contracts

The way in which FIDIC (and other) contracts deal with environmental issues reflects a commitment to a strict public/private dichotomy, and their

[564] See, Wade, *ibid*, at 9.
[565] See: Wade, *ibid*, at 10, and World Bank (1994).
[566] The Construction Company and the operator of the infrastructure service may be different entities.
[567] I am interested here mainly in those concession arrangements, which include both a "service" element (the operation and maintenance of the facilities and the supply of the infrastructure service), and a "construction" element (the design and construction of the new infrastructure). However, some concession arrangements may include only a service element.
[568] See, Guilaim and Kerf (1995: 4) (available at www.worldbank.org).
[569] See, Wade (2000: 11).

understanding of environmental responsibility is very much a product of this dichotomy. In analysing the contractual treatment of environmental problems I will use the concept of *environmental impact assessment* ("EIA") as my focal point. EIA constitutes today the preferred regulatory response to the construction-environment dilemma, aiming to provide a comprehensive framework in which the ecological impacts (including long-term effects) of construction activities can be assessed and dealt with. The EIA doctrine is based on the idea of *ex-ante assessment*—on the adoption of a forward-looking approach, which seeks to examine the environmental impacts of a project at an early stage. Because the EIA process is conducted before the commencement of the construction project—with all the financial commitments that come with it—it opens the way for an early detection of "environmental" mistakes (eg, problems of location, or basic design flaws). EIA enables, therefore, the prevention of non-reversible actions and costly financial commitments. EIA also provides a mechanism for blocking those construction activities, which are completely untenable from an environmental perspective. The extent to which FIDIC's new contracts incorporate the concept of "environmental impact assessment" can provide, therefore, a good indication of their ecological "sensitivity".

Before turning to the detailed assessment of FIDIC forms it is important to make more explicit the regulatory challenge that is faced by the *lex constructionis* (this would help us to asses the environmental "failings" of this legal system). The scope of this challenge is determined by the *sequential fashion* in which the construction process is observed by the law. The standard construction contract (FIDIC's or any other) does not normally govern the contractual phase in which the EIA process takes place. The construction contract regulates the "*main phase*" of the construction project, the detailed design and execution. In contrast, the EIA process is usually part of a "*pre-contract*" evaluation process, in which the procurer of the works assesses the feasibility of the development plan and considers possible alternatives. This assessment process is comprised, usually, in addition to the EIA element, of other studies, which examine, for example, the financial feasibility of the project, and its compatibility with local land-use requirements.[570] This stage is governed by a *separate set* of consultancy contracts, and by extra-contractual legal requirements.[571] The construction contract holds, then, a *posterior* position in this contractual sequence.

[570] See, eg, UNCITRAL (1988: 9–13).

[571] The separation between these two phases is further exacerbated by the fact that in most cases the preliminary studies will not be conducted by the contractor that would be engaged to construct the works, but by another firm (mainly because of the risk of conflict of interests). In complex projects this principle could, however, be compromised, UNCITRAL, *ibid*, at 12.

The legal separation between the different phases of the construction project creates two difficulties. The first concerns the issue of *implementation* and *monitoring*; the second has to do with *unforeseen contingencies*. The first problem points to the need for a contractual mechanism, which could ensure that the conclusions of the EIA are actually implemented. Proper monitoring procedures should form an essential element of any such mechanism. The importance of follow-up mechanisms stems from the fact that both the regulatory authority and the developer may find it tempting to use the EIA as a "pseudo-analysis".[572] From the authority's perspective, the EIA process could be perceived solely as a pre-decision mechanism, which culminates in the authority's final decision to grant (or refuse) a development consent, and as such has no post-decision (eg, monitoring) implications. From the developer's point of view, once the project is granted a formal consent, he has little interest in developing and implementing a monitoring and post-auditing programme, which would enable him to implement the EIA conclusions (and provide the authority a convenient supervising mechanism). The EIA-literature points, indeed, to the lack of proper post-EIA monitoring as one of the key problems of current EIA practice, both in the developing and developed world.[573]

The issue of *unforeseen contingencies* points to a different problem, which stems from the (unwarranted) tendency to treat the conclusions of the EIA process as a closed and final set of prescriptions. This perception ignores the fact that the EIA process, which is conducted before the commencement of the project, cannot provide a *complete description* of the project's ecological impacts. Once the project unfolds there are bound to be some environmental "surprises". Coping with the problem of *unforeseen contingencies* requires more than simple monitoring. It requires the development of *reflexivity procedures*, which would encourage the parties to reassess the environmental impacts of the project (even when such impacts have no functional implications), and would provide the parties with clear procedures through which the original design or work-programme could be updated in response to such contingencies.

The discussion so far has pointed to two main legal challenges (both related to the sequential nature of the construction process): *post EIA monitoring* and *unforeseen contingencies*. None of these problems is treated by FIDIC contracts (or, by the ENAA and NEC forms). For reasons of space I

[572] "Pseudo-EIAs" indicates those EIAs which are carried out with the single objective of getting the project cleared, irrespective of the true environmental costs. See Biswas (1992: 240–41).

[573] For a discussion of the problem of compliance monitoring in the context of the developing world see Biswas, *ibid*; see also eg, Dipper *et al* (1998: 735) and Canter (1997: 323–24) (discussing the US).

will not provide here a detailed description of the contracts.[574] I will only make some brief references to the actual—and non-satisfactory way—in which FIDIC contracts deal with the environmental issue. A direct reference to environmental concerns can be found only in one clause, which is common to the *Construction*, *Plant* and *EPC* Contracts. Article 4.18, which is titled "Protection of the Environment", provides that:

> The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
>
> The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the Employer's Requirements, and shall not exceed the values prescribed by applicable Laws.[575]

While the inclusion of Article 4.18 in FIDIC's new forms does reflect an awareness of environmental issues, its limited coverage means that it cannot provide an adequate response to many environmental concerns. The duty of care imposed on the contractor by Article 4.18 is limited to the *contractor's operations* on and off the site; it does not cover the broader and long-term ecological impacts of the construction project *as a whole*.[576] Moreover, this provision makes no attempt to deal with the challenges of post-EIA monitoring or unforeseen contingencies. The *ENAA's Model Form* and the Institution of Civil Engineers New Engineering Contract ("NEC") do not even include such a limited provision.

FIDIC's new contracts do not include any other clear "environmental" provisions, or, to that extent, any direct reference to a pre-contractual EIA statement. This is also the case with respect to the NEC and *ENAA's Model Form*. The main other (indirect) route through which the "environmental" issue enters into the contractual universe of the industry's standard forms concerns the contracts' general compliance provisions, which require the parties to comply with the *applicable laws* of the host country in the design and execution phases of the project.[577] These would include, of course,

[574] For a more detailed discussion, Perez (2001: ch 6).

[575] Art 4.18 of the *Construction* Contract uses the term "Specification" instead of "Employer's Requirement".

[576] Art 4.18 can be enforced, of course, only by the Employer. The question is whether the Employer will bother to enforce this provision in those cases in which its breach does not affect the successful completion of the project. I did not find examples for such litigation with respect to FIDIC contracts (which does not necessarily say that there were no such incidents).

[577] See Arts 1.13, 2.2, of the Construction Contract, and Arts. 1.13, 2.2, 5.4 of the Plant and EPC Contracts. See also Arts 9.3, 9.4, 10.3 and 10.4 of the ENAA *Model Form*, and Arts 18.1, 31.2, 95.3 (health and safety requirements) and 19.1 and 21.2 (general compliance requirements) of the NEC.

any environmental regulation. The underlying assumption behind these provisions is that it is the responsibility of the "*external*" law to regulate the environmental aspects of the construction activity, including the EIA process, and any post-EIA requirements. The "compliance" provisions construct the ecological side-effects of the construction activity, as *a "public order" dilemma*—a dilemma that lies outside the contractual realm—and as such should be regulated by the state which hosts the construction project.

5.3.3 Critique of the Contemporary Contractual Response to the Environment-Construction Dilemma

The response of the *lex constructionis* to the construction-environmental dilemma is, then, based primarily on a *strategy of deference*, which seeks to externalise the responsibility for regulating the environmental aspects of the construction activity to the "extra-contractual" realm of the law of the host-state.[578] This is achieved through the employment of "compliance" provisions, which appear in most of the standard forms. The fundamental assumption behind the deference model is that the contract is a *private ordering device*. As such it cannot and should not *interfere* with the kind of issues that fall under the ambit of the "*public order*". Since environmental problems are seen as part and parcel of this "public order" they are envisaged as falling *outside* the boundaries of the contractual regime. The contractual order has, under this vision, no *original* role to play in the field of public order. Its only contribution is to provide *legally recognised addressees* to which external orders may be directed. The environmental closure of the *lex constructionis* is a clear product of this private/public divide.

This sharp distinction between the private and public orders, which characterises the *lex constructionis*, has deep roots within the legal tradition of the *lex mercatoria*. The purpose of the *lex mercatoria* was understood, historically, as protecting business expectations; the primary task of the *lex mercatoria* was to render business relations more *calculable*.[579] The *lex mercatoria* was seen, therefore, as having no interest in other forms of expectations. This "interest" had to be imposed from the outside. The growing debate among scholars and practitioners of international arbitration with respect to the linkage between *mandatory rules of law* and the

[578] See also, for this vision, FIDIC Sustainable Development Task Force report (FIDIC 2002: 10). The report argues that any environmental requirements which are not included in the laws external to the contract should be specified by the tendering authority in the call for tenders (*ibid*).
[579] See, Collins (2000: 216–17).

lex mercatoria is one example of the influence of this legal conception. The question underlying this debate was to what extent mandatory rules of law, or issues of "public policy", should interfere with the "law of the contract". This question has usually arisen in proceedings for enforcement of foreign arbitral awards, where the "public policy" argument was invoked as a ground for refusing enforcement.[580] The question has become especially important in the field of competition law. An increasing number of cases deal with the question whether an international contract, which is seen as inconsistent with the competition laws of the country in which it was made or was intended to be executed, should be enforced.[581]

While there are varying opinions with respect to how far mandatory rules can interfere with the realm of the *lex mercatoria*, and how the content of these rules should be determined,[582] the legal debate is, nonetheless, based on the shared and uncontested assumption that the private realm of the *lex mercatoria* can make no positive contribution to the realm of *public order*. The debate has focused, exclusively, on the question whether public law can (and should) encroach into the private order of the contract. The *opposite question* is seldom discussed.[583] As one ICC arbitrator has put it: "Agreements and contractual obligations may not be extended to the field of public orders".[584]

However, the translocation of the distinction between the *contractual* and *public* orders from the *lex mercatoria* to the *lex construcionis* is highly problematic from an environmental perspective. Indeed, it undermines the capacity of the *lex constructionis* to "see" the deep environmental *problematic* of the construction practice. There are *two aspects* to this legal "blindness". The first is *political*; the second is *functional*. From a *political perspective*, there is a problematic gap between the fragmented legal image that is generated by the *lex constructionis*, and the actual socio-environmental *intimacy* that characterises the construction endeavour. Construction activities, which encroach deeply into the social and

[580] The New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, recognises the violation of public policy (or public order) as a ground for refusing recognition/enforcement of foreign awards (see Art V.2). A similar provision is included in UNCITRAL Model Law on International Commercial Arbitration, 1985 (see, Art 36).

[581] The two leading cases are the US Supreme Court decision in *Mitsubishi v Soler* 473 US 614 (1985), a case involving the applicability of the US Sherman Act to an arbitration conducted under Swiss law, and the European Court of Justice decision in Case C–126/97 *Eco Swiss China Time Ltd v Benetton International NV* [1999] ECR I–3055, where the ECJ considered this question in light of the EU competition rules. For a more detailed discussion of these cases, see Sheppard and Nassar (2000) and Hochstrasser (1994: 75–79).

[582] For a detailed discussion of this debate see Sheppard and Nassar, *ibid*, and Hochstrasser, *ibid*.

[583] This question was discussed, however, in the domestic context, see, eg, Editor-Note (1949) and Dorf and Sabel (1998).

[584] See, *Award Rendered in Case No 3902 in 1984*, reprinted in Jarvin (1984: 52).

ecological localities in which they take place, are highly contextualised activities; they are "webbed" into their social and ecological surroundings. This embeddedness is highly incongruent with the image of an *isolated* "business relation", which underscores the contractual tradition of the *lex mercatoria*. The fragmented discourse of the *lex constructionis* is "blind", in other words, to the *community* that is fabricated by the interference of the construction endeavour in a *particular* geographical space and a *delimited* time horizon.

This "blindness" of the *lex constructionis* provides a convenient setting for the externalisation of the project's environmental costs to the extra-contractual community. In that respect the contractual tradition of the *lex mercatoria* goes hand in hand with the economic constraints that surround the construction market. Economists view the legal contract as a tool for enhancing the economic value of the business deal for its parties. This economic vision, as its legal counterpart, provides no basis for the consideration of those interests, which are not part of the "deal".[585] The notion of "efficient risk-allocation" further illustrates how this *logic of externalisation* operates. In order to maximise its economic value the contract is expected to provide the parties with an efficient risk-allocation scheme. This should be achieved by allocating particular risks to the party best able to manage them.[586] Any other allocation would inhibit the realisation of a surplus-maximising transaction. The economic vision clearly encourages the parties to allocate environmental risks to the extra-contractual community, when they can do it without adverse consequences for themselves.[587]

But the private/public dichotomy, and the sharp apportionment of roles that accompanies it within the contractual discourse of the *lex constructionis*, is problematic also from a *functional perspective*. The assumption that the extra-contractual realm can provide the regulatory services that are expected from it under the deference model is *highly questionable*. The complexity of the construction endeavour requires a *cooperative regulatory strategy*, which would bring together the *problem-solving capacities* of the *constructing agents*, the *regulatory establishment* and the *community* that hosts the project. Thus, for example, successful environmental assessment might require the involvement of both *local knowledge* and *highly technical*

[585] Under this economic vision, a perfect, or complete contract is that which "fully realize[s] the potential gains from trade in all states of the worlds", see Ayres and Gertner (1992: 730).
[586] See, Carter and Bond (1996: 67).
[587] Indeed, the idea that "third parties" might need protection from such externalisation is used to justify—in the national context—the encroachment of the "freedom of contract" ideal by mandatory rules. A prominent example is antitrust laws, which restrict the power of private parties to enter into exclusive dealing agreements. See, Ayres and Gertner (1992: 730: 87–95).

capabilities. Assessing the environmental and social impacts of a project is a "fuzzy" and unbounded task. There is no clear candidate to whom this task can be delegated on exclusive terms. The sharp distinction between the *internal* and *external* orders inhibits the evolvement of such flexible, trans-domain collaborations. The fact that the regulative capacities of many developing countries are highly limited, further emphasises the need for such collaborations.[588] It is important to note in this context, that the existing international regulatory framework cannot, in its current form, fill the "regulatory void" that characterises the developing world.[589]

5.3.4 A Different Contractual Vision?

Any attempt to incorporate environmental concerns into the *lex constructionis* would require, then, a change in the current conception of the construction contract. I believe that viewing the construction contract as a *semi-political* mechanism, rather than a strictly private tool, can provide a useful basis for transforming the current environmental insensitivity of the *lex constructionis*. This transformation should seek to break the traditional division (between the "public" and "private" realms) that characterises the regulatory spectrum of the modern welfare state. The corner stone of this alternative vision is the idea that any construction activity, creates, through its interference in a singular geographical space, a *micro "polity"*, which consists of the inhabitants (humans and non-humans!) of this space.[590] This micro-polity is not just a reflection of common space/time boundaries, but more importantly, of a *common dilemma*: how to cope, collectively, with the potential impacts of a proposed construction project. Indeed, the fact that this dilemma requires a *collective* solution is what makes it *political*.

[588] Thus, for example, in many developing countries EIA is not required, and, even when it is required, it tends to be poorly implemented and monitored. See, Biswas and Agarwal (1992). The EIA issue is, of course, only one aspect of this institutional weakness. Similar regulatory problems exist in the supervision of industrial pollution, see, eg, Pargal, *et al* (1997).

[589] First, the activities of transnational corporations are not subject to a general (and binding) system of international supervision. Second, the issue of EIA itself is subject to a limited international regulation. Even when there is some sort of international regulation, it is limited, usually, to *projects with substantial transboundary effects*. As it currently stands international environmental law does not seek to regulate those construction projects, which are *contained within the boundaries of one jurisdiction*, even when they involve multinational cooperation. See, Klein-Chesivoir (1990: 527).

[590] As a "micro-constitution" the construction contract should develop deeper sensitivity to the details of the *social situation* in which it is embedded; where "social situation" depicts the totality of societies, living organisms, and physical environment, which interact in the context of a particular ecological problem.

Under this view the construction contract should constitute an integral part of the "constitutional" framework through which this collective dilemma is resolved. The construction contract is conceptualised, then, as one of the tools through which the project of "ecologising" our political life could be realised. "Ecologising" is interpreted—in the spirit of Bruno Latour—not as the sanctification of nature—but as the invention of new political procedures for managing this construction-induced "collective".[591] The deference model and the private/public dichotomy that informs it are, of course, inconsistent with this constitutional vision. This vision fits nicely with the idea of EIA, which is perceived by many observers, not just as a technocratic decision-making tool, but, as a consensus-building mechanism that aspires to bring within its boundaries all those who might be affected by a construction activity.[592]

The more difficult question, of course, is how to translate this abstract vision into a set of realisable institutional practices. This question is explored in the remaining part of this section. In seeking possible implementation paths I focus on two key points, which seem to me to be the most promising. The first argues for the incorporation of an environmental management system (EMS) into the construction contract. The second seeks to modify the dispute resolution model that dominates the construction world. Consider first the issue of environmental management. The main advantage of the EMS concept is that it provides a way to integrate the environmental cause, in a systematic way, into the decision-making structure of a business endeavour. As such it provides a way to bring some of the "externalised parties" into the contractual universe of the *lex constructionis*. The environmental management system of the International Organization of Standardization, the ISO 14001, is the most likely candidate for such incorporation, since it is the most widely used global EMS.[593]

The ISO 14001 standard and its most important rival, the European Eco-Management and Audit Scheme (EMAS)[594] are based on a similar vision,

[591] See, Latour (1998: 234–35).

[592] See, eg, Renn *et al* (1995). The World Bank adopted a similar cooperative vision, which views the process of EIA as a cooperative effort that involves the borrower, the Bank, the affected populations and local NGOs; see the World Bank Report (1993).

[593] By the end of 2002 the total number of ISO 14001 certificates has risen to 49462 (a sharp increase from the 257 certificates which were issued in 1995 when the standard was introduced); see, the "*ISO Survey of ISO 9000 and ISO 14001 Certificates—Twelfth Cycle—2002*" (ISO 2003: 5).

[594] ISO 14001 (1996) *Environmental Management Systems—Specification with Guidance for Use*, is the actual management system. A second standard, the ISO 14004 (1996) *Environmental Management Systems—General Guidelines on Principles, Systems and Supporting Techniques* is the guidance manual. The European scheme was established in 1993 by Council Regulation (EEC) 1836/93 of 29 June 1993, OJ L 168, 10.7.1993, p 1, and became operative in 1995. The 1993 scheme was revised in 2001 by the Regulation (EC) No 761/2001 of the European

which is to create a framework that will encourage certified organisations to improve, continuously, their overall environmental performance.[595] ISO 14001 attempts to achieve this goal through a very simple scheme, which is based on five general principles: commitment and policy, planning, implementation, measurement and evaluation, and, finally, review and further implementation. What links these principles together is a general commitment to a dynamic cyclical process of "plan, implement, check and review."[596] Linking this cyclical process to the environmental objectives that were set out in the pre-contractual EIA should provide a mechanism for implementing and reviewing the conclusions of the EIA.

The integrative and reflexive vision of the ISO 14001 and EMAS seems to provide a good setting for exploring some of the key problems of the *lex constructionis*. As was noted before, these problems emanate from the *discontinuity* between the "pre" and "post" phases of the contractual project. This discontinuity tends to impede the efficient implementation of a pre-contractual EIA, and, as such contributes to the culture of "externalisation", which characterises the *lex constructionis*. In order to create a *temporal continuity* between the different phases of the construction project, the "main contract" should provide both a *monitoring mechanism*, which would guarantee that the conclusions of the preliminary EIA are *actually implemented* (in both the design and execution of the works), and a mechanism for coping with the problem of *unforeseen contingencies*.[597] A possible response to the latter challenge might be to create a mechanism of *"second environmental review"*. This contractual mechanism should fulfil two goals. First, it should provide an opportunity for re-evaluating the conclusions of the preliminary environmental assessment in light of any new information (eg, unforeseen changes to the original design or unpredicted

Parliament and of the Council of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme, OJ L 114, 24.4.2001, p 1 (henceforth "EMAS II Regulation"). The EMAS II Regulation incorporates ISO 14001 as its environmental management system (see, Annex I of the revised Regulation). EMAS II imposes, however, several additional obligations that go beyond the requirements of ISO 14001, particularly in the areas of environmental improvement, external communication and employee involvement. For a review of the ISO 14000 series see the ISO web-site at www.iso.ch and Murray (1999); for a review of the EMAS II Regulation see the EMAS web-site: europa.eu.int/comm/environment/emas/index_en.htm, visited 24 July 2003.

[595] See the ISO 14001 introduction at p vi, and Art 3.1, and Art 1(2) of the EMAS II Regulation.

[596] ISO 14001, Annex A.1, at p 6, Murray (1999: 45–48).

[597] Similar emphasis on the importance of post-EIA monitoring can be found in the World Bank EIA procedures. See Art 20 of Operational Policy 4.01 on Environmental Assessment, 1999, and Annex C to OP 4.01 Environmental Management Plan. Both are available at: http://lnweb18.worldbank.org/ESSD/envext.nsf/47ByDocName/Policy (visited 17 Aug 2003).

environmental effects). Second, it should provide clear procedures for programme revision, which would enable the parties to incorporate the conclusions of such a "second review" into the working programme.[598] These two tasks fit quite naturally into the management cycle of the ISO 14001 standard.

Some features of the ISO 14001 standard are, however, inconsistent, with the constitutional vision that was promulgated above. In the first place, the ISO 14001 is designed to operate mainly within a *given organisational structure*—usually a business corporation. In contrast construction activities involve, usually, a multiplicity of agents (owner, designers, constructors, sub-contractors, suppliers and future operators), which operate either simultaneously or in a sequential fashion. The ISO 14001 system does not provide an adequate answer to this institutional complexity, and it would have to be modified accordingly.[599] A second shortcoming of the ISO 14001 is that it gives the organisation a wide discretion, both in devising its environmental plan and in designing the environmental indicators according to which it will measure its performance.[600] If the basic "regulatory level" is low, as might be the case in many developing countries, the commitment for "continual improvement" might not mean much.[601] One of the challenges of the *lex constructionis* and the construction industry as a whole is, indeed, to fill this gap. The integrity of the initial EIA has a crucial role in this context.

A final weakness of ISO 14001 is its undemanding position with respect to public participation. The ISO 14001 standard does not view the notion of public consultation as an integral element of the environmental

[598] Art 13 of the new FIDIC forms, which deals with "Variations and Adjustments", can provide some guidance to the way in which such a review mechanism could be designed. However, Art 13 is based on an either/or risk allocation scheme that is, again, at odds with the cooperative vision that is advocated here. The provisions of the New Engineering Contract that deal with "programme revision" (Arts 31, 32) can also provide useful guidance for devising such procedures.

[599] Eg, the notion of "continuous improvement" would have to be interpreted as "project-specific" rather than "organisation-specific".

[600] See, Murray (1999: 49–50). The introduction to ISO 14001 provides: "… this international standard does not establish absolute requirements for environmental performance beyond commitment, in the policy, to compliance with applicable legislation and regulations and to continual improvement", ISO 14001 introduction at p vi. Organisations certified under EMAS II will face higher demands. This was achieved by introducing the concept of *significant environmental aspects*. Art 1(2) of the EMAS II Regulation states that "The objective of EMAS shall be to promote continual improvements in the environmental performance of organisations … ". Art 2(b) defines "continual improvement of environmental performance" as "the process of enhancing, year by year, the measurable results of the environmental management system related to an organisation's management of its *significant environmental aspects*, based on its environmental policy, objectives and targets … " (my emphasis). The notion of *significance* is defined in Annex VI (Art 6.4).

[601] Note, also, that under the ISO 14001 scheme, a firm can legitimately respond to nonconformance by *reducing* the stringency of its declared goals on the ground that the initial goals were "inappropriate" (as long as the new goals comply with regulatory guidelines) Switzer and Ehrenfeld (Switzer and Ehrenfeld 1999: 27).

management system.[602] The involvement of the public is, however, a key element of the contractual vision, which was promulgated here. Public participation is important both in the context of post-EIA monitoring, and in the context of a second environmental review. In that respect the revised EMAS Regulation provides a more progressive model, both by introducing demanding disclosure requirements,[603] and by requiring any certified organisation to engage in true and open dialogue with its employees and the public at large.[604] The revised EMAS Regulation thus makes an attempt to go beyond a purely "disclosure" model, in which the deliberation is perceived only as an ad hoc exercise, toward a model in which the dialogue between the organisation and the public is perceived as a continuous process. This approach fits nicely with the construction context, where it is critical that any deliberation would take place before the project is completed.

It is important to understand that this proposal does not seek to transform the construction contract into some monstrous, all-embracing instrument. Thus, I do not believe that the construction contract should provide a detailed environmental performance schedule, or act as an environmental management manual. Rather, this proposal seeks to encourage a greater use of the construction contract as a *coordination mechanism*. As a

[602] Art 4.4.3 of ISO 14001 requires the organisation only to "*consider* processes for external communication on its significant environmental aspects and [to] record its decision" (my emphasis). Furthermore, the ISO 14001 standard does not require the publication of an annual environmental statement (see ISO 14004, Art 4.3.3.1). This of course raises the question of the public accountability of the scheme. This approach to the disclosure issue reflects, mainly, the concern of the US business community that such extensive disclosure would act as a platform for criminal or civil litigation, and not as a platform for constructive dialogue; see, Murray (1999: 53–54). Responding to these concerns several US states have made an attempt to provide firms with certified EMS programmes with either a statutory immunity from liability or a qualified privilege. For a more detailed discussion, see Murray, *ibid*, at 53–62.

[603] The organisations that will register under the new scheme will be required to publish, on a yearly basis, an environmental statement, which should provide details of the environmental performance of the organisation against its environmental objectives and targets (Art 3, sub-paras (2)(c) & (e) and (3)(b) of the EMAS II Regulation). The environmental statement shall be verified by an "environmental verifier" (Art 3(2)(d)). Further details with respect to the objectives, structure (including data requirements) and modes of publication, of the "environmental statement" are given in Annex III. Art 3.6, which deals with the issue of public availability, encourages the certified organisations to use various communicating channels—including electronic publication, libraries, etc.

[604] Thus, Art B(3) of Annex I of the Revised Regulation, which is titled "External communication and relations", requires that the organisation shall be able "to demonstrate an open dialogue with the public and other interested parties including local communities and customers with regard to the environmental impact of their activities, products and services in order to identify the public's and other interested parties' concerns". Art B(4) of the same Annex requires certified organisations to involve their employees in the operation of the environmental management system, through, eg, suggestion-book systems, project-based working groups, or environmental committees.

coordinating device the contract can, and should, refer to external sources such as the World Bank's EIA guidelines or the ISO 14001 standard, only modifying them when required.[605] The technical modalities of such incorporation are not complicated. Indeed, FIDIC model forms already use this "legislative" method, albeit in relation to quality assurance.[606] I believe that this idea could find some support within FIDIC, which has been involved over the last few years in an initiative to introduce the concept of EMS to the construction industry.[607]

A second area, which could be used to advance my "constitutional" vision, concerns the issue of dispute settlement. As was noted above, most of the model forms include an arbitration agreement. This means that most of the disputes in the global construction market are adjudicated before private arbitrators, usually in one of the main international arbitration centres. The arbitration universe is, however, a closed world; it gives no voice to those parties who are external to the contractual order. This closure, which means that non-parties can raise claims against the contractual order only through the "external" court system, supports and perpetuates the private/public separation which was criticised earlier. Breaking this separation clearly requires an alternative dispute settlement structure.

The idea of Dispute Adjudication Board (DAB), which was adopted by FIDIC's new model contracts, can provide a useful starting point for thinking about such alternative structure.[608] The DAB is constructed as an internal adjudicator/mediator, which should deal with any dispute before it is forwarded to an external formal arbitration.[609] The main advantage of the DAB concept is that by being in place at the *outset* of the project, before the emergence of any dispute, it "is able to have personal and contemporaneous familiarity with the development of the work

[605] As the EMAS II regulation does with respect to ISO 14001.

[606] Art 4.9, which appears, in almost identical form, in the *Construction*, *Plant*, and *EPC* contracts provides that: "The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Employer shall be entitled to audit any aspect of the system … ". This is the *EPC* version. The *Construction* and *Plant* contracts differ only in that they use the term "Engineer" instead of the "Employer". A similar provision could be used to introduce an "environmental management system" ("EMS") into the contract.

[607] FIDIC published in 1995, in cooperation with UNEP and the International Chamber of Commerce, a resource training kit on environmental management, which was inspired, largely, by the ISO 14001 standard and EMAS. However, FIDIC views the concept of EMS as a purely managerial notion, and has made, so far, no attempt to incorporate it into its model forms.

[608] See, Art 20 to FIDIC new model-forms. The DAB shall comprise of either one or three persons.

[609] Both parties have the right to submit the dispute to formal arbitration, usually under the ICC Rules, if they do not accept the DAB's decision, and fail to reach an amicable settlement (Art 20.6 of FIDIC's new forms).

under the contract" and to establish regular communication with the parties.[610] This close contact with the project's "reality" distinguishes the DAB from a post-dispute legal adjudicator, who necessarily relies, in constructing her judgment, on documents and witnesses, rather than on a direct knowledge of the project. It is this close contact, which makes the DAB's opinion, with respect to any disagreement more acceptable to the parties. Of course, to create this distinction between the DAB and a legal adjudicator, it is essential that the DAB will be appointed by the parties at the *commencement* of the Contract, and will familiarise itself with the project *before* the occurrence of any dispute.[611]

Under the current *Construction Contract* the DAB members are appointed by the parties.[612] This arrangement is unsatisfactory from my perspective, because it does not provide a "voice" to the extra-contractual community. A possible solution would be to appoint a "public representative" to the DAB. The power to appoint this member could be conferred upon an acceptable third party.[613] This member should have the right to accept complaints from the public and initiate internal discussions within the DAB. A more difficult question is how to link this transformed DAB with the arbitration world. To make this proposal more appealing, it might be more realistic to limit any public-initiated deliberation to "informal" discussions at the DAB, and not to carry them further to the arbitration phase. While this would, formally, give the contractual parties the right to overrule any public-initiated DAB decision, I believe that it would not stop the DAB from having some impact on the social reality of the project. It is clear, however, that this idea requires further experimentation.[614]

The alternative contractual vision that was suggested in this section could find some support in the new contractual paradigms that appeared recently in the construction market. Both the ICE managerial model, which views the contract as a stimulator of "good management",[615] and

[610] See, Jaynes (1999: 45).

[611] The *Construction* Contract establishes explicit procedures to enable the DAB to familiarise itself with the project *prior* to any dispute. These include regular visits to the site and allowing the DAB to request different documents (such as a copy of the Contract documents, progress reports, variations instructions, etc). See Arts 1–4 to the "Procedural Rules" Annex to the "General Conditions of Dispute Adjudication Agreement" Appendix of the *Construction* Contract.

[612] Art 20.2 provides that "If the DAB is to comprise three persons, each party shall nominate one member for the approval of the other party. The parties shall consult both these members and shall agree upon the third member, who shall be appointed to act as chairman".

[613] Such procedure already exists in the contract for cases where the parties fail to nominate a member or chairman to the DAB. See, Art 20.3.

[614] For a more detailed discussion of the DAB concept, see Jaynes (1999: 45).

[615] See Hughes and Greenwood (1996: 197) and Barnes (1996) for a discussion of the ICE New Engineering Contract.

the "partnering ideology" of the Egan Report[616] indicates an increasing willingness within the industry to adopt novel contractual models. The concept of partnering provides a useful counter-metaphor to the public/private image; the ICE model, on its part, includes several interesting ideas on the question of how to use the construction contract as a management tool. Particularly interesting is the attempt of the ICE New Engineering Contract (NEC) series to create a flexible framework, which would encourage the parties to seek "win-win" solutions to unexpected problems'.[617] However, while these new paradigms do signal a willingness to "experiment" with alternative contractual models they do not provide, in themselves, an appropriate constitutional framework, since their structures still retain a strong private/public perspective.[618]

5.4 THE ENGINEERING ETHOS AND OTHER "CONTRIBUTING" FACTORS

The alternative contractual vision, which was sketched in the previous sections, could face strong resistance. The "externalisation" culture of the *lex mercatoria* is driven by strong economic interests, which cannot be disregarded. The contractual changes, which were proposed above, are likely to increase the cost of the construction project, and as such are highly inconsistent with the economic perspective of the contract.[619] What I would like to do in this concluding section is to highlight several processes, which suggest that the power of this economic resistance may be dwindling. The first process is internal to the construction market.

[616] Egan (1998). For a further discussion of the "partnering" paradigm, see Colledge (2000: 175–77), and Stipanowich (1998: 568–69).

[617] See, Barnes (1996: 93). The NEC include (Art 16) an "early warning" procedure which obliges the Contractor and Project Manager to give an early warning with respect to any matter that could increase the total cost, delay completion or impair the project. It then provides that either the Contractor or the Project Manger can initiate an "earning warning meeting" in which solutions to the unexpected problem should be sought.

[618] The new partnering initiatives, both in the US and the UK, still perceive their audience as the construction community, ie, the owner, contractor, subcontractors and design professionals. The inhabitants who populate the project surroundings are still not conceived as part of this emerging "partnership", see, Egan (1998: paras 36–37) and Noble (1998).

[619] The introduction of an environmental management system and the establishment of a Dispute Adjudication Board (DAB) should increase the cost of the contract. These costs should be shared by the contractual community as a whole. Placing all the costs on one party (eg, the contractor) would not only be inconsistent with the political vision promulgated above, but would probably be untenable from a financial perspective. The role of the "cost" factor as a possible barrier for greening the construction industry is noted also in FIDIC's report (2002: 11). One of the solutions offered in that report is a move from a cost-based tendering system, to a qualification-based selection, which would grade tenderers not only on the basis of price but also on the basis of quality—including, possibly, the environmental aspects of the proposal (*ibid*).

It has to do with the cultural context in which FIDIC operates—what we might call the "engineering milieu". I believe that this unique institutional "ethos"—a product of special values, technical competencies, and accumulated experience—could be conducive to an attempt to change the environmental contours of the *lex constructionis*. This unique ethos distinguishes FIDIC from business organisations, in which the edict of profit-maximisation has a much more dominant role.

The engineering "ethos" is a product of the unique training path of civil engineers. Civil engineers are trained to provide solutions to very pragmatic problems—how to construct bridges, high roads, chemical plants, etc. Traditionally, it was not their job to guarantee the profitability of the project in which they were employed. Rather, as one commentator put it "their prime responsibility is to ensure the *safety* and *functionality* of their projects. Economics considerations are important—but slightly less than safety—in the hierarchy of values of a typical engineer.[620] The pragmatic orientation of civil engineers means that environmental concerns can be incorporated quite naturally into the set of *technical objectives and constraints* that constitute a particular "engineering problem". From an environmental perspective, the weaker commitment of the engineering community to the edict of "profit making" constitutes a convenient setting for an agenda of ecological transformation. The cultural framework in which FIDIC operates offers, then, a receptive terrain for "green" ideas';[621] it distinguishes FIDIC from economic-oriented organisations such as the WTO.[622] Indeed, over the last decade FIDIC has made a substantial effort to develop greater awareness to environmental issues within its members.[623]

[620] See, Russell (1994: 545).

[621] A similar process occurred in the chemical industry. In the wake of the Bhopal tragedy in 1984, the chemical industry established a voluntary programme, the *Responsible Care Programme*, which sought to improve environmental standards in the chemical industry world-wide. See, Reinhardt (1999: 152–53).

[622] While one of FIDIC's principal tasks is, indeed, to stand "as the rightful spokesperson for the *business interests of the industry* in the global forum" (FIDIC 1998: p i, my emphasis)—the business perspective is not the main "ethos" by which the organisation orients itself. Thus, in the same 1998 report we can also find the idea that FIDIC's mission should be "To promote the business interests of members in relation to the provision of technology-based intellectual services for the built and natural environment, and while doing so, *accept and uphold our responsibilities to society and the environment*" (*ibid*, at 25, my emphasis). Of course, to what extent these broader commitments are realised in practice is a matter for empirical analysis.

[623] This effort was reflected by a series of "pro-environmental" documents and statements. In 1990 FIDIC published a policy statement titled *"Consulting Engineers and the Environment"*, which promulgates the environmental commitments of a consulting engineer (it calls, for example, on each engineer, to "evaluate the positive and negative environmental impacts of each project … [and] suggest alternatives to [his] clients if environmental risks emerge" (Art 8)). Another recent report, "*Engineering Our Future*" (FIDIC 1998)—a strategic action plan that should guide FIDIC into the twenty-first century—states that one of the objectives

The recent environmental awakening within FIDIC has not found its way yet to its normative products. It would be wrong, however, to dismiss FIDIC's "green" initiatives as mere "*cheap talk*".[624] I believe that as a locus of technical expertise and professional pride, FIDIC has a real potential (much more than a business oriented organisation such as the WTO) to act as a "*bridge*" that would link between the environmental and business communities. Several recent social developments make this scenario more likely. These developments could provide the necessary counter-force to the economic motivations, which lie behind the externalisation logic. These developments include an increased environmental awareness within the realm of international finance,[625] the increasing international presence of environmental non-governmental organisations and the news-media[626] and the growing impact of transnational environmental litigation.[627] These different phenomena present a common threat to the discourse of externalisation, in that they encourage the participants in construction activities (through different means) to consider more seriously the ecological consequences of their activities.

A final point. It is important to emphasise that the proposals made in this chapter do not seek to achieve some kind of "*perfect internalisation*". While adopting new procedures for project management and dispute settlement should extend the discursive horizon of the *lex constructionis*, they could also create new blind spots. Although I believe that in a transformed form FIDIC's contracts could be more attentive to environmental

of the organisation would be to promote the commitment of FIDIC's members to *environmental sustainability*. Institutionally, this effort is coordinated by a special task force for Sustainable Development. In 1999 the Sustainable Development task force issued another strategy paper on "Sustainable Development in the Consulting Industry" (FIDIC 1999). The paper is particularly interesting in our context because it is guided by a *participatory outlook*. It encourages FIDIC members to contribute to the involvement of key stakeholders in the construction process, to be willing to engage in a dialogue with the general public in large and complex projects, and to contribute to the development of new institutional structures in which this participatory outlook can be advanced (*ibid*: 8). While the paper does not make any references to FIDIC contractual products its general message seems to be consistent with the contractual vision which was proposed in this article. For a more recent contribution, see FIDIC (2002). All of the documents referred to above can be obtained from FIDIC's web-site: www.fidic.org.

[624] "Cheap talk": a *costless* signal or communication. It should be noted in this regard that FIDIC's environmental awakening is supported also by economic considerations. The report "Engineering Our Future" argues that the increasing demand for new environmentally related services, such as environmental assessment and environmental management, offers new business opportunities to the engineering profession, FIDIC, *ibid*, at 22.

[625] See the discussion in ch 7 and P Thompson (1998), Williams (1999) and Strasser and Rodosevich (1993).

[626] See the discussion in Jordan (1998) and Wapner (1995).

[627] See the discussion in the next chapter and in Juenger (1996) and Rosencranz and Campbell (1999).

considerations, some undesired effects are unavoidable. In particular, the reliance on standard eco-management systems such as the ISO 14001 could subscribe the contractual parties to *a certain way of constructing and understanding environmental problems*. The technical outlook, which characterises the ISO 14001 standard means that environmental dilemmas would be constructed, primarily, as *technical problems of management and engineering.* This technocratic bias could be further exacerbated by the cultural background—the engineering milieu—in which this concept would be invoked. This interpretative "bias" could lead to the marginalisation of other points of view, which offer different understandings of the relationships between man and nature.

There is no clear answer to this problem. For me the most plausible response lies in expanding the reflexivity of the contractual package. Flexible participatory procedures should play a prominent role in this effort. These procedures should enable the public to participate, in a meaningful way, in the assessment (and management) of construction projects.[628] Only a genuine commitment to involve the public in the assessment and management of the construction endeavour could guarantee the necessary "plurality of thoughts", which is needed to overcome/supplement the technocratic orientation of the eco-management concept and the engineering milieu.

[628] There is an increasing recognition within international bodies of the importance and value of public participation, see the World Bank (1993) and UNCITRAL (2001: 202, para 43).

6

Transnational Environmental Litigation

THE DISCUSSION IN the last chapter exposed one of the domains—standard international contracts—which govern the conduct of Multinational Enterprises (MNEs).[629] However, the contractual domain is only one element in a wide-ranging web of transnational laws, which enfolds the actions of Multinational Enterprises. This chapter focuses on another element in this web: transnational environmental (or tort) litigation. I will argue that this domain, despite being a product of fragmented law-making, reflecting the work of numerous national courts, has common characteristics which turn it into a global phenomenon: a kind of global common law for Multinational Enterprises. The universality of this field reflects the common usage of legal doctrines such as legal jurisdiction and corporate entity. This thematic cohesion was sustained without the "help" of a leading global organisation, such as the WTO, the World Bank or FIDIC. While there has been, over the last decade, an attempt to change some of these entrenched doctrines by developing new international instruments (see section 6.4 below), none of these instruments provides a comprehensive solution to the problem of regulating MNEs (eg, an empowered transnational commission or a global court)

In the absence of a global solution to the problem of regulating MNEs, transnational litigation comes out as one the key paths through which the actions of MNEs are put to scrutiny. Further, it appears that a-legal forms of governance, from stakeholders' protest, consumers' boycotts or critical Media coverage, have had—despites sporadic success stories such as the Brent Spar affair (Jordan 1998)—relatively little impact on the way in which MNEs conduct their business (Haley 2001: 224).[630] Indeed, the hope of many environmental observers that the traditional corporate focus on profits and shares performance will be replaced by a socially-oriented vision,

[629] For the increasing role played by MNEs in the world economy see, UNCTAD, "World Investment Report 2002" (2002).

[630] This fact is ignored by many trade observers who object to the use of trade measures to promote non-trade agendas (eg, environmental) and advocate, instead, the use of a-legal techniques such as suasion, labelling, private boycotts etc, see, eg, Bhagwati (2002: 68).

which will be more sensitive to the social and ecological implications of corporate actions, and will not be limited to mere compliance with existing regulatory requirements, has not materialised (Bansal and Roth 2000: 733). Studying the field of transnational litigation has, therefore, special importance. The following sections explore the inner structure of this system, seeking to expose its various ecological blind-spots. In that context I will focus, in particular on the traditional legal doctrines that dominate this field of law, and on their problematic relation to the ruling norms of international trade law. The next section offers a general account of transnational environmental litigation. Section two offers a critique of the concepts of legal jurisdiction and corporate entity. Section three analyses the contemporary Anglo-American case law, questioning its commitment to these canonical legal notions. The chapter concludes with a review of several international instruments, which challenge the contemporary form of transnational litigation.

6.1 THE PHENOMENON OF TRANSNATIONAL ENVIRONMENTAL LITIGATION

Transnational environmental lawsuits are a by-product of globalisation. They reflect the fact that ecologically problematic events may be associated with actors—firms, people, eco-systems—from different states, even if their effects are limited to a single political unit. Two possible scenarios, which can lead to transnational litigation, should be distinguished. The *first scenario* involves the transference of environmentally damaging substance across national borders. Such transference can be unilateral, as in the case of industrial emissions;[631] but it can also reflect a bilateral interaction, as in the case of trade in toxic chemicals or waste. In the latter case, a subsequent finding that the traded product was unsafe can give rise to a product liability claim against the firm that manufactured and exported the chemicals.[632] The *second scenario* involves an environmentally damaging foreign direct investment (eg, a mine or chemical plant). Maybe the most prominent example for this type of cases is the infamous Bhopal disaster, where a chemical leakage in a Union Carbide (a US MNE) plant

[631] See, eg, *Bier v Mines de Potasse d'Alsace* [1976] ECR 1735. In this case, a French mining company caused damage to a Dutch farmer by discharging chloride into the Rhine. Another example is an Irish case involving a claim by Irish residents against the UK Company British Nuclear Fuels Plc for the alleged radioactive contamination of the Irish Sea: *Short v Ireland and the Attorney General*, Supreme Court No 174/95, (decided 24 Oct 1996).

[632] An example of an international product liability case is *Dow Chemical Company v Castro Alfaro*, 786 SW2d 674 (Tex 1990), cert denied, 498 US 1024 (1991), which involved the export of a pesticide by a US companies to banana plantations in Costa Rica.

in Bhopal, India killed over 2,000 people and injured as many as 200,000.[633] MNEs play a key role in both of these possible scenarios.[634]

The *transnationality* of these tort-based lawsuits stems, simply, from the fact that they are adjudicated outside the jurisdiction in which the environmental damage has occurred.[635] In most of the cases that will be discussed in this chapter this *jurisdictional split* takes the form of "legal migration" from the developing world to the West, with the courts of the United States and England being a prominent target.[636] The direction of this "migration" reflects the strong comparative advantage of the US and the English legal systems in providing retrospective private (tortuous) remedies.[637]

This migration is motivated by two further causes. First, in many cases the legal and administrative systems of developing countries are weak,

[633] In a much criticised decision the US district court has decided to dismiss the claim, which was filed by the Indian victims against Union Carbide, on grounds of *forum non conveniens*, see *In re Union Carbide Corporation Gas Plant Disaster at Bhopal, India in December 1984*, 634 F Supp 842 (SDNY 1986), affirmed 809 F2d 195. For a thorough examination of the legal and social repercussions of the Bhopal disaster, see Jasanoff (1994).

[634] It is true that the environmental critique against MNEs is based on anecdotal evidence, and not on wide-ranging investigation, mostly because of the difficulty in attaining wide-scope data. Some trade observers, such as the eminent economist Jagdish Bhagwati (2002: 60), argue that the cases of ecological wrong-doing reviewed in this chapter are rare, and that most MNEs adopt strict ecological standards in their foreign operations. However, this argument, if true, only supports this chapter's criticism of the law of transnational litigation, and the protection it provides to MNEs. If MNEs are "greener" than commonly assumed, they do not require the procedural defences which are provided to them by the doctrines of *forum non conveniens* and corporate entity.

[635] A recent report by the International Law Association Committee on Transnational Enforcement of Environmental Law suggests a different perspective on transnational litigation, using the term "transnational enforcement of environmental law". The Committee invokes this term to describe "actions by private persons or non-governmental organizations (NGOs) in national courts or administrative bodies to secure compliance with environmental law, including both national and international, in cases involving more than one state, or a state and areas beyond the limits of national jurisdiction" (ILA 2002: 2). This definition is broader than the one used in the text in that it covers also actions against states in both national and international forums. As such it opens additional routes of actions, relying, in particular, on human rights law (*ibid*, at 5–12).

[636] See, eg, Weintraub (2001: 263–64).

[637] See, Galanter (1994) and Dunham and Gladbach (1999: 666). The extensive effort that Western MNEs make in order to block these foreign lawsuits, which will be described in detail below, provides a strong testimony to this advantage. It should be noted, however, that as a regulatory tool transnational litigation offers only a limited mode of supervision because it provides mainly retrospective remedies—not prospective and preventive control. It thus cannot replace proper planning and administrative mechanisms, which can provide ex ante control. The use of injunctive reliefs in transnational litigation is still quite limited. A notable exception is the case *Regina v Secretary of State for Foreign and Commonwealth Affairs, Ex parte World Development Movement Ltd* [1995] 1 WLR 386, which dealt with a decision of the British Overseas Development Administration decision to provide aid to a Malaysian hydro-electric project. The World Development Movement used the fact that the project was financed by a branch of the British Government, in order to challenge its legality under British administrative law, invoking both environmental and economic grounds. This legal route would not have been available, of course, had the project been privately funded.

undermanned and ineffective. This institutional weakness operates as a "de facto" barrier to effective environmental litigation: the domestic legal and administrative systems cannot cope with the cost and complexity of such lawsuits,[638] which present the law not only with difficult evidentiary questions (eg, causation), but also with far-reaching procedural challenges (in particular, the problem of multiple plaintiffs). Because environmental litigation is conducted, in most cases, under conditions of asymmetrical power relations: staging Multinational Enterprises—with their superior financial resources, and more often than not, the support of the local political establishment—against a dispersed and less resourceful population, the lack of apt institutional support could prevent the initiation of such claims.[639] A second reason for filing lawsuits at the home jurisdiction of the MNE is that in many cases the foreign affiliates, which are subject to the jurisdiction of the courts of the country where the damage was suffered, do not have sufficient assets and/or adequate insurance cover,[640] while the parent (and rich) corporation cannot be sued outside its home jurisdiction.

6.2 CONCEPTUAL ANACHRONISM IN THE LAW GOVERNING TRANSNATIONAL ENVIRONMENTAL LITIGATION: THE DOCTRINES OF LEGAL JURISDICTION AND CORPORATE ENTITY

6.2.1 Exposition

The phenomenon of transnational environmental litigation is entangled with two deep-rooted legal doctrines: legal jurisdiction and corporate entity. These two themes constitute the common thread, which turns the politically fragmented domain of transnational litigation into a global phenomenon. These doctrines form, together, a (significant) barrier for the initiation of transnational environmental lawsuits, limiting in this way the effectiveness of transnational litigation as an instrument for regulating the conduct of MNEs.

[638] See, eg, the analysis of the Indian legal system in *Bhatnagar v Surrendra Overseas Ltd*, 52 F 3d 1220 (3d Cir 1995), which led the Court of Appeals, after noting that the Indian court system's was in a state of virtual stagnation or collapse in certain regions (*ibid*, at 1228), to reject the defendant's *forum non conveniens* argument.

[639] For this political-business alliance, see, eg, Perez (2002b: 15).

[640] Thus, for example, in one of the cases that will be discussed below, the court noted, in support of the plaintiffs' argument to dismiss the defendant's (Rio Tinto) *forum non conveniens* argument, the fact that the plaintiffs would be able "to attach Rio Tinto's substantial American assets if a judgment is obtained". *Sarei v Rio Tinto* 221 F Supp 2d 1116 (US Dist 2002), at 1174.

To understand how these canonical legal notions produce this "barrier" effect we need to consider more closely the dilemmas generated by transnational lawsuits. The first is a *jurisdictional dilemma*: should the "home state" open its gates to foreign claimants, suing domestic MNEs[641] over incidents that occurred outside the jurisdiction?[642] The second dilemma involves the issue of *corporate liability*. Should an MNE be held responsible for incidents that occurred elsewhere in the corporate web? The growing complexity that characterises the way in which modern MNEs organise their global operations—which could involve subsidiaries, joint ventures, and other organisational forms (eg, franchises)—turns the question of "parent" liability into a very difficult question.

Both of these concepts create difficult hurdles for foreign claimants who wish to file a lawsuit against an MNE. Consider, first, the traditional concept of "legal jurisdiction". In common law jurisdictions courts usually acquire jurisdiction via one of the following three routes: by the service of writ on a defendant present in the jurisdiction, through voluntary submission to the court's jurisdiction, and, finally, through "assumed jurisdiction", which allows the service of writ on a defendant out of the jurisdiction, in a restricted set of cases.[643] In civil law countries general jurisdiction is given at the defendant's domicile (and is not governed by the concept of "service").[644] Since the primary business offices of most of the biggest MNEs are located in Western countries, domestic courts in both

[641] The term "domestic MNEs" is used in a broad sense covering not only MNEs that are registered or managed from that jurisdiction, but also MNEs that have substantial economic "presence" (in terms of assets or economic activity) in that jurisdiction.

[642] Formulating the problem in this way means that I am less interested in the question of "long-arm jurisdiction", which involves cases in which victims of industrial pollution in developing countries try to invoke the jurisdiction of their home countries courts on MNEs that are not "present" in the jurisdiction. Because of the institutional weakness of many developing countries this seems a less interesting question. While transnational litigation also raises difficult choice of law dilemmas (North 1993), I believe that the jurisdictional question is the more important question. For plaintiffs in developing countries the key issue is whether they can bring the multinational corporation to a Western forum—with all the expenses, and adverse publicity that accompany such a lawsuit. The question of which law should be applied by that forum—once it assumes jurisdiction—becomes a secondary issue. Indeed, in the *Connelly* case, which involved a toxic tort claim against an English mining company (and will be discussed below), the defendants" position reflected these concerns. From their perspective the whole purpose of the action was to put them "in the position where it would pay them to settle what they see to be the plaintiff's very weak claim for a substantial sum, rather than contest the action, however strong a defence they may have, and if successful in their defence find themselves faced with irrecoverable costs far exceeding the maximum amount of the claim", *RTZ Corporation PLC And Another v Connelly* [1997] 3 WLR 373 at 383. The defendants estimated that their cost could run into millions of pounds, whereas the plaintiff, even if successful, would recover less than £400,000 (*ibid*).

[643] For a detailed analysis see: North and Fawcett (1992: 182–219).

[644] See, Walter and Dalsgaard (1996: 42, 46). This is also the major basis for jurisdiction under the Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, 1968 (the "Brussels Convention"), see Art 2(1), and Walter and Dalsgaard, *ibid*, at 42. This convention is discussed in more detail in section 6.4 below.

civil and common law countries have no problem in assuming jurisdiction over them.[645]

However, in common law systems courts have inherent power to refuse to take jurisdiction, forcing, in effect the plaintiff to take her case to an alternative forum, even when that plaintiff has successfully invoked their jurisdiction over the matter. This power is usually exercised under the doctrines of *forum non conveniens* (FNC) or *international comity*.[646] The doctrines of FNC and international comity are reminiscent of the traditional view of civil jurisdiction, in which the idea of jurisdiction was conceptualised primarily in terms of territorial sovereignty.[647] This conceptualisation provided a convenient basis for the development of an autarkic understanding of "jurisdiction", in which lawsuits with substantial foreign elements were marked as "intruders", which should not be allowed to enter into the domestic legal domain. The power of common law courts to *decline jurisdiction* thus forms a major obstacle to the successful initiation of foreign claims. While in civil law systems the courts do not usually enjoy these discretionary powers (and thus the problem of "declining jurisdiction" does not arise), the key role of common law countries—particularly the United States—in the global economy turns this dilemma into an issue of global concern.[648]

The doctrine of corporate entity constitutes an additional barrier.[649] Corporate entity insists on the disentanglement of the corporate network to separate legal entities. This means that the actions of the company's foreign affiliates cannot be attributed automatically to the parent company.[650] This separation creates a dissonance between the economic and popular view of Multinational Enterprises, which pictures them as

[645] Of the world's top 25 non-financial MNEs ranked by foreign assets (2000)—which is a rough "proxy" for the corporation transnationlity—there is only one corporation from the developing world: Hutchison Whampoa from Hong Kong. The other 24 come from developed countries: 6 from the United States, 14 from the EU, 2 from Japan and 2 from Switzerland. See, UNCTAD (2002: 2, table 2).

[646] Other less common reasons, are the existence of a choice of jurisdiction clause or an agreement on arbitration, and the existence of parallel proceedings on the same matter in another jurisdiction.

[647] See, Berman (2002: 319).

[648] Although there are exceptions; for example Japan's legal system, generally a civil law system, does include a doctrine similar (although not identical) to *forum non conveniens*. See, Dogauchi (2001). A similar situation exists in Quebec (Rolle 2003: 169). While the Brussels Convention adopted the civil law outlook, other international instruments, such as the new convention on Jurisdiction and Foreign Judgments in Civil and Commercial Matters, which is currently being negotiated under the auspices of the Hague Conference on Private International Law, have kept the notion of *forum non conveniens*. For a detailed discussion of these (and other) international instruments see section 6.4 below.

[649] For a detailed discussion of the corporate entity doctrine see Blumberg (2001) and Schipani (2001).

[650] Unless the case satisfies the rigorous conditions under which courts are allowed to pierce the corporate veil. These conditions are rarely satisfied, especially in the case of MNEs,

unified economic units, and the *fragmented* vision of traditional corporate law. Thus, as Philip Blumberg, points out, we encounter the strange result in which a prominent global corporation, such as British Petroleum ("BP"), with its tiers of sub-holding companies and more than 1,200 subsidiaries, is depicted by the law as 1,200-odd separate juridical entities, each with its own legal duties and liabilities *separate and distinct* from the parent corporation and other affiliates. The fact that each of these entities belongs to a common business that is being conducted collectively is completely disregarded by traditional corporate law.[651] Furthermore, the liability question also influences, in a way which will be explicated below, the determination of jurisdiction.[652] In that sense, the involvement of local subsidiaries in the events that give rise to a foreign lawsuit can raise doubts both with respect to the substantive liability of the parent corporation, and to the suitability of the Western forum to hear the case.

6.2.2 Doctrinal Disharmony and International Unfairness: A Closer Look into the Concepts of *Forum Non Conveniens* and Corporate Entity

The problematic of these notions surfaces when they are considered against the reality of globalisation, and the norms of international trade law. This comparison reveals deep inconsistencies between the two systems of law and exposes the questionable moral standing of these traditional legal constructs. Consider first, the jurisdictional doctrine of *"forum non conveniens"*. This doctrine is usually portrayed as a counter-measure to the threat of "forum shopping". The objection to "forum shopping" reflects several concerns, which ultimately characterises this practice as "unfair".[653] The first is a concern over the possible over-burdening of the local legal system with foreign lawsuits. This possible "over-burdening" is, arguably, unfair toward the residents of the local system, who fund this system and have certain expectations with respect to the quality of service they should receive. This concern is particularly evident in US. case law.[654] A second concern reflects a commitment to comply with the parties'

which are using expert legal advice to structure their operations. See Blumberg (2001: 304–7) and the recent ruling of the US Supreme Court in *United States v Bestfoods* 524 US 51 (1998).

[651] See Blumberg (2001: 303).
[652] The linkage between these two issues is discussed in more detail below (section 6.3.1), in particular in the context of the English case *Lubbe v Cape PLC* [2000] 1 WLR 1545. See also the discussion in Muchlinsky (1987).
[653] See, eg, Karayanni (2002: 88–90) and Weintraub (1999: 164).
[654] See, eg, *Aguinda v Texaco Inc* 303 F d 470 (2d Cir 2002) at 480, *Gulf Oil Corp v Gilbert* 330 US 501 (1947) at 508–9, and Dunham and Gladbach (1999: 689–90).

expectations—as they are interpreted and constructed by the courts.[655] When a plaintiff's choice of forum contradicts the defendant's prior expectations regarding the place of potential litigation or the norms which should govern it, this choice is considered unfair. Finally some scholars, especially Americans argue that independently of the parties prior expectations it is simply unfair that foreign plaintiffs should be able to use forum shopping in order to enjoy the benefits of the law of the forum (eg, its liability and compensation rules), because in most cases another law should govern the dispute.[656]

However, setting the critique of "forum shopping" argument against the reality of economic globalisation, especially in the context of North-South trade/investment relationships, reveals a strong dissonance, which casts doubts on the logic of the critique. Consider a scenario, in which residents of a developing country file a lawsuit against an MNE in the US, involving an alleged environmental damage caused by a subsidiary of that MNE abroad. In choosing a forum for their claim the plaintiffs are driven by a simple motivation: they try to pick the system most favourable to them in terms of its institutional capacities, procedural rules and liability doctrines, seeking in that way to maximise their chances of recovery. The popularity of US courts, for example, can be attributed to two main reasons: higher recoveries and broader accessibility. Higher recoveries are facilitated by four features of the US legal system: trial by jury, choice-of-law rules that are more likely than foreign choice-of-law rules to choose US law, wider use of strict liability rules and extensive pre-trial discovery. Broader accessibility is guaranteed by the "American rule" (a losing plaintiff is not liable for the defendant's legal expanses) and by the availability of contingent fee arrangements (Weintraub 2001: 263). To this one can add the experience of the US legal system in dealing with complex tort claims, which raises the prospects of getting a ruling in reasonable time.

In attempting to maximise their "legal" investment by internationalising it, these transnational plaintiffs merely follow the precepts of free trade, using the same logic that guide MNEs and investment banks in their transnational operations: go to the place which can provide you with the highest returns on your investment. If this logic is applauded when it is invoked by traders and bankers—why should it be condemned when it is exercised by the common man? Why should we accept as legitimate the "legal barriers" that are erected by the doctrine of FNC (or any other),

[655] While this consideration was usually invoked in the context of "long-arm jurisdiction" disputes it is evident, I believe, also in FNC disputes. For a detailed discussion of "long-arm jurisdiction" in the US see: Weintraub (2001: 140–185).

[656] See, eg, Weintraub (1999: 164) who argues that in foreign tort cases the law that should apply is the law of the injured person's habitual residence.

when we do not accept the existence of similar barriers in the trade and financial domains?[657]

The dissonance between the argument for legal autarky and the ethos of free trade becomes even clearer when it is considered against the background of the liberalisation of trade in services, which is part of the WTO framework. Legal services are part of this liberalisation process.[658] This liberalisation effort generates a strange paradox. On the one hand, this process provides law firms from the developed world, in particular the very dominant US and English law firms,[659] with greater opportunities to offer their services across the globe—developing countries included.[660] On the other hand, the continuing prominence of the doctrines of FNC and corporate entity excludes from this process, in effect, the field of "judicial services". Plaintiffs from developing countries continue to face significant barriers in pursuing lawsuits in the US and English markets.[661] The liberalisation of the legal sector clearly favours, therefore, in terms of its actual effects, the interests of developed countries. It is true, of course, that opening the gates to foreign litigants might not always serve the interests of the host-nation or its (corporate) citizens. But this risk exists also in the realm of trade in goods (eg, the loss suffered by economic sectors which cannot cope with more efficient imports); yet contemporary trade law does not consider this risk as a valid justification for the construction of trade barriers.

[657] Taking the reality of free trade more seriously should also influence the way in which the courts interpret the parties' expectations. It seems reasonable to assume that the increasing integration of global markets should also influence the expectations of global business players regarding the places in which they might be sued.

[658] The framework for this liberalisation process is the General Agreement on Trade in Services. Trade in services is also part of the Doha negotiation agenda (para 15, Doha Ministerial Declaration, Adopted on 14 Nov 2001). A further liberalisation of the trade in "services"—including the legal field—should therefore be expected.

[659] The US and the UK have been the major beneficiaries of this liberalisation process. A 1998 WTO report notes that the "two major exporters of legal services are the United States and the United Kingdom. The US and the UK had a combined net trade balance of almost US$2 billion in the early 1990s, where the UK alone counted for US$ 830 million" (WTO 1998: 8). The US, in a communication to the Council for Trade in Services ("Legal Services", S/C/W/80 from 9 Dec 1998) provides corroborating data: between 1990–1996 cross-border exports of legal services from the US increased from $451 million to $1.91 billion (while imports of legal services increased also, from $111 million to $516 million, their magnitude remained substantially lower). *Ibid*, at 1.

[660] Indeed, the US in two communications to the Council for Trade in Services ("Legal Services", *ibid*, and S/CSS/W/28 from 18 Dec 2000) emphasises the importance of liberalising global trade in legal services. The US notes that "It is clear that with the increased globalization of the world economy, all countries will need to guarantee their law firms and consumers access to high quality legal advice and advisory services … technological advances in the telecommunications sector, including the growth of the internet and electronic commerce, will help promote additional cross-border trade in the legal services sector, including foreign legal consultancies" (S/C/W/80, at 1).

[661] None of the foregoing communications mentions the possibility of opening the US domestic legal system to foreigners as part of the liberalisation process.

A similar dissonance exists between the rules that govern international investment and the doctrine of corporate entity. Whereas the doctrine of corporate entity seeks to sever the linkage between the parent corporation and its foreign investments: subsidiaries, affiliates etc., investment treaties embrace this linkage by protecting the foreign assets of transnational investors. Most modern International Investment Agreements (IIAs) include investor-state dispute settlement mechanisms that allow foreign investors to protect their interests when faced with discriminatory or expropriatory government action.[662] This protection commonly extends also to cases in which the asset in question is an equity interest in local companies (owned or controlled by foreign investors).[663] This practice creates, then, a blunt asymmetry in the law governing MNEs. Whereas host-states are exposed (to the extent that they are parties to an IIA)[664] to lawsuits by foreign investors, even when the claims refer to equity interests in local affiliates or subsidiaries (a legal construction that reflects a holistic view of the multinational corporation), the citizens of these states are barred—at least according to the traditional entity doctrine—from suing these same investors for damage caused by the same affiliates or subsidiaries (that are protected by the IIA).[665] But the asymmetry between the

[662] The most prominent example is NAFTA chapter 11 (CEC 2002: 14–15). Technically most IIAs do not set up independent dispute settlement mechanisms to deal with state-investor disputes but refer the parties to arbitration under the Convention on the Settlement of Investment Disputes between States and Nationals of Other States (1966) or to ad hoc international commercial arbitration. For a thorough discussion of NAFTA's chapter 11, and the lawsuits which were brought under this chapter by multinational corporations, many of which had challenged environmental laws and regulations, see Mann (2001).

[663] See, WTO-Secretariat (2002: para 51). The scope of the protection given to foreign investors by an IIA is largely determined by the way in which the IIA defines "investment" and "investor". The definition of "investment" circumscribes the subject matters covered by the agreement; the definition of "investor" determines who can invoke the agreement investor-to-state dispute settlement mechanism. Most modern IIAs tend to take as their starting point a broad definition of investment. This broad approach is commonly referred to as the "asset-based approach", since it treats investment as a collection of assets. A standard definition, quoted in a 2002 WTO Report provides: "'Investment' means every kind of asset and in particular, though not exclusively, includes: (a) movable and immovable property and other property rights such as mortgages, liens and pledges; (b) shares, stock and debentures and any other kind of participation in companies; (c) claims to money or to any other performance having a financial value; (d) intellectual property rights; (e) concessions conferred by law or under contract, including concessions to search for or exploit natural resources". See, WTO-Secretariat (2002: para 10). The definition of investment/investor is currently discussed in the WTO as part of the negotiations toward the conclusion of a new investment agreement. The business community supports, of course, the inclusion of a broad definition of investment in any such agreement (ICC 2003: 3). Similar support was voiced by the US (see WT/WGTI/W/142, 16 Sep 2002).

[664] And most nations are part to such agreements. A UNCTAD study reports that the number of bilateral investment treaties grew rapidly during the 1990's, from 385 to 1,857 between 1989-1999, with 173 countries concluding such instruments. Developing and emerging market countries were important players in this web of investment agreements. See, UNCTAD (2000: 1–6).

[665] A particularly striking example to the protectionist impact of these dual doctrines is the case of *Kilvert v Tambrands Inc* 906 F Supp 790 (SDNY 1995).

traditional doctrines of corporate entity and discretional jurisdiction and international economic law is problematic not just because of the disharmony it injects into the structure of global economic law. It is problematic also because it is deeply unfair. This unfairness comes to light once the objections to "forum shopping" and the existing barriers to transnational litigation are considered not just in view of the ethos of "free trade", as it has been codified in the norms of international trade/investment laws, but also in view of current economic reality; that is the actual trade and investment patterns that characterise today's global economy. An examination of these patterns reveals that while free trade claims to be based on ideology of equality, the actual benefits of economic globalisation are not distributed equally: Northern countries continue to be the main beneficiaries of the globalisation process.[666]

This background of harsh inequality raises doubts about the fairness of the doctrines of FNC and "corporate entity".[667] These doctrines shift, in effect, some of the costs of transnational commerce from the North to the South (by shielding Northern courts and businesses from foreign lawsuits). This shift, one could argue, is not problematic because it reflects "objective" and indistinctly applicable legal principles—developing countries are free to incorporate similar doctrines into their domestic legal systems; the fact that Northern countries are the principal beneficiaries of these doctrines simply reflects the key role of Northern corporations and

[666] One reflection of this inequality is the pattern of foreign direct investment inflows ("FDI"). In 2001 $503 billion out of a global total of $735 billion went to developed countries—mostly to the US and the European Union. The rest was distributed among developing countries ($205 billion) and the transition economies of Central and Eastern Europe ($27 billion) (UNCTAD 2002: 5, in the overview). The top ten recipients of FDI inflows in 2002 were, in order of magnitude: United States, United Kingdom, France, Belgium and Luxemburg, Netherlands, China, Germany, Canada, Mexico, Hong Kong (China), *ibid*, at 6. Flows to the developing world were, however, unevenly distributed. The five largest recipients attracted 62% of the total inflows to developing countries. The 49 least developed countries received only 2% of this share (*ibid*).

[667] Russell Weintraub (1999) offers another solution to the problem of "forum shopping" in the US context: changing the current US choice of law rules/conflicts doctrine so as to make the US courts "less attractive" to foreign plaintiffs. In particular, he argues that choice-of-law rules that select American liability law and conflicts doctrine that treats the quantification of damages as procedural (and hence governed by the law of the forum) should be replaced by a rule that applies to these questions the law of the injured person's habitual residence. This change, Weintraub argues, should substantially reduce the attractiveness of US courts to foreign plaintiffs. Foreign plaintiffs will not be able anymore to enjoy US plaintiff-favouring liability rules (no-fault liability) and compensation practices (trial by jury and punitive damages). Weintraub argues that his proposal is "fair to both the victim and the manufacturer" (*ibid*, at 164). Despite the doctrinal ingenuity of Weintraub's proposal I do not see how it can be described as fair. The fact that US choice-of-law rules evolved in a way, which gives some advantage to (some) foreign plaintiffs, should be embraced by US citizens as a way to fulfill their moral obligations toward the south (see text below). Discriminating between various plaintiffs on the basis of nationality regarding the rules that should govern the adjudication is also problematic in view of the "national treatment" rule of the GATT.

investors in the global economy—not the purposive discrimination of developing countries.[668] Presenting these doctrines as "equal" pays no attention, then, to their asymmetrical effect. This asymmetry is problematic both because of the difficulty of plaintiffs from developing countries achieving adequate remedies in their home states, and because it sidesteps the question of any special obligation which might be owed by developed countries—as the main beneficiaries of economic globalisation—to the people of the South.[669] Giving up the protection generated by these dual doctrines, and allowing the people of the South to use what globalisation can offer in terms of access to the better legal systems of the North, is one way in which the North can rectify the imbalance that characterises the contemporary global economy.[670]

The entrenched animosity toward "legal intruders", which underlies the current use of the doctrines of *"forum non conveniens"*, *"forum shopping"*, and "*corporate entity*", is inconsistent, then, with the general norms of international economic law. It is also deeply problematic from a moral point of view. This dual blindness is disregarded by the conventional discourse of private international law and corporate law.[671]

6.3 CRACKS IN THE TRADITIONAL DOCTRINES: THE CONTEMPORARY ANGLO-AMERICAN JURISPRUDENCE

One can find "echoes" of the foregoing critique in recent case law involving transnational lawsuits. While the canonical notions of legal jurisdiction and corporate entity continue to play a key role in the discursive universe of transnational litigation, they are increasingly being challenged by competing concepts. This is reflected both in the discourse of national courts (especially in the US and England), and in the structure of the international instruments that regulate (or aspire to) the field of transnational litigation. A review of this diverse legal landscape reveals a broadening sensitivity to the new economic reality of a "globalised"

[668] This key role is reflected, for example, in the pattern of FDI outflows. In 2000 and 2001 the 10 top economies in terms of FDI outflows were the US, France, Belgium and Luxemburg, Netherlands, Germany, United Kingdom, Japan, Canada, Spain and Italy (UNCTAD 2002: 7, figure 3).

[669] This was the argument of some of the plaintiffs in the US cases considered below. See section 6.3.2 below. This extended responsibility could also provide justification for subjecting MNEs" foreign operations to the stricter environmental/liability standards of their home countries (Bhagwati 2002: 60).

[670] It should be noted, further, that denying foreign litigants access to the Northern systems, on the ground that they "free ride" on the residents of the host nation—because, unlike local residents, they do not pay the taxes that are used to fund the domestic legal system—does not necessitate the radical solution of throwing them out. Foreign litigants can simply be asked to pay higher (yet reasonable) fees.

[671] See, eg, Weintraub (1999; 2001: 264).

world, to the important role MNEs play in this reality, to the substantial institutional differences between the developed and developing world, and to the lack of adequate regulatory framework that could monitor the actions of MNEs. New concepts, such as "justice", "direct liability" of the corporate center and the "law of nations", which are more sensitive to the *problematic* of globalisation, emerge as alternative solutions to the dilemmas of transnational litigation.[672]

The analysis of current Anglo-American case law reveals, as noted above, the seeds of a possible doctrinal turn; however it also demonstrates the still far-reaching influence of the traditional doctrines.[673]

6.3.1 The English Case Law

The modern English case law of transnational litigation builds on two key notions: *justice* and *corporate control*.[674] This new emphasis represents a shift in the traditional approach towards foreign tort claims. The starting point of the new English case law is the famous decision of the House of Lords in the case of *Spiliada Maritime Corporation v Consulex Ltd*.[675] In *Spiliada*, the House of Lords offered a new interpretation to the concept of

[672] A similar trend can also be detected in the "choice of law" jurisprudence. The idea of "justice to the parties" is becoming an increasingly popular basis for choice of law rules, see, eg Greene (1998: 364).

[673] It should be noted that the following discussion does not intend to provide a comprehensive account of all the different aspects of transnational tort litigation. Such an account would have to deal with additional questions, both with respect to the jurisdictional dilemma (eg, the power of local courts to assume jurisdiction over foreign polluters, and their powers to give enforcement orders that refer to foreign assets), and with respect to the difficult "choice of law" problem. For more comprehensive discussions, see, eg, McLachlan and Nygh (1996), Dutson (1999) and Greene (1998).

[674] Another element in the English law of transnational litigation—the choice of law rules with respect to tort—have been changed recently in the Private International Law (Miscellaneous Provisions) Act 1995, (c 42) ("the Act"). The main purpose of this Act was to abolish the common law "double actionability" rule. Section 11(1) of the Act provides that the general choice of law rule is that the applicable law is the law of the country in which the events constituting the tort in question occur. Where the tortious events have occurred in different countries section 11(2) provides that the law of the country in which the damage/injury were sustained will apply. Section 12 gives the English courts a wide discretion to replace the law, which would have been the applicable law under the general rule, by the law of another country, if the factors connecting the tort to the other country, point to its law as the more appropriate for determining the issues arising in the case. The Act does not include a reference to "justice" as a decision factor, but such reference can be "added" to the Act's language through judicial interpretation (as was done indeed in the case of the FNC doctrine—see below). The Act commenced operation on 1 May 1996 and it applies only to cases in which the cause of action was consolidated after that date (Private International Law (Miscellaneous Provisions) Act 1995 (Commencement) Order 1996 [SI 1996/995]). For further discussion, see Dutson (1999).

[675] [1987] AC 460.

forum non conveniens (FNC).[676] According to the majority's opinion (delivered by Lord Goff) the burden resting on the defendant seeking a stay of an action on the grounds of *forum non conveniens:*

> is not just to show that England is not the natural or appropriate forum for the trial, but to establish that there is another available forum which is clearly or distinctly more appropriate than the English forum (p 477).

The more natural or appropriate forum is that "with which the action had the *most real and substantial connection*"; these "connecting factors" include

> not only factors affecting convenience or expense (such as availability of witnesses), but also other factors such as the law governing the relevant transaction … and the places where the parties respectively reside or carry on business (p 478, my emphasis).

If the defendant cannot point to another forum, which is clearly more appropriate for the trial of the action, the court will ordinarily refuse a stay. If, however, there is some other available forum which prima facie is clearly more appropriate to the trial of the action, it will ordinarily grant a stay unless "there are circumstances by reason of which *justice requires that a stay should nevertheless not be granted*" (*ibid*, my emphasis). It is the introduction of the *element of justice* into the doctrine of *forum non conveniens*, which *opened a new route* for adjudicating foreign tort claims in the English courts.

The House of Lords decision in *RTZ Corporation PLC and Another v Connelly* constitutes an important milestone in the transformation of the English case-law.[677] Connelly, the plaintiff, worked for four years in Namibia at an uranium mine operated by a Namibian subsidiary of RTZ Corporation PLC (RTZ)—the first defendant and an English company. Three years later he was found to be suffering from cancer of the throat. He commenced proceedings in England against RTZ and one of its English subsidiaries, claiming damages for negligence on the ground that he had contracted the cancer as a result of the defendants' failure to provide a

[676] A case now pending before the European Court of Justice, involving the interpretation of the Brussels Convention, could lead to the abolition of this concept in the Common Law jurisdictions that are parties to the Convention (ie, England and Wales and Ireland). See, reference for a preliminary ruling by the Court of Appeal (England &Wales) (Civil Division) in the case of *Owusu v Jackson (trading as Villa Holidays Bal-Inn Villas)* [2002] EWCA Civ 877 (ECJ Case C–281/02). See also Case C–412/98 *Group Josi Reinsurance Company SA v Universal General Insurance Company (UGIC)* [2000] ECR I–5925, and Bougen (2001). The international prestige of the English courts makes the English jurisprudence important even if it would prove to be irrelevant for the resolution of future foreign tort cases in England. In addition these cases include important comments regarding the question of enterprise liability.

[677] [1997] 3 WLR 373.

reasonably safe system of work affording the miners protection from the effects of uranium ore dust. Connelly did not base his case on an argument of "enterprise liability", which considers the parent company and its foreign affiliate a single economic unity. Rather, he claimed that RTZ should be held liable because it was *directly responsible* for the operation of the mine.[678] Connelly's liability model portrayed the parent company as being directly responsible, through its own conduct or omissions, for the damages and injuries which occurred in the vicinity of its foreign subsidiaries, and not as being indirectly, or vicariously liable for the actions of its foreign affiliates.[679] This model does not challenge therefore the traditional concept of "corporate entity".

RTZ applied to the High Court for a stay of the proceedings, arguing that the circumstances of this claim indicate that Namibia was the appropriate forum for the trial of the action. The High Court found that indeed Namibia was prima facie the jurisdiction with which the claim had the most real and substantial connection: the injury was sustained in Namibia, the principal witnesses of fact lived in Namibia and expert witnesses would be drawn from Namibia and elsewhere.[680] Other facts have pointed to the suitability of the Namibian courts: a site inspection of the mine would be necessary and the Namibian courts had the necessary expertise and effectiveness to ensure a fair trial. The High Court also found that Connelly was impecunious and would be unable to obtain any sort of legal aid in Namibia to finance the litigation. In contrast, in England, Connelly would be able to apply for financial assistance from the *legal aid scheme*, and this would allow him to pursue his claim. The High Court decided, however, that in view of the Legal Aid Act 1988[681] it was not allowed to take the availability of legal aid into consideration. It concluded therefore that Namibia was the jurisdiction in which the claim should be heard in the interests of all the parties and for the ends of justice and stayed the proceedings. After some procedural squabble Connelly was granted leave to appeal to the House of Lords.

In allowing the appeal the House of Lords relied, primarily on the *concept of justice*, which was introduced by *Spiliada*, making it the *corner stone* of its decision. The House of Lords (Lord Goff) held, first, that the Legal

[678] Connelly argued that RTZ had devised the policy of Rossing Uranium Ltd ("RUL"), its Namibian subsidiary, on health, safety and the environment, or alternatively had advised RUL as to the contents of the policy. He further argued that employees of RTZ, or an English subsidiary of RTZ, implemented the policy and supervised health, safety and environmental conditions at the mine (*ibid*, at 377). Since the House of Lords' judgment was only an interim decision, it made no comments with regard to the validity of these allegations.

[679] For a more detailed discussion of these different concepts of liability, see Muchlinsky (1987).

[680] See the headnote to the House of Lords decision.

[681] S 31(1)(b).

Aid Act did not preclude the court from taking the availability of legal aid into account in considering a stay on the ground of *forum non conveniens* (pp 379–82). The Court pointed out that such interpretation of the Act would be inconsistent with the "principle of justice", which is central to the doctrine of *forum non conveniens* (p 381). Second, it was held that where a plainly more appropriate forum had been identified, in general, the plaintiff would have to take that forum as he found it, even if it was in certain respects less advantageous to him than the English forum.[682] Only if the plaintiff can establish that *substantial justice* cannot be done in the appropriate forum, will the court refuse to grant a stay (p 385). The Court noted, however, that it is clear that the nature and complexity of the plaintiff's case is such that it cannot be tried at all without the benefit of financial assistance as the case required both professional legal representation and expert scientific evidence (p 385). Further, if the case would be tried in England, Connelly would either obtain *legal aid* or receive the benefit of a *conditional fee agreement* with his solicitor, and such arrangements were not available in Namibia. The Court concluded that in such circumstances, *substantial justice could not be done in the appropriate forum but could be done in England, where the appropriate resources were available* (p 386). It emphasised, however, that it is not the absence of legal aid in the "natural" forum in itself that justified the refusal of stay. Rather, it was the combination of the absence of legal aid and the nature and complexity of the case, which directed the court to refuse to exercise its *forum non conveniens* discretion (p 385).[683]

The House of Lords sought to limit the impact of its decision by emphasising the uniqueness of Connelly's case. However Connelly's case is not so unique or exceptional. The costs and complexity that have characterised Connelly's claims, characterise also many other cases of environmental or toxic tort.[684] Similarly, one can hardly expect the non-availability of legal aid in Namibia to be an exceptional phenomenon in

[682] Thus the plaintiff would have to accept lower damages, or to do without the more generous English system of discovery (p 384).

[683] In contrast to the *Connelly* decision, US federal courts have tended not to attribute significant weight to the plaintiff's financial condition, or to the availability of contingent fee arrangements in the US, while exercising their *forum non conveniens* discretion. See, for example, *Delgado et al v Shell Oil Co* 890 F Supp 1324, 1357, at fn 79, 1368–69 (SD Tex 1995); and *Coakes v Arabian American Oil Co*, 831 F2d 572, at 575–76 (5th Cir 1987).

[684] This was probably the reason behind Lord Hoffman's dissenting opinion. Lord Hoffman based his objection on the following arguments. First, the plaintiff had no legitimate expectation that the litigation arising out of his employment in Namibia would take place in England (p 388). Second, Lord Hoffman pointed to problematic consequences that this decision might have for multinational corporations, which conduct their world-wide operations through foreign subsidiaries. In his words, by enabling the defendants to be sued here "any multinational with its parent company in England will be liable to be sued here in respect of its activities anywhere in the world" (p 388).

the developing world. The decision in *Connelly* seems, therefore, to be more far-reaching, in terms of opening up the English legal system, than the House of Lords was ready to admit.[685]

Two subsequent cases have followed the *Connelly* ruling, focusing similarly on the ideas of "justice" and "direct liability". The first series of cases involved claims by South African residents against the UK based company Thor Chemical Holdings ("Thor Holdings"), and its chairman. The claimants were employed by a South African company, which manufactured and reprocessed mercury compounds, and was wholly owned by Thor Holdings. They all suffered from acute mercury poisoning. Similarly to Connelly, the plaintiffs argued that the duty of care and breach of duty occurred, principally, in England, in the offices of the parent company. In *Sithole & Others v Thor Chemical Holdings Ltd*,[686] the High Court of Justice (Mr Justice Garland), rejected the defendants application to stay the proceedings, applying the principles of *Connelly*. Judge Garland noted, first, that the defendants had failed to prove that the South African forum is a clearly more appropriate forum.[687] Alternatively, Judge Garland ruled, that because the plaintiffs' claim, which required the services of many experts, was likely to be both costly and complex, the unavailability of legal aid or conditional fee arrangements in South Africa meant that justice could not be done by requiring [the plaintiffs] to bring their action in South Africa'.[688]

Another case, which again involved South African plaintiffs and a British firm, Cape Plc ("Cape"), was based on claims for damages for personal injuries that were caused, allegedly, by long-term exposure to asbestos dust. The case was subject to two conflicting decisions by the Court of Appeal, which were only resolved by a decision of the House of Lords, which was published on 20 July 2000.[689] The plaintiffs in the first case, *Lubbe v Cape Plc (No 1)*,[690] included five former employees of mines and mills of "blue asbestos" in South Africa. The plaintiffs claimed that the defendant, Cape Plc controlled an international operation of asbestos

[685] While the fact that the plaintiff was a British resident might have influenced the judges, it played no role in the majority's formal reasoning.

[686] Decision of the High Court of Justice, 31 July 1998, unreported. The references are to the transcript of the court decision. The case involved 21 citizens of South Africa. The main motivation for filing the suit in London was that under South African law the plaintiffs were unable to sue their South African employer, which was a subsidiary of Thor Holdings (the Workmen's Compensation Act, 1941, substituted workmen's compensation for any other remedy), *ibid*, at 5. The lawsuit against Thor Holdings was settled without admission of liability, for an overall lump sum of £1.3. million in April 1997. See Richard Meeran "Companies with Nowhere to Hide", The Times Law Supplement, 1 Aug 1 2000, at 5.

[687] *Sithole & Others*, *ibid*, at 29.

[688] *Ibid*.

[689] *Lubbe v Cape PLC* [2000] 1 WLR 1545.

[690] *Lubbe & Others v Cape PLC (No. 1)*, decision of the Court of Appeal, 30 July 1998, reported in [1998] CLC 1559, [1999] ILPr 113. The following references are to the ILPr report.

production—from "mine to manufacture"—through a host of subsidiary companies. Two of these subsidiaries were South African companies, which were in possession of Cape's mining assets.[691]

The plaintiffs' claim was based on the concept of "*direct liability*"; they argued that Cape should be held liable for *its own tortuous acts*, rather than for the acts of its South African subsidiaries. In the eyes of the plaintiffs the question, which this case raises is:

> Whether a parent company which is proved to exercise *de facto control* over the operation of a (foreign) subsidiary and which knows, through its directors, that those operations involve risks to the health of workers employed by the subsidiary and/or persons in the vicinity of its factory or other business premises, *owes a duty of care* to these workers and/or other persons in relation to the control which it exercises over and the advice which it gives to the subsidiary company?[692]

This liability model also influenced, the plaintiffs argued, the question of the proper forum: seen from this perspective the South African forum ceases to be the "natural forum"—because the tortuous acts were committed at the defendant headquarters in England.

The argument that the parent company was directly responsible for the plaintiffs' injuries has played a *decisive role* in the Court of Appeal's ultimate decision to reject Cape's application to stay the proceedings. The court noted that:

> the plaintiffs do not allege that the defendant is "iable in law for the breaches of duty by the South African companies": no form of vicarious liability is relied upon. The difference is important, because the alleged breaches of an independent duty of care owed by the defendant took place in England rather than in South Africa (para 35).[693]

The court noted that the judge in the lower court disregarded the liability model which was invoked by the plaintiffs. Taking this factor into account, with the additional factor that the South African forum was unavailable to the plaintiffs until Cape offered an undertaking to submit itself to the jurisdiction of the South African courts, the court concluded that the defendants failed to show that "South Africa is so clearly and distinctly the more appropriate forum that the action here should be stayed".[694]

After the success in the first *Cape* case, a further 3000 claimants have joined the claim against *Cape* in the lower court. In response, Cape has

[691] *Ibid*, at paras 10–12.
[692] *Ibid*, at para 26, my emphasis.
[693] The court further elucidated this point in para 55 to its ruling.
[694] *Ibid*, at para 57.

renewed its claim for a stay of proceedings, arguing that the earlier case was an abuse of process since the solicitors of the original group of plaintiffs had failed to inform the court that they intend to bring a group action on behalf of so many other claimants. Cape arguments were successful in the lower court, which ordered a stay of the proceedings, both in the original claim and in the new group action. The Court of Appeal, reversing its earlier decision, dismissed the appeal against the stay order.[695] The Court held that the commencement of such a large group action was a significant change of circumstances entitling the court to reconsider the position of the plaintiffs. The Court concluded that although issues of liability might indeed most suitably be heard in England, the other issues which were raised by this claim, notably those concerned with causation, and quantum of damage, would be best dealt with in South Africa, especially in light of the transformed mass nature of the case.[696] The Court was not persuaded by the plaintiffs' argument that they would fail to obtain substantial justice in South Africa.[697] The court rejected, however, the defendant's request to strike out the *Lubbe* action as an abuse of process.[698]

These conflicting judgments were finally resolved by the House of Lords, which on 20 July 2000 reversed the second decision of the Court of Appeal, allowing the case to proceed England. The main ruling was given by Lord Bingham.[699] Lord Bingham distinguished between two different segments of the *Lubbe* case. The *first segment* concerns the responsibility of the defendant as a parent company for ensuring the observance of proper standards of health and safety by its overseas subsidiaries. The resolution of this issue was likely to involve

> an inquiry into what part the defendant played in controlling the operations of the group, what its directors and employees knew or ought to have known, what action was taken and not taken, whether the defendant owed a duty of care to employees of group companies overseas and whether, if so, that duty was broken.[700]

Most of the evidence on these questions would likely to be found in the offices of the parent company. The English forum was thus clearly suitable to adjudicate this question.

[695] *Lubbe & Others v Cape Plc (No 2)*, decision of the Court of Appeal, 29 Nov 1999, [2000] CLC. 45, [2000] ILPr 438. The following references are to the ILPr report.
[696] *Ibid*, at para 22–28.
[697] *Ibid*, at paras 35, 40.
[698] *Ibid*, at para 50.
[699] *Lubbe v Cape PLC*, House of Lords, 20 July 2000, [2000] 1 WLR 1545. Four other law lords have agreed with his judgment. There were no dissenting opinions.
[700] *Ibid*, at 1555.

The *second segment* of the *Lubbe* case involved

> the personal injury issues relevant to each individual: diagnosis, prognosis, causation (including the contribution made to a plaintiff's condition by any sources of contamination for which the defendant was not responsible) and special damage.

The South African forum was clearly a more appropriate forum for the investigation of these issues. Lord Bingham noted that:

> The emergence of over 3,000 new plaintiffs following the decision of the first Court of Appeal had an obvious and significant effect on the balance of the proceedings. While the parent company responsibility issue remained very much what it had always been, the personal injury issues assumed very much greater significance … The enhanced significance of the personal injury issues tipped the balance very clearly in favour of South Africa at the first stage of the Spiliada exercise.[701]

The plaintiffs' case depended, therefore, on whether they could show that substantial justice would not be done in the more appropriate South African forum. The plaintiffs submitted that staying the English proceedings in favour of the South African forum will deny them, because of the difficulties in obtaining proper funding in South Africa, any realistic prospect of pursuing their claims to trial.[702] Lord Bingham found the plaintiffs argument in this context convincing. He started by noting that the case involves complex factual issues which would require "the supervision of professional lawyers", and would "call for high quality expert advice and evidence".[703] He further noted that:

> If these proceedings were stayed in favour of the more appropriate forum in South Africa the probability is that the plaintiffs would have no means of obtaining the professional representation and the expert evidence which would be essential if these claims were to be justly decided. This would amount to a denial of justice. In the special and unusual circumstances of these proceedings, lack of the means, in South Africa, to prosecute these claims to a conclusion provides a compelling ground, at the second stage of the *Spiliada* test, for refusing to stay the proceedings here.[704]

[701] *Ibid*, at 1556.
[702] *Ibid*, at 1559. The plaintiffs noted in that context "that legal aid in South Africa had been withdrawn for personal injury claims, that there was no reasonable likelihood of any lawyer or group of lawyers being able or willing to fund proceedings of this weight and complexity under the contingency fee arrangements permitted in South Africa since April 1999 and that there was no other available source of funding open to the plaintiffs", *Ibid*, at 1557.
[703] *Ibid*, at 1557.
[704] *Ibid*, at 1559. While the Court did not consider the lack of developed "group action" procedures in South Africa law, to be, in itself, a reason not to transfer the case to South Africa, it

The plaintiffs based their "justice" argument not only on *Spiliada* and *Connelly*, but also on the European Convention on Human Rights.[705] They argued that staying the proceedings in favour of the South African forum would violate their rights guaranteed by Article 6 of the European Convention since—because of the lack of funding and legal representation in South Africa—it would deny them a fair trial on terms of litigious equality with the defendant.[706] While Lord Bingham seemed to be sympathetic to this argument he, nonetheless, declined to adopt it formally, noting that he did not think that Article 6 supports any conclusion which is not already reached on application of *Spiliada* principles, with their focus on the idea of justice to the parties.[707] It is also important to note in this context that the House of Lords rejected the defendant's attempt to incorporate a new "public factor" into the *Spiliada* formula.[708]

The *Lubbe* decision reiterates the importance of the concept of justice to the resolution of transnational environmental disputes. While the court made no substantive comments on the liability question, it accepted the plaintiffs' theory of liability as legitimate, noting that the "The plaintiffs" claims raise a serious legal issue concerning the duty of the defendant as a parent company'.[709] The themes of *justice* and *direct duty of care* emerge, then, as the corner stones of the modern English law of transnational litigation.[710]

did note that this fact reinforces the plaintiffs' submissions on the funding issue. "It is one thing to embark on and fund a heavy group action where the procedures governing the conduct of the proceedings are known to and understood by experienced judges and practitioners. It may be quite another where the exercise is novel and untried". *Ibid*, at 1560.

[705] Convention for the Protection of Human Rights and Fundamental Freedoms, Rome, 4 November, 1950. *Ibid*, at 1561.

[706] Art 6(1), first sentence, of the Convention provides that "In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law … ".

[707] *Ibid*, at 1561.

[708] Lord Hope noted, in that context that "the principles on which the doctrine of forum non conveniens rest leave no room for considerations of public interest or public policy which cannot be related to the private interests of any the parties or the ends of justice in the case which is before the court". He further noted that he "would therefore decline to follow those judges in the United States who would decide issues as to where a case ought to be tried on broad grounds of public policy" referring, in particular to the famous US decisions: *Union Carbide Corporation Gas Plant Disaster at Bhopal* (1986) 634 F Supp. 842 and *Piper Aircraft Company v Reyno* (1981) 454 US 235. *Ibid*, at 1566–67.

[709] *Ibid*, at 1557. The legal struggle ended on 13 March 2003 with the conclusion of a settlement agreement in which Cape has agreed to pay a total of £7.5 million compensation. For more details on the settlement agreement, see the website of the legal firm that represented the plaintiffs: www.leighday.co.uk (visited 9 March 2004).

[710] It should be noted, again, that a forthcoming decision by the ECJ in *Owusu v. Jackson (trading as Villa Holidays Bal-Inn Villas)*, above n 676, could lead to the abolition of the English FNC doctrine.

6.3.2 The United States Federal and State Case Law

The increasing number of transnational lawsuits has forced the US legal system—like its English counterpart—to reconsider its traditional approach toward foreign litigants. US law offers two different routes for pursuing foreign environmental/tort claims. The first route, which is unique to the United States, is based on the idea of universal jurisdiction. It is grounded in a very old American statue, the Alien Tort Claims Act (ATCA), which confers original jurisdiction on federal courts in cases involving violations of the "law of nations".[711] It provides:

> The District Courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States.

What is interesting in this law is that it requires US courts to consider, directly, the rules and doctrines of international environmental law. The recent invocations of the ATCA by environmental litigants have forced, indeed, the US courts to reflect on the status of international principles of environmental law. By giving priority to international rather than national norms, the ATCA has challenged the traditional, national-oriented concept of jurisdiction.

The second route for adjudicating foreign tort claims in the US usually takes place at the state level and is based on state law (tort law). Most state courts have a wide discretion to decline jurisdiction, and thus the same difficultly, which has confronted foreign plaintiffs in the English context, arises also in the US. The discussion of the US case law is interesting for two main reasons. First, the ATCA jurisprudence allows us to reflect on the interesting possibility of basing jurisdiction and liability in transnational environmental disputes on *international norms*. Second, a review of the current US case law provides a vivid illustration of the key role which is still played by the traditional doctrines of jurisdiction and corporate entity in the adjudication of transnational lawsuits.

[711] Title 28, section 1350 of the United States Code. The ATCA was part of the First Judiciary Act, 1789. Two other sources for federal jurisdiction for foreign claims are the 1991 Torture Victim Protection Act (TVPA), 28 USC section 1350, and 28 USC, section 1331. The TVPA provides a federal cause of action to redress official acts of torture and extrajudicial killing, and is thus outside our field of inquiry. 28 USC, section 1331 provides that "the district courts shall have original jurisdiction of all civil suits arising under the Constitution, laws, or treaties of the United States". However, the federal judiciary was reluctant to use section 1331 as a source for federal jurisdiction over claims for violation of international norms, leaving this issue to be adjudicated under the Alien Tort Claims Act (Rosencranz and Campbell 1999: 171–72).

(a) The Alien Tort Claims Act

Traditionally, the ATCA was used in cases that involved severe human rights violations, and were perceived, therefore, as complying with the ATCA requirement for a violation of the "law of nations".[712] Recently, however, with the increased consolidation of environmental concerns into international customary law and international treaty law, there have been several attempts to invoke the ATCA in "environmental" cases, focusing on the foreign activities of US Multinational Enterprises. US courts have recognised that the ATCA *may be applicable to international environmental torts*.[713] However, litigants seeking to invoke the ATCA in environmental litigation face two difficult hurdles.

In the first place, plaintiffs have to establish that the commercial activities, which caused the alleged environmental damage, constitute a "violation of the law of nations or a treaty of the United States". This is not an easy task, especially when the ecological damage is confined to a single jurisdiction, with no transboundary implications. A second, associated hurdle, concerns the fact that international law (whether customary or treaty law) is still seen to be directed, principally, to nation states. The main exceptions to this rule are cases of severe human rights violations.[714] This means that a foreign plaintiff suing an MNE has to show a linkage between the corporate activities and the host state.[715] Establishing that the corporate policies constitute "state action" requires the plaintiff to prove the existence of something more than a passive financial interest in the project or mere regulatory supervision—not an easy task.[716] Furthermore, if the plaintiffs

[712] See, for example: *Filartiga v Pena-Irala,* 630 F 2d 876 (2d Cir 1980); *In re Estate of Ferdinand E. Marcos Human Rights Litigation,* 978 2d 493 (9th Cir 1992); *Kadic v Karadzic,* 70 F 3d 232 (2d Cir 1996). Even this more traditional interpretation of the ACTA is only a product of the last 20 years, see: (Lu 1997: 533).

[713] See *Amlon Metals, Inc v FMC Corp,* 775 F Supp 668, 670 (SDNY 1991); *Beanal v Freeport-Mcmoran Inc*, 969 F Supp 362, 382 (US Dist 1997), affirmed *Beanal v Freeport-Mcmoran Inc*, 197 F 3d 161 (5th Cir 1999).

[714] In *Kadic v Karadzic,* above n 712, the Second Circuit Court of Appeals ruled that the law of nations could be violated by private individuals as well as state actors. However, this ruling was limited to cases involving severe violations of human rights, such as genocide and war crimes, and crimes like rape, torture and summary execution to the extent that they were committed *in pursuit* of genocide or war crimes (*ibid*: 241–44). The Ninth Circuit Court of Appeals extended the reasoning of *Kadic* to cover also cases of forced labour; see its decision in *John Doe I v Unocal Corp* 2002 US App LEXIS 19263. For a more detailed discussion of *Kadic*, see Rosencranz and Campbell (1999: 164–71). While there are several international instruments, which are directed explicitly at MNEs, most notably the OECD Guidelines for Multinational Enterprises, adopted (in a revised form) on 27 June 2000, these instruments are still considered "soft law". For a more thorough discussion of these guidelines see Perez (2002b).

[715] *Beanal v Freeport-Mcmoran Inc* (US Dist 1997), above n 713, at 384; and *Sarei v Rio Tinto* above n 640, at 1187.

[716] US courts devised four different tests to examine whether the corporate activity constitutes state action: (1) the nexus test, (2) the symbiotic relationship test, (3) the joint action test, and (4) the public function test (*Beanal v Freeport-Mcmoran Inc* (US Dist), *ibid*: 376–77).

are successful in establishing this corporate-government linkage, they immediately expose themselves to the various doctrines that allow courts to dismiss lawsuits that implicate foreign sovereigns.[717] The ATCA thus seems to lock its environmental plaintiffs into a hopeless catch 22. Breaking this lock requires a radical change in the conceptualisation of international environmental law—broadening its applicability to private actors.

A survey of recent US cases can illustrate the difficulties of pursuing an environmental claim under the ATCA, and consequently, the general dilemma of basing jurisdiction and liability in transnational environmental disputes on international norms. The first case, *Beanal v Freeport-Mcmoran Inc*, involved claims against Freeport-McMoRan, Inc and Freeport-McMoRan Copper & Gold, Inc (collectively "Freeport").[718] Freeport owned an Indonesia-based subsidiary named PT Freeport Indonesia ("PT-FI"). The complaints focused on the operation of the "Grasberg Mine", owned by Freeport. The Grasberg Mine is a huge open pit copper, gold and silver mine, encompassing 26,400 sq kms, and situated in the Jayawijaya Mountain in Irian Jaya, Indonesia.[719] The plaintiff, Beanal, argued that Freeport's mining operations and drainage practices caused massive environmental destruction, and substantial suffering to the indigenous people living near the mine. Beanal argued that Freeport has disregarded its international duty to protect one of the last great natural rain forests and alpine areas in the world.[720]

Beanal based his claim for ATCA jurisdiction, on the argument that Freeport's actions in the Grasberg Mine violated three basic principles of international environmental law: the Polluter Pays Principle, the Precautionary Principle, and the Proximity Principle. In addition Beanal argued that Freeport's activities amount to abuse of international law under the Rio Declaration of Environment and Development ("Rio Declaration").[721] Both the District Court (for the Eastern District of

However, under any of these tests "Governmental regulation, subsidy, approval of or acquiescence in the private conduct does not make the State responsible for the conduct … . To satisfy the nexus test" the state must be significantly involved in or actually participate in the alleged conduct" (*ibid*, at 377). In *Beanal* it was also held that a "government contract conferring a mining concession and government investment in the operation are insufficient facts, standing alone, to allege a symbiotic relationship between Freeport and the Indonesian government" (*ibid*, at 378).

[717] See, *Sarei v Rio Tinto,* above n 640, at 1199–203.

These doctrines include: act of state doctrine, political question doctrine, and doctrine of international comity. For a thorough discussion of these three doctrines in a US context see, eg, *Sarei, ibid*, at 1191–261.

[718] *Beanal v Freeport-Mcmoran Inc*, 969 F Supp 362, 382 (US Dist 1997), affirmed *Beanal v Freeport-Mcmoran Inc*, 197 F 3d 161 (5th Cir 1999).

[719] *Beanal v Freeport-Mcmoran Inc* (US Dist), *ibid*, at 362.

[720] *Beanal v Freeport-Mcmoran Inc* (US Dist), *ibid*, at 382–83.

[721] Agreed on 13 June 1992.

Louisiana) and the Fifth Circuit Court of Appeals rejected Beanal's arguments, noting that the allegations of international environmental law violations were not cognisable torts under the ATCA.

In the Court of Appeals view, both the Rio Declaration and the other general principles of law, upon which Beanal relied, refer merely

> to a general sense of environmental responsibility and state abstract rights and liberties *devoid of articulable or discernable* standards and regulations to identify practices that constitute international environmental abuses or torts.[722]

The Court of Appeals noted also that

> federal courts should exercise extreme caution when adjudicating environmental claims under international law to insure that environmental policies of the United States do not displace environmental policies of other governments.

This, the Court noted, is especially true "when the alleged environmental torts and abuses occur within the sovereign's borders and do not affect neighboring countries".[723] The Court added that the language of the Rio Declaration seems to cut against Beanal's claims. Principle 2 of the Rio Declaration asserts that states have the "sovereign right to exploit their own resources pursuant to their own environmental and development policies".[724]

The District Court also referred in its decision to the fact that the general principles of law, which were invoked by Beanal apply to "members of the international community rather than non-state corporations".[725] It noted that Beanal's claim contained no facts that would establish, if proven, that Freeport's environmental practices constituted state action. The court concluded therefore that:

> even assuming for the purposes of this motion that Beanal's allegations are true, Freeport's alleged policies are corporate policies only and, however destructive, do not constitute torts in violation of the law of nations.[726]

In another case involving an ATCA claim, the US District Court for the Central District of California pointed to an area of international

[722] *Beanal v Freeport-Mcmoran Inc*, (5th Cir 1999), above n 718, at 167, my emphasis. The district court ruling on this point is on p 384 to its decision.
[723] *Ibid*.
[724] *Ibid*, at fn 6. Principle 2 further asserts that states also have "the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or areas beyond the limits of national jurisdiction". However, the Court noted that Beanal did not allege in his pleadings that "Freeport's mining activities in Indonesia have affected environmental conditions in other countries", *ibid*.
[725] *Beanal v Freeport-Mcmoran Inc* (US Dist.), *ibid*, at 384.
[726] *Ibid*.

environmental law which does provide *"articulable or discernable standards"*: the United Nations Convention on the Law of the Sea. The case—*Sarei v Rio Tinto*[727] —involved a class-action claim by former residents of the island of Bougainville in Papua New Guinea (PNG) against defendants Rio Tinto plc and Rio Tinto Limited (henceforth "Rio-Tinto").[728] The Plaintiffs argued that Rio Tinto's mining operations in Bougainville destroyed the island's environment, harmed the health of its people, and incited a ten-year civil war, during which thousands of civilians died or were injured. The mine operations were conducted through a majority-owned subsidiary of Rio Tinto Limited—Bougainville Copper Limited—a PNG company. The plaintiffs argued that Rio-Tinto exercised "complete, effective and pervasive control" over the corporation at all times relevant to their claims.[729]

The plaintiffs' submissions tell a sad story of environmental destruction. The operation of the Panguna Mine, which was one of the largest copper mines in the world, had devastating effects on the Bougainville environment. In addition to copper and gold, the mine produced more than one billion tons of waste (rock and tailings), which was deposited into the Kawerong-Jaba river system. This has completely destroyed the eco-system at the fertile river valleys. Furthermore, a significant portion of the tailings placed in the Jaba River were ultimately deposited into Empress Augusta Bay, causing severe damage to the marine system.[730]

The plaintiffs based their claim for ATCA jurisdiction on three different arguments. First, they argued that Rio-Tinto's extraordinary pollution of the island of Bougainville, which caused widespread death and serious illness, had deprived Bougainvilleans of their right to life and health. Second, they contended that Rio Tinto's actions had violated the principle of "sustainable development", which imposes a duty on state actors to avoid "serious and irreversible" environmental or human health effects from development activities'. Finally, the plaintiffs argued that by polluting the marine environment the defendants had violated Part XII of the United Nations Convention on the Law of the Sea (UNCLOS), which deals with the "Protection and Preservation of the Marine Environment".[731]

With respect to the two first claims, the District Court adopted the Court of Appeals restrictive view of international environmental law (stated in *Beanal*). After discussing the plaintiffs' detailed argument the Court

[727] Above n 640.
[728] Rio Tinto plc is a British corporation, and Rio Tinto Limited is an Australian corporation. Both firms are part of an international mining group headquartered in London, which operates over 60 mines and processing plants in 40 countries worldwide, including the United States, *ibid*, at 1121.
[729] *Ibid*, at 1121 and fn 13.
[730] For more details see, *ibid*, at 1123.
[731] *Ibid*, at 1156. Done 10 Dec 1982, entered into force 16 Nov 1994, 21 *ILM* 1261.

concluded that in both cases the plaintiffs had failed to demonstrate that Rio Tinto's alleged environmental torts violated a "specific, universal, and obligatory" norm of international law.[732] However, the Court reached a different conclusion with respect to the plaintiffs' third argument.

The plaintiffs asserted that the operation of the Panguna Mine violated UNCLOS Article 194(1) that requires states to take all measures "that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal …".[733] While the convention was not ratified by the United States,[734] the Court noted that this did not preclude the plaintiffs from basing an ATCA claim upon the provisions of UNCLOS, since the provisions of UNCLOS reflect customary international law.[735] The Court noted, however, that before Rio Tinto can be held liable under the ATCA for environmental torts—ie, for violations of the international norms reflected in UNCLOS—the plaintiffs must establish that it was a state actor. The plaintiffs' claim included indeed such argument. Rio Tinto and PNG, it was argued "were joint venture partners" who "worked in concert with each other and conspired to commit the violations of customary international law" set forth in the complaint. This allegation was given further support by the codification of PNG's relationship with Rio Tinto in a formal statute (the Copper Act).[736]

However, the plaintiffs' convincing argument with respect to the linkage between Rio-Tinto and the PNG government laid the ground for the dismissal of their action. The court noted that were it "to conclude that Rio Tinto was a state actor, and that its conduct violated the law of nations, it would, *a fortiori*, have to conclude that PNG's official acts were invalid as well".[737] The need to review PNG's official acts brought the

[732] Accordingly, the Court noted that it lacked jurisdiction to adjudicate these counts of the complaint, and granted the defendants" motion to dismiss the claim as a result. *Ibid*, at 1156–61. For a similar view see the decision of the District Court for the Southern District of New York in *Flores v Southern Peru Copper Corporation* 2002 US Dist LEXIS 13013.

[733] *Ibid*, at 1161. Art 194(3(a)) provides, further that these measures shall include also those designed to minimise to the fullest possible extent "the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping". The plaintiffs refer also to Art 207(1) which provides that: "States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources … ". *Ibid*, at 1161.

[734] *Ibid*, at 1161. As of 10 Dec 2002 157 nations have signed the treaty and 141 have ratified it. See, the report on the status of UNCLOS, available at: www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm (visited 12 Feb 2003).

[735] The court rejected the defendants' argument that the plaintiffs' claim should be dismissed because they had not exhausted national and international remedies, as required by UNCLOS. It is irrelevant that UNCLOS may require the exhaustion of national remedies, because plaintiffs invoke the ATCA, and the ATCA does *not* require the exhaustion of national remedies or compliance with the terms of the treaty. *Ibid*, at 1162.

[736] *Ibid*, at 1187.

[737] *Ibid*, at 1188.

court to dismiss the action on grounds of act of state, international comity and political question doctrines.[738] While the decision of the District Court in *Sarei* indicates, for the first time, a possible ground for constructing an environmental claim under the ATCA, its strict interpretation of the act of state, international comity and political question doctrines limits the practical value of its decision.

A further problem, which has troubled the US courts in discussing ATCA claims, was whether the doctrine of *forum non conveniens* applies in this context, and if so to what extent. The main argument in this context was that the dismissal of an ATCA claim due to *forum non conveniens* "would frustrate Congress intent to provide a federal forum for aliens suing domestic entities for violation of the law of nations,"[739] and that the US has a strong "policy interest in providing a forum for the adjudication of such claims".[740] Similar argument was made in the context of the Torture Victim Prevention Act (TVPA), which also confers original jurisdiction on Federal Courts.[741] This policy interest, it was argued, should be taken into account in the exercise of the FNC discretion.

This argument echoes my earlier argument with respect to the duty of developed countries to provide legal access to litigants from developing countries. The US courts were relatively sympathetic to this argument. Thus, for example, with respect to the TVPA the US Second Circuit Appeals Court noted in *Wiwa v Royal Dutch Petroleum Co* that:

> we believe plaintiffs make a strong argument in contending that the present law, in addition to merely permitting US District Courts to entertain suits alleging violation of the law of nations, expresses a policy favoring receptivity by our courts to such suits.[742]

The Second Circuit refrained, however, from extending this reasoning to the ATCA.[743] Furthermore, the Court on *Wiwa* was careful to emphasize that its ruling does not nullify the FNC doctrine:

> This is not to suggest that the TVPA has nullified, or even significantly diminished, the doctrine of *forum non conveniens*. The statute has, however, communicated a policy that such suits should not be facilely dismissed on

[738] See the detailed discussion of these three doctrines in pages 1184–210, *ibid*.
[739] *Jota v Texaco Inc*, 157 F 3d 153 (2d Cir 1998) at 159.
[740] *Aguinda v Texaco Inc* 303 F 3d 470 (2d Cir 2002) 480 (fn 3).
[741] 28 USC § 1350 App, in 1991. The TVPA provides that the United States courts have jurisdiction over suits by aliens and citizens alleging torture under colour of law of a foreign nation. See, in this context, *Wiwa v Royal Dutch Petroleum Co* 226 F 3d 88 (2d Cir 2000). The plaintiffs in *Wiwa* argued that the ATCA, as supplemented by the Torture Victim Prevention Act "reflects a United States policy interest in providing a forum for the adjudication of international human rights abuses, and that this policy interest should have a role in the balancing of the Gilbert factors", *ibid*, at 103.
[742] *Ibid*, at 105.
[743] See, eg, *Aguinda v Texaco Inc* above n 654, at 480 (fn 3).

> the assumption that the ostensibly foreign controversy is not our business. The TVPA in our view expresses a policy favoring our courts' exercise of the jurisdiction conferred by the ATCA in cases of torture unless the defendant has fully met the burden of showing that the Gilbert factors "tilt strongly in favor of trial in the foreign forum".[744]

Indeed, US federal courts have used the doctrine of FNC in several cases to dismiss environmental claims under the ATCA.[745] The use of this doctrine by US courts will be discussed in more detail in the next section.

Although the few environmental cases that have been adjudicated so far according to the Alien Tort Claims Act have not been very successful, this record may change in the future, as international environmental law continues to evolve.[746] In that respect, if the current trends of, on the one hand, increasing consolidation of environmental principles into the formal body of public international law, and, on the other hand, a broadening recognition of non-state corporations as bearers of rights and obligations under international law,[747] continue into the future, we should expect it to be much easier to invoke the ATCA in environmental cases.[748]

(b) Foreign Environmental Litigation in US State Courts

The second route for adjudicating foreign tort claims in the US involves, usually, a common law tort claim filed at state courts. These claims require plaintiffs to invoke the jurisdiction of state courts using their relevant rules of jurisdiction. These cases raised three inter-related questions. The first two are the known dilemmas of legal jurisdiction and corporate liability. The third is unique to the US and reflects an internal jurisdictional

[744] *Wiwa v Royal Dutch Petroleum Co*, above n 741.

[745] See, eg, See, eg, *Aguinda v Texaco Inc* above n 654, and *Flores v Southern Peru Copper Corporation* 2002 US Dist LEXIS 13013. In *Sarei v Rio Tinto* above n 640, which was discussed above, the District Court rejected the defendants' FNC argument. The Court emphasised that its conclusion was "particularly appropriate" when one takes into account the "policy" argument referred to in Wiwa. See, *ibid*, at 1175.

[746] There are no signs that the US legislator is planning to abolish the ATCA. On the contrary, in the process of enacting the Torture Victim Protection Act the Congress stated that the ATCA should "remain intact to permit suits based on other norms that already exist or may ripen in the future into rules of customary international law" (Rosencranz and Campbell 1999: 157).

[747] Thus, for example, as noted in section 6.2.2 above, private corporations are endowed with the right to initiate direct investor-state legal proceedings under various investment treaties, the most prominent of which are NAFTA and the 1965 Convention on the Settlement of Investment Disputes between States and Nationals of Other States, which set up the International Centre for the Settlement of Investment Disputes (Petersmann 1999: 223, 226–28).

[748] American commentators offer similar predictions. See, for example, Rosencranz and Campbell (1999: 157).

struggle between the federal and state courts. Because this dilemma is unique to the US, due to the US federal structure, I will not discuss it in detail;[749] the following discussion will focus, therefore, on the first two questions.

Consider, first, the question of jurisdiction.[750] Both federal and state courts[751] have a power to decline jurisdiction, on the grounds of either *forum non conveniens* or *international comity*.[752] The doctrinal formulation of the US *forum non conveniens* closely resembles the language of the House of Lords in *Spiliada*.[753] However, several differences make the US

[749] Under US law the defendant has the right to ask for a removal of the case to the federal courts when the case falls in an area in which federal courts have unique jurisdiction. See, 28 USCA, 1331 and 1441. Cases involving foreign relations are seen as falling within the unique jurisdiction of federal courts. Plaintiffs suing under state law struggled to demonstrate that no linkage existed between the sued corporation and the host state, in order to prevent a removal to the more corporate-friendly federal courts. For a more detailed discussion of this issue see, Mulligan (2002), *Alomang v Freeport-McMoran Inc*, 1996 US Dist LEXIS 15908, *Patrickson v Dole Food Company* 251 F 3d 795 (9th Cir 2001), and *In re Tobacco/ Governmental Health Care Costs Litigation* 100 F Supp 2d 31 (DDC, 2000).

[750] With respect to the choice of law in tort, US courts tend, both at the federal and the state level, to employ the rules of the Restatement (Second) of Conflict of Laws (1971) ("Second Restatement") (Symeonides 2000: 439). The general rule with respect to tort conflicts is: "(1) The rights and liabilities of the parties with respect to an issue in tort are determined by the local law of the state which, with respect to that issue, has the most significant relationship to the occurrence and the parties under the principles stated in section 6. (2). Contacts to be taken into account in applying the principles of section 6 to determine the law applicable to an issue include: (a) the place where the injury occurred, (b) the place where the conduct causing the injury occurred, (c) the domicil, residence, nationality, place of incorporation and place of business of the parties, and (d) the place where the relationship, if any, between the parties is centered. These contacts are to be evaluated according to their relative importance with respect to the particular issue", Second Restatement, Vol 1, section 145, p 414. For recent discussions of the Second Restatement, see Symeonides (2000). In practice, however, US courts tend to apply US law (Weintraub 1999: 162).

[751] Most of the US States have incorporated, in recent years, the federal *forum non conveniens* rules into their laws. See, Rosencranz and Campbell (1999).

[752] Under US law the doctrine of comity refers to "the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation". *Pravin Banker Associates, Lt. v Banco Popular del Peru*, 109 F 3d 850, 854 (2d Cir 1997). The doctrine of comity confers upon US courts the discretionary power to "refuse to review acts of foreign governments and defer to proceedings taking place in foreign countries, allowing those acts and proceedings to have extraterritorial effect in the United States.", *Ibid*. Courts resort to this doctrine usually when the issues to be resolved are entangled in international relations. Two related doctrines are the "act of state" and "political question" doctrine, see, eg, *Sarei, above* n 640, at 1190–1207.

[753] The US *forum non conveniens* doctrine, as it evolved in the U.S. federal courts, allows dismissal only where the court determines that an alternative forum is available and dismissal is appropriate (*Gulf Oil Corp v Gilbert*, above n 654, at 506–07; see also: *Piper Aircraft v Reyno*, above n 708. In *Gilbert*, the US Supreme Court clarified that in considering whether dismissal is appropriate courts should weigh the relevant *private and public interests*. Under the "private interest" heading the court examines which jurisdiction is more closely connected to the case. The "public interest" considerations are discussed in the text. In exercising their *forum non convenies* discretion the courts are also guided by the ideal of "serving justice": "Through a discretionary inquiry, the court determines where litigation will be most

courts much more prone to accept FNC motions.[754] The first and most prominent difference lies in the weight that is given by US courts to considerations of "public interests", which are not part of the English FNC doctrine.[755] These considerations include the problem of congested courts, the problematic of imposing jury duty on members of a community that has no relation to the litigation, and an interest in having "localized controversies decided at home".[756] A second difference concerns a more elusive, but still visible, institutional "dislike" toward foreign plaintiffs,[757] which influences the way in which US courts exercise their FNC discretion. Despite the wide similarities between the rules employed by US state and federal courts in this context, the federal courts are considered more favourable to the corporate "voice" than state courts.[758] Foreign litigants tend, therefore, to pursue their claims in state courts.[759]

While the application of the FNC doctrine continues to operate as a substantial barrier to foreign plaintiffs seeking redress in US courts,[760] some judges have began to criticise this doctrine, questioning its applicability to the contemporary conditions of a globalised society. Justice Doggett of the Texas Supreme Court stated, for example in a 1990 decision (my emphasis):

> At present, the tort laws of many third world countries are not yet developed … When a court dismisses a case against a United States

convenient and will serve the ends of justice" (*PT United Can Co v Crown Cork & Seal Co* 138 F 3d 65 (2d Cir 1998) at 73. For a detailed analysis of the US *forum non convenies* jurisprudence, see Rosencranz and Campbell (1999: 179–89), and Dunham and Gladbach (1999).

[754] See, eg, the detailed survey in Dunham and Gladbach, *ibid*.

[755] See, Dunham and Gladbach *ibid*, at 686–90. As was noted earlier, the House of Lords has explicitly rejected the US approach in this context in the *Lubbe* case. The "administrative" argument was also rejected in that context by the Australian courts. See, *James Hardie & Coy Pty Ltd v Grigor* [1998] 45 NSWLR 20 and *Oceanic Sun Line Special Shipping Company Inc v Fay* (1988) 165 CLR 197.

[756] *Gulf Oil Corp v Gilbert*, above n 654, at 508–09

[757] This animosity is reflected, for example, by the US court's discrimination against foreign claimants ("a foreign plaintiff's choice deserves less deference", *Piper Aircraft Co v Reyno*, above n 708, at 255–56) and by the strict application of the idea that dismissal should not be precluded by the possibility that the alternative forum, and its associated substantive and procedural laws, would be less favourable to the plaintiff. See, further, Dunham and Gladbach (1999: 675–78, 683–85).

[758] Rosencranz and Campbell attribute the preference of US corporations to adjudicate in federal courts to the stricter standing requirements and standard of proof which are associated with federal adjudication (1999: 190). A further reason concerns the fact that the federal FNC rules, as developed in *Piper Aircraft Co v Reyno*, *ibid* are more conductive to dismissal than the rules of some of the states. See, further, Weintraub (2001: 264, 268) and Mulligan (2002: 2409).

[759] The plaintiffs' claim for subject matter jurisdiction under state law is usually based, in these cases, on claims of negligence, intentional torts, and nuisance, grounded in state legislation or common law.

[760] See the survey of foreign tort claims that were submitted to US courts in the 1990s in Dunham and Gladbach (1999).

> multinational corporation, it often removes the most effective restraint on corporate misconduct … The doctrine of forum non conveniens is obsolete in a world in which markets are global and in which ecologists have documented the delicate balance of all life on this planet. The parochial perspective embodied in the doctrine of forum non conveniens enables corporations to evade legal control merely because they are transnational … In the absence of meaningful tort liability in the United States for their actions, some multinational corporations will continue to operate without adequate regard for the human and environmental costs of their actions. This result cannot be allowed to repeat itself for decades to come. As a matter of law and of public policy, the doctrine of forum non conveniens should be abolished.[761]

The US business community is likely to object, however, to any attempt to diffuse the protection provided to them by the FNC doctrine.[762]

The "corporate entity" doctrine offers another shield to US corporations.[763] A prominent example of the way in which this doctrine is applied is the case of *Alomang v Freeport-McMoran Inc*.[764] This case was based on the same factual background of the *Beanal v Freeport* lawsuit, which was discussed above, and involved a foreign tort claim against the Freeport corporation. The lawsuit was filed in Louisiana state court, utilising the fact that Freeport's corporate headquarters were located in New Orleans.[765] The only difference between the two lawsuits was in the legal strategy that was used by the plaintiffs. The plaintiff in this case, Yosofa Alomang, did not base her claim on the ATCA, but relied, instead (exclusively) on Louisiana state tort law.[766] Freeport moved to remove the case to a federal court and then asked it to be consolidated with the *Beanal* lawsuit. The District court decided to remand the case back to the Louisiana state court, denying Freeport's motion to consolidate.

[761] *Dow Chemical Company v Castro Alfaro*, above n 632, at 689. The case involved a lawsuit by workers of a Costa Rican banana plantation against Dow Chemical Company, and Shell Oil Company, which was filed in Texas state courts. The plaintiffs claimed compensation for damages suffered as a result of exposure to dibromochloropropane, ("DBCP"), a pesticide manufactured by Dow and Shell. The DBCP was exported to Costa Rica despite a law against its use in the US. The Texas Supreme Court rejected Dow's motion for dismissal based on *forum non conveniens*, basing its opinion on a Texan statute which abolished the application of the FNC doctrine to wrongful death and personal injury actions arising out of an incident in a foreign state or country.

[762] Thus, for example, following the *Alfaro* decision the Texas business community, which was worried about the potential costs of "foreign" litigation, has campaigned, successfully, for a change in the Texan state law, which led to the incorporation of the federal *forum non conveniens* law into Texas law. See Rosencranz and Campbell (1999: 189–90).

[763] See also Blumberg (2001: 304–07).

[764] *Alomang v Freeport-McMoran Inc*, *above* n 749.

[765] *Ibid*, at 3.The term "Freeport" is used to describe both defendants, Freeport-McMoRan Inc and Freeport-McMoRan Copper and Gold, Inc.

[766] *Alomang v Freeport-McMoran Inc*, *ibid*, at 2.

Freeport succeeded, however, in having the claim thrown out of court, ultimately, relying on the "corporate entity" doctrine.[767] Freeport argued that Alomang's claim shows "no cause of action", because the plaintiffs' claim only implicates Freeport's Indonesian subsidiary and does not allege the necessary circumstances, which are needed to support a finding that one corporation is the alter ego of another.[768] Accepting this argument the Court of Appeal of Louisiana fourth Circuit concluded that:

> An allegation that one corporation is a subsidiary of another is not sufficient to "pierce the corporate veil" of the parent corporation thereby making it liable for the actions of the subsidiary, in the absence of a showing that the two corporations are not separate entities or that there is fraud or illegal action.[769]

The recent ruling of the US Supreme Court in *United States v Bestfoods*[770] has re-emphasized the importance of the "entity" doctrine to US corporate law. The Supreme Court held that the imposition of vicarious liability on a parent corporation for its subsidiary's actions, even under the auspices of environmentally-oriented statute such as the Comprehensive Environmental Responsibility and Compensation Act (CERLA), was possible only in the event of compliance with the traditional veil-piercing requirements.[771] Because of the strict requirements of "veil-piercing" doctrine, foreign plaintiffs have no choice but to base their claim on a model of "direct liability".[772]

The ruling in *Bestfoods* constitutes, however, a relative setback to this second line of argument, by raising the standard of proof regarding the type of parental involvement, which could give rise to direct liability. The Supreme Court offered two possible paths under which direct parental liability could arise. The first requires the direct involvement of the parent corporation in the activities that gave rise to the environmental (CERLA) claim.

[767] *Alomang v Freeport-McMoran Copper and Gold Inc* 811 So.2d 98 (2002).
[768] These include: commingling of corporate and shareholder funds; failure to follow statutory formalities required for incorporation and for the transaction of corporate affairs; undercapitalization; failure to provide separate bank accounts and bookkeeping records; and failure to hold regular shareholder or director meetings. *Ibid*: 101.
[769] *Ibid*: 101.
[770] 524 US 51 (1998). For a more detailed discussion of *Bestfoods*, see Schipani (2001) and Blumberg (2001: 310–11).
[771] Superfund Amendments and Reauthorization Act of 1986, Pub L No 99–499, 100 Stat 1625 (1986). CERLA was enacted in response to the problem of inactive hazardous waste sites. It provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment. For further discussion see Schipani (2001: 33–35).
[772] See, for example, *Jota v Texaco Inc,* above n 739; *Dow Chemical Company v Castro Alfaro*, above n 632, and *Bano v Union Carbide* 273 F 3d 120 (2d Cir 2001). In the Dow-Alfaro case judge Doggett emphasised the fact that "The suit arose out of alleged acts occurring in Texas and alleged decisions made in Texas", *ibid*, at 686.

The question, the Court stated "is not whether the parent operates the subsidiary, but rather whether it operates the facility, and that operation is evidenced by participation in the activities of the facility, not the subsidiary" (*Ibid*, at 68). In other words, direct parental liability requires the plaintiff to demonstrate the parent's involvement in the management or direction of "operations specifically related to pollution, that is, operations having to do with the leakage or disposal of hazardous waste, or decisions about compliance with environmental regulations" (*Ibid*, at 66–67).

The second possible path requires an extensive interference of the parent in the management of the subsidiary. The Court emphasised, however, that such interference should be distinguished from the normal relationship between parent and subsidiary. Thus the Court stated that:

> Activities that involve the facility but which are consistent with the parent's investor status, such as monitoring of the subsidiary's performance, supervision of the subsidiary's finance and capital budget decisions, and articulation of general policies and procedures, should not give rise to direct liability' … The critical question is whether, in degree and detail, actions directed at the facility by an agent of the parent alone are eccentric under accepted norms of parental oversight of a subsidiary's facility.[773]

6.4 NEW PATHS? EMERGING INTERNATIONAL NORMS

The international legal scene provides some support to the foregoing critique of the law relating to transnational environmental litigation. However, as will be pointed out below, the picture is mixed. Consider, first, the jurisdictional question. Here several international instruments have

[773] *United States v Bestfoods*, above n 770, at 72, quoting Oswald (1994: 282). Furthermore, the Court held irrelevant the existence of common corporate personnel acting at management and directorial levels. The Court accepted the argument that such an overlap was not sufficient to support a finding of a parent corporation's direct operator liability under CERCLA, so long as the individuals were acting in their capacity as officers of the subsidiary at the time; the issue was which official "hat" they were wearing at the time. *Ibid*, at 68–70. The ruling in Bestfoods has already influenced the jurisprudence of the Federal Court of Appeals (limiting the liability of parent corporations under CERLA). Compare *Raytheon Constructors v Asarco Inc*, 2003 US App LEXIS 4220, in which the claim against the parent corporation was denied, to *United States v Kayser-Roth Corp*, 272 F 3d 89 (1st Cir), in which the claim was accepted. The *Kayser* ruling is especially interesting because it provides a real life example of the kind of parental involvement, which could give rise to direct liability (*ibid*, at 97–104). This included, for example, the involvement of an executive vice-president ("EVP") of Kayser-Roth—who was neither an officer nor a director of the subsidiary company—in the direction of environmental matters at the subsidiary facility. This EVP personally directed the cost-benefit evaluation according to which the subsidiary selected a certain (and ultimately less effective) pollution abatement technology, and was also involved in the settlement of a separate regulatory action against the subsidiary for an effluent discharge into a nearby river (*ibid*, at 103–04).

eliminated, completely, the concept of *forum non conveneiens*, while others have imposed limits on its application. Of these various instruments the Brussels Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters is particularly important. The Brussels Convention, which creates a coordinated system for deciding issues of jurisdiction for EU members, establishes a highly liberal jurisdictional regime for trans-border pollution cases. In *Bier v Mines de Potasse d'Alsace*,[774] the European Court of Justice held that under the Brussels Convention a plaintiff has the right to sue either in the country of the defendant's domicile, at the place where that damage occurred, or at the place of the event giving rise to it.[775] The Brussels Convention does not recognise the concept of *forum non conveniens*.

The Council of Europe Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Lugano, 21 June 1993 ("The Lugano Convention"), which is not yet in force, adopted in Article 19 a regime similar to that of the Brussels Convention.[776] A new convention on Jurisdiction and Foreign Judgments in Civil and Commercial Matters, which is currently being negotiated under the auspices of the Hague Conference on Private International Law, similarly, takes an expansive view of jurisdiction in cases of environmental harm.[777] However, in contrast to the Brussels and Lugano conventions the Hague Convention Interim Text includes in Article 22 a provision that provides the courts of any future signatories with a power to decline jurisdiction in exceptional circumstances—a reformulation of the Anglo-American *"forum non conveniens"* doctrine.[778] Article 6 of the European Convention on Human Rights, which provides for the right of individuals "to a fair and public hearing

[774] [1976] ECR 1735.

[775] Applying Arts 2 and 5 of the Convention. See Juenger (1996: 209–13).

[776] Art 19 provides: "Actions for compensation under this Convention may only be brought within a Party at the court of the place: a. where the damage was suffered; b. where the dangerous activity was conducted; or c. where the defendant has his habitual residence". For further discussion of this Convention see, Birnie and Boyle (2002: 278–81).

[777] Art 3(1) of the Interim Text which was accepted by the conference parties during the First Part of the Diplomatic Conference 6–20 June 2001, states that "Subject to the provisions of the Convention, a defendant may be sued in the courts of [a] [the] State [in which] [where] that defendant is [habitually] resident". The proposed Art 10 states that "A plaintiff may bring an action in tort [or delict] in the courts of the State—*a)* in which the act or omission that caused injury occurred, or *b)* in which the injury arose, unless the defendant establishes that the person claimed to be responsible could not reasonably foresee that the act or omission could result in an injury of the same nature in that State". Available at www.hcch.net/e/workprog/jdgm.html (visited 24 April 2003).

[778] Art 22 provides in s 1 that "In exceptional circumstances, when the jurisdiction of the court seized is not founded on an exclusive choice of court agreement … the court may, on application by a party, suspend its proceedings if in that case it is clearly inappropriate for that court to exercise jurisdiction and if a court of another State has jurisdiction and is clearly more appropriate to resolve the dispute … ". The Art then provides in s 2 a list of considerations

within a reasonable time by an independent and impartial tribunal" constitutes a further source for limiting the exercise of FNC discretion—at least in those cases in which plaintiffs can show that sending them to adjudicate at a different forum would deny them a fair trial.[779]

Advances in the area of corporate liability are more limited.[780] The only serious attempt to deal with the problem of MNEs liability in a globally coordinated fashion can be found in the new OECD Guidelines for Multinational Enterprises.[781] The OECD Guidelines seek to provide standards of good practice for MNEs. MNEs are defined loosely as comprised of:

> companies or other entities established in more than one country and so linked that they may co-ordinate their operations in various ways. While one or more of these entities may be able to exercise a significant influence over the activities of others, their degree of autonomy within the enterprise may vary widely from one multinational enterprise to another. Ownership may be private, state or mixed (Article I).

The Guidelines, holistic conception of the MNE is reflected in the statement in article I that Guidelines are addressed:

> to all the entities within the multinational enterprise (parent companies and/or local entities). According to the actual distribution of responsibilities among them, the different entities are expected to co-operate and to assist one another to facilitate observance of the Guidelines.

which should guide the seised Court in making its decision. While Art 22 has the advantage of eliminating any reference to "public" considerations, it does not include a reference to the notion of "justice". The ILA Leuven/London Principles on Declining and Referring Jurisdiction in Civil and Commercial Matters, Resolution No 1/2000, adopted at the 69th Conference of the International Law Association, held in London, United Kingdom, 25–29 July 2000, similarly clings to the traditional FNC doctrine. See Art 4.3. The principles are available at: www.ila-hq.org/html/main_listofcomm_civilcomm.htm (Committee on International Civil and Commercial Litigation, visited 24 April 2003).

[779] For this argument see *Lubbe v Cap PLC*, House of Lords, 20 July 2000, [2000] 1 WLR 1545, at 1561, and the discussion in section 6.3.1 above.

[780] Neither the Lugano Convention nor the proposed Directive of the European Parliament and of the Council on Environmental Liability With Regard to the Prevention and Remedying of Environmental Damage, COM(2002) 17 final—2002/0021(COD), C 151 E/132, provides a solution to the problem of enterprise liability. See, Pozzo (2001).

[781] The OECD Guidelines for Multinational Enterprises, adopted by the governments of the 29 member countries of the OECD and Argentina, Brazil, Chile, and the Slovak Republic at the OECD Ministerial Meeting on 27 June 2000. The new text is available at the OECD website *at* www.oecd.org (under corporate Governance, visited 24 April 2003). The ILA New Delhi/Paris Principles on Jurisdiction over Corporations, Resolution No 4/2002, adopted at the 70th Conference of the International Law Association held in New Delhi, India, 2–6 April includes interesting ideas regarding the problem of the allocation of jurisdiction over corporations. However, the principles do not resolve the question of how to reconcile the traditional corporate entity principle with the economic reality of transnational corporations,

Article V of the Guidelines includes detailed environmental obligations, headed by the general requirement to "take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development". The main problem, however, is that the Guidelines are strictly voluntary, and the institutional framework which is supposed to implement them is still very rudimentary.[782]

6.5 CONCLUSIONS

The foregoing discussion exposed a deep cleavage between the doctrines that govern the field of transnational litigation and the ethos and normative structures that dominate the field of international trade/investment law. The disharmony between these fields of law is not just a question of legal aesthetics—it is also morally problematic. The asymmetry between the treatment of legal professionals and investors under the General Agreement of Trade in Services and International Investment Agreements, and the treatment of foreign plaintiffs under the prevalent rules of jurisdiction and corporate liability seems unfair, when judged against the economic and social reality of today's world (with its deep inequalities). Because this asymmetry is visible only when the issue of transnational litigation is observed through multiple prisms—private international law, corporate law, and international trade law—its existence and wide scope are not always apparent. However, the fact that this asymmetry remains concealed by the doctrinal intricacies of these fields does not eliminate its moral problematic.

The chapter also pointed out few options for closing this doctrinal cleavage. Consider, first, the question of jurisdiction. The first option is simply to abolish the concept of *forum non conveniens*, following the example of the Brussels and Lugano Conventions,[783] and to adopt,

which despite their fragmented *legal* structure, are nonetheless "pursuing a common economic objective and sharing a common command structure" (see the principles introductory paras). The principles are available at the ILA web-site, above n 778.

[782] The Guideline's voluntary nature is emphasised in Art I, which provides that "the Guidelines are recommendations jointly addressed by governments to multinational enterprises. They provide principles and standards of good practice consistent with applicable laws. Observance of the Guidelines by enterprises is voluntary and not legally enforceable". For an analysis of the institutional apparatus responsible for implementing the Guidelines see Perez (2002b: 19–20).

[783] The case of *Owusu v Jackson (trading as Villa Holidays Bal-Inn Villas)* [2002] EWCA Civ 877 (ECJ Case C–281/02), which is now pending before the European Court of Justice, and involves the interpretation of the Brussels Convention, could lead, as was noted above (n 676), to the abolition of the FNC doctrine in the Common Law jurisdictions that are parties to the Convention (England and Wales and Ireland).

instead, an expansive definition of jurisdiction, which should apply to cases of environmental harm. A less radical alternative would be to subject the exercise of FNC discretion to the principle of justice, as it was developed and applied by the English case law.[784] This proposal is given further support by Article 6 of the European Convention on Human Rights. Adopting the principle of justice as a regulating theme also entails the removal of the element of "public interest" from the FNC balancing equation. Finally, the US *Alien Tort Claims Act* offers the idea of "universal jurisdiction", based on the infringement of international environmental norms. The discussion of the US ATCA case law demonstrates, however, that this idea could be used as a basis for jurisdiction only in cases of severe environmental wrong-doing.

The issue of MNE liability constitutes a more contentious matter. The idea that Multinational Enterprises should be viewed as single juridical units is likely to generate fierce opposition from the business community, which makes its incorporation into standard legal practice highly unlikely. Indeed, apart from the OECD Guidelines—which as was noted above are strictly voluntary—this idea has not penetrated the contemporary corporate law "discourse". The fact that this departure from the traditional "entity" doctrine seems reasonable in view of the treatment of investors in international investment treaties is not likely to change this forecast. A more plausible path could therefore be to develop further the model of "direct liability", which bases the liability of the *parent corporation* and its *officers* on their *direct involvement* in the matter in question.[785] In particular, the parent corporation and its managers can limit their exposure to direct-liability claims by changing the organisational structure of the corporate net, limiting the intervention powers of the corporate centre.[786] In order to cope with such managerial manoeuvres, a model of direct liability would probably have to impose also a stricter standard of care on the managers and directors of the corporate centre (vis-à-vis the potential victims of its various affiliates).

[784] This argument holds with equal force to the application of choice of law rules.

[785] See, eg, *Bano v Union Carbide* above n 772.

[786] Towers Perrin, a UK consultancy, found in a survey of 50 leading UK businesses that there was a change in the conception of the corporate centre in the last 10 years. In comparison to a similar survey which was conducted by Towers Perrin in 1988, more business today see the role of their head office as providing strategic guidance and coordination, rather than controlling or directing the corporate overall operations. This change seems to stem from the current trend to decentralise the corporate decision-making structure, putting profit responsibility as low as possible in the organisation (Towers-Perrin 1998: 6). In contrast, Philip Crowson, the former chief economist of Rio Tinto, notes that in the mining industry the decision-making process is now much more centralised, with local mine managers enjoying significantly less autonomy than their predecessors (1998: 128).

7

International Financial Law as a New Locus for Environmental Action

THE INCREASING INTEGRATION of the global financial markets is a key feature of the globalisation process. The extent of this integration is historically unprecedented (Bordo, Eichengreen and Irwin 1999: 56). Financial flows cross national borders in various forms: from equity investment to loans, currency transactions and short-term investment (eg, in bonds or bank-deposits). This transnational activity is governed by a complex web of national and transnational laws. This web deals with various aspects of the international financial market; it thus includes rules pertaining to financial reporting, project finance, banking practices (eg, capital requirements, lending) and investment. The various systems which comprise the field of international financial law are highly diverse in terms of their structure; thus this field includes state-to-state treaties, such as International Investment Agreements, private instruments, such as standard loan contracts and common investment criteria, and hybrid legal constructs such as the new Global Reporting Initiative (which reflects the joint work of public and private bodies). This structural diversity reflects the fact that international financial law is a product of multiple law-making processes, which take place at various social sectors.[787]

International financial law, because of its ability to influence transnational financial flows, offers a powerful mechanism for influencing the responsiveness of the economic system to social/ecological concerns. This chapter explores several recent developments in international financial law, which seem to reflect an increased sensitivity to environmental issues.[788] The goal of this inquiry is to expose the legal configurations

[787] This multiplicity is reflected also in the manifold institutions which are associated with this field of law. These include the International Centre for Settlement of Investment Disputes (ICSID), the International Monetary Fund (IMF), the International Organization of Securities Commissions (IOSCO), leading national regulators such as the US Securities and Exchange Commission (SEC), and large financial companies (such as Deutsche Bank of Germany and Citigroup of the US).

[788] Because of limits of space I do not offer, in this chapter, a complete analysis of these developments. For more detailed analyses see, eg, Jeucken (2001: analysing the global

which give effect to this emerging sensitivity in various institutional contexts, and to explore how the law (in its various forms) influences, and is influenced by, the financial system.

One of the main conclusions of this short exploration is that these new forms of financial law, despite their enhanced awareness to environmental risks, do not challenge the basic tenets of the economic system. They remain committed to the traditional economic logic of profit maximisation—to the narrative of *homo-economicus*. While this can be applauded as a sophisticated form of regulatory intervention, which exploits the internal dynamics of the regulated domain in order to achieve environmental gains, it also reduces—in a way which will be depicted below—the capacity of international financial law to influence the behaviour of transnational economic players. The prominent exception to this trend is the Global Reporting Initiative, which reflects a bold attempt to break the linkage between financial law and the narrative of *homo-economicus* (see section 7.3). The enduring commitment of international financial law to this narrative reflects probably the fact that this field is governed, at least to some extent, by the ideals and organisational goals that drive its regulatory subject matter.

The following observations distinguish between three forms (or domains) of financial regulation. The first focuses on the supply side of the financial market. This domain controls the provision of financial products such as loans and insurance policies. The second governs the demand side. In this context the focus will be on the expanding phenomenon of ethical investment. The third regulatory domain—which I have termed "framework regulation"—can influence both demand and supply decisions. In this context I will focus on new forms of environmental reporting and the way in which they have been incorporated into traditional financial reporting.

7.1 SUPPLY-SIDE REGULATION

The incorporation of environmental considerations into the supply side of the financial market was initiated by the public sector, prominently the World Bank (acting as a global leader). Following severe criticism from environmental groups in the late 1980s and early 1990s with respect to its

banking industry), Perez (2002a: analysing the ecological sensitivity of IMF's structural adjustment programmes), Jones (2000: an analysis of corporate environmental reporting) and UNEP-Finance Initiatives' global report on the financial and insurance markets (2002). Jones' study was prepared for the economic unit of the European Commission Environment DG, and is available at: europa.eu.int/comm/environment/enveco/industry_employment/envrep.pdf (visited 20 June 2003). The UNEP Report is available at: unepfi.net (visited 22 June 2003).

lending policy, the World Bank has made an effort to *integrate ecological considerations into* the mainstream of its lending activities (Bridgeman 2001: 1037; World-Bank 1993). The introduction of an environmental impact assessment requirement on all of the Bank's loans was a central tenet of this policy.[789] Article 1 of Operational Policy 4.01 provides that "The Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making".[790] Similar requirements were adopted by other development banks, such as the Asian Development Bank, the European Bank for Reconstruction and Development and the Inter-American Development Bank.[791] Thus, the doctrine of environmental impact assessment forms a key element of the law relating to public lending.[792]

Since the mid-1990s, however, private capital has started to play a much more significant role in the financing of big infrastructure and industrial projects across the globe.[793] The introduction of new means of funding,[794] allows countries to develop big infrastructure and industrial

[789] This requirement was consolidated as Operational Directive 4.01 in 1989 and was converted in 1999 into a new format: Operational Policy ("OP") 4.01 and Bank Procedures (BP) 4.01. Both documents are available at: lnweb18.worldbank.org/ESSD/envext.nsf/47ByDocName/Policy (visited 20 June 2003).

[790] The exact details of the environmental assessment requirement are set out in OP/BP 4.01, *ibid*. OP/BP 4.01 cover all operations financed by Bank loans or guarantees except structural adjustment loans (for which the environmental provisions are set out in OP/BP 8.60). See, OP 4.01, *ibid*, at fn 1.

[791] See the Asian Development Bank Environment Policy (ADB 2002: 7–9) available at www.adb.org/Environment/envpol/default.asp (visited 20 June 2003), the Environmental Procedures of the European Bank for Reconstruction and Development (EBRD 1996: 8–17) available at www.ebrd.com (visited 20.6.2003) and the Operational Policy "OP-703 Environment" of the Inter-American Development Bank, available at: www.iadb.org/cont/poli/OP-703E.htm (visited 22 June 2003). The International Monetary Fund, however, has failed so far to incorporate ecological considerations in its lending practices (Perez 2002a: 6–8).

[792] See further on that point, ADB (2002: 26–28).

[793] There was a substantial increase in the 1990s in the amount of private capital flows going to developing countries (UNCTAD 1999: 5; Botchwey 2000: 3). Thus foreign direct investment flows to developing countries grew from $24.5 billion in 1990 to over $163 billion in 1997 (Botchwey 2000:3). There was a similar increase in the level of private financing of infrastructure projects (Carter and Bond 1996; Dailami and Leipziger 1998: 1284–85). Dailami and Leipziger report that the total infrastructure financing raised by developing countries grew from $1.3 billion in 1986 to $22 billion in 1995. Private capital played a key role in that growth. Whereas public sector investment grew from $1.2 billion in 1986 to $6.6. billion in 1995, private sector investment grew, over the same period, from $100 million to $15.6 billion (*ibid*, at 1284). It is important to note, however, that these capital flows were not equally dispersed. The investment tended to concentrate in some more advanced or minerals-abundant countries, while other countries, especially low income countries in Africa and South Asia had, relatively, very low levels of private capital inflows (Botchwey 2000: 5–8; Lall 1998: 106).

[794] USITC notes in its 1998 report on the US services trade that alongside the traditional funding from international institutions such as the World Bank, new, innovative forms of

projects—which are almost always ecologically problematic—without public funds. The increasing importance of private capital in the funding of global development processes has turned the question of its sensitivity to ecological concerns into an issue of public concern. In contrast to the public financial sector, which operates in a relatively transparent manner, it is much more difficult to uncover the practices of private financial institutions. Neither the decision-making rules (eg lending criteria) nor the relevant legal instruments (eg, loan instruments or insurance policies) are normally accessible to the public. Nonetheless, there are some indications that private institutions have started to incorporate environmental considerations into their business practices, and to codify these practices in their internal regulations. Whereas in the public sector this process of "environmental enlightenment" was motivated, primarily, by *normative considerations* (recognising the value of environmental protection),[795] in the private sector this process was motivated by *economic considerations*: the recognition that environmental risks also constitute, in many cases, a financial risk.

The banking sector used the following schema in order to measure the financial implications of environmental risks. Environmental risks were divided into three categories: *direct risk*, representing the possibility that the bank will incur direct legal liability for cleaning up contaminated land that was owned by one of its borrowers (eg, if the borrower becomes insolvent); *indirect risk*, reflecting the risk that a borrower's environmental liability might affect his ability to repay loans, and *reputational risk*, reflecting the potential damage to the bank's image from being associated with environmentally-problematic investments (Thompson 1998: 129–30).[796] Insurance companies—another key element in the supply segment of the financial market—evaluate environmental risks in terms of their potential influence on the insurer's liability under a certain policy—prominently general liability or professional indemnity policies (EPA-Victoria 2003: 6).

private financing are emerging. Thus, for example, an emerging practice in the construction market is "competitive financing". This requires competing firms to secure the necessary capital that will be needed to bring projects to fruition—they can no more rely just on their professional expertise in order to win international contracts. Companies are making, in this context, an increasing use of the "build-operate-transfer" model, as a financing tool (USITC 1998:3–46).

[795] This normative sensitivity evolved, as was noted above, in response to extensive public pressure.

[796] Financial institutions are faced with environmental risks also in their role as advisers in mergers and acquisitions. In this context financial advisers (usually investment banks) are expected also to perform environmental risk due diligence, focusing on potential risks such as contaminated land, sick buildings and out-dated technology (UNEP-FI-Secretariat 2002: 19).

The US Superfund Act,[797] which increased the direct risk of both lenders and insurers, has contributed to the process of incorporating environmental considerations into financial decision-making (EPA-Victoria 2003:6 ; UNEP-FI-Secretariat 2002: 52). The American experience has influenced the operations of other financial institutions with worldwide operations.[798]

In response to this new understanding of the economic implications of environmental risks, banks and other financial institutions, such as insurance companies, began to develop risk-management and environmental assessment schemes, in order to manage "environmental risks" and identify their financial implications.[799] In many cases—especially in the context of big firms—these schemes were *codified into the firms' "internal rule-books"* (UNEP-FI-Secretariat 2002: 54–55). The normative codification was triggered, in this case, by changes in managerial practices.

However, this was only the first step in the development of supply-side regulations. The economically-motivated normative codification at the firm level triggered a process of re-evaluation and reconfiguration, in which the normative obligations regarding environmental risks were decoupled from the financial considerations. The most prominent example of this decoupling process is the United Nations Environmental Program (UNEP) *Financial Services Initiative on the Environment* which was instigated in the early 1990s. UNEP's Initiative seeks to strengthen the commitment of private financial institutions to environmental values.[800] Its three main goals are to facilitate the integration of environmental considerations into all aspects of the financial services sector's operations, to encourage private sector investment in environmentally sound technologies and services, and, finally, to support international efforts to develop mechanisms for financing sustainable development. In this context UNEP initiated two joint statements that translate these abstract goals into a list of pragmatic principles. The first scheme, the *"Statement by Financial*

[797] The Comprehensive Environmental Response, Compensation and Liability Act (the Superfund Act) 42 USC paras 9601–75 (1988). The Superfund Act established a comprehensive liability scheme and a federal fund for clean-up of sites where "hazardous substances" have been disposed. The Act was amended in 1986 by the Superfund Amendment and Reauthorization Act, Public Law No 9–499 (1986).

[798] See Strasser and Rodosevich (1993) for a discussion of the US Superfund Act, and Thompson (1998; 1998) for a discussion of the environmental risk exposure of UK banks. The European Community published in 2000 a White Paper on Environmental Liability (COM(2000) 66) which outlines the structure of a future framework of community liability for environmental damages (EU-Commission 2000). The White Paper explicitly rejects the US expansive approach regarding the potential liability of financial lenders, by clarifying that lenders who do not exercise operational control should not be considered liable (Pozzo 2001: 29).

[799] For a general survey of these schemes, see the report of UNEP Finance Initiatives Secretariat (2002) available at: http://unepfi.net (visited 22 June 2003).

[800] Detailed, and updated information on UNEP's initiative can be found in the UNEP's Finance Initiatives web-site: http://unepfi.net (visited 21 June 2003).

Institutions on the Environment and Sustainable Development" covers the banking sector;[801] the second, *"Statement of Environmental Commitment by the Insurance Industry*" targets the insurance market.[802]

Both statements emphasise the need to incorporate environmental considerations into standard risk assessment processes of banking and insurance firms, highlighting the independent value of this incorporation. Thus, Article 2.3 of the *Banking Statement* provides that:

> We recognize that identifying and quantifying environmental risks should be part of the normal process of risk assessment and management, both in domestic and international operations. With regard to our customers, we regard compliance with applicable environmental regulations and the use of sound environmental practices as important factors in demonstrating effective corporate management.

Article 2.1 of the *Insurance Statement* provides similarly that:

> We will reinforce the attention given to environmental risks in our core activities. These activities include risk management, loss prevention, product design, claims handling and asset management.

While the aforementioned changes should not be overlooked, their overall influence remains limited. First, as noted above, the role and influence of public financial bodies, such as the World Bank, in the global financial market has declined significantly. The relatively strict environmental assessment procedures of public financial institutions have less impact, therefore, on the choice and design of transnational projects—if public money is not available private funding can usually be found. Further, some writers continue to be sceptical about the extent to which public actors such as the World Bank actually implement their progressive environmental guidelines (Bridgeman 2001: 1028–41). Second, the private sector, which dominates the global financial markets, remains ambivalent in its commitment to the "environmental" agenda (UNEP-FI-Secretariat 2002: 25–26). This ambivalence is reflected, for example, in the structure of UNEP's Finance Initiatives. First, the commitments included in the *Banking* and *Insurance* Statements are extremely vague, leaving signatories broad discretion regarding how to implement the statements'

[801] The banking statement was originally launched in 1992 under a slightly different name. The current, revised statement was launched in May 1997. A copy of the statement can be found at the Financial Institutions Initiative website: http://unepfi.net/fii/index.htm (visited 21 June 2003). It is attached to this chapter as Annex A.

[802] A copy of the statement can be found at the Insurance Industry Initiative website: http://unepfi.net/iii/index.htm (visited 21 June 2003).

provisions.[803] Second UNEP's *Initiative* currently covers only a limited segment of the financial and insurance markets. By the end of June 2003 the membership of both Initiatives has included more than 250 institutions—an impressive number which includes some of the leading global institutions—but still far from comprehensive.[804] This puts in doubt the ability of firms that join the initiative to adopt environmental guidelines, which are much stricter than those practiced by other players. Third, it is not clear to what extent those institutions, which have joined the initiative, have *actually changed* their business practices.[805] UNEP's initiative is not supported by a global disciplinary framework; financial institutions are not different in that regard from other Transnational Corporations, which, as was noted in the preceding chapter, are not subject to global regulatory scrutiny.

Finally, and maybe most important, the emerging sensitivity to environmental concerns in the private sector continues to be dominated, despite projects such as UNEP's Finance Initiatives, by liability/monetary considerations, limiting the reach and scope of this sensitivity. As Carlos Joly, the chair of UNEP Insurance Industry Initiative notes:

> Banks, insurance companies, and investors started becoming serious about the environment when environmental liability became financial liability. To the extent that environmental risk becomes financial risk, the financial markets pay attention. Not to do so would be financially irresponsible (UNEP-FI-Secretariat 2002: 25).

Thus, banks care about environmental risks only when they have a potential impact on the (present) value of the bank's loan/investment portfolio (Thompson 1998: 129), and insurance firms care about environmental risks only when they have a potential influence on their financial exposure under a certain policy.[806] This economic outlook, *which underlies the*

[803] What, for example, is the practical meaning of the declaration in Art 1.1 of the *Banking Statement* that "We regard sustainable development as a fundamental aspect of sound business management" (a similar declaration can be found in Art 1.1 to the *Insurance Statement*).
[804] The Banking Initiative included 189 signatories, and the Insurance Initiative included 88 signatories, see the websites of the two Initiatives (visited 21 June 2003). Among the signatories are Deutsche Bank AG and Munich Re from Germany, Lloyds TSB, NatWest Group, Barclys Group, and the Royal Bank of Scotland, from the UK, Credit Suisse, UBS AG and Swiss-Reinsurance Company from Switzerland, and Citigroup and Republic National Bank from the US (*ibid*).
[805] UNEP's Initiative offers only rudimentary information regarding implementation. Another source for data about the environmental practices of private financial institutions (in the context of privately-funded infrastructure projects) is the World Bank, see: Carter and Bond (1996: 77–82).
[806] In that sense, and in that sense only, environmental risks are also taken into account in the pricing the financial products—eg, in the determination of interest rate or insurance premium (EPA-Victoria 2003: 7).

risk-management techniques that were adopted by many financial institutions, restricts the cognitive frame of financial actors. They do not "see" environmental risks unless they have financial implications. Ecological problems which do not generate financial risks (because, for example, of a lenient regulatory environment) tend to be ignored.

7.2 DEMAND-SIDE REGULATION

The changes in the *demand side* of the financial market are prominently a product of a change in consumers' preferences. They reflect a substantial growth in consumer demand for "green" financial products, or "ethical investment". An increasing number of institutional investors (eg, pension, insurance and mutual funds) across the globe, but especially in the US, Europe (particularly in the UK) and Canada, are now managing their investment portfolios according to "socially responsible" principles.[807] This trend reflects a broadening demand for investment vehicles that will be guided, not just by the traditional criterion of financial performance, but also by moral and social concerns. Ethical investment was thus defined by one of the leading "ethical" research groups as:

> an investment process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis. It is a process of identifying and investing in companies that meet certain baseline standards or criteria of Corporate Social Responsibility … (SIF 2001: 4–5).[808]

The market for socially responsible investment (SRI) has been growing steadily over the last years. In the US the amount of money in socially screened portfolios has grown from $1.49 trillion in 1999 to $2.01 trillion in 2001.[809] This represents approximately 12 per cent of all investment assets under professional management in the US.[810] By February 2000 the total value of ethical funds in the UK was £2.8 billion.[811] By 2001 total

[807] For a detailed analysis of this trend see, eg, the report "World Resources 2002–2004" (UNEP, World-Bank, and Institute 2003: 126–27), available at www.wri.org/wr2002, the report of the US Social Investment Forum (2001), available at www.socialinvest.org and Friedman and Miles (2001).

[808] I will not consider in this chapter other forms of responsible investment such as shareholder advocacy and community investing, see, eg, Social Investment Forum (2001: 14–27).

[809] See the 2001 report of the US Social Investment Forum (2001: 9). Of the $2.01 trillion in socially screened portfolios, $136 billion are in mutual funds and $1.87 trillion are found in separate accounts, privately managed by professional portfolio managers for the benefit of individual and institutional clients (*ibid*).

[810] See Social Investment Forum (2001: 4).

[811] Source: *The Ethical Investor*, March/April 2000, p 1. The *Ethical Investor* is published by the Ethical Investment Research Service (EIRIS). The term "fund" is used by EIRIS to refer to

assets under ethical management reached the £3.3 billion mark (Friedman and Miles 2001: 543).[812] Similar growth was experienced in other markets (UNEP, World-Bank, and Institute 2003: 126).

Ethical investment has been so far, primarily, a product of private rule-making, in which investors subject their investment decisions to self-designated norms. Governmental intervention has been mainly restricted to the pension market, through rules that ensure that individuals could influence the investment profile of their personal retirement plans, and rules that require pension funds to disclose their investment policies.[813] This process of self-regulation takes place in a highly fragmented environment; each institutional investor devises its own investment criteria (sometimes relying on external consultancies).[814] Ethical investment consists of two main types of norms. The first includes *positive investment criteria*, directing the investor to invest in certain firms or sectors, the second consists of *negative* or *screening criteria*, directing the investor to exclude inappropriate securities from his/her investment portfolio. Despite the fact that this field of law lacks central direction, and is highly diverse in terms of its institutional profile, there are wide similarities between the investment norms, which are used by different investment institutions. Indeed, it is this convergence which turns the

ready-packaged products where investors' money is pooled and an expert fund manager decides which shares to buy. It covers a wide range of financial products, including unit trusts, pension funds and endowment polices. In general, EIRIS looks at funds that have a published ethical policy and whose choice of investment is influenced by more than one ethical or social criteria (EIRIS 1998: 7).

[812] Part of the current and projected growth in the UK market can be attributed to a change in the rules pertaining to pension schemes. Under the new rules pension fund trustees are required, starting from 1 July 2000, to declare their policy on social, environmental and ethical issues in their Statement of Investment Principles (SIP). See, the Occupational Pension Schemes (Investment, and Assignment, Forfeiture, Bankruptcy etc) Amendment Regulations 1999, Art 2(4). The Regulation was made under the Pensions Act 1995. The new disclosure rules have already induced several pension funds to adopt ethical investment criteria. Thus, for example, Friends Provident has decided to manage all of its £15 billion assets in equity investment portfolios according to a new strategy of "responsible engagement overlay", which will encourage good practice on human rights, child labour and environmental pollution. See "Friends Plans to Give Ethical Lead", *Financial Times*, 8 May 2000, p 25. BT Pension Scheme (£25 billion) and the Universities Superannuation Scheme (£20 billion) have already published their SRI policies, which include special provisions on environmental "good practice", "Ethics Under the Microscope", *Financial Times Survey—Pension Fund Investment*, 12 May 2000, p 8. On the reaction of the UK pension market to this regulatory change see further Friedman and Miles (2001: 526).

[813] Rules pertaining to the freedom of investment were adopted by the US, Japan, the UK and Australia (UNEP-FI-Secretariat 2002: 18). Disclosure rules were adopted by the UK, Germany and Australia (UNEP-FI-Secretariat 2002: 23).

[814] Knowledge intermediaries have played a particularly important role in this market. These intermediaries provide expertise both in the development of ethical criteria and in applying them to actual investment decisions (UNEP-FI-Secretariat 2002: 18; Friedman and Miles 2001: 526, 530).

field of "ethical investment" into a system of global law. Thus most ethical funds use the following negative/positive screening criteria: tobacco, environment, human rights, employment-equality, gambling, alcohol and weapons (SIF 2001: 11; EIRIS 1998).[815] To give the reader a flavour of the structure of ethical investment guidelines, I annex to this chapter a copy of the Ethical and Environmental Criteria of a leading British mutual fund, Jupiter Ecology Fund (Annex B).

Ethical investment seems to be motivated by two main forces: moral integrity and a belief in the capacity of investment to generate changes in corporate practices. It is the latter aspect of ethical investment which interests me most in the context of this book. The supporters of ethical investment hope to influence companies to adopt more sustainable and socially responsible business practices (Lewis and Mackenzie 2000: 217). Thus, for example, the Social Investment Forum states in its 2001 Report that the goal of socially responsible investors is to achieve "increasing acceptance and action from corporations and governments in adopting a sustainability agenda" (SIF 2001: 8). This causal narrative can be found also in the coverage of ethical investment in financial newspapers (Winnett and Lewis 2000: 336–37).[816]

There is some indirect support for this causal narrative. First, there is evident growth in the number of companies that engage in environmental reporting (Line, Hawley, and Krut 2002: 70). This trend is consistent with the prediction that the growth in "socially responsible" investment will induce more companies to incorporate environmental and social issues into their financial reports, and that the quality of environmental/social reporting will improve (Friedman and Miles 2001: 531).[817] A second supporting piece of evidence concerns the growth in the number of firms that have incorporated environmental management systems ("EMS") into their management manuals (Line, Hawley, and Krut 2002: 75).[818] Presumably, if ethical investment is becoming a significant force in the financial markets, firms should have an interest in signalling their

[815] This normative convergence is accompanied by attempts to create collective structures which will support and represent the SRI movement (UNEP-FI-Secretariat 2002: 21). A leading example is the US Social Investment Forum.

[816] Similarly the FTSE4Good Index proclaims that through its selection policy it "challenges companies to constantly improve their corporate responsibility performance to keep apace with rising standards and expectations in order to remain in FTSE4Good", FTSE4Good Index Series/Criteria & Methodology, www.ftse.com/ftse4good/criteria_methodology.jsp (visited 18 June 2003). See also UNEP *et al* (2003: 127).

[817] This trend is supported by an increased interest in social investment from mainstream financial institutions (Friedman and Miles 2001: 538).

[818] The International Organization for Standardization, whose environmental management system (ISO 14001) is the world's leading EMS reports an increase of 60% in the number of ISO 14001 certificates awarded by the end of 2001 (from 22,897 in 2000 to 36,765 in 2001). This is the highest increase recorded since the introduction of the ISO 14001 (ISO 2002: 5).

commitment to environmental values; environmental reporting and EMS provide a good way to pursue such signalling.[819]

However one should be careful not to read too much into this indirect evidence. Indeed, there are several aspects of ethical investment—in its contemporary form—which cast doubt on its capacity to cause a significant change in corporate practices. The capacity of ethical investment to influence corporate behaviour lies, presumably, in its power to hinder the conditions under which environmentally unfriendly business operate, for example, by increasing their cost of raising capital. However, this power is still limited for several reasons. First, despite the evident growth in the size of ethical investment, especially among "institutional investors", assets managed according to SRI criteria still represent only a small fraction of the global equity market (UNEP-FI-Secretariat 2002: 22). This is likely to decrease its influence.[820] Second, while ethical funds do use similar criteria, there are wide differences in the specific structure of these criteria, and the way in which they are applied in practice.[821] This variability could blur the signal that these funds send to the market, again limiting their impact.[822]

A third reason to question the capacity of ethical investment to generate significant social changes concerns the fact that ethical investment remains deeply entangled with the traditional "capitalist" ethos (Winnett and Lewis 2000: 335; SIF 2001: 12).[823] There is a deep tension between the ideological considerations which led to the evolution of ethical investment,

[819] Indeed, some mutual funds, such as Jupiter Ecology Fund, include the issue of EMS certification in their positive screening criteria. See Jupiter Environmental Opportunities Fund Annual Report for the year ended 31 March 2003 at 3 (available at: www.jupiteronline.co.uk, visited 19 June 2003).

[820] See also on this point, Lewis (2002: 134–35, 153).

[821] See Winnett and Lewis (2000: 332) and EIRIS (1998).

[822] A related problem concerns the vagueness of some of the ethical criteria used by various institutional investors. Thus, for example, the Pension Scheme of British Telecom (BT), one of the biggest in the UK, directs its investment managers to consider the following when selecting shares: "A company run in the long-term interests of its shareholders will need to manage effectively relationships with its employees, suppliers and customers, to behave ethically and have regard for the environment and society as a whole". The danger of course, is that formulating the SRI policy in such general terms could lead to the erosion of the Funds' commitment to the environment. For the BT scheme, see, Annual Report & Accounts 2002, BT Pension Scheme (available at www.btpensions.net, visited 20 July 2003).

[823] A good example is Jupiter "green" funds. Jupiter Unit Trust Managers is one of the leading ethical funds' managers in the UK (Friedman and Miles 2001: 530). The investment policies of Jupiter's two "green" funds demonstrate the ideological duality mentioned above. Thus the policy statement of the "Ecology Fund" (as of Feb 2003) states that "The objective of the Fund is to achieve *long-term capital appreciation together with a growing income* consistent with a policy of protecting the environment" and that the fund "invests in companies worldwide that are responding positively to and *profiting* from the challenge of environmental sustainability and are making a positive commitment to social well being. By doing so, the Fund aims to encourage the adoption of higher environmental and social standards" (my emphasis). Similarly the policy statement of "Environmental Opportunities Fund" (as of Feb 2003) states that "The objective of the Fund is to provide *long-term capital*

and this enduring commitment to the capitalist ethos. Thus, for example, "ethically" managed funds, such as ecologically-oriented mutual funds continue to be judged (by themselves and other observers) according to their financial performance—and not by ecological or social criteria. Such alternative criteria could have measured, for example, the aggregate environmental "good" that was achieved by the firms whose securities they hold, or the extent to which the fund has actually fulfilled its self-chosen investment guidelines.

Probably the most powerful reflection of this kind of monetary-based appraisal is the introduction of "ethical" indices which measure the *financial performance* of socially responsible equities, and allow investors to compare the performance of "ethical" securities with mainstream securities. Such indices were introduced by the British FTSE group—The FTSE4Good Index—and by the US Dow Jones group—the Dow Jones Sustainability Index.[824] These indices construct the ethical investor as someone whose moral commitment is highly *price-elastic*—her preference for ethical investment remains bounded by the quest for financial return. This image of the "ethical investor" is not very different from the classical figure of the *homo economics*—the self-interested, instrumentally rational individual—who in the context of the financial markets is only interested in maximising his financial gain.

The entrenched commitment to the capitalist ethos, as well as the lack of measurable environmental (or social) goals, sends a mixed signal to the market. Firms are called to consider more seriously the social and environmental impacts of their actions, but, at the same time, to maintain their traditional commitment to provide their share-holders—including the more "ethical" ones—with high returns. Environmental (or social) achievements will not suffice. Since doing business in an environmentally friendly way costs money,[825] going further on the environmental front can only be achieved if the market would "believe" that ethical investors are willing to sacrifice "returns" for "ethic". Without such change in the market perception of ethical investors the capacity of ethical investment to induce radical changes in the "ethics" of the corporate world will remain limited.[826]

growth from a portfolio primarily invested in UK equities" and that the Fund "seeks to invest in companies from a wide variety of stock market sectors that lead their competitors in respect to environmental and social performance". The statements were obtained from the funds' "Fact Sheets" (Feb 2003)' available at Jupiter's web-site: www.jupiteronline.co.uk (visited 19 June 2003).

[824] For further information on the FTSE4Good Index and the Dow Jones Sustainability Index see: www.ftse.com/ftse4good and www.sustainability-index.com, respectively (visited 19 June 2003).

[825] "Win-win" solutions can be found only in a limited number cases, see Palmer (1995).

[826] Whether ethical investors are willing to forego monetary gains in return for superior ethical performance is an empirical question which can be examined by psychological studies. See the text of the next para.

Psychological studies of ethical investors (and economic agents in general) indicate, though, that there is a significant gap between the market/legal constructions of ethical investors and their "true" psychological profile. It has been shown, in various economic contexts, that individuals sometimes act in ways that violate the predictions of the *homo economicus* model—by acting altruistically, by valuing "fairness" over personal gain, or by reacting emotionally to other people behaviour (in a way that does not serve their presumed self-interest) (Joseph *et al* 2001; Thaler 2000). In the ethical investment context it was found that ethical investors are driven (at least to some extent) by non-consequential concerns involving ideology and integrity (Webley, Lewis and Mackenzie 2001). They are willing to keep their investments even if they perform badly or are ethically ineffective (*ibid*).[827]

In searching for alternative accounts of "ethical investors" one should be careful, though, not to fall into the trap of the logic of opposites. Representing the "ethical investor" as the mirror image of *homo economicus*—a *homo ethicus*—is likely to be as problematic as the economic narrative it seeks to replace. The metaphor of "multiple-self" (Lewis 2002: 165) seem to provide an interesting alternative. This alternative narrative is based on a multi-dimensional concept of the self. It does not dismiss "self-interest"; rather, it recognises the possibility that other types of motives, such as concern for others, moral commitments and varying forms of altruism, could co-exist with it (Lewis 2002: 165). Unlike the concepts of *homo ethicus* and *homo economicus* the concept of "multiple-self" allows for the possibility of internal quarrels and contradictions, leading to inconsistent forms of behaviour.[828] The ground seems ripe, then, for a change in the market/legal construction of ethical investors. Whether this will happen, and in what direction, will determine the future and potential influence of ethical investment.[829]

7.3 ENVIRONMENTAL AND FINANCIAL REPORTING

Of the three processes considered in this chapter the field of environmental reporting is probably the most interesting. It is interesting because it deals with a practice—financial reporting or accounting—which plays a

[827] Webley *et al* (2001) survey the relevant literature and report on an experiment, which demonstrates that ethical investors are willing to make such financial sacrifice. Similar results are reported in Lewis (2002: 77–79). However, as Webley *et al* note, other studies have produced contradictory results, showing that the moral-commitment of ethical investors is highly responsive to price (*ibid*, at 28). The market, as was indicated above, seems to be led by the latter view.

[828] See, eg, Lewis (2002: 103).

[829] For an attempt to predict this future see Lewis (2002: 173–75).

key role in the modern economic system. The rules of financial reporting—especially those pertaining to publicly traded companies—prescribe the way in which facts or events enter into the economic system's discursive universe; accounting serves as the cognitive apparatus of the economic system (Solomons 1991). But accounting serves a further role. It is one of the major instruments through which organisations—commercial firms and others—are managed and controlled. By creating a monetary record of the organisation activities—from production, research and development to marketing—accounting provides a mechanism for measuring and ordering the organisation's actions (Montagna 1997: 134). Changing the rules of financial reporting can influence the economic system through two key paths: its cognitive horizon and the managerial structure of firms. In that sense environmental reporting constitutes the most far reaching challenge to the contemporary corporate world. Further, because financial reports of publicly traded companies are open to the public, environmental reporting could have repercussions beyond the economic domain; by expanding the amount of environmental data available to society, environmental reporting opens the door for other thematisations, enriching the public discourse about the environment.

This short section seeks to narrate some of the recent trends in environmental reporting, explore their linkage to traditional financial accounting, and assess to what extent these trends represent a real challenge to contemporary corporate practices.[830] Financial accounting was understood, traditionally, as an instrument whose main purpose is to enable investors—through "proper" disclosure—to assess the *economic* value of the firm whose shares they are holding, and more generally, the *economic* value of the equities in their portfolio—and to make decisions according to that disclosure.[831] Financial accounting is based, therefore, on the presumption that investment decisions are taken according to the model of *homo economicus*—portraying the investor as motivated solely by the desire to maximise financial return. The proclaimed expertise of the field of accounting—the capacity to measure, in a neutral and objective way the reality of corporate life (Solomons 1991)—is intimately linked to this economic worldview.

This understanding of financial accounting provides the focal point for the analysis of environmental reporting. Building on this understanding it is possible to distinguish between two forms of

[830] Because of limits of space this chapter focuses on corporate reporting; it does not consider the similarly important field of "green" national accounting.

[831] Thus, for example, the UK Accounting Standards Board, suggests in a 1995 report, that the objective of financial statements "is to provide information about the financial position, performance and financial adaptability of an enterprise that is useful to a wide range of users for assessing the stewardship of management and for making economic decisions" (ASB 1995: para 1.1), quoted in McKernan and O'Donnell (1998: 572–73).

environmental reporting: the first mode is part of the mainstream financial reporting. It utilises the economic inclination of traditional accounting to achieve environmental objectives; the second, and more interesting mode, seeks to challenge these traditional structures.[832] The remaining part of this section considers these two modes.

Consider first mainstream environmental reporting. Within this framework environmental disclosure is required only when the reported data has an influence on the firm's future revenues; ie, it represents a current or potential cost to the reporting firm. Common examples of environmental cost factors include issues such as compliance with environmental laws, response action, defence and legal fees arising from tort claims or criminal prosecutions, and any other costs arising from ecological misbehaviour (eg, loss of reputation or damage to the corporate property).[833] Arguably, this form of environmental disclosure should extend the environmental sensitivity of economic actors—from shareholders to corporate officers (constructed according to the narrative of *homo economicus*). The reason is that environmental data, presented in this form, impinges directly on the firm and shareholders' calculus of return, and thus is not likely to be ignored. This form of environmental disclosure does not challenge, therefore, the supremacy of the economic logic, as the principle which should govern (through legal codification) the practice of accounting and the management of the firm.

A good example of this type of environmental reporting is the US Securities and Exchange Commission's (SEC) corporate disclosure regulations. The SEC rules are interesting because the SEC controls the two biggest stock-exchanges in the world—NYSE and NASDAQ, and is considered a global leader in the field of securities regulation.[834] The SEC working practices and underlying rules influence various foreign companies that are registered in these exchanges. The disclosure requirements of registered corporations, which outline what should be reported in annual or quarterly reports, are set out in Regulation S-K.[835] Regulation S-K contains three

[832] Both modes should contribute to the development of the aforementioned changes in the supply and demand segments of global financial law, by giving financial institutions—lenders, insurers or investors—better tools to assess the environmental behaviour (and associated risks) of corporate activities.

[833] In some cases these costs can be huge, leading otherwise healthy companies to file for bankruptcy. A prominent example is the case of asbestos. Recent studies estimate that the ultimate costs arising from US exposure to asbestos could range from $200 to $275 billion (Biggs 2002: 5). The scale and cost of asbestos litigation have forced several US corporations to file for bankruptcy (*ibid*: 1).

[834] For more extensive discussion of US disclosure practices, and a comparison with the UK and Canadian markets, see Holland and Foo (2003: UK) and Buhr and Freedman (2001: Canada).

[835] The regulation was issued under the Securities Act of 1933, the Securities Exchange Act of 1934 and the Energy Policy and Conservation Act of 1975. Available at: www.sec.gov/divisions/corpfin/forms/regsk.htm (visited 27 June 2003).

items that pertain to environmental disclosure. Item 101, which deals with the description of the business, requires firms to disclose:[836]

> … the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.[837]

The next relevant item, item 103, deals with legal proceedings. This item requires SEC registrants to disclose the existence of pending or known to be contemplated environmental legal proceedings that may have a substantial influence on the business or financial condition of the registered firm.[838] Finally, item 303 requires the management to describe in its "Discussion and Analysis of Financial Condition and Results of Operations" any known trends or uncertainties "that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations".[839] This requirement could give rise to environmental disclosure in any case where the firm expects certain environmental contingencies to have a material impact on the firm's operations.[840]

The potential influence of this form of environmental disclosure on the market depends on two key factors. First, the rules that determine the

[836] Art 229.101(c)(1)(xii).

[837] In *Levine v NL Industries, Inc*, 926 F 2d 199 (2d Cir 1991) the court held that Item 101(c)(1)(xii) requires companies to disclose not only the cost of complying with environmental regulations, but also the cost of failing to comply with them, in terms of fines, penalties or other significant effects on the corporation, *ibid* at 203–04.

[838] Art 229.103(5)(A)–(C) requires disclosure in any of the following circumstances:

> "A. Such proceeding is material to the business or financial condition of the registrant;
> B. Such proceeding involves primarily a claim for damages, or involves potential monetary sanctions, capital expenditures, deferred charges or charges to income and the amount involved, exclusive of interest and costs, exceeds 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis; or
> C. A governmental authority is a party to such proceeding and such proceeding involves potential monetary sanctions, unless the registrant reasonably believes that such proceeding will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than $100,000; provided, however, that such proceedings which are similar in nature may be grouped and described generically".

[839] Art 229.303(a)(3)(ii).

[840] These include, for example, a "pending change in environmental law(s) that would increase operating costs … an environmental legal proceeding that may result in material financial liabilities, [and] revocation of, or the inability to obtain an operating permit, or a product registration" (Franco 2001: 12).

cost-value of certain ecological data (eg, the potential cost to the firm of breaching certain emission standards)—which ultimately determine which ecological facts will be disclosed to the public. If the methods for estimating environmental costs and liabilities are vague or highly varied across the industry, environmental reporting is not likely to generate the proper financial signals to the market, hence losing much of its capacity to trigger changes in corporate behaviour. A recent petition to the SEC argues that this vagueness and variability represent the current corporate practice in the US.[841] It therefore asked the SEC to adopt new standards, which will provide accurate and general methods for estimating monetary costs and liability for environmental matters. In particular the petition urges the SEC to adopt two standards, developed by the American Society for Testing and Materials International (ASTM): ASTM 2001 Standard Guide for Disclosure of Environmental Liabilities (E 2173–01) and ASTM 2001 Standard Guide for Estimating Monetary Costs and Liability for Environmental Matters (E 2137–01).[842]

A second key factor concerns the level of informational asymmetry.[843] If there is a significant informational gap in the equity market regarding the environmental liabilities of registered firms, correcting it through stricter enforcement of environmental reporting, could yield substantial results in terms of pressuring firms to improve their environmental performance (Konar and Cohen 1997; Franco 2001: 8). Studies of the US equity markets seem to indicate the existence of such a gap, finding poor compliance with the SEC reporting requirements (Franco 2001: 7). Thus, for example, a 1998 study by the US Environmental Protection Agency (EPA) found that 74 per cent of companies failed to report cases where environmentally related legal proceedings could result in monetary sanctions over $100,000, only 26 per cent of civil and administrative proceedings involving penalties were correctly disclosed, and only 16 per cent of proceedings involving court-ordered Supplemental Environmental Projects (Franco 2001: 7, 13–16). The EPA's Office of Enforcement and Compliance Assurance (OECA) has taken several steps aimed at improving the level of compliance with SEC disclosure requirements.[844]

[841] A petition to the SEC by the Rose Foundation for Communities and the Environment, SEC File # 4–463, dated 20 Sept 2002, available on the SEC web-site.
[842] *Ibid*.
[843] In general, information asymmetry refers to variations across persons in the amount and quality of information, which is relevant to a certain economic transaction (Franco 2001: 4).
[844] On October 2001 the OECA issued an Enforcement Alert urging companies to abide by the requirements of Regulation S-K; it has also improved its information-sharing with the SEC in order to expand the SEC enforcement capacities. EPA Enforcement Alert, volume 4, No 3 (Oct 2001), available at: www.epa.gov/compliance/resources/newsletters/civil/enfalert (visited 22 July 2003). The Enforcement Alert focuses, in particular, on firms which are parties to EPA enforcement actions.

While improving the accuracy and extent of environmental data disclosed under the traditional rules of financial reporting, as codified, for example in the SEC rules, could generate positive environmental results, its transformative capacity remains limited because of its commitment to the economic language. The sensitivity of this form of environmental reporting to ecological concerns remains bounded by the need to re-present environmental data in monetary (cost) values and by the image of the investor as *homo economicus*. Thus, to give a practical example, if a firm emits pollutive substances without breaching the applicable legal standards, or operates in an area rich with wild-life under a valid license, its actions cannot be described as a source of liability or cost, and thus need not be reported.[845] The disclosure obligations of traditional accounting and this portrait of the "reasonable investor" are linked in a co-determinative cycle. Thus the "reasonable investor"—as *homo economicus*—is presumed not to be interested in data that has no bearing on the firm's future revenues; consequently the rules of accounting do not require the disclosure of such data; this standpoint, in turn, contributes to the social pervasiveness of the *homo economicus* narrative.[846]

The second reporting mode is based on a completely different logic. It seeks to *sever* the historical commitment of accounting to the economic language, and to utilise the measurement expertise of accounting to the advancement of environmental and social objectives. This new form of accounting should open new paths for evaluating the performance of corporations, which will not be bounded by the traditional, profit-maximisation maxim of the equity market and classic corporate law. From an environmental perspective this form of reporting raises two separate questions. First, what are the criteria that should guide the disclosure process and determine the extent and scope of the disclosed environmental data (replacing the economic criteria)? The structure and underlying philosophy of these criteria will determine whether this alternative reporting format could indeed challenge the current practices of the corporate world. Second, to be effective this mode of reporting must cover a significant segment of the industrial world; the question, then, is how widespread is the use of this of alternative reporting format?

[845] In *Levine v NL Industries, Inc*, *above* n 837, the court held that, although the cost of failing to comply with environmental regulations must be disclosed in principle, the associated firms were under no duty of disclosure because the Department of Energy had agreed to indemnify them in the event of liability or loss arising out of such violations. Under these circumstances there was no plausible way that the firms' shareholders could suffer financially from the consequences of the alleged environmental violations, and thus a "reasonable investor would not consider [the firms'] asserted violations of environmental law important information"; consequently no duty to disclose this information has arisen under securities regulations. *Ibid* at 203.

[846] See eg, *Levine v NL Industries, Inc*, *ibid*.

Keeping these preliminary questions in mind I would like to consider briefly what is probably the leading international scheme of alternative reporting: the Global Reporting Initiative (GRI).[847] The GRI was founded in 1997 by the Coalition for Environmentally Responsible Economies in partnership with the United Nations Environment Programme. Following a wide-ranging consultation process the initiative published in 2002 guidelines for sustainability reporting (entitled "Sustainability Reporting Guidelines") (GRI 2002). By 1 March 2004, 416 organisations in 42 countries have used the Guidelines in shaping their sustainability reports.[848] The driving theme of the GRI Guidelines is the idea of sustainable development. The Guidelines offer a new reporting framework which, arguably, should enable firms and other organisations to measure and report their contribution to sustainable development. The Guidelines distinguish between three aspects of the activities of organisations: economic, environmental and social (GRI 2002: 9). This choice is supported by the argument that "achieving sustainability requires balancing the complex relationships between current economic, environmental and social needs in a manner that does not compromise future needs" (*ibid*).[849] A sustainability report issued in accordance with the GRI Guidelines should include information on each of these aspects of corporate behaviour. The Guidelines assume that this report will be issued in conjunction with the corporate conventional financial statement.[850]

The Core of the GRI Guidelines is a rigorous definition of economic, environmental and social indicators. In contrast to conventional environmental reporting, the GRI Guidelines seek to provide a picture of the organisation's ecological impact, which is not bounded by economic considerations. Thus the Guidelines' ecological indicators seek to measure

[847] Another form of environmental disclosure, which is independent of financial reporting, is government mandated pollution registers. The first country to adopt such a system of obligatory disclosure was the US, whose Toxic Release Inventory (TRI) set an example for other countries. According to the 1986 Emergency Planning and Community Right-to-Know Act manufacturing establishments that meet certain conditions (mainly size and type of business) are required to disclose, through the TRI, the quantity and type of toxic chemicals released into the environment (Konar and Cohen 1997). The data is available on the net. For further information about the TRI and a list of pollution registers in other countries, see UNEP *et al* (2003: 110–12). A significant advance in the adoption of pollution registers came in May 2003, when a broad coalition of countries signed the Protocol on Pollutant Release and Transfer Registers (PRTR) under the Aarhus Convention. The PRTR Protocol reflects an ambitious effort to expand mandatory disclosure requirements for toxic pollutants. For further discussion of the PRTR Protocol, see UNEP *et al*, ibid, at 114–15.

[848] For an up-to-date list of organisations using the guidelines see: www.globalreporting.org/guidelines/companies.asp.

[849] The authors of the Guidelines recognise however that sustainable development is a complex concept and that the Guidelines approach may need to be revised in the future (GRI 2002: 9).

[850] The two reports might, in some instances be overlapping; in general, however, they should be complementary (GRI 2002: 45).

the organisation's "impacts on living and non-living natural systems, including ecosystems, land, air and water" (GRI 2002: 48). This is achieved by requiring the organisation to "provide environmental performance information in terms of both absolute figures and normalised measures (eg, resource use per unit of output)" (*ibid*). The complete list of environmental indicators included in the GRI Guidelines is attached to this chapter as Annex C. They include data about total materials use, direct energy use segmented by primary source, location and size of land owned, leased or managed in biodiversity-rich habitats, greenhouse gas emissions, use and emissions of ozone-depleting substances, NOx, SOx, and other significant air emissions by type, total amount of waste by type and destination, and incidents of and fines for non-compliance with environmental regulations.

The GRI Guidelines harness the measurement expertise of accounting to the service of non-economic objectives. However, it is important to point out the limitations of this initiative. The accounting claim to provide "objective" representation of "reality" is of course elusive, and remains so even when its link to the economic code is severed.[851] The environmental picture that emerges from the GRI Guidelines is problematic in at least two respects. The first problem concerns the Guidelines' basic commitment to the measurement ethos of accounting (GRI 2002: 48). This commitment is problematic in several senses. First, not every ecologically-problematic aspect of a firm's behaviour can be measured in numerical terms—eg, its aesthetic interference in nature. The Guidelines reporting scheme is thus blind to those ecological attributes which cannot be expressed in numerical terms.

Second, the Guidelines do not provide a satisfactory formula for evaluating the organisation's impact on the environment—ie, a method for transforming the various ecological indicators into a list of impacts (eg, loss of biodiversity, destruction of water sources, etc).[852] Without such an "impact algorithm" it will be difficult to evaluate the organisation's overall impact on the environment, or to compare between different organisations. A second problematic aspect of the Guidelines' seemingly neutral measurement framework is that it disregards the critical role of the professional community, which will be responsible for implementing the Guidelines. The knowledge produced by audits is shaped by the institutional and cultural attributes of the professional community which

[851] On this elusiveness see, further Montagna (1997).

[852] Indeed, the impact of an organisation on the environment/society, depends not just on the volume of its emissions, but on various other factors, such as the absorptive capacity of the ecological systems in which it operates and the cultural preferences of the adjacent communities. While the Guidelines encourage organisations to relate their individual performance to the particular environments in which they operate, they do not require it, nor do they provide guidance as to how this "relating" process should be carried out (GRI 2002: 49).

produces it (Power 2003: 390). A possible professional contest between various specialists such as accountants and environmental consultants could thus influence the ultimate audit-product.[853]

7.4 CONCLUSIONS

The structure of international financial law is changing fast. The normative developments which were sketched above, especially in the field of financial reporting, challenge the traditional legal patterns that dominate the contemporary global financial system. These discursive transformations could lead to a change in the preferences and behavioural patterns of economic players.[854] However, these new more environmentally-friendly legal configurations are not free of biases. The main bias, which was emphasised throughout this chapter is their continuous commitment to the economic ethos and the canonical model of *homo economicus*. The GRI Guidelines represent the most radical attempt to break this commitment. However, their practical influence has been, so far, quite limited.

[853] The GRI Guidelines recognise the importance of providing independent assurance about sustainability reports. The Guidelines encourage the independent assurance of GRI-compatible reports and the development of guidelines for the assurance process to be followed by assurance providers (GRI 2002: 18, 78–79). Such third-party verification is not obligatory though. The use of the neutral term "assurance provider" indicates that the Guidelines do not wish to interfere in any possible professional contest.

[854] Studies in behavioural economics indicate that in contrast to the assumptions of the *homo economicus* model, preferences over economic choices are not exogenous, but rather are shaped by the economic and social interactions of everyday life (Joseph *et al* 2001). Similarly, scholars in the accountancy field argue that "accounting is more than a neutral technical practice … it shapes preferences, organizational routines, and the forms of visibility, which support and give meaning to decision making" (Power 2003: 379).

Annex A

UNEP Statement by Financial Institutions on the Environment & Sustainable Development, As Revised—May 1997

We members of the financial services industry recognize that sustainable development depends upon a positive interaction between economic and social development, and environmental protection, to balance the interests of this and future generations. We further recognize that sustainable development is the collective responsibility of government, business, and individuals. We are committed to working cooperatively with these sectors within the framework of market mechanisms toward common environmental goals.

1. Commitment to Sustainable Development

1.1 We regard sustainable development as a fundamental aspect of sound business management.
1.2 We believe that sustainable development can best be achieved by allowing markets to work within an appropriate framework of cost-efficient regulations and economic instruments. Governments in all countries have a leadership role in establishing and enforcing long-term common environmental priorities and values.
1.3 We regard the financial services sector as an important contributor towards sustainable development, in association with other economic sectors.
1.4 We recognize that sustainable development is a corporate commitment and an integral part of our pursuit of good corporate citizenship.

2. Environmental Management and Financial Institutions

2.1 We support the precautionary approach to environmental management, which strives to anticipate and prevent potential environmental degradation.
2.2 We are committed to complying with local, national, and international environmental regulations applicable to our operations and business services. We will work towards integrating environmental considerations into our operations, asset management, and other business decisions, in all markets.
2.3 We recognize that identifying and quantifying environmental risks should be part of the normal process of risk assessment and management, both in domestic and international operations.

With regard to our customers, we regard compliance with applicable environmental regulations and the use of sound environmental practices as important factors in demonstrating effective corporate management.

2.4 We will endeavor to pursue the best practice in environmental management, including energy efficiency, recycling and waste reduction. We will seek to form business relations with partners, suppliers, and subcontractors who follow similarly high environmental standards.

2.5 We intend to update our practices periodically to incorporate relevant developments in environmental management. We encourage the industry to undertake research in these and related areas.

2.6 We recognize the need to conduct internal environmental reviews on a periodic basis, and to measure our activities against our environmental goals.

2.7 We encourage the financial services sector to develop products and services which will promote environmental protection.

3. Public Awareness and Communication

3.1 We recommend that financial institutions develop and publish a statement of their environmental policy and periodically report on the steps they have taken to promote integration of environmental considerations into their operations.

3.2 We will share information with customers, as appropriate, so that they may strengthen their own capacity to reduce environmental risk and promote sustainable development.

3.3 We will foster openness and dialogue relating to environmental matters with relevant audiences, including shareholders, employees, customers, governments, and the public.

3.4 We ask the United Nations Environment Programme (UNEP) to assist the industry to further the principles and goals of this Statement by providing, within its capacity, relevant information relating to sustainable development.

3.5 We will encourage other financial institutions to support this Statement. We are committed to share with them our experiences and knowledge in order to extend best practices.

3.6 We will work with UNEP periodically to review the success in implementing this Statement and will revise it as appropriate.

We, the undersigned, endorse the principles set forth in the above statement and will endeavor to ensure that our policies and business actions promote the consideration of the environment and sustainable development.

Annex B

Ethical and Environmental Criteria Summary: Jupiter Ecology Fund (Taken from Jupiter Ecology Fund, Annual Report for the Year Ended 31st March 2003, pp. 2–3).[855]

The Jupiter Ecology Fund aims to invest in companies that either provide products or services which contribute to social and environmental improvement or act in a way that reduces the adverse external impacts of their operations, or both.

Examples of Beneficial Products or Services Include:

- environmental technologies and services;
- healthcare products and services;
- public transport;
- telecommunication and information technologies.

Examples of Beneficial Practices Include:

- adherence to health, safety and environmental policy standards;
- management of operations to ensure minimal environmental impact;
- publication of social and environmental performance reports;
- world wide implementation of codes of conduct for labour standards.

The Jupiter Ecology Fund also seeks to avoid investments in industrial activities which are believed to be incompatible with environmental and social goals.

Examples of Such Negative Activities Include:

- manufacturing of armaments, alcoholic drinks or tobacco products;
- publication of pornographic material;
- generation of nuclear power;
- operation of gambling facilities.

Accordingly any company which derives over 10% of its turnover from any one of these activities will not be invested in. A company which derives less than 10% of turnover from any one of these activities may be invested in, but only if it makes an outstanding contribution to sustainable development in other respects.

[855] For the full criteria see "The Assessment Process for Green Investment: A guide to Jupiter Asset Management's approach to assessing companies for investment in the Jupiter Ecology Fund", which is available from the fund's manager (see, the fund's web-site: www.jupiteronline.co.uk).

Additionally the Jupiter Ecology Fund will not invest in any company which conducts or commissions animal tests carried out for cosmetic and toiletry purposes. A company involved in animal testing on other products, and their ingredients, will only be suitable for investment if it has made a substantial commitment to minimise animal testing, and in other respects makes an outstanding contribution to sustainable development.

Finally, in order to respond to stock market opportunities, up to 5% of the Jupiter Ecology Fund's assets may be invested in companies which appear suitable but for which research is still in progress. If the research into any such company has not been completed within three months of the investment date, the holding will be sold.

Annex C

GRI Environmental Performance Indicators (GRI 2002: 49–51)

Environmental Performance Indicators

Core Indicators	Additional Indicators
Materials	
EN1. Total materials use other than water, by type. Provide definitions used for types of materials. Report in tonnes, kilograms, or volume.	
EN2. Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation. Refers to both post-consumer recycled material and waste from industrial sources. Report in tonnes, kilograms, or volume.	
Energy[4]	
EN3. Direct energy use segmented by primary source. Report on all energy sources used by the reporting organisation for its own operations as well as for the production and delivery of energy products (e.g., electricity or heat) to other organisations. Report in joules.	**EN17.** Initiatives to use renewable energy sources and to increase energy efficiency.
EN4. Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organisation (e.g., electricity or heat). Report in joules.	**EN18.** Energy consumption footprint (i.e., annualised lifetime energy requirements) of major products. Report in joules.
	EN19. Other indirect (upstream/downstream) energy use and implications, such as organisational travel, product lifecycle management, and use of energy-intensive materials.
Water[4]	
EN5. Total water use.	**EN20.** Water sources and related ecosystems/habitats significantly affected by use of water. Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends.
	EN21. Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources. Breakdown by region.
	EN22. Total recycling and reuse of water. Include wastewater and other used water (e.g., cooling water).
Biodiversity	
EN6. Location and size of land owned, leased, or managed in biodiversity-rich habitats. Further guidance on biodiversity-rich habitats may be found at www.globalreporting.org (forthcoming).	**EN23.** Total amount of land owned, leased, or managed for production activities or extractive use.
	EN24. Amount of impermeable surface as a percentage of land purchased or leased.
EN7. Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater, and marine environments.	**EN25.** Impacts of activities and operations on protected and sensitive areas. (e.g., IUCN protected area categories 1–4, world heritage sites, and biosphere reserves).
	EN26. Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored. Identify type of habitat affected and its status.

4. A draft protocol is currently under development for these indicators. Please see www.globalreporting.org for further details.

Environmental Performance Indicators (continued)

Core Indicators	Additional Indicators
Biodiversity (continued)	
	EN27. Objectives, programmes, and targets for protecting and restoring native ecosystems and species in degraded areas.
	EN28. Number of IUCN Red List species with habitats in areas affected by operations.
	EN29. Business units currently operating or planning operations in or around protected or sensitive areas.
Emissions, Effluents, and Waste	
EN8. Greenhouse gas emissions. (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Report separate subtotals for each gas in tonnes and in tonnes of CO_2 equivalent for the following: • direct emissions from sources owned or controlled by the reporting entity • indirect emissions from imported electricity heat or steam See WRI-WBCSD Greenhouse Gas Protocol.	**EN30.** Other relevant indirect greenhouse gas emissions. (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Refers to emissions that are a consequence of the activities of the reporting entity, but occur from sources owned or controlled by another entity. Report in tonnes of gas and tonnes of CO_2 equivalent. See WRI-WBCSD Greenhouse Gas Protocol.
EN9. Use and emissions of ozone-depleting substances. Report each figure separately in accordance with Montreal Protocol Annexes A, B, C, and E in tonnes of CFC-11 equivalents (ozone-depleting potential).	**EN31.** All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III, and VIII.
EN10. NOx, SOx, and other significant air emissions by type. Include emissions of substances regulated under: • local laws and regulations • Stockholm POPs Convention (Annex A, B, and C) – persistent organic pollutants • Rotterdam Convention on Prior Informed Consent (PIC) • Helsinki, Sofia, and Geneva Protocols to the Convention on Long-Range Trans-boundary Air Pollution	**EN32.** Water sources and related ecosystems/habitats significantly affected by discharges of water and runoff. Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends. See GRI Water Protocol.
EN11. Total amount of waste by type and destination. "Destination" refers to the method by which waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method.	
EN12. Significant discharges to water by type. See GRI Water Protocol.	
EN13. Significant spills of chemicals, oils, and fuels in terms of total number and total volume. Significance is defined in terms of both the size of the spill and impact on the surrounding environment.	
Suppliers	
	EN33. Performance of suppliers relative to environmental components of programmes and procedures described in response to Governance Structure and Management Systems section (Section 3.16).
Products and Services	
EN14. Significant environmental impacts of principal products and services. Describe and quantify where relevant.	
EN15. Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed. "Reclaimable" refers to either the recycling or reuse of the product materials or components.	

Environmental Performance Indicators (continued)

Core Indicators	Additional Indicators
Compliance	
EN16. Incidents of and fines for non-compliance with all applicable international declarations/conventions/treaties, and national, sub-national, regional, and local regulations associated with environmental issues. Explain in terms of countries of operation.	
Transport	
	EN34. Significant environmental impacts of transportation used for logistical purposes.
Overall	
	EN35. Total environmental expenditures by type. Explain definitions used for types of expenditures.

8

Conclusions

THE PICTURE OF the trade and environment conflict which emerges from this book is complex and diverse. The trade and environment conflict was depicted as a composite phenomenon—the product of multiple dilemmas, constituted by a myriad of institutional and discursive networks. The popular formulations of the trade and environment conflict, which are based on one-dimensional prisms—from binary ideological distinctions (eg, capitalism/environmentalism) to unitary institutional designations (prominently the WTO)—conceal this complexity and generate a "shallow" image of this conflict. The book's analytical framework, which was based on insights from systems theory (Luhmann 1995, 1989; Teubner 1993) and on new writings in the fields of ecology and biology (Lovelock 1991; Varela, Thompson, and Rosch 1991), provided the necessary tools for exposing the complex nature of this conflict. The main advantage of this framework lies in its capacity to decode the complex discursive labyrinth which underlies the trade-environment conflict. As such it provides an important tool in the effort to achieve a better understanding of the interaction between society and nature.

I have no intention of summarising in this short chapter the arguments that have been made throughout the book. What I would like to do, instead, is to re-examine the book's principal thesis regarding the pluralistic make-up of the trade-environment conflict, in light of the empirical analysis that was pursued in Chapters Three to Seven. I believe that this empirical analysis, which draws a rich map of *ecological (in)sensitivities* stretching over multiple transnational domains, provides a convincing confirmation of the diversity thesis, and demonstrates its value to policy-making. Consider, first, the theoretical aspect of the "diversity" thesis. These chapters highlight the important role that is played in this conflict by a variety of transnational institutions. These institutions include—in addition to the WTO and the two other Bretton Woods entities—standardisation bodies such as the ISO, the Codex Commission and the International Office of Epizootics,[856] private associations such as the

[856] See the discussion in chs 4 (sections 4.2 and 4.3.2(b) in particular) and 5 (section 5.3.4).

International Federation of Consulting Engineers (FIDIC) and the International Chamber of Commerce,[857] transnational corporations and financial companies,[858] hybrid bodies such as the Global Reporting Initiative (GRI)[859] and national courts.[860] As was depicted in detail in the previous chapters, these bodies do not submit to the rule of a single global body, and in that sense do not form a unified hierarchical system; neither do they follow the prescripts of a single ideology.

Similar diversity characterises the discursive setting in which the trade and environment conflict is experienced and deliberated. This argument was elaborated in Chapter One using two different perspectives: the first was based on a pluralistic reading of the nature/society dichotomy; the second was based on Luhmann's sociological theory—which presents the modern society as a composite entity, constituted by functionally differentiated sub-systems. This discursive diversity, I argued, endows the trade-environment conflict with a variety of meanings, generating multiple images of this conflict. Since the focus of this book was on the *legal aspect* of this conflict, I tried to expose how these multiple discourses influence different legal domains as they struggle with concrete dilemmas.

This examination demonstrated that the field of international economic law is influenced (and "populated") by a variety of themes and is not simply a mirror image of the global economic system. Thus, for example, the economic worldview is contrasted, in many instances, by a vision of sustainability. This was evident, for example, in the jurisprudence of the WTO Appellate Body (the *Shrimp* case) and in the GRI Guidelines. But these discursive modules are only part of a wide-ranging thematic spectrum. Thus, for example, Chapter Four exposed the key role which is played by science in the context of risk disputes with the WTO, and Chapter Five showed how the field of standard construction contracts is influenced by the peculiar engineering ethos. The empirical analysis also highlighted how the law reconstructs other disciplines. Thus the analysis of the GATT/WTO contrasted between the mercantilist ethos of the GATT, the neo-classical theory of international trade, and the field of environmental economics. The analysis of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) in Chapter Four showed how the legal interpretation of risk assessment as a complete process—which can and should identify *every* possible contingency and *assign* it with a *unique* probabilistic measure[861]—reflects a reconstruction

[857] See the discussion of FIDIC in ch 5. The International Chamber of Commerce was discussed in the context of its influential International Court of Arbitration (see ch 5, section 5.2.2).
[858] See the discussion in chs 6 and 7.
[859] See the discussion in ch 7 (section 7.3).
[860] See the discussion of transnational litigation in ch 6.
[861] Which can be formulated in either quantitative or qualitative terms.

of science. This reconstruction differs from the way in which science perceives itself (Maturana 1988; Forbes and Calow 2002) and is influenced by the pragmatic approach of the standardisation establishment. The discussion of international financial law showed how this field of law subjects the ideas of sustainability and environmental precaution to economic calculations encapsulated by the notion of *homo economicus*.[862]

But the pluralistic portrait of the trade-environment conflict constitutes more than a passive exercise in social observation.[863] It provides, I believe, important insights to policy formation. First, this portrait generates a more accurate picture of the problem we are facing and the difficulties of designing adequate trade and environment policies. The problem is not simply global capitalism but a multiplicity of ecological insensitivities, which are the product of a differentiated society. While economic forces play indeed a major role in this conflict, they are balanced and reconstructed by multiple cultural and institutional forces. Recognising the fact that as environmental motivated observers we are dealing with multiple problems is the first step in the attempt to design proper responses. But this also means that resolving the trade-environment conflict is difficult because it is not amenable to one-dimensional solutions.[864] Coping with this conflict requires, instead, an assemblage of solutions, which would be tailored to the particular contexts in which this conflict arises. This conclusion might be somewhat disappointing, but it fits better to the world in which we live.

The diversity thesis also allows one to design policy responses, which would have remained unnoticed under a one-dimensional view of the trade-environment conflict. First, observing the trade-environment conflict through a pluralistic prism does not just point to the different environmental flaws of varied domains; it also points out how the environmental cause can be advanced by invoking the unique institutional competencies of these domains. Thus, for example, in the context of the WTO one of the

[862] With the exception of the GRI Guidelines, see ch 7, section 7.3.

[863] Note that the empirical analysis carried in this book, and the complex map of ecological insensitivities that it produced, gives support to the general thesis of global legal pluralism. In that respect, the variability of this map is an indication of the deep structural differences that still characterise the field of international economic law.

[864] Thus, for example, changing the language of Article XX in a pro-environment way would have little (direct) influence on the behaviour of Multinational Enterprises (MNEs). Influencing these players require other tools, whether in the form of private instruments (eg, standard international contracts, private funding) or public ones (global code for MNEs, rules for public funding, national reporting rules in major stock exchanges, receptive approach to foreign litigants). Similarly it would be wrong to deal with the trade-environment conflict through a single theoretical (thematic) module. Thus, ch 2 demonstrated the shortcomings of the economic outlook (even the more enlightened environmental economics) and ch 4 highlighted the problematic of a naive deference to science.

major findings of this book concerns the innovative capacity of the WTO legal system, which has allowed it to develop novel legal solutions that depart from the GATT's mercantilist tradition. This capacity, I argued, could be strengthened by extending the institutional links between the WTO and global environmental organisations such as UNEP and non governmental organisations. In the context of the international construction field I pointed to the engineering ethos of FIDIC as a potential source of pro-environmental legal change.

Second, the pluralistic prism also exposed the various theoretical and institutional links between distinct domains of international economic law. These links can be problematic—as in the over-reliance of the WTO on the global standardisation establishment in risk-disputes (which shuts the law to other understandings of risks and risk-assessment), or the pro-corporate approach of international investment treaties and the law of transnational litigation. However, these links also point out new opportunities for legal change. Thus, for example, the link between the IMF and the WTO (Article XV:2 of the GATT 1994) was used in Chapter Three as a blue-print for structuring the links between the WTO and UNEP,[865] and the disharmony between the ethos of free trade and the doctrines that govern the field of transnational litigation (*forum non conveniens* and corporate entity) was used to justify a possible transformation of the latter doctrines.[866]

Maybe the final lesson of this study concerns the research agenda of the trade-environment conflict. This should be changed, abandoning both the obsessive focus on the WTO, and the over-reliance on economic models. Studying this conflict requires a contextualised approach and an assemblage of research tools. Only this kind of inquiry can address the multiple challenges that this conflict creates.

[865] See ch 3, section 3.5.1(a).
[866] See ch 6, sections 6.2.2 and 6.5.

Bibliography

ADB, 2002, Environment Policy of the Asian Development Bank: Asian Development Bank.

ADKINS, LIWAYWAY, and RICHARD GARBACCIO, 2002. 'The Effects of the Proposed FTAA on Global Carbon Emissions: A General Equilibrium, Analysis.' *Paper Presented at Second World Congress of Environmental and Resource Economics, Monterey, CA, June 2002*.

AHN, DUKGEUN, 1999. 'Environmental Disputes in the GATT/WTO: Before and After US — Shrimp Case' *Michigan Journal of International Law* 20:819–69.

American-Lands-Alliance, Center for International Environmental Law, Consumer's Choice Council, Defenders of Wildlife, Earthjustice, Friends of the Earth US, National Wildlife Federation, Institute for Agriculture & Trade Policy, and Sierra Club, 2002. Collective Comments re: Doha Ministerial Declaration.

ANDERSON, KYM, 1992. 'Effects on the Environment and Welfare of Liberalizing World Trade: the Cases of Coal and Food' in K Anderson and R Blackhurst (eds), *The Greening of World Trade Issues*, (Ann Arbor, University of Michigan Press).

———, 1998 'Environmental and Labor Standards: What Role for the WTO?' in A O Krueger (ed) *The WTO as an International Organization*, (Chicago, The University of Chicago Press).

ANGELL, MARCIA, 1996. *Science on Trial: the Clash of Medical Evidence and the Law in the Breast Implant Case* (New York, WW Norton & Co).

ANTWEILER, WERNER, BRIAN R COPELAND and SCOTT M TAYLOR 1998. 'Is Free Trade Good For the Environment' *National Bureau of Economic Research Working Paper, No 6707, August 1998*.

ARDEN-CLARKE, CHARLES, 1992. International Trade, GATT, and the Environment: WWF International.

ARNOLDI, JAKOB, 2001 'Niklas Luhmann: an Introduction' *Theory, Culture and Society* 18 (1):1–13.

ARROW, KENNETH, BERT BOLIN, ROBERT COSTANZA, *et al* 1995. 'Economic Growth, Carrying Capacity, and the Environment' *Science* 268:520–21.

ASB, 1995 'Statement of Principles For Financial Reporting; Exposure Draft' London, Accounting Standards Board.

AYRES, IAN, and ROBERT GERTNER, 1992 'Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules' *Yale Law Journal* 101:729–73.

BAER, M DELAL, and SIDNEY WEINTRUB (eds) 1994. *The NAFTA Debate: Grappling With Unconventional Trade Issues* (Boulder, CO, Lynne Rienner publishers).

BAGWELL, KYLE, PETROS C MAVROIDIS, and ROBERT W STAIGER, 2002. 'It's a Question of Market Acceess' *American Journal of International Law* 96:56–76.

BAGWELL, KYLE, and ROBERT W STAIGER, 1999 'Domestic Policies, National Sovereignty And International Economic Institutions' *NBER Working Paper 7293*.

———, 2001 'National Sovereignty in the World Trading System: Labor, Environment, and the WTO' *Harvard International Review* 22 (4):54–59.

BALTON, DAVID, 1999 'Setting the Record Straight on Sea Turtles and Shrimp, Remarks to the Eleventh Annual Judicial Conference of the U.S. Court of International Trade on Social Justice Litigation' The CIT and WTO, New York, 7 December 1999, www.state.gov/www/policy_remarks/1999/991207_balton_turtles.html.

BANKS, JEFFREY, S, and BARRY R WEINGAST, 1992 'The Political Control of Bureaucracies Under Asymmetric Information' *American Journal of Political Science* 36 (2):509–24.

BANSAL, PRATIMA, and KENDALL ROTH, 2000 'Why Companies Go Green: A Model of Ecological Responsiveness' *Academy of Management Journal* 43 (4):717–36.

BARNES, MARTIN, 1996 'The New Engineering Contract—An Update' *The International Construction Law Review* 13:89–96.

BARNUM, HOWARD, 1994. 'The Economic Burden of the Global Trade in Tobacco' Paper Presented at the 9th World Conference on Tobacco and Health (available in *www.worldbank.org*).

BARRET, SCOTT, 1997 'Is Economic Growth Good For the Environment' *Economic Outlook* 21 (2):18–23.

BATE, ROGER, 1998 'A Myth Stubbed Out' *Financial Times*, 20 April 1998, 18.

BEGHIN, JOHN, BRAD BOWLAND, SEBASTIEN DESSUS, *et al*, 2002 'Trade Integration, Environmental Degradation, and Public Health in Chile: Assessing the linkages' *Environment and Development Economics* 7:45–71.

BEGHIN, JOHN, and JEAN-CHRISTOPHER BUREAU, 2001 'Quantification of Sanitary, Phytosanitary, and Technical Barriers to Trade for Trade Policy Analysis' *Iowa State University—Center for Agricultural and Rural Development, Working Paper 01–WP 291*.

BEGHIN, JOHN, and MICHEL POTIER, 1997 'Effects of Trade Liberalisation on the Environment in the Manufacturing Sector' *The World Economy* 20 (4):435–56.

BERGER, KLAUS P, 1997 'The *Lex Mercatoria* Doctrine and the UNIDROIT Principles of International Commercial Contracts' *Law and Policy in International Business* 28 (4):943–88.

BERGH, VAN DEN, and CJM JEROM (eds) 1999. *Handbook of Environmental and Resource Economics*. (Cheltenham, UK, Edward Elgar).

BERMAN, PAUL SCHIFF, 2002 'The Globalization of Jurisdiction' *University of Pennsylvania Law Review* 151:311–539.

BHAGWATI, JAGDISH, 2000 'On Thinking Clearly About the Linkage Between Trade and the Environment' *Environment and Development Economics* 5 (4):485–96.

———, 2002 'Afterword: The Question of Linkage.' *The American Journal International Law* 96:56.

———, 2002 '*Free Trade Today* (Princeton, Princeton University Press).

BHALA, RAJ, and DAVID A GANTZ, 2002. WTO Case Review 2001, *Arizona Journal of International and Comparative Law* 19:457.

BIGGS, JENNIFER L, 2002. Statement before the Committee on the Judiciary United States Senate — Hearing on 'Asbestos Litigation'.

BINMORE, KEN, 1993 'De-Bayesing Game Theory' in K Binmore, A Kirman and P Tani (eds), *Frontiers of Game Theory*, (Cambridge, Mass, MIT Press).

BIRNIE, PATRICIA W, and ALAN E BOYLE, 2002. *International Law and the Environment* (Oxford, Oxford University Press).

BISWAS, ASIT K 1992 'Summary and Recommendations' in AK BISWAS and SBC. Agarwal (eds), *Environmental Impact Assessment for Developing Countries*, (Oxford, Butterworth-Heinemann).

BISWAS, ASIT K, and SBC. AGARWAL (eds) 1992. *Environmental Impact Assessment For Developing Countries* (Oxford, Butterworth-Heinemann).

BLACKORBY, CHARLES, 1990 'Economic Policy in a Second-Best Environment' *The Canadian Journal of Economics* 23 (4):748–71.

BLUMBERG, PHILLIP I, 2001 'Accountability of Multinational Corporations: The Barriers Presented by Concepts of the Corporate Juridical Entity' *Hastings International and Comparative Law Review* 24:297–320.

BOHRINGER, CHRISTOPH, and CARTEN VOGT, 2003 'Economic and Environmental Impacts of the Kyoto Protocol' *Canadian Journal of Economics* 36 (2):475–94.

BOOEN, PETER L, 2000 'The Three Major New FIDIC's Books' *The International Construction Law Review* 17 (1):24–41.

BORDO, MICHAEL D, BARRY EICHENGREEN and DOUGLAS A IRWIN, 1999 'Is Globalization Today Really Different than Globalization a Hundred Years Ago?' *NBER Working Paper 7195*.

BOTCHWEY, KWESI, 2000. Financing For Development: Current Trends and Issues for the Future. (Geneva, United Nations Conference on Trade and Development).

BOUGEN, CHRISTOPHER D, 2001 'Time to Revisit Forum Non Conveniens in the UK? Group Josi Reinsurance Co v UGIC' *Victoria University of Wellington Law Review* 32 (3):705–14.

BOURGINE, PAUL, and FRANCISCO J VARELA, 1992 'Towards a Practice of Autonomous Systems' in FJ VARELA and P BOURGINE (eds) *Toward a Practice of Autonomous Systems: Proceedings of the First European Conference on Artificial Life* (Cambridge, Mass, The MIT Press).

BOWCOCK, JOHN, 1998 'The Four New FIDIC Forms of Contract — Introduction' Paper read at FIDIC New Contracts Launch Seminar Series (Sept–Dec 1998).

BRACK, DUNCAN, (ed) 1998. *Trade and Environment: Conflict or Compatibility?* (London, Earthscan).

BRIDGEMAN, NATALIE LAURA, 2001 'World Bank Reform in the "Post-Policy" Era.' *Georgetown International Environmental Law Review* 13:1013–46.

BUHR, N, and M FREEDMAN, 2001 'Culture, Institutional Factors and Differences in Environmental Disclosure between Canada and the United States' *Critical Perspectives in Accounting.* 12 (3):293–312.

BUNNI, NAEL G, 1991. *The FIDIC Form of Contract: The Fourth Edition of the Red Book* (Oxford, Blackwell Science Ltd).

CALATAYUD-GONZALEZ, ALEXANDRA, and GABRIELLE MARCEAU, 2002 'The Relationship between the Dispute-Settlement Mechanisms of MEAs and those of the WTO' *RECIEL* 11 (3):275–286.

CAMERON, JAMES, 1998 'The CTE: A Renewed Mandate for Change or More Dialogue?' in D Brack (ed) *Trade and Environment: Conflict or Compatibility*, (London, Earthscan).

CANAN, PENELOPE, and NANCY REICHMAN, 2002. *Ozone Connections: Expert Networks in Global Environmental Governance*. (Sheffield, Greenleaf Publishing).

CANTER, LARRY, and RAY CLARK, 1997 'NEPA Effectiveness—A Survey of Academics' *Environmental Impact Assessment Review* 17:313–27.

CARTER, LAURENCE W, and GARY BOND, 1996 *Financing Private Infrastructure* (Washington, DC, The World Bank and International Finance Corporation).

CASSEL-GINTZ, M, and G PETSCHEL-HELD, 2000 'GIS-based Assessment of the Threat to World Forests by Patterns of Non-Sustainable Civilisation Nature Interaction' *Journal of Environmental Management* 59:279–98.

CAVIGLIA, JILL L, and JAMES KAHN, 2001 'Diffusion of Sustainable Agriculture in the Brazilian Tropical Rain Forests: A Discrete Choice Analysis' *Economic Development and Cultural Change*:311–33.

CEC, 2002 'Free Trade and the Environment: the Picture Becomes Clearer' (Montréal, Commission for Environmental Cooperation of North America).

CHAI, JOSEPH CH, 2002 'Trade And Environment: Evidence From China's Manufacturing Sector' *Sustainable Development* 10 (1):25–35.

CHARNOVITZ, STEVE, 1994 'Free Trade, Fair Trade, Green Trade: Defogging the Debate' *Cornell International Law Journal* 27 (3):459–525.

———, 1996 'Participation of Nongovernmental Organizations in the World Trade Organization' *University of Pennsylvania Journal of International Economic Law* 17:331–59.

CHESEBRO, BRUCE, 1998 'BSE and Prions: Uncertainties About the Agent' *Science* 279:42–43.

CLAPP, JENNIFER, 1998 'The Privatization of Global Environmental Governance: ISO 14000 and the Developing World' *Global Governance* 4:295–316.

CLARKE, HAROLD, D, and MARIANNE C STEWART, 1997 'Green Words and Public Deeds: Environmental Hazards and Citizen Response in Canada and the United States' in A Frizzell and JH Pammett (eds), *Shades of Green: Environmental Attitudes in Canada and Around the World*, (Canada, Carleton University Press).

Codex-Commission, 2003 'Report of the Eighteenth Session of the Codex-Committee on General Principles, Paris, France, 7–11 April 2003, Codex Alimentarius Commission.

COLE, MA, AJ RAYNER, and JN BATES, 1998 'Trade Liberalisation and the Environment: the Case of the Uruguay Round'. *The World Economy* 21 (3):337–47.

COLLEDGE, BARBARA, 2000 'Obligations of Good Faith in Partnering of UK Construction Contracts' *The International Construction Law Review* 17 (1):175–201.

COLLINS, HUGH, 2000 'Formalism and Efficiency: Designing European Commercial Contract Law' *European Review of Private Law* 1:211–35.

CORBETT, E C, 1991 *FIDIC 4th — A Practical Legal Guide: A Commentary On The International Construction Contract*. (London, Sweet and Maxwell).

CROWSON, PHILIP, 1998 'Environmental and Community Issues and the Mining Industry' *Natural Resources Forum* 22 (2):127–30.

DAILAMI, MANSOOR, and DANNY LEIPZIGER, 1998 'Infrastructure Project Finance and Capital Flows: A New Perspective'. *World Development* 26 (7):1283–1298.

DAILY, GRETCHEN *et al*, 2000 'The Value of Nature and the Nature of Value' *Science* 289:395–96.

DALY, HERMAN E, 2002 'Sustainable Development: Definitions, Principles, Policies' *Invited Address, World Bank, 30 April 2002, Washington DC*.

DESSUS, SEBASTIAN, and MAURIZIO BUSSOLO, 1998 'Is There a Trade-off Between Trade Liberalization and Pollution Abatement: A Computable General Equilibrium Assessment Applied to Costa Rica' *Journal of Policy Modelling* 20 (1):11–31.

DEZALAY, YVES, and BRYANT GARTH, 1995 'Merchants of Law as Moral Entrepreneurs: Constructing International Justice from the Competition for Transnational Business Disputes' *Law & Society Review* 29 (1):27–64.

DIPPER, BEN, CARYS JONES, and CHRISTOPHER WOOD, 1998 'Monitoring and Post-auditing in Environmental Impact Assessment: A Review' *Journal of Environmental Planning and Management* 41 (6):731–48.

DOGAUCHI, MASATO, 2001 'The Draft Convention on Jurisdiction and Foreign Judgments in Civil and Commercial Matter: a View from the Far East' *Paper presented at a Seminar Organized by the UIA Commission on Private International Law, Edinburgh, 20–21 April 2001.*

DORF, MICHAEL C, and CHARLES F SABEL, 1998 'A Constitution of Democratic Experimentalism' *Columbia Law Review* 98 (2):267–473.

DOUGLAS, MARY, 1990 'Risk as a Forensic Resource' *Daedalus: Journal of the American Academy of Arts and Sciences* 119 (4):1–16.

DUFFY, MARTYN, 1995 'Advertising in Demand Systems for Alcoholic Drinks and Tobacco: A Comparative Study' *Journal of Policy Modelling* 17 (6):557–77.

DUNHAM, DOUGLAS W, and ERIC F GLADBACH, 1999 'Forum Non Convenien and Foreign Plaintiffs in the 1990s' *Brooklyn Journal of International Law* 24:665–703.

DUTSON, STUART, 1999 'Product Liability and Private International Law: Choice of Law in Tort in England' *American Journal of Comparative Law* 47:129–44.

EBRD, 1996 *Environmental Procedures*. (London, European Bank for Reconstruction and Development).

EDER, KLAUS, 1996. *The Social Construction of Nature: A Sociology of Ecological Enlightenment*. Translated by M Ritter (London, Sage).

EDERINGTON, JOSH, ARIK LEVINSON and JENNY MINIER, 2003 'Footloose and Pollution Free' *NBER Working Paper 9718*.

EDERINGTON, JOSH and JENNY, MINIER, 2003 'Is Environmental Policy A Secondary Trade Barrier? An Empirical Analysis' *Canadian Journal of Economics* 36 (1):137–54.

Editor-Note. 1949 'Private Law Making by Trade Associations' *Harvard Law Review* 62:1346–70.

EGAN, JOHN, 1998 'Rethinking Construction: Report of the Construction Task Force to the Deputy Prime Minister, John Prescott, On the Scope for Improving the Quality and Efficiency of UK Construction' (London, Department of the Environment Transport and the Regions).

EHLERMANN, CLAUS-DIETER, 2003 'Experiences from the WTO Appellate Body' *Texas International Law Journal* 38:469–88.

EIRIS, 1998 'Money & Ethics: a Guide to Pensions, PEPs, Endowment Mortgages and Other Investment Plans' (London, Ethical Investment Research Service (EIRIS)).

EPA-VICTORIA, 2003 'Risk, the Environment and the Role of the Insurance Industry' (Victoria, Australasian Advisory Committee on Insurance and UNEP Finance Initiatives).

ESTY, DANIEL, 1999 'Why the World Trade Organization Needs Environmental NGOs' *International Centre for Trade and Sustainable Development Working Paper, available at www.cid.harvard.edu/cidtrade*.

ESTY, DANIEL C, 1994 *Greening the GATT: Trade, Environment, and the Future* (Washington, DC, Institute for International Economics).

EU-Commission, 2000 White Paper on Environmental Liability (Brussels, European Commission).

———, 2001 White Paper: Strategy for a future Chemicals Policy (Brussels, European Commission).

FAUCHEUX, SYLVIE, GERALDINE FROGER AND GIUSEPPE MUNDA, 1997 'Toward an Integration of Uncertainty, Irreversibility, and Complexity in Environmental Decision Making' in JCJM van den Bergh and J van der Straaten (eds), *Economy and Ecosystems in Change: Analytical and Historical Approaches*, (Cheltenham, Edward Elgar).

FELDMAN, HEIDI LI, 1995 'Science and Uncertainty in Mass Exposure Litigation' *Texas Law Review* 74:1–48.

FERRANTINO, MICHAEL J, 1997 'International Trade, Environmental Quality and Public Policy' *The World Economy* 20 (1):43–72.

FERRANTINO, MICHAEL J, and LINDA A LINKINS, 1998 'The Effect of Global Trade Liberalization on Toxic Emissions in Industry' *U.S. International Trade Commission (Office of Economics), Working Paper No. 96–11–A*.

FIDIC, 1998 Engineering Our Future (Lausanne, FIDIC).

———, 1998 New Documents Ready For Edmonton *FIDIC Quarterly Report* 1998/2:2.

———, 1999 Sustainable Development in the Consulting Industry (Lausanne, International Federation of Consulting Engineers, Sustainable Development Task Group).

———, 2002 Sustainable Development in the Consulting Engineering Industry (Lausanne, International Federation of Consulting Engineers — FIDIC Sustainable Development Task Force).

FINGER, MATTHIAS, AND JAMES KICOYNE, 1997 'Why Transnational Corporations are Organizing to "Save the Global Environment"'. *The Ecologist* 27 (4):138–42.

FORBES, VALERY E, and PETER CALOW, 2002 'Extrapolation in Ecological Risk Assessment: Balancing Pragmatism and Precaution in Chemical Controls Legislation' *BioScience*:249–57.

FRANCO, NICHOLAS C, 2001 'Corporate Environmental Disclosure: Opportunities to Harness Market Forces to Improve Corporate Environmental Performance' *Paper presented at the American Bar Association Conference on Environmental Law, Keystone Colorado, 8–11 March 2001.*

FRIEDMAN, ANDREW L, and SAMANTHA MILES, 2001 'Socially Responsible Investment and Corporate Social and Environmental Reporting in the UK: An Exploratory Study' *British Accounting Review* 33 (523–48).

FRIENDS-OF-THE-EARTH, 1992 'Fools' Gold—The General Agreement on Tariffs and Trade and the threat of unsustainable development' (London).

———, 1995 Intellectual Property Rights and the Biodiversity Convention: the Impact of GATT. (Luton).

FRIZZELL, ALAN, 1997 'Environmental Attitudes Around the World' in A Frizzell and JH Pammett (eds), *Shades of Green: Environmental Attitudes in Canada and Around the World*, (Canada, Carleton University Press).

GADGIL, MADHAV, and RAMACHANDRA GUHA, 1995 *Ecology and Equity: the Use and Abuse of Nature in Contemporary India* (New Delhi, Penguin Books India).

GALANTER, MARC, 1994 'The Transnational Traffic in Legal Remedies' in S Jasanoff (ed), *Learning from Disaster: Risk Management after Bhopal*, (Philadelphia, University of Pennsylvania Press).

GERADIN, DAMIEN, 1998 'Lessons From the European Experience' in D Brack (ed) *Trade and Environment: Conflict or Compatibility* (London, Earthscan).

GERRODETTE, TIM, and JAUME FORCADA, 2002 'Estimates of Abundance of Northeastern Offshore Spotted, Coastal Spotted, and Eastern Spinner Dolphins in the Eastern Tropical Pacific Ocean' (La Jolla, California, Southwest Fisheries Science Center).

GIDDENS, ANTHONY, 1998 'Risk Society: the Context of British Politics'. in J FRANKLIN (ed) *The Politics of Risk Society*, (Cambridge, Polity Press).

GOLDMAN, PATTI, and MARTIN WAGNER, 1999 'Trading Away Public Health' (San Francisco, CA, Earthjustice Legal Defense Fund (www.earthjustice.org)).

GREEN-PARTY, 1999 European Election Manifesto 1999 (London, Green Party).

GREENE, JANEY, 1998 'Choice of Law in Tort—The Song that Never Ends' *Federal Law Review* 26:349–69.

GRI, 2002 'Sustainability Reporting Guidelines' (Amsterdam, Global Reporting Initiative).

GROSSMAN, GENE M, and ALAN B KRUEGER, 1993 'Environmental Impacts of a North American Free Trade Agreement' in PM Garber (ed) *The Mexico-U.S. Free Trade Agreement*, (London, MIT Press).

GUISLAIN, PIERRE, and MICHEL KERF, 1995 'Concessions—The Way to Privatize Infrastructure Sector Monopolies'. *The World Bank Public Policy for the Private Sector Series (available in www.worldbank.org)* October 1995.

GUSTAFSSON, BO, 1998 'Scope and Limits of the Market Mechanism in Environmental Management' *Ecological Economics* 24:259–74.

HABERMAS, JURGEN, 1996a *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. Translated by W Rehg (Cambridge, Mass, MIT Press).

———, 1996b 'Paradigms of Law' *Cardozo Law Review* 17 (4–5):771–84.

HAHN, ROBERT W, and ROBERT N STAVINS, 1992 'Economic Incentives for Environmental Protection: Integrating Theory and Practice' *American Economic Review* 82 (2):464–68.

HALEY, USHA CV, 2001 *Multinational Cosporations in Political Environments: Ethics, Values and Strategies* (New Jersey, World Scientific).

HAMMONDS, HOLLY, 1990 'A US Perspective on the EC Hormone Directive'. *Michigan Journal Of International Law* 11:840–44.

HARREMOES, POUL, DAVID GEE, MALCOLM MACGARVIN, *et al*, 2001 'Late Lessons From Early Warnings: The Precautionary Principle 1896–2000' (Copenhagen, European Environment Agency (EEA)).

HARVEY, DAVID, 1998 'Marxism, Metaphors and Ecological Politics'. *Monthly Review* 49 (11):17–30.

HINDLEY, BRIAN and PATRICK A MESSERLIN, 1996 *Antidumping Industrial Policy: Legalized Protection in the WTO and What to Do About It* (Washington, DC, The AEI Press).

HOCHSTRASSER, DANIEL, 1994 'Choice of Law and "Foreign" Mandatory Rules in International Arbitration' *Journal of International Arbitration* 11 (1):57–86.

HOEDEMAN, OLIVIER, BELEN BALANYA, ANN DOHERTY, *et al*, 1998 'MAIgalomania: The New Corporate Agenda' *The Ecologist* 28 (3):154–61.

HOLLAND, LEIGH and YEE-BOON FOO, 2003 'Differences in Environmental Reporting Practices in the UK and the US: the Legal and Regulatory Context' *The British Accounting Review* 35:1–18.

HORSTMANN, IGNATIUS J, JAMES R MARKUSEN AND JACK ROBLES, 2001 'Multi-Issue Bargaining and Linked Agendas: RIcardo Revisited or No Pain No Gain'. *NBER Working Paper 8347*.

HOWSE, ROBERT, 2002 'The Appellate Body Rulings in the Shrimp/Turtle Case: A New Legal Baseline for the Trade and Environment Debate' *Columbia Journal of Environmental Law* 27:491.

HUBER, PETER W, 1991 *Galileo's Revenge: Junk Science In the Courtroom* (New York, Basicbooks).

HUDEC, ROBERT E, 1996 'GATT Legal Restraints on the Use of Trade Measures against Foreign Environmental Practices' in RE Hudec and J Bhagwati (eds), *Fair Trade and Harmonization: Prerequisites for Free Trade?*, (Cambridge, Mass, The MIT Press).

HUGHES, WILL and DAVID GREENWOOD, 1996 'The Standardisation of Contracts For Construction' *International Construction Law Review* 13 (2):196–206.

ICC, 1991 'Extracts of ICC Arbitral Awards on Construction Contracts Referring to the F.I.D.I.C Conditions' *The ICC International Court of Arbitration Bulletin* 2 (1):15–31.

———, 2003 'ICC's expectations regarding a WTO investment agreement' (Paris, International Chamber of Commerce).

ICCA, 2003 'Responsible Care Status Report 2002' (Brussels, The International Council of Chemical Associations).

IISD, 1999 WTO's High-Level Symposium on Trade and Environment, 15–16 March 1999 (www.wto.org/wto/hlms/sumhlenv.htm). (Geneva, International Institute for Sustainable Development).

ILA, 2002 First Report. New Delhi, International Law Association (ILA Committee on Transnational Enforcement of International Law).

IRWIN, DOUGLAS A, 1992 'Strategic Trade Policy and Mercantilist Trade Rivalries' *The American Economic Review, Papers and Proceedings of the 104th Meeting of the American Economic Association* 82 (2):134–39.

ISO, 2002 ISO Survey of ISO 9000 and ISO 14001 Certificates: Eleventh Cycle 2001 (Geneva, International Organization for Standardization).

———, 2003 ISO Survey of ISO 9000 and ISO 14001 Certificates: Twelfth Cycle—2002 (Geneva, International Organization for Standardization).

JACKSON, JOHN H, 1997 *The World Trading System: Law and Policy of International Economic Relations*. 2nd edn (Cambridge, Mass, The MIT Press).

———, 1990 *Restructuring the GATT System* (London, The Royal Institute of International Affairs).

JAFFE, ADAM B, STEVEN R PETERSON, PAUL R PORTNEY, *et al*, 1995 'Environmental Regulation and the Competitiveness of US Manufacturing: What Does the Evidence Tell Us?' *Journal of Economic Literature* 33:132–63.

JAMISON, ANDREW, 1996 'The Shaping of the Global Environmental Agenda: the Role of Non-Governmental Organisations' in A Irwin and B Wynne (eds), *Misunderstanding Science? The Public Reconstruction of Science and Technology*, (Cambridge, Cambridge University Press).

JARVIN, SIGVARD, 1984 'International Chamber of Commerce Court of Arbitration: Award Rendered in Case NO 3902 in 1984' *International Construction Law Review* 2:49–53.

JASANOFF, SHEILA, 2001 'Judicial Fictions: the Supreme Court's Quest for Good Science' *Society* May/June:27–36.

———, (ed) 1994 *Learning from Disaster: Risk Management after Bhopal*. (Philadelphia, University of Pennsylvania Press).

JAYNES, GORDON L, 1999 'FIDIC's 1999 Editions of Conditions of Contract For "Plant and Design-Build" and "EPC Turnkey Contract": Is the "DAB" Still a Star?' *International Construction Law Review* 17:42–46.

JELLINEK, STEVEN D, 1981 'On the Inevitability of Being Wrong' *Annals New York Academy of Science* 363:43–47.

JENSEN, MICHAEL FRIIS, 2002 'Reviewing the SPS Agreement: A Developing Country Perspective' *Centre for Development Research Working Paper 02.3*.

JEUCKEN, MARCEL, 2001 *Sustainable Finance and Banking: the Financial Sector and the Future of the Planet*. (London, Erathscan).

JHA, RAGHBENDRA and JOHN WHALLEY, 1999 'The Environmental Regime in Developing Countries' *Paper presented at a NBER/FEMI conference on 'Distributional and Behavioural Effects of Environmental Policy', Milan, 11–12 June 1999, available at www.cid.haravard.edu/cidtrade.*

JOERGES, CHRISTIAN, HARM SCHEPEL and ELLEN VOS, 1999 'The Law's Problems with the Involvement of Non-Governmental Actors in Europe's Legislative Processes: the Case of Standardization under the 'New Approach' *EUI Working Papers, Law No 99/9*.

JONES, KATHRYN, 2000 Study on Environmental Reporting by Companies (Brussels, European Commission).

JORDAN, GRANT, 1998 'Indirect Causes and Effects in Policy Change: the Brent Spar Case' *Public Administration* 76:713–40.

JORDAN, GRANT, and WILLIAM A MALONEY, 1998 'Manipulating Membership: Supply-Side Influences on Group Size' *British Journal of Political Science* 28:389–409.

JOSEPH, HENRICH, ROBERT BOYD, SAM BOWLES, *et al*, 2001 'In search of Homo Economicus: Experiments in 15 Small-Scale Societies' *American Economic Review* 91 (2):73–79.

JUENGER, FRIEDRICH K, 1996 'Environmental Damage' in C McLachlan and P Nygh (eds), *Transnational Tort Litigation: Jurisdictional Principles*, (Oxford, Clarendon Press).

KARAYANNI, MICHAEL, 2002 'Forum Conveniens Considerations: Journey to the End of the Second Milleniu, and Beyond (in Hebrew)' *Bar-Ilan Law Studies* 19 (1):67–102.

KESSLER, J J, and M VAN DORP, 1998 'Structural Adjustment and the Environment: the Need for an Analytical Methodology' *Ecological Economics* (27):267–281.

KIM, HYUN CHONG, 1999 'The WTO Dispute Settlement Process: A Primer'. *Journal of International Economic Law* 2 (3):457–76.

KING, ANDREW A, and MICHAEL J LENOX, 2000 'Industry, Self-Regulation Without Sanctions: The Chemical Industry's Responsible Care Program' *Academy of Management Journal* 43 (4):698–717.

KLASSEN, GER, and ANDRIES NENTJES, 1997 'Creating Markets for Air Pollution in Europe and the USA' *Environmental and Resource Economics* 10:125–46.

KLEIN-CHESIVOIR, CAROLE, 1990 'Avoiding Environmental Injury: the Case for Widespread Use of Environmental Impact Assessments in International Development Projects'. *Virginia Journal of International Law* 30:517–51.

KONAR, SHAMEEK, and MARK A COHEN, 1997 'Information as Regulation: the Effect of Community Right to Know Laws on Toxic Emissions' *Journal of Environmental Economics and Management* 39:109–24.

KOOP, GARY, and LISE TOLE, 1999 'Is there an Environmental Kuznets Curve for Deforetstation' *Journal of Development Economics* 58:231–44.

KRAMER, LUDWIG, 1993 'Environmental Protection and Article 30 EEC Treaty' *Common Market Law Review* 30:111–43.

KRUGMAN, PAUL, 1997 'What Should Trade Negotiators Negotiate About?' *Journal of Economic Literature* 35:113–20.

LALL, SANJAYA, 1998 'Changing Perceptions of Foreign Direct Investments in Development' in PKM Tharakan and DVD Bulcke (eds), *International Trade, Foreign Direct Investment and the Economic Environment*, (London, Macmillan).

LANE, PATRICK, 1998 'Turtle Wars: Greenery and Globalization Do Not Mix' *The Economist*, 3 October.

LATOUR, BRUNO, 1998 'To Modernize or to Ecologize? That is the Question' in N Castree and B Willems-Braun (eds), *Remaking Reality: Nature at the Millenium* (London, Routledge).

———, 1999 *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, Mass, Harvard University Press).

LEE, D, 2000 'The society of society: The grand finale of Niklas Luhmann' *Sociological Theory* 18 (2):320–30.

LEE, HIRO, and DAVID ROLAND-HOLST, 1997 'The Environment and Welfare Implications of Trade and Tax Policy' *Journal of Development Policy* 52:65–82.

LEFEBER, RENE, 1996 *Transboundary Environmental Interference and the Origin of State Liability* (The Hauge, Kluwer Law International).

LENTON, TIMOTHY M, 1998 'Gaia and Natural Selection' *Nature* 394:439–47.

LEVIEN, LAWRENCE D, 1971 'A Structural Model for a World Environmental Organization: the ILO experience'. *The George Washington Law Review* 40:464–95.

LEVINSON, ERIC, 1996 'Environmental Regulations and Industry Location: International and Domestic Evidence' in J Bhagwati and RE Hudec (eds), *Fair Trade and Harmonization*, (Cambridge, Mass, MIT Press).

LEWIS, ALAN, 2002 *Morals, Markets and Money: Ethical, Green and Socially Responsible Investing*. (London, Financial Times/Prentice Hall).

LEWIS, ALAN, and CRAIG MACKENZIE, 2000 'Support for Investor Activism among U.K Ethical Investors' *Journal of Business Ethics* 24:215–22.

LINE, MARK, HOPE HAWLEY and RIVA KRUT, 2002 'The Development of Global Environmental and Social Reporting' *Corporate Environmental Strategy)* 9 (1):69–78.

LLOYD, HUMPHREY, 1996 'Prevalent Philosophies of Risk Allocation—An Overview' *International Construction Law* 13 (4):502–48.

LOVELOCK, JAMES E, 1989 'Geophysiology, the Science of Gaia'. *Review of Geophysics* 27 (2):215–222.

———, 1990 'Hands Up for the Gaia Hypothesis' *Nature* 344:100–102.
———, 1991 *Gaia: the Practical Science of Planetary Medicine*. (London, Gaia Books).
LU, J, 1997 'Jurisdiction Over Non-State Activity Under the Alien Tort Claims Act' *Columbia Journal of Transnational Law* 35 (2):531–49.
LUHMANN, NIKLAS, 1976 'A General Theory of Organized Social Systems' in G Hofstede and MS Kassem (eds), *European Contributions to Organization Theory*, (Amsterdam, Van Gorcum).
———, 1981 'Communication About the Law in Interaction Systems' in K Knorr-Cetinca and AV Cicourel (eds), *Advances in Social Theory and Methodology: Toward and Integration of Micro and Macro-Sociologies*, (Boston, Routledge).
———, 1982 'Interaction, Organization, and Society' in N Luhmann (ed), *The Differentiation of Society*, (New York, Columbia University Press).
———, 1985 'The Self-Reproduction of Law and its Limits' in G Teubner (ed), *Dilemmas of Law in the Welfare State*, (Berlin, de Gruyter).
———, 1988 'Closure and Openness: On Reality in the World of Law' in G Teubner (ed), *Autopoietic Law: a New Approach to Law And Society*, (Berlin, de Gruyter).
———, 1989 *Ecological Communication,* translated by J Bednarz Jr (Oxford, Polity Press).
———, 1990a 'The Paradox of System Differentiation and the Evolution of Society' in JC Alexander and P Colomy (eds), *Differentiation Theory and Social Change: Comparative and Historical Perspectives*, (New York, Columbia University Press).
———, 1990b 'The World Society as a Social System' in N LUHMANN (ed), *Essays on Self-Reference*, (New York, Columbia University Press).
———, 1992a 'Operational Closure and Structural Coupling: the Differentiation of the Legal System' *Cardozo Law Review* 13:1419–41.
———, 1992b 'What is Communication?' *Communication Theory* 2 (3):251–59.
———, 1993 *Risk: A Sociological Theory*. (Berlin, de Gruyter).
———, 1994 '"What Is the Case" and "What Lies Behind It?" The Two Sociologies and the Theory of Society' *Sociological Theory* 12 (2):126–39.
———, 1995 *Social Systems* (Stanford, California, Stanford University Press).
———, Unpublished *Society's Law (unpublished draft of a translation),* translated by R Ziegert and K A Ziegert.
LUHMANN, NIKLAS, and DAVID SCIULLI, 1994 'An Interview With Niklas Luhmann'. *Theory Culture & Society* 11 (2):37–68.
MABEY, NICK, RICHARD MCNALLY, and LYUBA ZARSKY, 2003 'Foreign Direct Investment and the Environment: From Pollution Havens to Sustainable Development' (London, WWF-UK).
MAHER, IMELDA, 2002 'Competition Law in the International Domain: Networks as a New Form of Governance' *Journal of Law and Society* 29 (1):111–36.
MALER, KARL-GORAN, 1991 'International Environmental Problems' in D Helm (ed) *Economic Policy Towards the Environment*, (Oxford, Blackwell Publishers).
MANI, MUTHUKUMARA, and DAVID WHEELER, 1998 'In Search of Pollution Havens? Dirty Industry in the World Economy, 1960–1995' *Journal of Environment & Development* 7 (3):215–47.
MANN, HOWARD, 2001 'Private Rights, Public Problems: A Guide to NAFTA's Controversial Chapter On Investor Rights' (Winnipeg, Manitoba: International Institute for Sustainable Development and World Wildlife Fund).

MATTHIESSEN, PETER, 1999 'Global Corporate Power — Resist It If You Can' *Financial Times (Weekend)*, 29–30 May 1999, IX.

MATURANA, HUMBERTO, 1988 'Reality: the Search for Objectivity or the Quest for a Compelling Argument' *The Irish Journal of Psychology* 9 (1):25–81.

MATURANA, HUMBERTO, JORGE MPODOZIS, and JUAN CARLOS LETELIER, 1995 'Brain, Language and the Origin of Human Mental Functions' *Biological Research* 28:15–26.

MCGOVERN, EDMOND, 1986 'Dispute Settlement in the GATT — Adjudication or Negotiation?' in M Hilf, FG Jacobs and EU Petersmann (eds), *The European Community and GATT*, (Antwerp, Kluwer).

MCKERNAN, J F, and P O'DONNELL, 1998 'Financial Accounting: Crisis and the Commodity Fetish' *Critical Perspectives on Accounting* 9:567–99.

MCLACHLAN, CAMPBELL and PETER NYGH, (eds), 1996 *Transnational Tort Litigation: Jurisdictional Principles* (Oxford, Clarendon Press).

MEHRA, SALIL K, 2002 'Deterrence: The Private Remedy and International Antitrust Cases' *Columbia Journal of Transnational Law* 40:275.

MENG, WERNER P, 1990 'The Hormone Conflict Between the EEC and the United States Within the Context of GATT' *Michigan Journal of International Law* 11:819–39.

MENOTTI, VICTOR, (ed) 1993 *The Case Against Free Trade: GATT, NAFTA, and the Globalization of Corporate Power* (San Francisco and Berkeley, CA, Earth Island Press and North Atlantic Books).

MITCHELL, R C, 1979 'National Environmental Lobbies and the Apparent Illogic of Collective Action' in CS Russell (ed), *Collective Decision Making: Applications From Public Choice Theory*, (Baltimore MD, Johns Hopkins University Press).

MOLINEAUX, CHARLES, 1997 'Moving Toward a Construction' *Lex Mercatoria: A Lex Constructionis*. *Journal of International Arbitration* 14 (1):55–66.

MONTAGNA, PAUL, 1997 'Modernism vs Postmodernism in Management Accounting' *Critical Perspectives on Accounting* 8:125–45.

MUCHLINSKI, P T, 1987 'The Bhopal Case: Controlling Ultrahazardous Industrial Activities Undertaken By Foreign Investors' *Modern Law Review* 50 (5):545–87.

MULLIGAN, LUMEN N, 2002 'No Longer Safe at Home: Preventing the Misuse of Federal Common Law of Foreign Relations as a Defense Tactic in Private Transnational Litigation' *Michigan Law Review* 100:2408–2450.

MUMFORD, J D, 2002 'Economic Issues Related to Quarantine in International Trade' *European Review of Agricultural Economics* 29 (3):329–48.

MURRAY, PAULA C, 1999 'Inching Toward Environmental Regulatory Reform—ISO 14000: Much Ado About Nothing or a Reinvention Tool?' *American Business Law Journal* 37:35–71.

NAESS, ARNE, 1983 'The Shallow and the Deep, Long-Range Ecology Movement: A summary' *Inquiry* 16:95–100.

NATIONAL RESEARCH COUNCIL, 1996 *Understanding Risk: Informing Decisions in a Democratic Society* (Washington, DC, National Academy Press).

NEUMAYER, ERIC, 2001 How Regime Theory and the Economic Theory of International Environmental Cooperation Can Learn from Each Other, *Global Environmental Politics* 1 (1):122–47.

———, 2001 'Pollution Havens: An Analysis of Policy Options for Dealing with an Elusive Phenomenon' *Journal of Environment and Development* 10:147–77.

NICHOLS, PHILIP M, 1996 'Extension of Standing in World Trade Organization Disputes to Nongovernment Parties' *University of Pennsylvania Journal of International Economic Law* 17 (1):295–329.

———, 1996 'Realism, Liberalism, Values, and the World Trade Organization' *University of Pennsylvania Journal of International Economic Law* 17 (3):851–82.

NOBLE, CHRISTOPHER L, 1998 'Friend of the Project—A New Paradigm for Construction Law Services in a "Partnered" Construction Industry' *International Construction Law Review* 15:79–84.

NOLLKAEMPER, ANDRE, 1996 'The Legality of Moral Crusades Disguised in Trade Laws: an Analysis of the EC "Ban" on Furs From Animals Taken by Leghold Traps' *Journal of Environmental Law* 8 (2):237–56.

NORDSTROM, HAKAN, and SCOTT VAUGHAN, 1999 *Trade and Environment* (Geneva, WTO).

NORTH, P M, and J J FAWCETT, 1992 *Cheshire and North's Private International Law*. Vol 12 (London, Butterworths).

NORTH, PETER, 1993 'Torts in the Dismal Swamp: Choice of Law Revisited' in P North (ed), *Essays in Private International Law*, (Oxford, Clarendon Press).

OATES, WALLACE E, and PAUL R PORTNEY, 1992 'Economic Incentives and the Containment of Global Warming' *Eastern Economic Journal* 18 (1):85–98.

O'CONNOR, MARTIN, 1994 'Complexity and Coevolution: Methodology for a Positive Treatment of Indeterminacy' *Futures* 16 (6):610–15.

OFFE, C, 1990 'Reflections on the Institutional Self-Transformation of Movement Politics: a Tentative Stage Model' in RJ Dalton and M Kuechler (eds), *Challenging the Political Order: New Social and Political Movements in Western Democracies*, (Cambridge, Polity Press).

OFORI, GEORGE, AND PHILIP CHAN, 1999 'Contractual Provisions For Sustainability in Construction in Singapore' *The International Construction Law Review* 16 (2):241–60.

OHANIAN, EDWARD V, JOHN A MOORE, JOHN R FOWLE, *et al*, 1997 'Risk Characterization: A Bridge To Informed Decision Making' *Fundamental And Applied Toxicology* 39:81–88.

OLSON, M, 1965 *The Logic of Collective Action* (Cambridge, MA, Harvard University Press).

OSWALD, LYNDA J, 1994 'Bifurcation of the Owner and Operator Analysis Under CERCLA' *72 Washington University Law Quarterly* 72:223.

PALMER, KAREN, WALLACE E OATES, and PAUL R PORTNEY, 1995 'Tightening Environmental Standards: the Benefit-Cost or the No-Cost Paradigm' *Journal of Economic Perspectives* 9 (4):119–32.

PARGAL, SHEOLI, HEMAMALA HETTIGE, MANJULA SINGH *et al*, 1997 'Formal and Informal Regulation of Industrial Pollution: Comparative Evidence from Indonesia and the United States' *World Bank Policy Research Working Paper 1797*.

PEIRCE, MARTIN, 1998 *Computer-Based Models in Integrated Environmental Assessment*. (Copenhagen, European Environment Agency (EEA)).

PELKMANS, J, 1987 'The New Approach to Technical Harmonization and Standardization' *Journal of Common Market Studies* XXV:249–69.

PEREZ, OREN, 2001 'Ecological Sensitivity and Global Legal Pluralism: Rethinking the Trade and Environment Debate' PhD, Law Department, London School of Economics and Political Science, London.

———, 2002a 'The Many Faces of the Trade-Environment Conflict: Some Lessons for the Constitutionalization Project' *European Integration online Papers (EIoP)* Vol. 6 (2002) N° 11, http://eiop.or.at/eiop/texte/2002-011a.htm.

———, 2002b 'Reflections on an Environmental Struggle: P&O, Dahanu and the Regulation of Multinational Enterprises' *Georgetown International Environmental Law Review* 15 (1):1–27.

PETERSMANN, ERNST-ULRICH, 1994 'The Dispute Settlement System of the World Trade Organization and the Evolution of the GATT Dispute Settlement System Since 1948' *Common Market Law Review* 31:1157–244.

———, 1995 *International and European Trade and Environmental Law After the Uruguay Round* (London, Kluwer Law International).

———, 1999 'Dispute Settlement in International Economic Law — Lessons For Strengthening International Dispute Settlement in Non-Economic Areas' *Journal of International Economic Law* 2 (2):189–248.

PICCIOTTO, SOL, 1996 'Networks in International Economic Integration: Fragmented States and the Dilemmas of Neo-Liberalism' *Journal of International Law & Business* 17:1014–56.

POLLAK, ROBERT A, 1995 'Regulating Risks' *Journal of Economic Literature* 28:179–91.

PORTER, GARETH, 1999 Trade Competition and Pollution Standards: "Race to the Bottom" or "Stuck at the Bottom" *Journal of Environment & Development* 8 (2):133–51.

PORTER, MICHAEL E, 1991 'America's Green Strategy' *Scientific American* 264 (4):96.

PORTER, MICHAEL E, and CLAAS VAN DER LINDE, 1995 'Green and Competitive: Ending the Stalemate' *Harvard Business Review* September-October:120–34.

POWER, MICHAEL K, 2003 'Auditing and the Production of Legitimacy' *Accounting, Organizations and Society* 28:379–94.

POZZO, BARBARA, 2001 Towards Civil Liability for Environmental Damage in Europe: the "White Paper" of the Commission of the European Communities. *Global Jurist Topics* 1 (2).

PRAHL, RALPH, GERALD MARWELL and PAMELA E OLIVER, 1991 'Reach and Selectivity as Strategies of Recruitment for Collective Action: a Theory of the Critical Mass, V*' *Journal Of Mathematical Sociology* 16 (2):137–64.

PRESIDENTIAL/CONGRESSIONAL COMMISSION ON RISK ASSESSMENT AND RISK MANAGEMENT, 1997 'Framework for Environmental Health Risk Management (Final Report, Volume 1) (Washington, DC, US Congress).

PUBLIC-CITIZEN, 1998 Comments of Public Citizen, Inc, Regarding US Preparations for the World Trade Organization's Ministerial Meeting (Washington, DC, Public Citizen).

———, 2003 *The GMO Dispute: Bush Administration Attack on European Food Safety Policy Latest Challenge to WTO's Legitimacy* (Washington, DC, Public Citizen).

QUICK, REINHARD, and ANDREAS BLUTHNER, 1999 'Has the Appellate Body Erred? An Appraisal and Criticism of the Ruling in the WTO *Hormones Case' Journal of International Economic Law* 2 (4):603–39.

RAUCH, JAMES E, 2001 'Business and Social Networks in International Trade' *Journal of Economic Literature* 39:1177–203.

RAUSCHER, MICHAEL, 1992 'International Economic Integration and the Environment: the Case of Europe' in K Anderson and R Blackhurst (eds), *The Greening of World Trade Issues*, (Hertfordshire, Harvester Wheatsheaf).

REINHARDT, FOREST L, 1999 'Bringing the Environment Down to Earth' *Harvard Business Review* 77 (4):149–57.

RENN, ORTWIN, THOMAS WEBLER and PETER WIEDEMANN, (eds), 1995 *Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse* (Dordrecht, Kluwer).

REPPELIN-HILL, VALERIE, 1999 'Trade and Environment: An Empirical Analysis of the Technology Effect in the Steel Industry' *Journal of Environmental Economics and Management* 38:283–301.

RITICHIE, MARK, 1994 'Democratizing the Trade Policy-making Process: Lessons From NAFTA and their Implications for the GATT' *Cornell International Law Journal* 27 (3):749–76.

ROBERTS, DONNA, TIMOTHY E JOSLING and DAVID ORDEN, 1999 A Framework for Analyzing Technical Trade Barriers in Agricultural Markets: Market and Trade Economics Division, Economic Research Service, US Department of Agriculture.

ROCK, MICHAEL T, 1996 'Pollution Intensity of GDP and Trade Policy: Can the World Bank Be Wrong?' *World Development* 24 (3):471–79.

RODRICKS, JOSEPH V and SUSAN H RIETH, 1998 'Toxicological Risk Assessment in the Courtroom: Are Available Methodologies Suitable for Evaluating Toxic Tort and Product Liability Claims?' *Regulatory Toxicology and Pharmacology* 27:21–31.

ROLLE, MARY E, 2003 'Unraveling Accountability: Contesting Legal and Procedural Barriers in International Toxic Tort Cases' *Georgetown International Environmental Law Review* 15:135–201.

RORTY, RICHARD, 1980 *Philosophy and the Mirror of Nature* (Oxford, Princeton University Press).

ROSE, S, 1999 'Precis of lifelines: Biology, freedom, determinism' *Behavioral and Brain Sciences* 22 (5):871–921.

ROSENCRANZ, ARMIN, and RICHARD CAMPBELL, 1999 'Foreign Environmental and Human Rights Suits Against US Corporations in US Court' *Stanford Environmental Law Journal* 18:145–208.

ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION, 2003 'Chemicals in Products: Safeguarding the Environment and Human Health (24th Report)' (London, Royal Commission on Environmental Pollution).

RUGGIERO, RENATO, 1999 Concluding Remarks—the WTO's High-Level Symposium on Trade and Environment (15–16 March 1999) (Geneva, WTO).

RUSSELL, DENIS S O, 1994 'Insights From the Three Gorges Study' *Canadian Journal of Civil Engineers* 21:541–46.

SAFRIN, SABRINA, 2002 'Treaties in Collision? The Biosafety Protocol and the World Trade Organization Agreements' *American Journal of International Law* 96:606–28.

SCHIPANI, CINDY A, 2001 'Taking it Personally: Shareholder Liability for Corporate Environmental Hazards' *Iowa Journal of Corporate Law* 27:29.

SCHULZE, GUNTHER G, and HEINRICH W URSPRUNG, 2001 'The Empirical Evidence on Trade, Investment, and the Environment' in GG Schulze and HW Ursprung (eds), *International Environmental Economics: A Survey of the Issues*, (Oxford, Oxford University Press).

SELZNICK, PHILIP, 1992 *The Moral Commonwealth: Social Theory and the Promise of Community* (Berkeley, University of California Press).

SHAFIK, N and S BANDYOPADHYAY, 1992 'Economic Growth and Environmental Quality: Time Series and Cross-Country Evidence' (Washington, DC, The World Bank).

SHELL, RICHARD G, 1996 'The Trade Stakeholders Model and Participation By Nonstate Parties in the World Trade Organization' *University of Pennsylvania Journal of International Economic Law* 17 (1):360–81.

SHEPPARD, AUDLEY, and NAGLA NASSAR, 2000 Final Report on Public Policy as a Bar to Enforcement of Arbitral Awards' London, Committee on International Commercial Arbitration, International Law Association, London Conference (2000)).

SHRYBMAN, STEVEN, 1999 'The World Trade Organization: the New World Constitution Laid Bare' *The Ecologist* 29 (4):270–75.

SIDLEY AUSTIN BROWN & WOOD, 2002 Updated Analysis of the Doha Round of Trade Negotiations: New Opportunities & Challenges for Global Business (London, Sidley Austin Brown & Wood LLP).

SIF, 2001 2001 Report on Socially Responsible Investing Trends in the United States (Washington, DC, Social Investment Forum).

SOLOMONS, D, 1991 'Accounting and Social Change: A Neutralist View' *Accounting, Organizations and Society* 16 (3):287–95.

SPAGNOLO, GIANCARLO, 1999 'Issue Linkage, Delegation, and International Policy Cooperation' *FEEM Working Paper No 49.96*.

SPINDLER, GERALD, 1998 'Market Processes, Standardisation, and Tort Law' *European Law Journal* 4 (3):316–36.

SPS Committee, 1999 Review of the Operation and Implementation of the Agreement on the Application of Sanitary and Phytosanitary Measures (Geneva, World Trade Organization).

STEGER, DEBRA, 1999 'The Appellate Body' in M FRASER (ed), *The World Trade Brief: WTO Ministerial Conference, Seattle, 30 November–3 December 1999*, (London, Agenda Publishing).

STERN, DAVID I, MICHAEL S COMMON, and EDWARD B BARBIER, 1996 'Economic Growth and Environmental Degradation: the Environmental Kuznets Curve and Sustainable Development' *World Development* 24 (7):1151–60.

STIGLITZ, JOSEPH, 2000 'The Insider: What I Learned at the World Economic Crisis' *New Republic* (17–24 April, 2000).

———, 2001 'Failure of the Fund: Rethinking the IMF Response' *Harvard International Review* Summer 2001:14–18.

STIPANOWICH, THOMAS J, 1998 'Reconstructing Construction Law: Reality and Reform in a Transactional System' *Wisconsin Law Review*:463–578.

STRASSER, KURT A, and DENISE RODOSEVICH, 1993 'Seeing the Forest for the Trees in CERCLA Liability' *The Yale Journal on Regulation* 10 (2):493–560.

SUNDERLIN, WILLIAM D, ARILD ANGELSEN, RESOSUDARMO DAJU P, *et al*, 2001 'Economic Crisis, Small Farmers Well-Being, and Forest Cover Change in Indonesia' *World Development* 29 (5):767–82.

SWEET, JUSTIN, 1991 'The American Institute of Architects: Dominant Actor in the Construction Documents Market' *Wisconsin Law Review* 1991:317–44.

SWITZER, JASON and JOHN EHRENFELD, 1999 'Independent Environmental Auditors: What Does ISO 14001 Registration Really Mean?' *Environmental Quality Management*:17–33.

SYKES, ALAN O, 1999 'Regulatory Protectionism and the Law of International Trade' *The University of Chicago Law Review* 66 (1):1–46.

SYMEONIDES, SYMEON C, 2000 'The Need for a Third Conflicts Restatement (And a Proposal for Tort Conflicts)' *Indiana Law Journal* 75:437–474.

TABB, WILLIAM K, 2000 'After Seattle: Understanding the Politics of Globalization' *Monthly Review* 51 (10):1–18.

TBT Committee, 1997 First Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade.

TEUBNER, GUNTHER, 1990 'How the Law Thinks: Toward a Constructivist Epistemology of Law' in W Krohn, G Kuppers and H Nowotny (eds), *Selforganization: Portrait of a Scientific Revolution*, (Dordrecht, Kluwer Academic Publishers).

———, 1993 *Law as an Autopoietic System* (Oxford, Blackwell).

———, 1994 'The Invisible Cupola: From Causal to Collective Liability' in G Teubner, L Farmer and D Murphy (eds), *Environmental Law and Ecological Responsibility*, (New-York, John Wiley & Sons).

———, 1997 '"Global Bukowina": Legal Pluralism in the World Society' in G Teubner (ed), *Global Law Without a State*, (Aldershot, Dartmouth).

———, 2001 'Economics of Gift — Positivity of Justice: the Mutual Paranoia of Jacques Derrida and Niklas Luhmann' *Theory, Culture & Society* 18 (1):29–47.

THALER, RICHARD H, 2000 'From Homo Economicus to Homo Sapiens' *Journal of Economic Perspectives* 14 (1):133–41.

THARAKAN, P K M, 1999 'Is Anti-Dumping Here to Stay?' *The World Economy* 22 (2):179–206.

THOMAS, K, 1971, 1991 *Religion and the Decline of Magic* (London, Penguin Books).

THOMPSON, PAUL, 1998a 'Assessing the Environmental Risk Exposure of UK Banks' *International Journal of Bank Marketing* 16 (3):129–39.

———, 1998b 'Bank Lending and the Environment: Policies and Opportunities' *International Journal of Bank Marketing* 16 (6):243–52.

TIEDER, B JOHN, 1998 'The Globalization of Construction — Evolving Standards of Construction Law' *International Construction Law Review* 15 (4):550–606.

TIETENBERG, TOM and DAVID WHEELER, 1998 'Empowering the Community: Information Strategies For Pollution Control' *Paper Delivered at the Frontiers of Environmental Economics Conference, Virginia October 23–25, available at the World Bank web-site, NIPR programme*.

TISDELL, CLEM, 2001 'Globalisation and Sustainability: Environmental Kuznets Curve and the WTO' *Ecological Economics* 39 (2):185–96.

TOPFER, KLAUS, 1999 'Statement given at the WTO's High-Level Symposium on Trade and Environment (15–16 March 1999) (Geneva, WTO).

TOWERS-PERRIN, 1998 *The Role and Effectiveness of the Corporate Centre* (London, Towers Perrin).

TUNGTHANGTHUM, SUCHADA, 1997 *Tobacco Economics and the Tobacco Tax (in Thai)* (Bangkok, Health Systems Research Institute).

TVERSKY, AMOS, AND DANIEL KAHNEMAN, 1988 'Rational Choice and the Framing of Decisions' in DE Bell, H Raiffa and A Tversky (eds), *Decision Making: Descriptive, Normative and Prescriptive Interactions*, (Cambridge, Cambridge University Press).

UMBRICHT, GEORG C, 2001 'An 'Amicus Curiae Brief' on Amicus Curiae Briefs at the WTO' *Journal of International Economic Law* 4*(4)*:773–94.

UNCITRAL, 1988 *Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works* (New York, United Nations).

———, 2001 Legislative Guide on Privately Financed Infrastructure Projects (New York, United Nations).

UNCTAD, 1999 Trends in FDI and Ways and Means of Enhancing FDI Flows to and Among Developing Countries (Geneva, United Nations Conference on Trade and Development).

———, 2000 Bilateral Investment Treaties, 1959–99, New York.

———, 2002 World Investment Report 2002: Transnational Corporations and Export Competitiveness (Overview) (New York and Geneva, United Nations Conference on Trade and Development).

UNDP, 2003 *Making Global Trade Work for People* (London, Earthscan).

UNEP, 1997 Nairobi Declaration On The Role And Mandate of The United Nations Environment Programme. *Our Planet: UNEP Magazine For Environmentally Sustainable Development* 8 (6):31–32.

UNEP, WORLD BANK, AND WORLD RESOURCES INSTITUTE, 2003 'World Resources 2002–2004: Decisions for the Earth: Balance, Voice, and Power (Washington, D.C.: World Resources Institute).

UNEP FI Secretariat, 2002 Finance and Insurance (Geneva, United Nations Environment Programme/Finance Initiatives).

USITC, 1998 Recent Trends in US. Services Trade: 1998 Annual Report (Washington DC, US International Trade Commission).

USTR, 2003 National Trade Estimate Report on Foreign Trade Barriers (Washington DC, United States Trade Representative).

VARELA, FRANCISCO J, 1981 'Autonomy and Autopoiesis' in G Roth and H Schwegler (eds), *Self-organizing Systems: An Interdisciplinary Approach*, (Frankfurt, Campus Verlag).

VARELA, FRANCISCO J and JONATHAN SHEAR, (eds), 1999 *The View from Within: First-person Approaches to the Study of Consciousness* (Bowling Green, OH, Imprint Academic).

VARELA, FRANCISCO J, EVAN THOMPSON, and ELEANOR ROSCH, 1991 *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge, Mass, The MIT Press).

VAUGHAN, SCOTT, 2003 'Trade Preferences and Environmental Goods' *The Carnegie Endowment for International Peace Trade, Equity, and Development Series* Issue 5 February 2003.

VINTER, GRAHAM D, 1998 *Project Finance* 2nd edn (London, Sweet & Maxwell).

WADE, CHRISTOPHER, 2000 'FIDIC's Standard Forms of Contract — Principles and Scope of the Four New Books' *The International Construction Law Review* 17 (1):5–23.

WALDRON, JEREMY, 1998 'Dirty Little Secret' *Columbia Law Review* 98:510–29.

WALLACH, LORI M, 2002 'Accountable Governance in the Era of Globalization: The WTO, NAFTA, and International Harmonization of Standards' *Kansas Law Review* 50:823–64.

WALTER, GERHARD and RIKKE DALSGAARD, 1996 'The Civil Law Approach' in C McLachlan and P Nygh (eds), *Transnational Tort Litigation: Jurisdictional Principles*, (Oxford, Clarendon Press).

WAPNER, PAUL, 1995 'Politics Beyond the State: Environmental Activism and World Civic Politics' *World Politics* 47:311–40.

WEBLEY, PAUL, ALAN LEWIS and CRAIG MACKENZIE, 2001 'Commitment Among Ethical Investors: An Experimental Approach' *Journal of Economic Psychology* 22:27–42.

WEILER, J H H, 2001 'The Rule of Lawyers and the Ethos of Diplomats: Reflections on the Internal and External Legitimacy of WTO Dispute Settlement' *Journal of World Trade* 35 (2):191–207.

WEINTRAUB, RUSSELL J, 1999 'Demagnetizing the United States Forum' *Arkansas Law Review* 52:157–76.

———, 2001 *Commentary on the Conflict of Laws* 4th edn (New York, Foundation Press).

WEST, MARY BETH, 1997 Prepared statement to House Committee on Resources, Committee on Fisheries, Wildlife and Oceans Washington, DC, April 9, 1997, www.state.gov/www/global/oes/oceans/970409.html.

WHEELER, DAVID, 2002 'Beyond Pollution Havens' *Global Environmental Politics* 2 (2):1–10.

WHITEBOOK, JOEL, 1979 'The Problem of Nature in Habermas' *Telos* 40:41–69.

WILLIAMS, STEPHEN, 1999 'UK Ethical Investment: A Coming of Age' *Journal of Investing* 8 (2):58–75.

WINNETT, ADRIAN and ALAN LEWIS, 2000 '"You'd have to be green to invest in this": Popular Economic Models, Financial Journalism, and Ethical Investment' *Journal of Economic Psychology* 21:319–39.

WIWEN-NILSSON, TORE, 1997 'The 1996 Edition of the ENAA Model Form—International Contract for Power Plant Construction—A Brief Review' *International Construction Law Review* 14:273–88.

WORKING GROUP ON THE WTO/MAI, 1999. A Citizen's Guide to the World Trade Organization: www.citizen.org.

WORLD BANK, 1992 *World Development Report* (Washington, DC, Oxford University Press).

———, 1993a 'Public Involvement in Environmental Assessment: Requirements, Opportunities and Issues' *Environmental Assessment Sourcebook Update* 5 (1993).

———, 1993b 'The World Bank and Environmental Assessment: An Overview' *Environmental Assessment Sourcebook Update* 1.

———, 1994 'Privatization and Environmental Assessment: Issues and Approaches' *Environmental Assessment Sourcebook Update* 6.

———, 2000 'Technical Barriers to Trade and Standards: Challenges and Opportunities for Developing Countries' (Washington, DC, World-Bank).

WTO, 1995 'Regionalism and the World Trading System' (Geneva, World Trade Organization).

———, 1998a 'Construction and Related Engineering Services: Background Note by the Secretariat' (Geneva, World Trade Organization).

———, 1998b 'Legal Services: Background Note by the Secretariat' (Geneva, World Trade Organization).

WTO Secretariat, 1999 'Trade and the Environment in the GATT/WTO: Background Note by the Secretariat for the High Level Symposium on Trade and Environment', 15 March 1999.

———, 2002a Consultation and the Settlement of Disputes between Members, Note to the Working Group on the Relationship between Trade and Investment, (Geneva, World Trade Organization).

———, 2002b 'Scope and Definitions: "Investment" and "Investor"' (Geneva, World Trade Organization).

———, 2003 'Specific Trade Concerns: Report Submitted to the Committee on Sanitary and Phytosanitary Measures (third revision)' (Geneva, World Trade Organization).

WTO-UNEP, 2002 'Enhancing Synergies and Mutual Supportiveness of MEAs and the WTO: A Synthesis Report' (Geneva, WTO and UNEP).

WWF, 1992 'The Multilateral Trade Organization: a Legal and Environmental Assessment' (London, WWF International).

WYNNE, BRIAN, 1996 'May the Sheep Safely Graze? A Reflexive View of the Expert-Lay Knowledge Divide' in S Lash, B Szerszynski and B Wynne (eds), *Risk, Environment and Modernity: Towards a New Ecology* (London, Sage).

ZADEH, LOTFI A, 1997 'Toward a Theory of Fuzzy Information Granulation and its Centrality in Human Reasoning and Fuzzy Logic' *Fuzzy Sets and Systems* 90:111–27.

ZARRILLI, SIMONETTA, 1999 'WTO Sanitary and Phytosanitary Agreement: Issues for Developing Countries' *T.R.A.D.E. Working Papers, South Centre*.

ZEDALIS, REX J, 1997 'The Environment and the Technical Barriers to Trade Agreement: Did the Reformulated Gasoline Panel Miss a Golden Opportunity?' *Netherlands International Law Review* XLIV (1997/2):186–208.