TRADE AND ENVIRONMENT

A RESOURCE BOOK

Edited by
Adil Najam
Mark Halle
Ricardo Meléndez-Ortiz

ICTSD
International Centre for Trade and Sustainable Development

iisd International Institute for Sustainable Development / Institut international du développement durable

The RING

TRADE AND ENVIRONMENT

A RESOURCE BOOK

Edited by
Adil Najam
Mark Halle
Ricardo Meléndez-Ortiz

ICTSD
International Centre for Trade and Sustainable Development

iisd International Institute for Sustainable Development / Institut international du développement durable

The RING

Trade and Environment: A Resource Book

Edited by Adil Najam, Mark Halle and Ricardo Meléndez-Ortiz

ISBN 978-1-895536-99-7

Published by International Institute for Sustainable Development, International Centre for Trade and Sustainable Development, The Regional and International Networking Group

This publication is available online at
http://www.trade-environment.org
http://www.iisd.org
http://www.ictsd.org
http://www.ring-alliance.org

Cover photos from iStockphoto.

Printed on 100% post-consumer recycled paper.

The International Institute for Sustainable Development (IISD, http://www.iisd.org) contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change, measurement and assessment, and natural resources management. Through the Internet, we report on international negotiations and share knowledge gained through collaborative projects with global partners, resulting in more rigorous research, capacity building in developing countries and better dialogue between North and South. IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC) and Environment Canada; and from the Province of Manitoba. The institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

The International Centre for Trade and Sustainable Development (ICTSD, http://www.ictsd.org) was established in Geneva in September 1996 to contribute to a better understanding of development and environment concerns in the context of international trade. As an independent nonprofit and nongovernmental organization, ICTSD engages a broad range of actors in ongoing dialogue about trade and sustainable development. With a wide network of governmental, nongovernmental and intergovernmental partners, ICTSD plays a unique systemic role as a provider of original, non-partisan reporting and facilitation services at the intersection of international trade and sustainable development. ICTSD facilitates interaction between policy-makers and those outside the system to help trade policy become more supportive of sustainable development. By helping parties increase capacity and become better informed about each other, ICTSD builds bridges between groups with seemingly disparate agendas. It seeks to enable these actors to discover the many places where their interests and priorities coincide, for ultimately sustainable development is their common objective.

The Regional and International Networking Group (The RING, http://www.ring-alliance.org) is a global alliance of predominantly Southern independent research and policy organizations. It was formed in 1991 to stimulate preparations for the 1992 Rio Earth Summit. In 1994 the group designed and implemented an ongoing program of capacity development, pooled and collaborative research at regional and global levels, with the goal of creating a unique and influential platform for international comparative policy research, action and advocacy. With an emphasis on South-South and South-North collaboration, the Ring aims to improve environment and development policy formulation processes, and to increase the regional and local impact of organizations working on sustainable development issues. Ring activities focus on strategic development, capacity strengthening and planning within the individual organizations, water and people, sustainable livelihoods (including people's technologies), multilateral environmental agreements, trade and environment, climate change, financing for development, and people-centred governance approaches for development.

Contents

Section III: Resources

Contributors[1]

Hussein Abaza (Egypt) is the Chief of the Economics and Trade Branch of the United Nations Environment Programme (UNEP), based in Geneva.

Gustavo Alanís-Ortega (Mexico) is President of the Centro Mexicano de Derecho Ambiental (CEMDA) and teaches environmental law at the Universidad Iberoamericana in Mexico City.

Yvonne Apea (Ghana), formerly Program Co-ordinator – Dispute Settlement at the International Centre for Trade and Sustainable Development (ICTSD), is now Conference and Project Manager at the Economist Intelligence Unit.

Welber Barral (Brazil) is a professor of law at the Federal University of Santa Catarina, Florianópolis, Brazil .

Heike Baumüller (Germany), formerly Program Manager – Environment and Natural Resources at the International Centre for Trade and Sustainable Development (ICTSD), is now an independent consultant working in Cambodia.

Christophe Bellmann (Switzerland) is Programs Director at the International Centre for Trade and Sustainable Development (ICTSD).

Johannes Bernabe (Philippines) served as a trade negotiator for his country and is currently the Trade in Services Coordinator at the International Centre for Trade and Sustainable Development (ICTSD).

Nathalie Bernasconi-Osterwalder (Switzerland/Canada) is the Managing Attorney of the Geneva Office of the Center for International Environmental Law (CIEL).

Nicola Borregaard (Chile) is Advisor to the Chilean Minister of Economy and Energy.

Duncan Brack (United Kingdom) is an Associate Fellow with the Energy, Environment and Development Programme at Chatham House (the Royal Institute for International Affairs).

Hugo Cameron (Canada) is an International Trade Expert with International Lawyers and Economists Against Poverty (ILEAP) and former Senior Associate with the International Centre for Trade and Sustainable Development (ICTSD).

Adriano Campolina (Brazil) is the Regional Director for the Americas for ActionAid International, based in Brazil.

---

1 All authors have expressed their personal opinions in their contributions. Their views do not necessarily reflect those of the organizations with which they are affiliated.

Sachin Chaturvedi (India) is a Research Fellow at the Research and Information System for Developing Countries (RIS), based in New Delhi, India.

Beatrice Chaytor (Sierra Leone) served as a trade negotiator for her country and is currently the Director of Policy, Planning and Research at the Sierra Leone Ministry of Trade and Industry.

Hyun Jung Jo Choi (Korea) is a graduate researcher at the Fletcher School of Law and Diplomacy, Tufts University.

Suani Teixeira Coelho (Brazil) is São Paulo State's Deputy Secretary of State for the Environment and Head of the Brazilian Reference Center on Biomass, University of São Paulo.

Aaron Cosbey (Canada) is an Associate of and Senior Advisor to the International Institute for Sustainable Development (IISD).

Annie Dufey (Chile) is Research Associate at the International Institute for Environment and Development (IIED).

Otto Genee (The Netherlands) is the Director of the Policy Coherence for Development Unit at the Dutch Ministry of Foreign Affairs.

Roman Grynberg (Canada/Australia) is the Director for Economic Governance at the Pacific Islands Forum Secretariat.

Stéphane Guéneau (France) is a Policy Analyst and at the Institute for Sustainable Development and International Relations (IDDRI) in Paris, France.

Luisa Elena Guinand (Venezuela) is the Coordinator for Environment and Sustainable Development at the General Secretariat of the Andean Community,

María Elena Gutiérrez (Peru) studies sustainable development and conservation biology at the University of Maryland, U.S.

Mark Halle (U.S./Italy) is the European Representative and Global Director of the Trade and Investment Program of the International Institute for Sustainable Development (IISD).

K.G. Anthony Hill (Jamaica) is a seasoned trade negotiator and was his country's Ambassador and Permanent Representative to the United Nations in Geneva.

Robert Howse (Canada) is the Alene and Allan F. Smith Professor of Law at the University of Michigan Law School and a former Canadian trade diplomat.

Alejandro Jara (Chile) is a Deputy Director-General of the World Trade Organization (WTO) and was formerly the Chair of the WTO Committee on Trade in Services Special Session and Ambassador and Permanent Representative of his country to the WTO.

Sitanon Jesdapipat (Thailand) is a Technical Advisor for the Red Cross/Red Crescent Climate Centre in the Netherlands.

Veena Jha (India) is the coordinator of the UNCTAD Initiative on Strategies and Preparedness for Trade and Globalization in India.

CHEN HIN KEONG (Malaysia) is the Senior Forest Trade Advisor to TRAFFIC International, based in Malaysia.

VEIT KOESTER (Denmark) was with his country's Ministry of Environment and is now the Chairman of the Compliance Committees of the Cartagena Protocol and the Aarhus Convention.

JOHN KURIEN (India) is a professor at the Centre for Development Studies, Thiruvananthapuram.

BERNICE WING YEE LEE (Hong Kong, China) was the Policy Analysis and Strategy Advisor at the International Centre for Trade and Sustainable Development (ICTSD).

HANK LIM (Singapore) is the Director of Research at the Singapore Institute of International Affairs.

HOWARD MANN (Canada) is a practicing lawyer and the Senior International Law Advisor to the International Institute for Sustainable Development (IISD).

RICARDO MELÉNDEZ-ORTIZ (Colombia) is the Executive Director of the International Centre for Trade and Sustainable Development (ICTSD).

ROB MONRO (Zimbabwe) was head of Zimbabwe Trust, an NGO which was one of the founders and promoters of the CAMPFIRE program.

DOAA ABDEL MOTAAL (Egypt) is Counsellor in the Cabinet of the Director-General of the World Trade Organization (WTO).

ADIL NAJAM (Pakistan), an IISD Associate, teaches international negotiation and diplomacy at the Fletcher School of Law and Diplomacy, Tufts University.

MARCOS A. ORELLANA (Chile) is Senior Attorney with the Center for International Environmental Law (CIEL) in Washington, D.C., and Adjunct Professor at American University Washington College of Law.

LUKE ERIC PETERSON (Canada) is Editor of Investment Treaty News, a reporting service published by the International Institute for Sustainable Development (IISD).

GAO PRONOVE (Philippines) is the Executive Director of Earth Council Geneva.

DWIJEN RANGNEKAR (United Kingdom/India) is a Senior Research Fellow at the School of Law and Centre for the Study of Globalisation and Regionalisation, Warwick University.

NATALLIE ROCHESTER (Jamaica) is a Services Analyst with the Caribbean Regional Negotiating Machinery.

TOM ROTHERHAM (United Kingdom) is Head of the Corporate Responsibility practice at Radley Yeldar Consulting and an Associate at the International Institute for Sustainable Development (IISD).

MANUEL RUIZ (Peru) is Director of the Program on International Affairs and Biodiversity of the Peruvian Society for Environmental Law (SPDA).

MALENA SELL (Finland) is Program Officer, Environment and Agriculture at the International Centre for Trade and Sustainable Development (ICTSD).

MAGDA SHAHIN (Egypt) is her country's Assistant Foreign Minister for International Economic Affairs and earlier served as her country's Ambassador to Greece and chief trade negotiator.

SABRINA SHAW (Canada) is an Associate at the International Institute for Sustainable Development (IISD), currently on leave from the World Trade Organization (WTO), where she served as Secretary to the Committee on Trade and Environment (CTE).

LINSEY SHERMAN (Canada) is studying law at the University of Ottawa and was a researcher with the Center for International Environmental Law (CIEL) when she contributed to this book.

STELLA WATTIMAH SIMIYU (Kenya) is a Research Scientist with the National Museums of Kenya.

SANDEEP SINGH (India) is with The Energy and Resources Institute (TERI) in New Delhi, India.

MAHESH SUGATHAN (India) is the Economic and Trade Policy Analysis Coordinator at the International Centre for Trade and Sustainable Development (ICTSD).

DIRK SWART (South Africa) is a non-academic staff member at Cornell University and an independent researcher.

HECTOR TORRES (Argentina) served as a trade negotiator for his country and is now an Executive Director at the International Monetary Fund (IMF).

VANGELIS VITALIS (New Zealand) is a former Chief Advisor at the OECD and currently a Senior Trade Negotiator for the New Zealand Ministry of Foreign Affairs and Trade.

DAVID VIVAS EUGUI (Venezuela) is Program Manager – Intellectual Property at the International Centre for Trade and Sustainable Development (ICTSD).

THE LATE KONRAD VON MOLTKE (Germany) was a Senior Fellow at the International Institute for Sustainable Development (IISD) and Adjunct Professor of Environmental Studies at Dartmouth College.

ANJA VON MOLTKE (Germany) serves as an Economic Affairs Officer at the Economics and Trade Branch of the United Nations Environment Programme in Geneva.

MATTHEW WALLS (Canada) is a freelance journalist and environmental consultant based in Singapore.

VICENTE PAOLO B. YU III (Philippines) is Program Coordinator of the Global Governance for Development Program of the South Center in Geneva.

ZHONGXIANG ZHANG (The Netherlands) is a Senior Fellow at the East-West Center, Honolulu, Hawaii, and visiting professor at the Chinese Academy of Social Sciences, Peking University and Chinese Academy of Sciences, Beijing.

Acronyms and Abbreviations

AB	Appellate Body
ABS	access and benefit-sharing
ACP	African, Caribbean and the Pacific
AFP	Asia Forest Partnership
AoA	Agreement on Agriculture
APEC	Asia Pacific Economic Cooperation (Forum)
ASEAN	Association of Southeast Asian Nations
AU	African Union
BITs	bilateral investment treaties
BOT	build-operate-transfer
BTA	border tax adjustment
CAF	Andean Development Corporation
CAN	Community of Andean Nations
CAP	Common Agricultural Program (of the European Union)
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CBFP	Congo Basin Forest Partnership
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources
CCICED	China Council for International Cooperation on Environment and Development
CDM	Clean Development Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CTD	Committee on Trade and Development
CTE	Committee on Trade and Environment
CTE-SS	CTE in Special Session
CTS-SS	Council for Trade in Services-Special Session
DDA	Doha Development Agenda
DPGs	domestically prohibited goods
DSM	dispute settlement mechanism

DSU	Dispute Settlement Understanding
EC	European Communities
EEZ	exclusive economic zone
EFTA	European Free Trade Association
EGS	environmental goods and services
EIA	environmental impact assessment
EMIT	(Group on) Environmental Measures and International Trade
EPPs	environmentally preferable products
EST	environmentally sound technology
EU	European Union
FAO	Food and Agriculture Organization
FDI	foreign direct investment
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade (Initiative)
FPA	Fisheries Partnership Agreement
FTA	free trade agreement
FTAA	Free Trade Agreement of the Americas
G8	Group of Eight
G90	Group of Ninety
G10	Group of Ten
G33	Group of Thirty-Three
G20	Group of Twenty
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GEN	Global Eco-labelling Network
GIs	geographical indications
GMOs	genetically modified organisms
GSP	generalized systems of preference
GURTs	genetic use restriction technologies
ICAs	international commodity agreements
ICC	International Chamber of Commerce
ICFTU	International Confederation of Free Trade Unions
ICJ	International Court of Justice
ICSF	International Collective in Support of Fish Workers

ICSID	International Centre for Settlement of Investment Disputes
ICTSD	International Centre for Trade and Sustainable Development
IDB	Inter-American Development Bank
IEA	International Energy Agency
IEC	International Electrotechnical Commission
IFC	International Finance Corporation
IFOAM	International Federation of Organic Agriculture Movements
IGC	Intergovernmental Committee (on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore at WIPO)
IISD	International Institute for Sustainable Development
ILEAP	International Lawyers and Economists Against Poverty
ILO	International Labour Organization
IMF	International Monetary Fund
IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, Unregulated Fishing
IPPC	International Plant Protection Convention
IPR	intellectual property right
ISBs	international standards bodies
ISEAL	International Social and Environmental Accreditation and Labelling Alliance
ISO	International Organization for Standardization
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
ITTA	International Tropical Timber Agreement
ITU	International Telecommunication Union
IUU	illegal, unreported and unregulated (fishing)
IUCN	The World Conservation Union
LDCs	least-developed countries
LMOs	living modified organisms
MAI	Multilateral Agreement on Investment
MDGs	Millennium Development Goals
MEAs	multilateral environmental agreements
MFN	most favoured nation
MMT	methylcyclopentadienyl manganese tricarbonyl

MT	metric tons
NAFTA	North America Free Trade Agreement
NAMA	non-agricultural market access
NFIDs	net food-importing developing countries
NGMA	Negotiating Group on Market Access
NGOs	non-governmental organizations
NGR	Negotiating Group on Rules
NTBs	non-tariff barriers
NTMs	non-tariff measures
OECD	Organisation for Economic Co-operation and Development
OIE	World Organization for Animal Health
OPEC	Organization of the Petroleum Exporting Countries
PCD	policy coherence for development
PCT	Patent Cooperation Treaty
PIC	prior informed consent
POPs	persistent organic pollutants
PPMs	process and production methods
PPPs	public-private partnerships
PRONAF	National Program for Strengthening Family Farming (in Brazil)
PRSP	poverty reduction strategy paper
REACH	Registration, Evaluation and Authorization of Chemicals
The Ring	The Regional and International Networking Group
RTA	regional trade agreement
S&DT	special and differential treatment
SCM	subsidies and countervailing measures
SIA	sustainability impact assessment
SIDS	small island developing states
SME	small and medium-sized enterprise
SPS	sanitary and phytosanitary (measures)
STOs	specific trade obligations
TA	technical assistance
TACB	technical assistance and capacity building
TBT	technical barriers to trade

TEDs	turtle excluder devices
TK	traditional knowledge
TNC	Trade Negotiations Committee
TPRM	Trade Policy Review Mechanism
TRIMs	trade-related investment measures
TRIPS	Trade-related Aspects of Intellectual Property Rights
U.K.	United Kingdom
UN CPC	UN Provisional Central Product Classification
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on the Human Environment
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNPIC	United Nations Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
UPOV	International Union for the Protection of New Varieties of Plants
U.S.	United States
W/120	WTO Services Sectoral Classification list
WCO	World Customs Organization
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	Worldwide Fund for Nature (World Wildlife Fund in some countries)

Acknowledgements

Throughout the process of producing this book, we have been inspired by the chapter authors who responded to our call for thought-provoking and thoughtful essays and supported a long and tedious review and editing process with patience, grace and goodwill. The views expressed by the authors are entirely their own and do not imply any institutional positions, either by their own institutions or by IISD/ICTSD/The Ring.

In addition to the chapter authors, a large number of individuals and institutions were involved in the intense process of consultation with literally hundreds of practitioners, scholars, activists and negotiators from all over the developing world. In particular, we would like to thank the institutions that assisted in organizing the various regional consultations: Environnement et Développement du Tiers Monde (ENDA), Senegal; Recursos e Investigación Para El Desarrollo Sustentable (RIDES), Chile; IUCN – The World Conservation Union, Sri Lanka; Sustainable Development Policy Institute (SDPI), Pakistan; African Centre for Technology Studies (ACTS), Kenya; Trade Law Centre for Southern Africa (TRALAC), South Africa; and the Chinese Academy of International Trade and Economic Cooperation (CAITEC), China.

Jointly implemented by the International Centre for Trade and Sustainable Development (ICTSD), the International Institute for Sustainable Development (IISD) and The Ring for Sustainable Development, the "Southern Agenda for Trade and Environment Project" benefited from the intellectual and managerial talents of these institutions. In this regard, we are especially grateful to Heike Baumüller and Hugo Cameron (at ICTSD) and David Boyer (at IISD) who have been critical to the intellectual substance as well as the management of the process. Important inputs were also provided by Sarah Mohan (at ICTSD) and Sabrina Shaw, Trineesh Biswas and Stuart Slayen (at IISD) at various stages in the process. Hyun Jung Choi of the Fletcher School of Law and Diplomacy, Tufts University, provided invaluable editorial and research assistance in pulling together the final drafts of the various chapters. The book was designed by Don Berg.

Finally, and importantly, this book, and the larger research project of which it is a part, would not have been possible without the generous financial support provided by the International Development Research Centre (IDRC), Canada; the Swiss Agency for Development and Cooperation (SDC); the Norwegian Ministry of Foreign Affairs (NMFA); and the Swedish International Development Cooperation Agency (SIDA). We thank them for believing in and supporting the "Southern Agenda on Trade and Environment Project."

Although influenced and supported by so many, the views expressed in this book are entirely those of the authors and do not imply official endorsement by any of the sponsor organizations or agencies.

A.N., M.A.H., R.M.-O.

A User's Guide

Adil Najam, Mark Halle and Ricardo Meléndez-Oritz

We hope that this book is not just readable, but also useful and useable.

This book flows from the realization that the trade and environment policy debate is technically complex, is becoming highly specialized and is full of cumbersome—and not always useful—jargon. As a result, it has become increasingly difficult to understand and follow all the various strands of trade and environment debates. This is not only true for new entrants into the policy debates, but also for seasoned practitioners who may have been focusing only on some elements of trade and environment discussions, or on adjacent discussions within either the broader trade policy arena or the broader environmental policy space. This can also impose particular and significant stress on developing country capacities to participate in these discussions. More importantly, there is the danger of the policy focus becoming ever-narrower and, therefore, missing the cross-issue connections that are sometimes central to resolving complex and inter-linked policy challenges.

Our ambition, therefore, is to produce a volume that provides relevant information as well as pertinent analysis on a broad set of trade and environment discussions while explaining as clearly as possible (a) what are the key issues from a trade and environment perspective; (b) what are the most important policy debates around them; and (c) what are the different policy positions that define these debates. We call this a "Resource Book" because that is exactly what we want it to be—a resource for policy practitioners, scholars and activists that gives them a clear and easy-to-use map of ongoing and upcoming trade and environment discussions. But we want it to also provide our readers with a nuanced understanding of where these debates are heading, and why.

This book is a truly and deeply collaborative effort. As many as 61 authors from 34 different countries have contributed to this volume. We believe that this is a truly global collection of some of the best minds that work on these issues. They bring with them a wealth of experience and insight from the worlds of practice, scholarship and activism. While focusing on all aspects of the trade and environment debate, we have consciously tried to give special emphasis to developing country concerns and aspirations within this debate because these concerns are under-represented in the global discussions and they are particularly central to the quest for meaningful responses to the trade and environment challenges we face.

The book is organized as a reference volume because we hope and expect it to be used as such. However, while providing clear, unambiguous and easy-to-understand information is an important priority for us, this volume does not shy away from opinion and analysis. Indeed, as editors we have welcomed and encouraged it. What we have done, however, is to clearly differentiate between items that are principally informational and those that are opinion and analysis.

The remainder of the book is divided into three sections. The first section sets the context by describing the evolution of the broader trade and environment debate and then describing the policy formulation process within which these debates take place. The second section constitutes the bulk of the volume and is organized around a set of 17 key issues and debates. Each of these issues is first presented in a background section which is mostly informational and is then elab-

orated upon in a set of short Expert Opinion essays which provide provocative and thought-provoking ideas and analysis related to that issue. For easier reading, each background section is structured identically – a general introduction lays out the essentials of what the issue is, how it has evolved, and what aspects are currently in debate; this is followed by a discussion of "interests and faultlines" which focuses on aspects of the issue which are of particular importance to, or particularly contentious for, key parties; finally, there is a section on "trends and future directions" which looks towards the future of the debate and tries to chart where the debate is likely to head and why. While the tone and presentation of the background sections is informational, the Expert Opinion essays are meant to be provocative articulations of some of the cutting edge thinking on each of these issues, and particularly on what might be done to resolve the most thorny debates related to them. A total of 34 Expert Opinion essays from some of the leading experts and practitioners from all over the world are included in the book. Finally, the third section provides additional informational resources that may be useful to the reader. Importantly, this section includes a version of the Doha Ministerial Declaration which is annotated to highlight all the various trade and environment connections contained in it; not only in the sections that relate to these issues directly but also to the indirect connections. This section also includes a timeline of the trade and environment debate, a trade and environment glossary, and a list of useful online and in-print resources. Important technical terms and concepts are highlighted in the background sections, as you see here, and then explained in the Trade and Environment glossary.

The goal of this organization of the Resource Book is to retain the richness and nuance of the discussion while making the volume as accessible and useable for the reader as possible. This is not a book that needs to be read from one end to the other—although we hope that many will. This is a volume that invites the reader to flick through it, that helps the reader quickly find what they are looking for, and then, hopefully, excites the reader enough about the subject to keep reading more. Our hope is that those actively involved in trade and environment discussions—as practitioners, as scholars and as activists—will not only find this volume to be a useful thing to keep on their bookshelf, but useable enough to keep closer at hand; maybe on their desks.

Section I
Setting the Context

The Evolution of the Trade and Environment Debate at the WTO

Hugo Cameron

"By the close of the 1990s, the field of trade and environment was receiving much more attention than at its start. Among other issues, eco-labelling, trade in genetically modified organisms (GMOs) and perverse subsidies in natural resource sectors were providing policy-makers with a host of new challenges."

The relationship between trade and environment has evolved over time. The inclusion of environmental issues on the negotiating agenda of the World Trade Organization (WTO) at the Doha Ministerial in 2001 moved this relationship into the spotlight. However, this is by no means a new relationship; indeed, as we will see below, this is a relationship that has gone through many phases and will continue to evolve in the future.

The Early Years

At a fundamental level, the production and exchange of goods and services relies on the environment in the form of natural resources. Trade in everything from shrimp to shampoo implies an environmental impact of some sort. The trade-environment relationship is, in fact, imbedded within the original text of the General Agreement on Tariffs and Trade (GATT), which was adopted in 1947 as the basis for the post-war global trading system. Among the exceptions to the GATT's core principles were provisions stating that nothing in the GATT would prevent member countries from adopting or enforcing measures either "necessary to protect human, animal or plant life or health" or "relating to the conservation of exhaustible natural resources" (Article XX, paragraphs (b) and (g), respectively). However, Article XX also says that such measures cannot be disguised restrictions on trade applied for protectionist intent. This provision has since become a focal point for the trade and environment debate at the GATT and WTO.

Amidst growing environmental awareness that emerged in the late 1960s and the early 1970s, GATT members established a Group on Environmental Measures and International Trade (EMIT) in 1971. However, without a single request for it to be convened, the EMIT Group lay dormant for 20 years. Nevertheless, trade and environment lingered in the GATT hallways. At the 1972 UN Conference on the Human Environment in Stockholm, the GATT Secretariat presented a paper on the implications of environmental protection policies and how these could become obstacles to trade. Further, discussions during the Tokyo Round of the GATT (1973–79) over trade-related technical regulations and standards implemented for environmental purposes led to the adoption of the Agreement on Technical Barriers to Trade (TBT), or the "Standards Code," in 1979. The TBT Agreement called for transparency in the application of technical regulations and standards and marked the first reference to the environment in a GATT agreement.

While trade officials were factoring the environment into international trade agreements, trade measures were being used as a tool to advance global environmental goals. In 1975, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) entered into force, mandating a system of trade bans and restrictions on traffic in endangered species. Trade restrictions subsequently formed key elements of other multilateral environmental agreements (MEAs), including those on trade in ozone-depleting substances (Montreal Protocol, 1987) and hazardous wastes (Basel Convention, 1989). By 2003, according to a paper released by the WTO Secretariat, there were no fewer than 14 MEAs with trade-related provisions, including a number of others with potential trade effects. The two streams of international interaction on environment and trade continued to evolve in parallel until they began coming into increasing contact with each other in the 1990s.

The 1990s: A Rocky Decade

The 1990s marked the coming of age of the trade-environment debate. In 1991, the European Free Trade Association (EFTA) finally prompted the EMIT Group to meet in order to study the trade and environment linkage and provide input to the 1992 Rio Earth Summit. Leaders at the Rio Summit recognized the substantive links between international trade and environment by agreeing to make policies in the two areas mutually supportive in favour of sustainable development. The entry into force and implementation of several major MEAs that included trade restrictions as enforcement measures was starting to draw the concern of the trade community. Meanwhile, Northern environmental groups were increasingly worried that GATT rules could chill or roll back domestic environmental legislation.

Two GATT panel decisions against the United States in the *Tuna-Dolphin* dispute cases confirmed the fears of environmentalists. These decisions also provoked major concern on the part of developing countries about the environment becoming a barrier to their exports, based on how they were produced or harvested. The first case was brought before the GATT by Mexico, which argued against a United States (U.S.) law imposed in 1990 that prohibited tuna imports from countries lacking appropriate dolphin conservation programs. Mexico believed that the U.S. legislation violated its GATT rights by prescribing extraterritorially how it should catch its exported tuna. The U.S. defended its action on the grounds that its neighbour was taking insufficient measures to prevent the accidental capture of dolphins by its tuna fishers. The GATT panel ruled in 1991 that the U.S. could not suspend Mexico's trading rights by prescribing unilaterally the process and production methods (PPMs) by which that country harvested tuna. The U.S. eventually lifted its embargo following an extensive domestic "dolphin safe" labelling campaign and negotiations with Mexico. A subsequent case brought against the U.S. tuna embargo by the European Union (EU) on behalf of the Netherlands Antilles in 1992 found that the U.S. *dolphin conservation policy* was GATT-consistent and could be applied extraterritorially. However, it broadly upheld the first panel decision by ruling that the *actual measure used* (i.e., the tuna embargo) was neither "necessary" (along the lines of Article XX), nor GATT-consistent. The *Tuna-Dolphin* cases brought into sharp focus how differing environmental norms between developed and developing countries could prove a source for conflict.

Partly as a result of the *Tuna-Dolphin* cases, trade and environment linkages were also being recognized at the regional level. For instance, in 1994 the U.S., Mexico and Canada signed the North American Free Trade Agreement (NAFTA), which included a side-accord on regional environmental cooperation. The side-agreement—and the tri-national organization it created—was intended to help ensure the effective implementation of

existing environmental laws among signatories. Similar provisions subsequently found their way into bilateral trade agreements signed by the U.S. and Canada with other developing country trading partners, in order to guard against lower environmental standards as a source of comparative advantage. Environmental cooperation elements have since also been included in a number of regional trade arrangements.

The 1990s also saw the conclusion of the eight-year Uruguay Round negotiations and the creation of the WTO on January 1, 1995. By then, the trade body's ranks had swelled to 128 Members, over three-quarters of which were developing countries. In addition to including preambular language claiming sustainable development as an objective, the WTO agreements established a Committee on Trade and Environment (CTE), included a new Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, and instituted a strengthened dispute settlement mechanism. The CTE, a regular meeting of all WTO Members, was mandated to identify the relationship between trade and environmental measures and make appropriate recommendations on whether any modifications to WTO rules were required. While the Committee has provided a valuable forum to enhance understanding of the trade-environment relationship, it has struggled to fulfill its mandate, and many have accused it of being little more than a talking shop. The SPS Agreement elaborated on Article XX by setting out parameters for the application of measures to protect human, animal and plant life or health. The new dispute settlement mechanism rules, which made it virtually impossible for losing countries to overturn decisions by panels or the new Appellate Body (AB), were a major concern for environmental groups. They were worried that the WTO now had real teeth to force countries to dismantle environmental laws, should these come under challenge in the multilateral trading system.

The future of the trade and environment debate

A Conversation with Hector Torres

Has the trade and environment debate lost steam? I would say that the debate has seen little progress since the December 1996 Singapore Ministerial and has been going around in circles. When the Uruguay Round was finished, there was a big push from the United States to include environment in the WTO. The Committee on Trade and Environment (CTE) was entrusted with a clear mandate and was tasked to present its findings at the Singapore Ministerial. However, by the time Singapore came around, the U.S. had lost interest in trade and environment and the CTE was pushed back to the periphery and stripped of its clear negotiating mandate.

Since then, the discussions have been stuck in a rut. Neither developing countries nor the current U.S. Republican administration are *demandeurs*, willing to push the trade and environment debate to the forefront. Although the Europeans have an interest in pursuing a stronger environmental agenda, they seem to have neither the willingness nor sufficient strength to push this debate forward.

However, even though trade and environment in the WTO is now stalled, there are a few areas where the debate needs to go if it is to become meaningful, especially from a developing country perspective. I can think of at least three specific issues that need to become part of future trade and environment negotiations.

1. **The Primacy of National Legislation.** First, an unending and fierce debate has raged between countries that prefer to pursue developing international standards and those that prefer a national approach to environmental legislation and regulations. I can understand the argument for national legislation and have no problem with it.

continued on page 7

A number of WTO disputes added further depth to the trade-environment debate, and underlined the difference in approach to the issue between developing and developed countries, notably the U.S. The 1998 *Shrimp-Turtle* dispute case, brought by four Asian countries against the U.S., proved a landmark in that it put into doubt the rationale that discrimination based on PPMs was not compatible with WTO rules. The WTO Appellate Body ultimately determined that, while the disputed U.S. law prohibiting shrimp imports caught without the use of "turtle excluder devices" was justifiable under Article XX, it had been implemented in a discriminatory fashion. In other words, the Appellate Body did not require the U.S. to dismantle its law, but only change the way it was implemented. The decision was particularly disturbing to Thailand, India and a number of other developing countries, who were deeply concerned with the approach to interpretation of WTO law applied by the Appellate Body. They felt that the ruling permitted Members to discriminate against "like" products based on non-product-related PPMs, an issue that had not been negotiated in the Uruguay Round. From their perspective, the *Shrimp-Turtle* decision could be interpreted as allowing Members to take unilateral actions based on the way in which products are produced (i.e., the way in which shrimp are harvested), and that these actions could be justified under Article XX as long as they were not implemented in an arbitrary or discriminatory manner.

By the close of the 1990s, the field of trade and environment was receiving much more attention than at its start. Among other issues, eco-labelling, trade in genetically modified organisms (GMOs) and perverse subsidies in natural resource sectors were providing policy-makers with a host of new challenges. Supply chain issues were gaining prominence, and the use of private-sector green procurement schemes, for instance by European grocery retailers, was leading to a reorganization of international production and of relations between exporters, distributors and consumers. Dramatic street protests by environmental and other groups at the WTO's failed Seattle Ministerial Conference in 1999 served to remind trade negotiators that the multilateral trading system needed to find a way to address how it dealt with the environment. However, developing countries remained wary, not least because they saw their own trade and environment concerns—such as green protectionism, the export of domestically prohibited goods and the equitable treatment of their biological resources—take a back seat to developed country trade and environment issues at the WTO.

Doha and Beyond

At the Doha Ministerial Conference in 2001, WTO Members decided to launch negotiations that, for the first time, would include trade and environment as part of the negotiating agenda. The negotiating issues agreed under Paragraph 31 of the Doha Ministerial Declaration were primarily those advocated by developed countries: the relationship between WTO rules and specific trade obligations in MEAs; observer status for MEA secretariats; and the liberalization of trade in environmental goods and services. This reflected the perception that accepting an environmental mandate remained a trade-off for developing countries, which have not been *demandeurs* in these areas.

Paragraphs 32, 33 and 51 make up Doha's "non-negotiating" trade and environment mandate. Paragraph 32 focuses the work of the CTE on three areas: the effect of environmental measures on market access; the relevant provisions of the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS); and eco-labelling. Paragraph 33 outlines the importance of capacity building and encourages environmental impact assessments. Paragraph 51 instructs the CTE and the Committee on Trade and Development to "each act as a forum to identify and debate developmental and environ-

mental aspects of the negotiations, in order to help achieve the objective of having sustainable development appropriately reflected."

Importantly, Paragraph 6 of the Preamble to the Doha Declaration makes a detailed case for the trade and environment linkage:

> We strongly reaffirm our commitment to the objective of sustainable development, as stated in the Preamble to the Marrakech Agreement. We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive. We take note of the efforts by Members to conduct national environmental assessments of trade policies on a voluntary basis. We recognize that under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they 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, and are otherwise in accordance with the provisions of the WTO Agreements. We welcome the WTO's continued cooperation with UNEP and other inter-governmental environmental organizations.

The Doha Declaration also makes the linkage in other key areas. For example, on agriculture, the Declaration highlights "the need to protect the environment" as one of the non-trade concerns that should be taken into account in the negotiations. On intellectual property rights, the Doha Declaration instructs the TRIPS Council to examine the relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD), the protection of traditional knowledge and folklore. On fisheries, Paragraph 28 of the Declaration man-

continued from page 5

However, as a global citizen, I believe that the international arena should demand enforceability and accountability in the implementation of national environmental regulations. Once nations have set their environmental laws and regulations, they should have an international obligation to ensure that these laws and regulations are implemented. We resist the push for international regulations in the name of sovereignty, but bad governance at home means that national laws are not necessarily enforced.

In developing countries, implementation of national environmental laws remains unsatisfactory. Politicians tend to enact environmental legislation in response to popular discontent or concern over the state of the environment or international pressures. However, the capacity and/or willingness to enforce existing legislation remain low. It is fair for developing nations to demand the right to develop their own environmental standards and regulations to match their economic development. But it is the obligation of every country to enforce its national environmental legislation. The future of the trade and environment link will be determined not just by the international regulations to which we agree, but also by how well we enforce our domestic regulations pertaining to both trade and environment.

2. **Shift of Focus from PPMs to Consumption and Disposal.** There is an urgent need for the debate to look at the entire product lifecycle rather than just one part of it. Much of the trade and environment debate to date has revolved around process and production methods (PPMs). This is, of course, very important. However, it is now time that the focus of the debate be broadened to include the entire product lifecycle, which includes not just externalities stemming from the production of goods, but also from their consumption and disposal. The obsessive focus on PPMs unfairly shifts the burden onto developing countries as the villains of environmental degradation and

continued on page 8

continued from page 7

ends up targeting outdated production methods mostly used in developing countries, without being equally vigilant about externalities stemming from lavish consumption and irresponsible disposal. Some of the most severe environmental effects come not from PPMs, but from consumption and disposal of products.

Beyond this, it should be noted that the debate over whether PPMs are consistent with WTO rules could be solved by delving into the original intention of the 1995 Technical Barriers to Trade (TBT) Agreement and the subsequent practice of countries. There is a subtle difference in the definition between technical regulations and standards that leaves room for the argument that PPMs unrelated to the product could be used in standards to differentiate "like" products. To make the situation even more confusing, many of the countries that argue that the use of PPMs to differentiate "like" products is WTO-inconsistent, actually use PPMs in eco-labelling and other voluntary labelling schemes (for example, to differentiate organic food). This could be clarified through legal interpretation, but it would be far more desirable to settle the issue at the political level, where agreement can be sought on when and where PPMs are an acceptable means to differentiate products.

3. **Tariff Escalation and Export Taxes.** We need to carefully consider the perverse economic and environmental effects of the tariff escalation that developing countries face. Given the capital constraints that many developing nations face, they are compelled to raise capital either by borrowing, by attracting investment or by generating trade surpluses. Both borrowing and attracting investment pose difficulties and depend on factors that go beyond their domestic policies. Thus, developing nations often need to rely on their capacity to generate trade surpluses to service their capital requirements. Developing nations would like to trade in value-added exports as these create more employment and greater opportunities for sustainable development. However, the more value developing countries add to their exports and the higher they go up the production value chain, the more tariffs these products face because of tariff escalation in export markets.

   In addition to being a drag to development, tariff escalation leads to perverse effects on the environment. Due to tariff escalation on value-added exports, many developing nations need to rely almost exclusively on trade in commodities, which face lower tariffs. This turns out to be an incentive for the over-exploitation of natural resources. The problem is compounded because some developing countries tax or restrict exports of commodities in order to offset the effects of tariff escalation on their processing industries. By taxing exported commodities, developing countries are providing cheap inputs to processing industries to offset the trade consequences of tariff escalation. These effects thus feed into a perverse cycle that ultimately leads to over-exploitation of natural resources with negative consequences for the environment.

In short, if the trade and environment debate is to make any meaningful progress, it has to broaden its focus to include three key dimensions. First, it has to broaden its focus to include the enforcement of national regulations as an international obligation. Second, it has to broaden its focus to encompass the externalities stemming from the entirety of the product lifecycle, including consumption and disposal. Third, and importantly, the debate has to examine the impact of policy failures and market instruments—rather than just the impact of environmental regulations—on natural resources and environmental quality.

Written by Adil Najam and Hyun Jung Jo Choi based on a conversation with Hector Torres. Hector Torres, from Argentina, served as a trade negotiator for his country and is now an Executive Director at the International Monetary Fund (IMF). The opinions above were expressed in his personal capacity.

dates Members to "clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries."

Less than a year after the launch of the Doha negotiations, leaders at the 2002 World Summit on Sustainable Development (WSSD) sent a clear message to WTO negotiators to step up their efforts to integrate sustainable development objectives into the trade round. Amongst other commitments, the Plan emphasized the phase-out of harmful fisheries and energy subsidies and discouraged the use of unilateral actions to deal with environmental challenges outside countries' jurisdictions.

Since Doha, Members have met several times in the CTE in Special Session to address the negotiating mandate. European countries have remained the most active supporters of the MEA-WTO relationship discussions. Some of the larger developing countries have engaged actively on different aspects of the mandate, for instance by analyzing the potential benefits (and pitfalls) for their economies of further trade liberalization in environmental goods and services. However, modest progress has continued over this time and, slowly but surely, the trade and environment agenda has started digging in its roots within the corridors of the WTO.

Interests and Fault Lines

The major players in the debate on the trade-environment relationship have traditionally been European countries and the U.S. Developing countries have recently become more engaged, particularly around specific issue-areas, such as the relationship between the TRIPS Agreement and the CBD. North-South alliances around certain issues, such as fisheries subsidies, have also emerged. In addition, non-governmental and inter-governmental bodies have made invaluable contributions to the field. Table 1 summarizes the involvement of these actors from before 1990 to the present.

It's time to make the global debate local

By Amb. K.G. Anthony Hill

The barriers had already been breached. It was left to the youthful, sometimes organized non-governmental groups to administer the *coup de grace*. To the rootsy, rocking reggae beat of Bob Marley, down came the Berlin Wall in 1989. The era of NGO activism was in full swing. "Seattle" was still to come.

It was a decade earlier that the quickly congealing Washington Consensus of privatization, liberalization and "outing" the State had bullied its way into the consciousness of the South. The transnationalization of business was opening markets, expanding its networks of consumers.

The pressure of North-centred NGO idealism and realism had moved the U.S. Congress to pressure the World Bank to pay attention to the environment in its client countries. Notwithstanding, one of the Bank's senior officers with the cold logic of the sinecured bureaucrat, observed that the trade-off for growth was a certain degree of environmental degradation and pollution.

Transnational business, it seemed, was not perturbed. No pressure from them on Congress. After all, they were the beneficiaries of substantial business in environment-related investment projects, through OECD export credits and multilateral financing. The sums in transacting cross-border trade and project design and construction are quite substantial. More to the point, a significant percentage is in areas that are quite definitely environment-affecting, energy-intensive projects.

There is no gainsaying that the spread of less-than-safe-and-friendly environmental technology and the rise in greenhouse gases have increased ambient temperatures around the world with adverse effects felt mainly in poor countries.

continued on page 11

Table 1: Key actors and the evolution of the trade and environment debate.

Actors	Pre-1990s	1990s	Seattle-Doha	Post-Doha
Europe	• Intra-EU harmonization • Support for multilateral solutions to environmental problems	• Support for MEAs	• Support for clarification of MEA-WTO relationship • Seek recognition of eco-labelling in WTO agreements	• Push for broad interpretation of Doha mandate • Support negotiations on eco-labelling
US	• Support for MEAs	• Use of unilateral trade-based solutions to environmental problems	• Support for increased transparency and NGO participation	• Not a *demandeur* on WTO-MEA negotiations • Support liberalization of environmental goods and services • Rejection of the precautionary principle in trade
Developing Countries	• Concern over trade in domestically prohibited goods (DPGs) • Support for MEAs • Suspicion over use of trade measures for environmental purposes	• Market access concerns, especially over unilateral use of trade measures for environmental purposes • Support for TRIPS-CBD linkage	• Resistance to inclusion of environmental negotiations in the WTO	• Reluctant acceptance of WTO environmental agenda • Push for narrow interpretation of Doha environment mandate • Strengthened "Southern" agenda
IGOs (including MEAs)	• Some key agreements adopted: CITES, Montreal Protocol, Basel Convention • UNEP, OECD contribute on coordination and analysis	• Implementation of MEAs with trade measures and negotiation/ adoption of new MEAs • Rio Earth Summit highlights trade-environment linkages	• UNEP, WTO and UNCTAD collaborate on building synergies • Important capacity building role • Certain MEAs accredited as observers to CTE	• Limited inclusion of MEAs and UNEP at CTE negotiations on MEA-WTO relationship
NGOs	• Little NGO involvement	• Rapid emergence of civil society groups focusing on trade and environment	• Major protests at Seattle highlight public concern • Lobbying in Europe and elsewhere pressures the WTO to include trade and environment on agenda	• Concern over MEA-WTO mandate • Important contributions made through capacity building, analysis, and increasing specialization and knowledge

The **European Union**, frequently supported by "like-minded" countries such as Switzerland and Norway, has been the central proponent of including environmental issues in trade discussions at the multilateral level. This position is informed, to a great extent, by the EU's support for multilateral environmental solutions and the influence of environmental groups. However, most other countries have remained suspicious of Europe's enthusiasm for environmental issues at the WTO, particularly its support for the precautionary principle in instances of scientific uncertainty. Developing countries, in particular, are wary of European efforts to push eco-labelling and the clarification of the MEA-WTO relationship. They view these efforts as an attempt by the EU to seek additional space to block imports in sensitive sectors and obtain trade-offs for concessions in other areas, such as agriculture.

The EU has made increasing efforts to integrate its trade strategy with the principles of sustainable development. In addition to conducting sustainability impact assessments (SIAs) of all its new trade arrangements, the EU has launched initiatives to help developing countries gain from sustainable trade. These include the promotion of trade in sustainably-produced products, funding for technical assistance on trade and environment and an online "help desk" for developing country exporters to navigate Europe's often cumbersome import standards. However, many remain unconvinced and some developing countries have expressed concern that SIAs could enable hidden protectionism under the guise of environmental and social concerns.

The **United States** has a mixed track record on trade and environment. On the one hand, its support for PPM-based trade measures at the WTO, reform of fisheries subsidies rules, and inclusion of environmental provisions in regional and bilateral trade arrangements points to an appreciation for balancing trade policy with effective implementation of envi-

continued from page 9

It was finally at the World Trade Organization (WTO) that these two "interests" met. One to press for negotiations on trade in services; and the other to press for trade and environment. Irresistible! The negotiators from developed countries, yielding to their often-contending constituencies, secured consensus for the agenda. When the city-named negotiations of "green" Seattle and "Neanderthal" Cancun "failed," the innovative politico-bureaucrats remained with "Development" Doha as the promise of rule-making and market opening.

How can the intellectual playing field be levelled? How can developing country negotiators navigate the tributaries of issues complicated by design? What specifically can be done to rescue the WTO-centred economic enterprise of international trade as it is besieged from within and without? And how do we make sense of the seamless connections between production of goods; delivery of goods and services; the technologies of production and transport; the financing of trade; the effect of, and on the environment; and how all these are facilitated by institutions endowed with capacity?

The General Agreement on Tariffs and Trade (GATT) embodies principles that are indispensable for civilized discourse among materially unequally endowed partners. Who would wish to "negotiate" binding commitments, if there is no firm expectation that the word is as good as a bond and the agreement is law, binding on all parties and administered with equity? The principles of national treatment and non-discrimination are tempered, as always, by equity; the recognition of "infant industry"; "exceptions"; "safeguards"; and "special and more favourable treatment for developing countries."

The objectives of full employment, the optimum use of all resources (and here I include "human," though not to be equated to a barrel of oil), sustainable development and conditions of competition are certainly ones to be anchored. The problem arises when interests push so hard and fast that the dynamic equilibrium of wealth-generating, welfare-enhancing international trade and finance is so disturbed that inequity results.

continued on page 12

continued from page 11

The generic term "South" was always contrived. When equated with "Third," the die was cast. Thus was lumbered the "Third World." So too, the term "developing countries." These terms have outlived their utility. At the same time, where is the serious, practical collaboration among developing countries in general, South-South cooperation? Where is the collaboration and involvement of all their stakeholders in a focused way, and with the fulsome support of their heads of government and state?

The governments of developing countries and their private sectors, NGOs, academics and citizens should be more intensively engaged among themselves in the unfolding negotiations on the inter-related environment-facilitating measures for trade. The technical assistance and capacity building of the WTO, delivered by a Secretariat, can be self-serving and counterproductive. There is a pressing need for local circumstances to be the basis for information and knowledge driving their negotiating positions.

There is clear and indisputable evidence that efficient trade facilitation is welfare-enhancing. There is equally clear evidence that the pollution from road, air and sea transport bears heavily on the environment. As negotiations on trade facilitation take place under the Doha mandate, it is also clear that without fulfillment of trade-facilitation supply-side commitments, it will be difficult for developing countries to meet their end of the bargain and secure the balance of benefits from the negotiations.

The WTO dispute resolution mechanisms, their operation and their decisions—so hugely oversold—are fast becoming instruments of inequity, in defiance of common sense, and of the values and principles of its predecessor, the GATT. Can there be any doubt that unchecked, the present practices will taint, even distort, production and trading patterns? The adjudication of any likely disputes in the field of trade facilitation could be quite interesting. Is it premature to consider what these might be? Could one be the failure to fulfill the commitments for infrastructure, or technical assistance?

Both technology and finance are critical components of all trade. However, note their differential treatment in the present agenda.

They are not integral to the ongoing negotiations. The Committees on the Transfer of Technology and Trade and Finance are study groups, with little chance of their findings making their way into the rules of rights and obligations. This lack of seamlessness does not seem to make sense.

The question arises whether the negotiations on both market access commitments and rules on environmental goods and services will contribute to improving the environment in general and the specific objectives of sustainable development.

The conventional lens of "North-South" negotiations at the multilateral level is clearly not one that is likely to lead to optimum productive results across the board. The increasing number of regional trade agreements is now in the same order of magnitude as multilateral environmental agreements. Trade-related environmental solutions may well have to be dealt with more at the regional level, if the desired welfare benefits from trade liberalization are to be realized. The trade impact assessment tools and *Agenda 21* principles must therefore be used.

An important consideration will be the institutional arrangements that will accompany these increased regional arrangements. Establishing a World Environment Organization would be overkill. It would only add layers of non-productive bureaucracies, detracting from the necessary focus at the national and regional level.

No. The answer is not to overload the carrying capacity of the international organizational landscape with more and more politico-bureaucracies, which, in turn, become purveyors of their own agendas while developing countries continue to be mesmerized by policy dialogues and other buzzwords emanating from outside their societies.

It may well be that the WTO itself should scale back its ambitions.

Ambassador K.G. Anthony Hill, from Jamaica, is a seasoned trade negotiator and was his country's former Permanent Ambassador to the United Nations in Geneva.

ronmental regulations. On the other hand, its refusal to "play by the rules" in key MEAs with trade-related elements—such as those on biodiversity, climate change and biosafety—has made its trading partners skeptical of its environmental intentions. At Doha, the U.S. was less enthusiastic than the EU about including trade and environment on the negotiating agenda. Indeed, the U.S. ensured that the negotiations would not open up more space for consideration of the precautionary principle in WTO rules, and has since sided with developing countries in advocating a limited interpretation of the MEA-WTO mandate.

Developing countries have engaged in trade and environment issues at the GATT at least since the 1980s. In 1982, a number of developing countries at the GATT expressed concern that products prohibited in developed countries due to environmental hazards, health or safety concerns—such as certain chemicals and pesticides—continued to be exported to them. With limited information on these products, developing countries made the case that they were unable to make informed decisions regarding their import. Domestically prohibited goods (DPGs) subsequently became a standing item on the agenda of the CTE, though the issue has received less attention since 2001 due to the focus of CTE discussions around the Doha issues.

While developing countries have been active contributors on trade and environment at the WTO, they have traditionally taken a defensive position. This is due primarily to concerns that trade-related environmental measures could be used as barriers to their exports. Developing countries have also strongly objected to any leeway in WTO rules for the use of unilateral or extraterritorial trade measures to enforce environmental norms. They argue that countries should be able to set their own environmental priorities, taking into account their level of development, and that they should not be subject to the domestic environmental standards set in other countries. At the same time, developing countries have advocated a range of issues that reflect Southern trade and environment interests. In addition to concerns surrounding trade in DPGs, many developing countries have sought to reconcile the TRIPS Agreement with the CBD. For their part, the least developed countries (LDCs) have emphasized the importance of financial resources for technical assistance to meet Northern environmental and health standards.

Developing countries have also joined North-South coalitions. These include the "Friends of Fish" which, in pushing for disciplines on fisheries subsidies, groups Argentina, Chile, Ecuador, Peru and the Philippines together with Australia, Iceland, New Zealand, Norway and the U.S. North-South cooperation has further emerged on environmental aspects of agriculture, with a wide coalition of developing and developed agriculture-exporting countries (the Cairns Group) denouncing the environmentally-harmful effects of agricultural subsidies. Argentina, Chile and Uruguay have joined Australia, Canada and the U.S. in opposing restrictions on transboundary movements of GMOs under the CBD's Biosafety Protocol, while some African countries have voiced support for the EU's precautionary approach to GMO imports.

Developing countries agreed to the MEA-WTO linkage mandate from Doha, but only as part of a wider package that contained other trade-off issues, including reductions in agricultural subsidies. Since Doha, many developing countries have participated actively in the negotiations, for the most part preferring a narrow approach to the mandate to ensure talks do not result in further regulatory space for environmental provisions that could restrict their exports. Some developing countries are also cautiously exploring potential benefits from liberalization of trade in environmental goods and services.

Intergovernmental organizations have played a key role alongside WTO Members in the discussions on the trade-environment relationship. Secretariats from relevant MEAs have been regular invitees to the CTE and have participated in a limited fashion in the environment negotiations in the Doha Round. The United Nations Environment Programme (UNEP) has played a useful role in highlighting synergies and mutual supportiveness between MEAs and the WTO. UNEP has been an observer at the CTE since 1995 and, as host of the 1992 Rio Summit, was instrumental in elaborating the links between the trade and environment regimes. Together with the UN Conference on Trade and Development (UNCTAD), UNEP has engaged in extensive capacity building and research activities for developing countries on trade and environment.

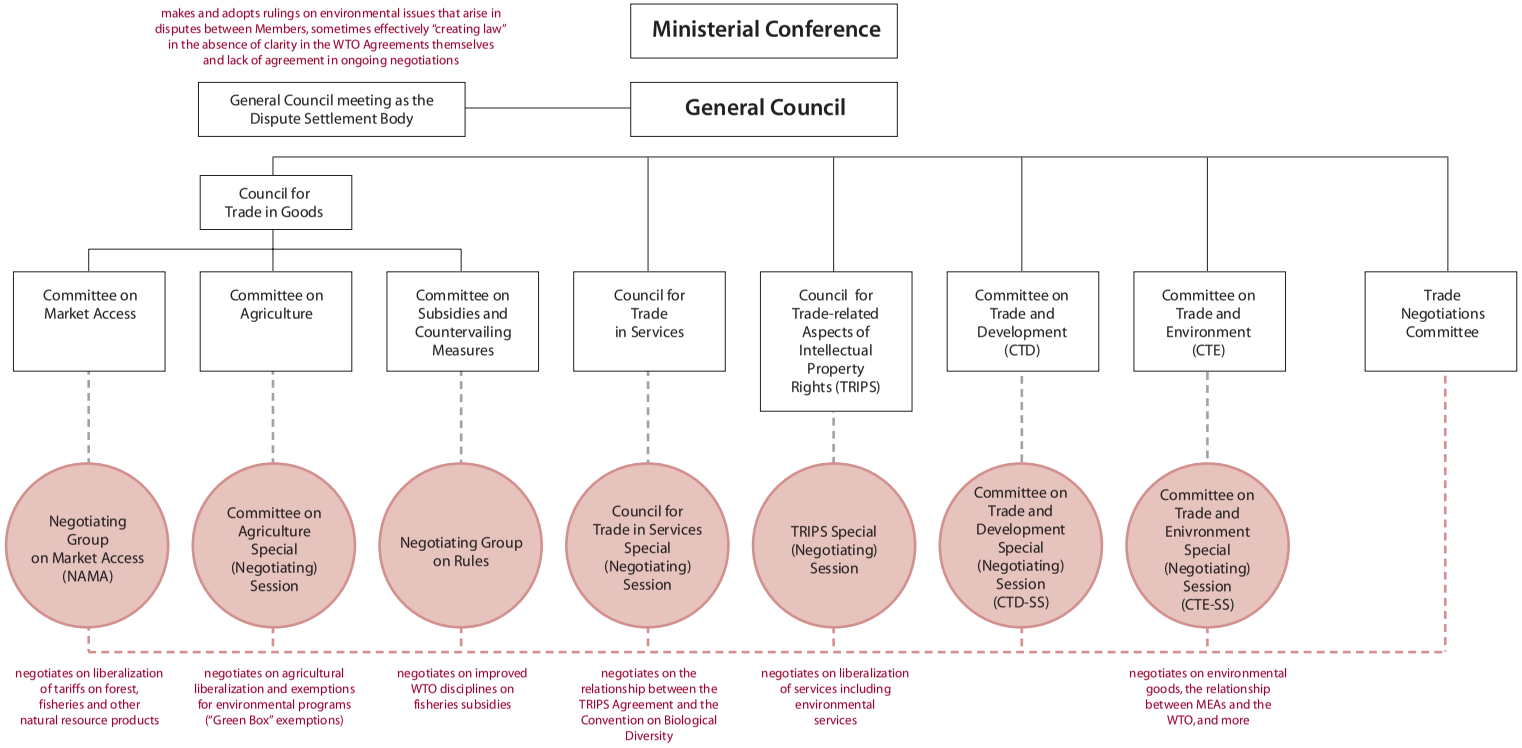
Many **non-governmental groups** have emerged in both the North and South to follow the multifaceted issues around trade and environment. The number of these groups mushroomed in the mid-to-late 1990s, due in large part to the coming into force of the WTO and to the growing public interest in pursuing sustainable development. The fields of expertise of NGOs active in trade and environment are varied, and their impact can be substantial, especially through interaction with trade policy-makers. In particular, these groups have contributed significantly as monitors of the trade policy-making process, as knowledge providers, information disseminators and capacity builders.

Trends and Future Directions

Over the next five to 10 years, the environment is likely to remain on the trade agenda, but in different ways than it is now. Once WTO Members come closer to mutually-agreed terms around the relationship between WTO rules and MEAs, further space could open up to address areas of trade and environment concern to developing countries. China, India and Brazil—all members of the Group of Twenty (G20) of developing countries opposed to Northern agriculture subsidies—can be expected to bring their own trade-environment priorities to the table, including the environmental benefits of reductions in agricultural support. The question of GMOs is also likely to challenge the trade-environment relationship for years to come.

Changes in modes of international production, partly as a result of trade negotiations, are likely to shift issues of priority in trade and environment to more concrete areas, such as negotiating mutual recognition agreements for different product standards in different countries. Global supply chains and consumer preferences can also be expected to play an increasingly important role. Some developing countries, which can afford to, have already adopted their own domestic labelling and certification schemes in response to consumer preferences in the North. To continue meeting these challenges and to advance sustainable development, all countries will have to resist pressures to build protectionist fences and instead promote cooperation on green spaces. As neighbours in a globalized world economy, trade and environment cannot afford not to get along.

Figure 1. Annotated organogram of the World Trade Organization.



The Trade and Environment Policy Formulation Process

Doaa Abdel Motaal

"…it is mainly developed countries that have the financial resources to bring environmental experts to WTO meetings held in Geneva from their capitals. Developing countries seldom do so…"

It is impossible to discuss the trade and environment policy formulation process without enquiring about the nature of the policy relationship involved. Does trade and environmental policy differ from the policy relationship between trade and any other non-commercial consideration? Arguably, there is nothing intrinsically different about the trade and environment relationship that distinguishes it from, let us say, the "trade and health" or "trade and national security" relationships. All relationships involving trade and non-commercial concerns tend to share the same set of challenges in the policy formulation process, with the principal challenge being that of reconciling trade objectives with broader public policy goals.

However, of the many "trade and" relationships, trade and environment tends to capture public and media attention the most, since it is a subject that is not only close to people's minds, but also to their hearts. The *Tuna-Dolphin* dispute, settled under the General Agreement on Tariffs and Trade (GATT), and the *Shrimp-Turtle* dispute, settled under the World Trade Organization (WTO), captivated public attention with images of drowning dolphins and sea turtles—species that can easily stir emotions. To some extent, the trade and environment relationship has now come to symbolize all the "trade and" relationships, pointing to the ever expanding reach of the multilateral trading system. The multilateral trading system today no longer stops at a country's borders, or at tariffs; it goes beyond those borders to ensure that health, environmental and other types of regulations do not constitute unnecessary obstacles to trade. So how then do countries formulate policies at the complex trade and environment interface?

Actors and Institutions

Policy Formulation at the National Level

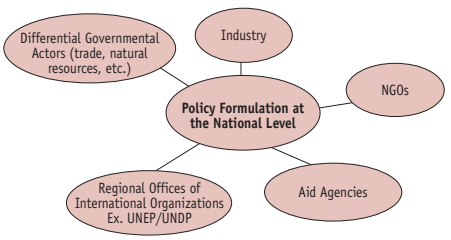
All "trade and" issues involve more complex policy formulation processes than do the issues that are mainly commercial in nature. They typically involve a broader set of interests; a broader set of actors; and a broader set of fora within which policy deliberation and formulation take place. At the national level, a multitude of different actors can be involved in the formulation of trade and environmental policies, including governmental bodies, industry, non-governmental organizations (NGOs), various international organizations and, in many developing countries, aid agencies.

Governmental actors can consist of the different agencies responsible for trade and for environmental policy; or, depending on the issue, more specialized institutions dealing with natural resources (such as ministries of

fisheries or energy). At the national level, industry is involved in policy formulation mainly in order to advance the "economic point of view" on an issue, and NGOs to advance the economic, developmental or environmental angles. The regional offices of international organizations such as the World Bank, the International Monetary Fund (IMF), the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) can influence policy formulation by giving policy guidance to governments, or funding targeted studies and projects. Moreover, aid agencies in developing countries can play a particularly influential role in giving policy advice and direction to governments.

Whereas the coordination process at the national level among different actors and stakeholders is often led by trade agencies, some countries have established special interministerial task forces to explore the trade and environment policy interface. These tend to act as more neutral fora for policy deliberation, supposedly giving equal weight to environmental considerations as they do to trade.

Figure 1: Policy formulation at the national level.



Policy Formulation at the International Level

On the international stage, the actors depend on the institutions in which trade and environment, or environment and trade, discussions take place. The principal trade institutions are the WTO and the United Nations Conference on Trade and Development (UNCTAD), and the principal environmental institutions are multilateral environmental agreements (MEAs) and UNEP. To a large extent, however, trade and environment discussions at the international level revolve around developments in the WTO.

There are a number of reasons for this. First, while MEAs often negotiate trade measures for environmental purposes within their agreements, there are no institutional spaces within MEAs in which governments may discuss all aspects of the trade and environment relationship, nor is there such a forum within UNEP. The WTO's Committee on Trade and Environment (CTE)—a forum exclusively reserved for trade and environment discussions among governments—has no parallel in any other international institution.

To explain, whereas discussions may be held in the Convention on Biological Diversity (CBD) on the relationship between the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) and the CBD, other aspects of the trade and environment relationship cannot be discussed in that MEA. Thus, in MEAs, the trade and environment relationship is only addressed in a fragmented way. While this is not a weakness of the MEAs, and could perhaps even be their strength in that they are able to address narrower and better-defined sets of issues, it still means that the WTO offers the only platform at the international level for a more general, cross-cutting debate. Second, because much of the trade and environment discussion at the international level is designed to influence WTO rules (with the environmental community wanting to relax or "green" those rules), and because trade and environment disputes have a tendency to gravitate towards the WTO, the WTO has come to occupy centre stage.

Principal Fora within the WTO

How, then, is trade and environmental policy formulated within that organization? What

are the relevant fora within the WTO? When the WTO was established in 1995, the CTE was created as a forum for dialogue on the various linkages between trade and the environment. It was asked to examine the trade and environment relationship in relation to all areas of WTO rules (i.e., issues related to "goods," to "services" and to "intellectual property"), and advise the WTO General Council on the need for changing WTO rules. It was the very first forum created within the WTO for "making recommendations" on policy formulation in the area of trade and environment.

In terms of its mandate and institutional set-up, the CTE was strong in some respects, but weak in others. It was strong in the sense that it reported to one of the highest decision-making bodies of the WTO (the General Council is second only to the WTO's Ministerial Conference), and also because its mandate was to explore the trade and environment relationship in relation to all areas of WTO rules (i.e., issues related to "goods" area, to "services" and to "intellectual property"). However, it was weak in the sense that, unlike certain other committees of the WTO, it could not itself alter any WTO Agreement. Any change of rules can only be proposed by the CTE to the General Council, and it is up to the Council to decide what to do with a proposal. However, since its establishment, the CTE has not recommended any change to the rules of the multilateral trading system.

In addition to the CTE, a number of other WTO bodies discuss issues that are relevant to the trade and environment relationship, such as the Committee on Technical Barriers to Trade (TBT) and the Negotiating Group on Rules, on environmental product requirements and environmental impacts of subsidies. While these other committees do not hold discussions on trade and environment in a general sense, they tackle very specific aspects of the trade and environment relationship, like that of fisheries subsidies.

The case for integrated assessment

By Hussein Abaza

Environment needs to be put at the centre of all planning and decision-making processes and trade needs to be seen as a means of achieving sustainable development and poverty reduction; not an end in itself.

Traditional sectoral approaches to developing policies, plans and programs have proven to be ineffective. We therefore need to move towards developing integrated policies that are based on a full understanding of the linkages and interactions among the environmental, social and economic dimensions of sustainable development. Environmental and natural resources, and the services they provide, can and should be deployed to achieve economic and social objectives. Environmental policies can be designed to promote sustainable trade and poverty reduction. On the other hand, environmentally-sound trade policies can also be designed to promote sound environmental management and poverty reduction.

Moreover, it is essential that policies at the national level go hand-in-hand with international-level decision-making. Likewise, international agreements should also be designed to take account of the national implications of such agreements. International initiatives are generally designed and concluded to address sectoral issues—whether environmental, social or economic—and international meetings to address sustainable development have been devoid of operational mechanisms to realize their objectives.

The global environmental crisis is not being effectively addressed and trade liberalization is contributing to resource depletion and environmental degradation on a massive scale. And yet, the benefits of trade are not being distributed equitably—the gap between rich and poor, North and South, continues to widen while extreme poverty and hunger

continued on page 20

continued from page 19

persist. Major shifts in mindset are needed to ensure the complementarity of economic, trade and environmental policies that realize the objectives of sustainable development and broader poverty reduction.

While there is no lack of international fora, agreements or pronouncements, there is a lack of real political will and genuine commitment backed by the necessary institutional and financial mechanisms. Multilateral environmental agreements (MEAs) are toothless and weak and the United Nations Environment Programme (UNEP) needs to be strengthened. While some progress is being made on some of the Millennium Development Goals (MDGs), we are still a very long way from achieving them. The World Trade Organization (WTO) pays lip service, at best, to environmental concerns. To continue to have international instruments that only address one dimension will fail to deliver upon the goal of sustainable development.

The international community is reactive. In most cases, it addresses a crisis in response to international calls for action, but fails to deal with the root causes. Often, international institutions lack the necessary authority to implement and monitor proposed solutions. Therefore, international institutions need to change the way they operate and the process needs to be fed by empirical research and scientific studies based on national experiences. Integrated assessment and planning is one way through which we can start to make the necessary changes. It can be used as a tool to design trade policies that reduce environmental and social impacts and maximize the net development gains from trade. Ideally, trade agreements need to be subjected to such an assessment to provide a holistic picture from a global perspective.

Efforts need to be consolidated to develop an integrated assessment framework that builds on the experiences and knowledge of countries and international institutions in this area. Such an initiative could be developed by adopting a wide consultative process. It then needs to be subjected to a broad peer review process and scrutiny by governments, and relevant institutions and organizations. Such a framework may be endorsed by the international community as a voluntary tool to be adopted and used initially at the national level by countries to ensure that policies—including trade policies—are developed and implemented to achieve sustainability and poverty reduction. It could also be extended for the assessment and design of regional and international policies and agreements.

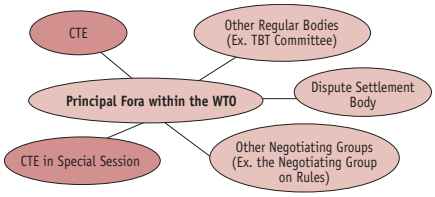
The development of such a framework will assist in pooling international efforts towards adopting a widely acceptable tool to be adapted at the national level in the formulation and design of sustainable development polices, plans and programs. This will save resources and effort and provide a consistent message and an agreed approach for national-level policy design and implementation for sustainable development. The initiative will contribute to enhanced coordination by international development institutions and bilateral aid agencies. It should result in a framework document and modalities for facilitating its use and application as a first step at the country level, then eventually at the regional and international levels. It should assist in achieving the following objectives:

1. Ensure that the economic, environmental and social considerations are analyzed and considered at all stages of the design and implementation of a plan, program and policy.
3. Analyze the sustainability implications of future plans, policies and programs in accordance with countries' sustainable development goals.
4. Identify "win-win" options and assess trade-offs.
5. Enhance public participation in decision-making, including involvement of marginalized and affected communities.
6. Promote inter-ministerial dialogue and coordination.
7. Promote capacity development at the national level in the design and implementation of sustainable development policies that enhance sound environmental management and poverty reduction.

Hussein Abaza, from Egypt, is the Chief of the Economics and Trade Branch of the United Nations Environment Programme (UNEP), based in Geneva. This essay is written in his personal capacity.

In 2001, the launch of what some have called the "Doha Development Agenda" (Doha Round) multiplied the number of WTO fora within which trade and environment policy formulation takes place. The CTE in Special Session (CTE-SS) was created to act as a special arm of the regular CTE, and to conduct negotiations on the trade and environment issues agreed to in Doha. Furthermore, various other new negotiating groups were created, some of which are negotiating on issues linked to trade and environment. For instance, the Council for Trade in Services in Special Session is looking at liberalizing trade in environmental services (such as waste disposal services), and the Negotiating Group on Rules (NGR) is looking at improving WTO disciplines on fisheries subsidies. The negotiating groups that were created in the Doha Round are, of course, more powerful fora than the regular bodies of the WTO in the sense that they have been mandated to either examine the potential for changing WTO rules in certain areas, or for making certain changes right away.

Figure 2: Principal fora for trade and environment discussions within the WTO.



The CTE-SS, for one, is more powerful than the regular CTE in that it can make changes to the rules of the WTO if it so chooses. One condition is that the CTE-SS not change the overall balance of rights and obligations under WTO agreements. However, it is also true that the CTE's influence is broader in that it has instructions under the Doha mandate to examine the environmental aspects of all Doha Round negotiations. Therefore, it can make enquiries about the developments taking place in the different negotiating groups, as well as launch discussions on how environmental considerations can best be integrated. However, it remains to be seen if the CTE will indeed succeed in injecting environmental considerations into the negotiating process.

To influence the outcome of discussions in the WTO, various other actors/fora conduct trade and environment work of their own. UNCTAD helps developing countries in formulating their national positions, and in reinforcing the "developmental" aspects of WTO work. UNEP attempts to develop coordinated positions among the MEAs on WTO issues, so as to give better environmental guidance to the WTO. Industry continuously lobbies WTO Members, through industry associations and chambers of commerce, mainly to ensure that environmental requirements do not become obstacles to trade. And, finally, NGOs and civil society exercise pressure on the WTO to ensure that consumer, environmental and developmental concerns, as well as many other interests are considered in policy formulation. They also contribute *amicus curiae* briefs ("friends of the court" briefs) to influence the course of the WTO dispute settlement process.

Principal Actors within the WTO and within Environmental Fora

For the most part, governmental trade or foreign affairs representatives are the ones who lead trade and environment discussions in the WTO. However, in the CTE and the CTE-SS, some countries are occasionally represented by delegations that not only consist of trade officials, but also of environmental ones. Occasionally, specialists in technical fields, such as in the areas of forestry or fisheries, are included. However, it is mainly developed countries that have the financial resources to bring environmental experts to WTO meetings held in Geneva from their capitals. Developing countries seldom do so, and, in the past, have generally only done so

when UNEP has financed their environmental representatives to attend UNEP meetings organized back-to-back with the CTE. When CTE meetings are attended by environmental officials, discussions can have a greater environmental focus. However, there is no continuity in their participation. In other more technical WTO committees, it is more common for countries, both developed and developing, to bring capital-based experts to meetings, such as in the TBT Committee.

In many areas of WTO work, country groupings—like the Group of Twenty (G20) or the Cairns Group on agriculture—can play an important role in policy coordination and formulation at the regional and international levels. However, in the environment area, no such groupings exist. The Asia Pacific Economic Cooperation (APEC) forum countries, the Association of Southeast Asian Nations (ASEAN) countries and the African countries have sometimes spoken in one voice for their regions in the CTE, but this has been rare, reflecting little policy coordination at the regional level, or a limited convergence of interests. In the CTE-SS, regional groupings have spoken in unison on even fewer occasions.

Within MEAs, the main players tend to be governmental environment officials and NGOs. Most countries tend to send their environmental officials to MEAs, including officials working in highly specialized fields, such as fisheries. In MEAs, NGOs also play an important role in the policy formulation process where they are allowed to attend meetings as observers. Their rights as observers sometimes extend to the right to intervene in meetings. Moreover, numerous NGOs organize side events at MEA meetings, to make their positions known. In the WTO, only intergovernmental organizations can be granted observer status. Thus, UNEP and UNCTAD have observer status in the CTE. Increasingly, trade representatives, mainly from developed countries, are starting to attend MEA meetings. This has been especially the case in the MEAs that have, or that risk having, a substantial impact on trade. For instance, in the negotiations of the Biosafety Protocol, some countries included environmental as well as trade experts in their delegations.

Interests and Fault Lines

Many assumptions are made about policy formulation at the international level in the trade and environment field. The first is that all policies are "formulated" and are the result of active governmental deliberation. The second, related assumption is that policies at the international level are determined by decisions at the national level, and not the reverse. The third is that inconsistent positions taken by countries in different international fora must be the result of insufficient national coordination. A country taking one position in a trade forum, and another in an environmental forum, must be a country whose trade and environment officials are not properly coordinating. While these assumptions are sometimes true, sometimes they are not. WTO deliberations show that the realities of the policy formulation process are complex and simple assumptions seldom explain the course that decisions take.

In the WTO, different countries have shown different levels of engagement in trade and environment negotiations. While numerous proposals have been forwarded by developed countries in the newly launched negotiations, there have been very few proposals from developing countries to the CTE-SS. Asian developing countries, followed by the Latin American, are the most active. However, not a single African proposal had been submitted to the CTE-SS (as of May 2007). There are various factors that may explain the more limited engagement of developing countries in trade and environment negotiations. While some disengagement is the result of deliberate decisions that governments take, some is also the result of countries underestimating the gains that may be achieved from more active participation.

Deliberate disengagement can be motivated by a variety of factors. First, trade and environment, as an area, may not be of equal importance to all countries. Countries with limited representation in Geneva (including many developing and least developed countries) may prefer to channel the little negotiating resources that they have towards market access, rather than environmental, negotiations. Second, for some of the smaller players in the WTO, in particular those that are opposed to environment negotiations, it may be more efficient to allow the bigger players that share their position to argue their case. These countries may choose to only substantially engage at crunch time, when key decisions are taken. Both of these factors would reflect very deliberate disengagement, and active policy or strategy formulation.

However, not all disengagement is deliberate. Some negotiators may underestimate the importance of trade and environment negotiations, only to suffer the consequences later (for instance, in terms of dispute settlement). For countries that fall into this category, policies are not "formulated," nor are international decisions based on national interests. Instead, it is the decisions at the international level that tend to fill in the domestic policy gap.

There is a widespread view among certain governmental actors, scholars and activists that potential inconsistencies between WTO rules and the trade obligations in MEAs are the result of insufficient national coordination. While there is certainly insufficient coordination in many countries, it is sometimes the case that governments deliberately argue different positions in different fora. For instance, many have wondered why it is that African countries who were principal *demandeurs* for strict trade measures in several MEAs, like the ban on the transboundary movement of hazardous waste between developed and developing countries in the Basel Convention, have not given their blessing in the WTO to the trade measures contained in

Policy should be made through negotiation, not litigation

By Sabrina Shaw

Will the Doha mandate bring us closer to policy coordination and coherence between trade and environmental policy? Or will these issues continue to be thrashed out by dispute settlement rulings? And, if so, why should we worry?

Despite all the fanfare, the fact remains that the Doha Round negotiating agenda directly focuses on only three aspects of the complex trade and environment linkage: information exchange between the WTO and multilateral environmental agreements (MEAs); the relationship between WTO rules and MEA trade obligations between parties; and liberalization of environmental goods and services. This represents only a small subset of the myriad issues being debated in the Committee on Trade and Environment (CTE).

Yet, there is a rather misleading impression that trade and environment has finally "made it" into mainstream WTO negotiations. It has, but only minimally. Indeed, some would suggest that by defining a narrow negotiating agenda, the Doha mandate has sidelined a number of controversial issues. For example, clarifying the relationship between WTO rules and MEA trade-related provisions between MEA *parties*, is of much less concern than measures taken by MEA *non-parties*; an issue that has been long debated but remains outside the Doha agenda.

Notwithstanding the Doha Round negotiations, the WTO dispute settlement mechanism has been—at least until now—the forum of choice for clarifying trade and environment uncertainties. When economic interests are sufficiently strong, disputes gravitate towards the WTO dispute system, regardless of whether there exists an appropriate regional or multilateral forum to deal with such issues.

continued on page 24

continued from page 23

This is so primarily because, unlike the International Court of Justice (ICJ) and MEA dispute resolution systems, the WTO has an automatic and compulsory enforcement mechanism as well as a relatively quick turnaround for resolving disputes.

A growing list of cases—*Gasoline*, *Shrimp-Turtle*, *Asbestos* and *Hormones*—is evidence of this reality. The nuanced decisions in these cases illustrate the ability of the WTO Appellate Body to respond in a measured manner to "non-trade" concerns. Yet, it is also a fact that jurisprudence has become *de facto* trade and environment policy.

Doha had raised the hope that we might now move from trade and environment policy-making by jurisprudence to consensus-based negotiations. However, the CTE Special Session is mired in a vortex of definitional debates, and one is left to wonder whether the WTO Appellate Body will remain the real arbiter of the trade and environment relationship.

To be fair, WTO jurisprudence has made considerable progress in recent years towards clarifying that WTO rules provide sufficient flexibility to accommodate legitimate environmental measures. The Appellate Body has shown reasoned restraint by focusing only on the specifics of the environment-related cases that have come before it, and avoiding generalized or generalizable verdicts on politically charged issues such as genetically modified organisms (GMOs) or the precautionary principle.

However, too many of the most controversial trade and environment issues remain unresolved, and are likely to remain unresolved even after the Doha Round concludes. These include such perennial challenges as discrimination based on non-product-related process and production methods (PPMs), trade in GMOs and MEA trade measures against non-parties.

While the WTO judiciary is forging ahead in interpreting the rights and obligations of WTO Members, continuing to do so in the absence of a negotiated consensus of the WTO membership runs the risk of undermining the political legitimacy of the trade and environment policy process as well as of the dispute settlement system. Insofar as the "creative ambiguities" in the WTO agreements are the result of compromises and negotiated outcomes, the question is whether it will be left to the dispute settlement system to clarify these ambiguities or whether Members can garner the political will to provide guidance on how to interpret WTO rules.

The temptation to resort to the dispute settlement process is clear. It is easier to initiate a dispute than to forge consensus among 150 Member states to deal with controversial issues. However, sustainable outcomes in the WTO must be built on trade-offs and compromises that can only emerge from negotiations among the broader membership, especially including developing countries.

Policy-making through litigation creates unpredictability. It also takes decision-making power away from Member states. No matter how accurate the judicial interpretations may be from a technical and legal perspective, the legitimacy of the WTO stems from its Member states and trade and environment policy should also emanate from this constituency.

The trade and environment issues contained in the Doha negotiating agenda are a good start, but many more issues—and more controversial issues—still need to be resolved. The WTO should look towards consensus-based negotiation rather than litigation and jurisprudence as the preferred means of resolving them.

Sabrina Shaw, from Canada, is an Associate at the International Institute for Sustainable Development (IISD), currently on leave from the World Trade Organization (WTO) Secretariat, where she served as Secretary to the Committee on Trade and Environment (CTE).

MEAs. The explanation could lie in the fact that these countries see the WTO and MEAs as playing fundamentally different roles. While they want to regulate trade under various MEAs, they also want a strong WTO that is capable of protecting them against any disguised restrictions on trade (green protectionism). Thus, some countries may simply try to obtain the most they can out of different fora—even if this means certain inconsistencies—since different regimes play different roles. Their intention would be to see these different fora balance each other out on the international stage.

Trends and Future Directions

The focus of the current WTO negotiations on trade and environment has been on the ways in which policy is formulated. In the negotiations, WTO Members are not only looking at the relationship between WTO and MEA obligations, but are also exploring mechanisms for greater coordination and information flow between the WTO and MEA secretariats. Whereas WTO Members have serious differences in these negotiations, one issue on which they all agree is the need for greater national coordination between trade and environment officials. Many Members have argued that coherence between these two policy areas would be key to averting potential WTO-MEA disputes.

The trend towards placing such a strong emphasis on policy formulation indicates just how central the policy formulation process is to the trade and environment debate. A political signal by the WTO on the importance of such coordination could lead to greater collaboration among different governmental bodies at the national level and to greater resources being allocated to such collaboration on the international stage. While this would not eliminate all policy inconsistency—some of which may be deliberate—it would eliminate the inconsistency that results from insufficient coordination. As with all "trade and" issues, the multiplicity of interests, actors and fora, makes it crucial to have effective and inclusive processes of policy formulation.

II

Section II
Issues and Debates

Agriculture

Malena Sell

"While the numbers quoted for the amount of subsidies developed countries pay their farmers vary across sources, one thing is clear: the subsidies amount to billions of dollars per year, and developing countries have no way of competing."

Agriculture lies at the heart of the current round of trade negotiations.

This is an area in which developing countries are seeking to rectify historic imbalances due to massive developed country subsidies and high levels of protection, including tariff escalation. Certain developing countries are looking for new market opportunities, while others are seeking to protect their vulnerable rural populations consisting mainly of subsistence farmers. While some developed countries have offensive interests, others are seeking both to continue to support their farmers in addressing "non-trade concerns"—such as the environment, rural landscapes and food security—and to manage the adjustment of a highly distorted sector towards greater market orientation, which will involve dealing with powerful vested interests.

Agriculture is a major polluter and driver of global environmental change. The environmental impacts of agriculture are expanding as the agricultural frontier reaches more remote areas. This expansion takes place at the expense of natural habitat, leading to biodiversity loss. Habitat protection also leads to the maintenance of important ecosystem services, such as carbon sequestration and watershed management, which have no market value.

The Millennium Ecosystem Assessment has singled out agriculture as one of the major drivers of ecosystem conversion and degradation. Sustainable agriculture itself is also closely linked to the provision of ecosystem services, including the maintenance of healthy soils and agrobiodiversity. Unsustainable farming practices, on the other hand, produce environmental externalities, such as soil degradation and erosion. Agricultural runoff, in turn, leads to fresh-water and marine pollution in adjacent areas, including the build-up of silt and eutrophication. Unsustainable water use and irrigation triggers falling water tables, the depletion of aquifers and salinization of soils. In addition, current high-input, intensive agriculture is a major source of pollution from fertilizers and pesticides, and is heavily dependent on the input of climate change-inducing fossil fuels.

Agricultural pollution is difficult to deal with given that it is not clearly identified as end-of-pipe, but rather as a non-point source of pollution. There are no quick fixes; solutions are mainly related to better management practices. Highly industrialized farming as practiced in developed and certain developing countries can be juxtaposed with small-scale subsistence farming, often in marginal areas, which adds pressure on the land. Both come with their own set of environmental implications.

Current agricultural subsidies are usually not geared towards environmental protection, but rather towards promoting increased production, and have often led to the exacerbation of environmental problems associated with agriculture. In the ongoing negotiations, developed countries are generally pressured to decouple their subsidies from production, which would ease the pressure on the land, make a dent in overproduction and possibly open up global markets for developing countries which are currently dominated by subsidized developed country products.

Change will not come rapidly, however. Negotiations addressing the "three pillars" of agriculture—export subsidies, domestic support and market access—began in 2000 under the WTO Agreement on Agriculture's (AoA) "built-in agenda." In 2001, these issues were folded into the Doha Round. This means that Members have to strike deals and make trade-offs across all trade sectors rather than being constrained to agriculture alone. As part of the single undertaking, agriculture negotiations were originally set to be completed on January 1, 2005. This deadline has passed, and the negotiations are progressing step-by-step, with partial agreements struck in Geneva and Hong Kong since the breakdown of negotiations in Cancun in September 2003. Delegates are moving from a framework for negotiating modalities, towards pre-modalities and ultimately towards the actual modalities—the reduction formulae including percentages for tariff and subsidy cuts, criteria for domestic support, schedules, deadlines and transition periods. After the modalities are agreed, WTO Members fill in the individual schedules of tariff and subsidy reduction, with on-the-ground implementation coming only gradually following the conclusion of the trade round.

In the agriculture negotiations, the fate of all three pillars will determine the outcome from an environmental perspective: the amount of tariff reduction will be decisive with regard to what extent more international trade in agricultural products actually takes place. In addition, the current round seeks to discipline the amount of subsidies available to agriculture, with export subsidies set to be phased-out.

Subsidies under the AoA are categorized into three "boxes." The *Amber Box* includes most domestic support measures that are considered to distort production and trade. These measures are slated for reduction, if not complete elimination. *Blue Box* measures are an exemption from the general rule that all subsidies linked to production must be reduced or kept within defined minimal levels. The measures typically include production-limiting programs, i.e., payments made according to acreage or animal numbers on condition that milk/meat production quotas are not exceeded. The only Members that have notified Blue Box measures to the WTO are the EU, Iceland, Norway, Japan and the U.S. *Green Box* measures should not have distorting effects in agricultural markets; at the very worst, their effects must be minimally trade-distorting. They include funds for research; exceptions for the promotion of food security stocks; direct payments to producers that are decoupled from current prices or production levels; structural adjustment assistance; safety-net programs; environmental programs; and regional assistance programs. These measures, which tend not to be aimed at particular products, must be funded from government revenue, and must not involve price support.

In terms of domestic support, the greatest pressure is on lowering trade-distorting Amber Box support. Amber Box and Blue Box support to production-limiting programs will be capped. The Green Box, or Annex II of the AoA, includes subsidies for environmental purposes (among others). These are allowed to be, at the most, "minimally trade-distorting," although no functional definition of this concept exists.

Interests and Fault Lines

In the context of the WTO, environmental issues have been clustered with other non-trade concerns, such as food security, structural adjustment, rural development and poverty alleviation. In practice, the environment debate has been confined to a discussion of the Green Box and the future of subsidies for environmentally friendly farming practices.

While negotiations related to the Green Box will have important implications for the future environmental impacts of agriculture, this will be but one determinant, and one more relevant for developed countries given that they are the big subsidizers. Environmental issues related to sheer scale effects of agriculture and globally shifting cropping patterns fall outside the discussion at the WTO.

Negotiating Groups and Positions

The fifth WTO Ministerial Conference in Cancun in September 2003 marked a shift in negotiating dynamics. This shift was mainly triggered by imbalances in the area of agriculture. In the lead-up to Cancun, the U.S. and EU drafted a joint compromise text on agriculture, which, in practice, served as the basis for negotiations. Developing countries reacted with outrage, feeling that their interests had not been incorporated—and banded together into a new grouping, the Group of Twenty (G20), to challenge the status quo. The group was led by Brazil, South Africa, India, Argentina and China. While commentators immediately began the countdown for the break-up of the group, it held together. Negotiations following Cancun have shown that the new dynamic had come to stay and a new set of five countries—Australia, Brazil, the EU, India and the United States—has emerged at the heart of the deal-making.

This does not, however, mean that developing countries make up a unified group on agriculture at the WTO. Developing country

Agriculture, environment and social justice

By Adriano Campolina

Any analysis of the impacts of agricultural trade on the environment needs to consider the often-overlooked diversity that exists within the agricultural sector. Considering the enormous differences within the sector, it is necessary to look carefully at how trade policies can have different impacts on different agricultural areas and, therefore, different impacts on the environment.

It is possible to devise various analytical categories upon which to base a thorough analysis of the agricultural sector. Scholars have, for example, suggested the existence of three "rural worlds," comprised of: (a) wealthy and industrialized farmers, who are connected to global markets through contracts with agribusiness, have superior access to resources and capital, and use input-intensive methods of production; (b) small-scale and family farmers, who face declining returns and increased risks, lack capital, information and resources, and are vulnerable to globalization; and (c) subsistence farmers and landless labourers, who are seasonal, migrant or family labourers, with little or no land.

In Brazil, the government has recognized these different categories in the agricultural sector and their different circumstances and needs and devised two separate credit systems. The first focuses on the so-called *agricultura patronal*, which encompasses larger farms, defined as containing more than two permanent labourers. The second is *PRONAF* (the National Program for Strengthening Family Farming), which benefits small-scale farmers who use family workers, are located in rural areas and generate at least 80 per cent of their earnings from farming activities. The recognition of the special needs of family farming was a result of years of struggle by the Brazilian

continued on page 32

continued from page 31

peasant movement. As a result, PRONAF credit now offers lower interest rates, among other measures.

It is also necessary to recognize the different circumstances and needs of rural agricultural communities with respect to trade policy. ActionAid has analyzed the impacts of trade liberalization on small- and large-scale farmers in Brazil during its unilateral liberalization in the 1990s. During that period, the large-scale farmers tended to defend trade liberalization policies, particularly improved market access. The priority of small-scale farmers, on the other hand, was to seek protection from dumping and cheap imports. Given Brazil's active membership in the Cairns Group, the government had mostly responded to the needs of the large farmers and its agenda had centred on eliminating export subsidies, reducing domestic support and increasing market access. Analyzing the evolution of the prices of the crops in this period, ActionAid found that prices fell much more for family-farmed agricultural products (decreasing by 4.74 per cent per year), than for large-scale agriculture (decreasing by 2.56 per cent per year).

If we look at the environmental impacts of agriculture, once again the different agricultural "worlds" will have different impacts. Using the case of Brazil again, 45 per cent of the country's area is used for agriculture. The impacts of commercial agriculture based on Green Revolution techniques—e.g., high use of fertilizers and agrochemicals, monoculture, mechanization, large-scale farms and intensive irrigation—include deforestation, soil erosion and contamination and biodiversity loss.

On the other hand, agriculture can also provide many environmental services, such as soil and water conservation, and sustainable use and conservation of biodiversity. Some experts suggest that small-scale farmers are best placed to provide these environmental services. This is because: (a) their economic logic is not based on maximizing capital returns or short-term profits, but on attending to family needs and maintaining the long-term productive potential of the land (perceived as family patrimony); (b) as a production and consumption unit, small-scale farmers value diversity through shared crops and diverse livestock distributed in a balanced way; (c) the organization of labour in the small-scale farming unit favours the technical practices required for sustainable agriculture; and (d) family farmers have a long-lasting, deep-rooted and positive relationship with their land and can recognize the particular potential of the agroecosystem and use it in their economic reproduction strategies.

We need to urgently review our approach to trade negotiations in the agricultural sector, considering how trade liberalization impacts small-scale farmers, how this sector is well-placed to provide environmental services and that most of the global poor are small-scale farmers, peasants, landless or rural labourers. The main outcome of trade negotiations should be a set of rules that enable, strengthen and protect small-scale farmers.

It is crucial to remove the trade distortions that currently allow rich countries to dump their agricultural products on Southern markets. However, putting an end to dumping should be closely linked with ensuring the rights of developing countries to protect and consolidate their small-scale farming. It is, therefore, important to eliminate export subsidies and reduce domestic support in the North. Yet, it is equally important to ensure special and differential treatment (S&DT) for developing countries to allow them to protect the key crops of their small-scale farmers to enable a stable economy and food security (i.e., Special Products), including the right to raise tariffs and create a Special Safeguard Mechanism.

Trade rules should allow developing countries to implement the public policies they deem appropriate in order to strengthen, consolidate and develop their peasant and small-scale agricultural sectors. Such an approach could maximize the positive interactions among agriculture, environment and social justice.

However, this approach will require concerted efforts to defeat strong protectionist interests

continued on page 34

interests in agriculture are as varied as the countries themselves. The G20 is generally perceived as focusing on expanding agricultural export opportunities—this is, however, a truth with modification, as India is one of the dominant forces of the G20 and clearly seeks protection for its small and vulnerable farmers and their livelihoods. The Group of Thirty-Three (G33), an alliance of developing countries including many from Africa, the Caribbean and the Pacific (ACP), focuses on securing the designation of effective "Special Products" for developing countries—for which lower tariff reductions would be required—and a "Special Safeguard Mechanism" to shield developing countries against import surges. There is a certain overlap between the members of the G20 and the G33, and India and China coordinate closely with the G33.

The Group of Ninety (G90)—the largest coalition of Members operating in the WTO—comprises least developed countries (LDCs), the ACP countries and the African Union. The group has actively coordinated positions around major events such as Ministerials. The group argues that any agriculture deal should allow its members to pursue agricultural policies that are supportive of their development goals, poverty reduction strategies, and food security and livelihood concerns. A special case within the G90 are the so-called net food-importing developing countries (NFIDs)—many of them also LDCs—which do not produce enough food domestically, and actually benefit from low world market prices and cheap imports.

Among other players, the Cairns Group—a coalition of 17 agricultural exporting countries, which account for one-third of the world's agricultural exports, including Australia, Canada, New Zealand and developing countries such as Chile, Thailand, Argentina and Indonesia—has focused on market liberalization both in terms of tariff and subsidy reduction. While the Cairns Group has called for substantial tariff decreases across the board, the G20 underscores the need for special and differential treatment (S&DT) of developing countries, meaning less onerous commitments on their part. Both the G20 and Cairns Group tend to place little emphasis on non-trade concerns. Regarding the environment specifically, Argentina made a proposal early on in the negotiations noting that developing countries have a strong interest in preserving their natural resource base.

The EU—which is reforming its internal Common Agricultural Program (CAP) in parallel with WTO negotiations—has agreed to give up export support. The EU takes a cautious approach to tariff reduction, and is betting on designating "Sensitive Products" for which smaller tariff cuts would have to be made, thus protecting local producers. Regarding domestic support, the EU generally argues that cuts should be made on trade-distorting support and the Green Box should be left alone (the EU is in the process of moving much of its support into the Green Box, an area in which the U.S. is far ahead).

On non-trade concerns, viewed as legitimate societal goals and extended to include animal welfare, the EU argues these should be addressed in a targeted, transparent and non-distorting way under the Green Box. European consumers are also demanding action on food safety. There is much public concern regarding issues such as hormone-treated beef and genetically modified organisms (GMOs).

The U.S. has been arguing that both developed and developing countries need to contribute to a substantial increase in real market access opportunities both by cutting tariffs and dismantling trade-distorting subsidies. The U.S. has indicated that special and differential treatment has to be applied on a need-basis, indicating that major exporters such as Brazil and Argentina can hardly expect the same treatment as poorer, more vulnerable countries. Non-trade concerns,

continued on page 32

that lobby to maintain high levels of subsidization in much of the developed world. It will also require a shift in the trade negotiating strategy of developing countries from simply prioritizing market access to include an emphasis on special and differential treatment, as well as ensuring provision for the tools necessary to protect and develop their small-scale farming sector.

This change in the focus of agricultural negotiations represents both a challenge and an opportunity for developed and developing countries.

Adriano Campolina is the Regional Director for the Americas for ActionAid International, based in Brazil.

according to the U.S., should be dealt with in the Green Box exclusively.

In this regard, the Group of Ten (G10), a group of net food importers including Switzerland, Norway and Japan, has taken a broader approach supporting the integration of non-trade concerns into all aspects of the agreement. These countries with uncompetitive agriculture sectors have high tariffs and subsidies, and wish to maintain them given that they do little harm in the way of exports or international competition. According to the group, agriculture is "special" because of its provision of critical public goods. The group asserts that agricultural products are unique to every society, and agriculture is "multi-functional," contributing to the viability of rural areas, food security, the cultural heritage and environmental benefits such as the agricultural landscape and agro-biological diversity. While most other Members are of the view that non-trade concerns can be accommodated in the Green Box, the G10 argues public goods often are only provided "jointly" with production, and therefore support should sometimes target production, especially in uncompetitive mountainous, remote or climatically disadvantaged areas.

What Future for the Green Box?

While the numbers quoted for the amount of subsidies developed countries pay their farmers vary across sources, one thing is clear: the subsidies amount to billions of dollars per year, and developing countries have no way of competing. Therefore, the general position among developing countries is that these subsidies have to go, and there is widely held suspicion regarding the supposedly non-distorting measures of the Green Box. As long as developed countries provide their farmers with massive subsidies, there is no level playing field, be it for hyper-efficient large-scale sugar producers in Brazil or for farmers hand-picking their cotton in Mali. On the other hand, developing countries do argue that they should be able to retain the right to subsidize in order to strategically promote their own development; and especially to support low-income and resource-poor farmers.

As part of current agriculture negotiations, the Green Box is to be reviewed and clarified. Disagreement immediately emerged over what this should entail. The EU and G10 were of the opinion that the review should be just a "health check-up." The G20 and Cairns Group preferred a much more substantial review, including the tightening of criteria and improved monitoring and surveillance to ensure that the new disciplines are being adhered to. While environmental measures as such were not the concern, developing countries worried that "box shifting" would take place—i.e., that developed countries would simply make slight modifications to their current Amber Box subsidies and then move them into the Blue or Green Box.

In short, significant disagreements persist on the likely or desirable future of the Green Box.

Organic Production, Agricultural "Environmental Goods" and Standards

Organic production is often promoted as a possible win-win for developing country exporters and the environment. In practice, however, developing countries find it challenging to comply with the myriad of standards and labelling requirements importers impose on organic goods. Organic agriculture has, nonetheless, generated interest in current negotiations on environmental goods and services slated for accelerated tariff reduction and removal.

Most industrial goods considered environmental are of developed country interest; the idea of agricultural environmental goods, in which developing countries would have a comparative advantage, has emerged as a counterbalance. In this context, clean-burning low-carbon biofuels, such as ethanol produced from sugar cane, are of potential interest. Biofuels can be used to displace some petrol, and have the advantages of being more highly processed and generating new rural jobs. While the greatest demand for biofuels is in developed countries seeking to fulfill their obligations under the Kyoto Protocol on climate change, they are produced at a competitive cost only in the South.

As standards regarding food safety and hygiene have been increasing in developed countries, these non-tariff barriers have been characterized by some developing countries as the new frontier of protectionism. A number of standards and eco-labelling schemes—often imposed by the powerful supermarkets chains—are expensive for producers to comply with.

Dispute Settlement Driving Negotiations?

In addition to the negotiations themselves, the fate of agriculture subsidies is influenced by the outcomes of key dispute settlement cases at the WTO.

Dealing with the hidden agenda on agricultural subsidies

By Vangelis Vitalis

One expected outcome of the "Doha Development Round" will be commitments by developed countries to reduce and eliminate some, if not all, agricultural subsidies.

Unfortunately, however, there is also a very real possibility that this process will be undermined by attempts to retain certain subsidies and limit overall reductions. This is not surprising. What is perhaps surprising is the vehemence with which environmental arguments are being used to defend such moves.

Particularly striking is the argument advanced by some sectoral interests and an assortment of non-governmental organizations (NGOs) and politicians. They argue that reductions in agricultural subsidies in some countries in the Organization for Economic Cooperation and Development (OECD) should be limited or frozen altogether because this may cause output in developing countries to increase with potential negative consequences for the environment there and/or globally.

It is important to be clear at the outset about what the argument underpinning this approach is. Basic principles are a good starting point. There is no doubt that a reduction, or indeed an increase, in subsidies *will* affect the environment in a number of ways. These impacts occur through *changes* in the structure of production across countries, scale of economic activity, mix of inputs and outputs, and production technologies.

Nevertheless, these changes should not be used as a reason to freeze or limit subsidy reform. After all, developed-world living standards are built on the conversion of natural resources into intellectual and human resources. This substitution of natural capital

continued on page 36

continued from page 35

with human capital is a trade-off that every country rightly regards as its own sovereign choice and was reaffirmed by the Rio Declaration.

If the developed world is really so concerned about the potential negative effects on the environment by subsidy reductions, then the right response is not to freeze reform, but to improve the targeting of technical and development assistance. Here's a practical real world example. OECD member subsidies to cotton farmers lowers world prices by some 25 per cent. A reduction in such support would certainly have a positive effect on economic growth through improved market access and global prices for a number of developing countries.

One of the reasons suggested for retention of such support, however, has been the likely negative effects on the environment as a consequence of raised production in developing countries and the pressure this might have on resources like water and energy. Uzbekistan is a case in point. It has significant cotton interests. Improved world prices would certainly have positive implications for poverty reduction and economic growth in this Central Asian economy where nearly 80 per cent of the population lives on less than US$2 a day. It is also true that increased output in response to improved market access may have negative implications for water, which is already a scarce resource that is drawn almost exclusively from the Aral Sea. Currently, more than 40 per cent of the water taken from the severely stressed Aral Sea to irrigate the cotton fields of Uzbekistan evaporates before it even reaches those fields (Uzbek farmers use open channels, not closed pipes, for irrigation). Further pressure on the Aral Sea water resource would have significant negative spillovers to other parts of the Uzbek economy.

If those groups and countries citing their concern for the environment are serious, then the answer is not to stall subsidy reform, but to focus on how technical and development assistance might plug the gaps. Thus, when market access is improved for Uzbek cotton as a consequence of subsidy reductions with the attendant benefits in terms of farm incomes, developed country policy-makers should be in a position to consider how best to fund flanking measures to ameliorate any potential environmental problem (such as enhanced technical assistance for improved irrigation techniques. Put simply, install pipes to replace the open irrigation ditches in Uzbekistan.). A win-win outcome in action.

In sum, fundamental reform of agricultural trade must be pursued with the vigour and indeed the rigour it requires. It should not be derailed by spurious environmental considerations. There is no question that trade negotiators should bear the sustainability aspects in mind when negotiating agricultural trade liberalization. They should, however, be looking to international assistance and other sources to address these kinds of issues, rather than restricting the growth prospects of developing countries.

These are urgent issues. Negotiators must not shy away from them in their pursuit of improving the global inter-linkages and complementarities between social, economic and environmental development—that is, sustainable development.

Vangelis Vitalis is a former Chief Advisor at the OECD and currently a Senior Trade Negotiator for the New Zealand Ministry of Foreign Affairs and Trade. This essay is written in his personal capacity.

For example, Brazil won a challenge it brought against U.S. cotton subsidies. Part of the challenge focused on subsidies the U.S. claimed were non-distorting and hence fell under the Green Box. The panel, however, found the subsidies to be connected to production, meaning they cannot be classified under the Green Box, but must be counted towards trade-distorting support. This case highlighted the need for clearly defined criteria related to the Green Box, and provided challengers of the Green Box with new negotiating capital.

Brazil, Thailand and others also initiated and won a similar case against EU sugar subsidies. Other cases, such as on soy, may also be launched by developing country exporters against developed country subsidies. In the future, care must be taken to ensure that environmental programs do not lead to trade-distorting effects. As an example, subsidies to biofuel production could become tricky—while subsidies focusing on better management practices regardless of which crop is being produced can hardly be seen as affecting trade, subsidies to certain crops used as feedstock for biofuels could cause problems.

Trends and Future Directions

Global agriculture is characterized by volatile and declining commodity prices, as well as strong market concentration and vertical integration of agribusiness. Farmers are retaining less and less of the profits derived from agriculture and, with liberalization, the pressure to become more efficient (and cut corners) will increase. Farm size is on the increase; the number of farmers on the decrease. The likely medium-term outcomes of the Doha Round agriculture negotiations will change the global distribution of agricultural production, and lead to more agricultural products being traded internationally.

The accompanying environmental changes and challenges will surely be enormous, but are not well understood. Take climate change: agriculture can serve both as a source of carbon emissions and a carbon sink, while also being directly impacted by atmospheric carbon fertilization and a changing climate, including unpredictable local weather patterns and increasing extreme weather events. Increased global transport of agricultural commodities and produce leads to higher emissions of carbon dioxide. Different crops and different regions of the world will be affected by climate change in different ways; but exactly how, is not yet known.

According to recent Dutch modelling exercises, liberalized trade, increasing incomes and population growth are likely to lead to increased agriculture and related pressures on tropical forests by 2030, particularly in Asia and Africa. European agriculture is expected to become less intensive—certainly not decimated—especially under scenarios in which climate policy drives more land into the production of biofuels rather than food crops. In terms of the use of marginal lands for agriculture rather than to harbour valuable biodiversity and pressure on the agricultural land itself, the dismantling of harmful production-linked subsidies in developed countries can help support the local environment. On the other hand, some of the intensive farming practices might just relocate to developing countries, with a few agribusiness transnationals reaping the economic benefits without paying the environmental costs. Agrobiodiversity has also declined, with 75 per cent of the food in the world now being derived from seven crops only (wheat, rice, corn, potatoes, barley, cassava and sorghum). The genetic variability of crops has similarly decreased, meaning those widely used varieties are more vulnerable to diseases and climate change. This trend is likely to continue.

Some opportunities for environmental improvement also exist, however. With the current disciplines being negotiated at the WTO, the emphasis on subsidies is shifting towards non-distorting measures, such as

those promoting environmental protection. Outside the WTO as well, producers and consumers are recognizing the importance of sustainable agriculture. As expressed by Argentina in its submission on non-trade concerns and natural resources: "These are the assets on which our agriculture is based. We are good at producing agricultural products and therefore we have to take special care of land and water protection. To do so we need to implement sound environmental policies."

Biotechnology

Heike Baumüller

"Since Seattle, there has been little reference to biotechnology in WTO discussions, although it clearly underlies countries' negotiating positions in related areas, such as the patentability of life forms, the relationship between the trade and environment regimes, eco-labelling and agriculture."

Biotechnology continues to capture public attention worldwide. A wide range of interest groups are united in their opposition to it, expressing concerns over environmental risks, impacts on rural livelihoods, the economic dominance of multinational companies and ethical complications. On the other side are those who are equally convinced of the potential of biotechnology to contribute to food security and environmental protection as well as powerful business interests.

The need to address the potential environmental risks of biotechnology found international recognition in Agenda 21, adopted at the Rio Earth Summit in 1992, which includes an entire chapter on the environmentally sound management of biotechnology. Also negotiated in 1992, the Convention on Biological Diversity (CBD) explicitly refers to the need to "regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology" and calls for a protocol to regulate the "safe transfer, handling and use" of such organisms. In the context of the CBD, biotechnology is defined as "technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use." The Convention also recognizes the importance of facilitating access to and transfer of biotechnology, in particular for developing countries that provide the genetic resources.

The mandate to negotiate a protocol came in response to a number of environmental and health-related concerns over the use of biotechnology. Some fear that genes from herbicide tolerant varieties could "escape" by being transferred to another crop or wild relative, which in turn could become "superweeds" that are difficult to control. Moreover, plants engineered to produce a toxin might harm non-target species, such as making the plant "toxic" to wildlife that feed on the crop. Certain genetic use restriction technologies (GURTs)—also called "terminator technologies" by their critics—which allow seeds to be altered so that they do not germinate when replanted, have been particularly controversial. While agrobiotech businesses claim to promote GURTs as a way of addressing environmental concerns by preventing transgenic plants from spreading, opponents see the technology as an attempt to control the world's seed supply and maximize profits by forcing farmers to purchase new seeds every year.

Regarding health risks, the use of antibiotic resistance marker genes has raised significant concerns. These genes are inserted in the

modified organism to identify genetically transformed plants; i.e., only plants with the marker gene will grow on material that contains antibiotics. Some fear that these genes may be transferred into bacteria in the stomach, thereby making potentially harmful bacteria resistant to antibiotics. Other health-related concerns include increased allergenicity and toxicity of biotech food, unintended side effects resulting from the process of genetic modification itself and changes in nutritional value. Despite ongoing research in this area, significant uncertainties remain over the actual risks associated with biotech products.

These concerns and uncertainties, coupled with strong opposition to biotechnology in some countries, have given rise to a whole range of import regulations and measures targeted at biotech products. Several Southern African countries, for instance, banned imports of food aid found to contain genetically modified corn (although most of them subsequently allowed imports provided that the grain was milled prior to or upon arrival). The reaction in these countries was partly attributed to fears that farmers may cultivate the corn that could potentially affect exports of grain-fed beef to countries with strict import regulations, such as the European Union. Similarly, in 2000 the discovery of Starlink corn (a corn variety approved for feed use by U.S. authorities, but not for human consumption) in food grain exports led Japan to ban the import of U.S. corn for several months. Biotech-exporting countries, for their part, have criticized import regulations in some markets as unnecessarily restrictive, alleging significant losses in trade revenues, and as an obstacle to developing countries' agricultural and economic development.

At the multilateral level, it was during the negotiations of the Cartagena Protocol on Biosafety that trade considerations came to the fore, turning the negotiating process into a delicate balancing act between trade interests, on the one hand, and environmental and health concerns on the other. Among the countries with significant biotech interests, the U.S.—joined in the "Miami Group" by Canada, Australia, Argentina, Chile and Uruguay—made every effort to contain the scope of the Protocol, in particular its application to trade in agricultural commodities, and to ensure that multilateral trade rules were not affected by the Protocol's provisions. The Europeans and many developing countries, in contrast, pushed for a strong Protocol with a broad scope, emphasizing the importance of precautionary decision-making.

Meanwhile, a parallel process was unfolding at the World Trade Organization (WTO), where several countries sought to place biotechnology on the agenda. As part of the preparatory process for the WTO Ministerial Conference in Seattle in December 1999, the U.S. called for "disciplines to ensure trade in agricultural biotechnology products is based on transparent, predictable and timely processes." Discussions on trade in biotech products were also supported by Japan, while Canada proposed the establishment of a working group on biotechnology in the WTO. At Seattle, however, these proposals were vehemently rejected by the EU's Environment Ministers in direct contradiction of their own trade spokespersons.

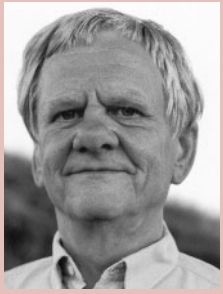
Following the failed attempt to bring biotechnology into the WTO, the Biosafety Protocol negotiations became the battleground for countries to iron out their differences, culminating in the adoption of the Protocol in 2001. The Protocol was greeted with varying degrees of enthusiasm, being hailed by some as a "victory" for the environment and consumers, while others regard it as a "biotrade" protocol that had sacrificed biosafety concerns to trade interests. The Protocol, which regulates the transfer, handling and use of living modified organisms (LMOs)—with the focus clearly on the transfer of such organisms—establishes a notification and approval process for the transboundary movement of LMOs. Although a number of issues remain to be resolved, the

Protocol allows for the precautionary decision-making in cases of scientific uncertainty.

Since Seattle, there has been little reference to biotechnology in WTO discussions, although it clearly underlies countries' negotiating positions in related areas, such as the patentability of life forms, the relationship between the trade and environment regimes, eco-labelling and agriculture. Instead, disagreements are being carried out in the WTO dispute settlement system, where the U.S., Canada and Argentina in May 2003 launched a case against the EU's *de facto* moratorium on the approval of new biotech products in place since 1998, as well as a number of national bans imposed by EU member states. The three complainants argued that these measures are not scientifically justified or based on risk assessment. The EU denied the existence of any moratorium and defended the national measures as temporary, provisional and based on the precautionary principle. In its ruling, which the EU chose not to appeal, the WTO panel sided with the complainants on procedural grounds, but refrained from taking a stance on the safety of biotech products or the legality of stringent import regulations.

Another, often neglected forum for debate are the international standard-setting bodies, particularly the Codex Alimentarius Commission, the International Plant Protection Convention (IPPC) and the World Animal Health Organisation (OIE). These organizations were explicitly cited as international standard-setting bodies in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and their standards are presumed to be consistent with the Agreement. This recognition has given the previously voluntary standards a quasi-legal status, thereby increasingly turning these organizations—and in particular the Codex Alimentarius Commission which deals with food safety standards—into political fora, where much of the trade and biotech debate has effectively moved.

Making the Cartagena Protocol work



By Veit Koester

The ongoing debate on genetically modified organisms (GMOs) commenced in the 1970s and the general trend is still that all GMOs are being put in the same box. They are either white or black. This, despite the fact that different GMOs may entail completely different risks and benefits.

No wonder, then, that the public is confused. No wonder so many people around the world want to rely on its own decisions and therefore demands to be fully informed and seeks labelling in order to make its own informed choices. No wonder, either, that a kind of GMO war is raging between EU on the one side and the U.S. and others on the other as the EU rejects importation of most GM products.

The issue of GMOs is complicated in itself. It is made all the more complicated by a number of related issues. Biodiversity is, to a large extent, the raw material for GMOs. However, the protection of biodiversity is not a simple issue. It includes the requirement that access to genetic resources is based on prior informed consent and benefit-sharing. Add to this the question of indigenous and local communities' knowledge related to biodiversity and intellectual property rights (IPRs), and the trade and environment negotiations now underway in the WTO. The use of GMOs also has significant trade implications. An estimated 300 million metric tons of genetically modified grains, oilseeds and pulses are traded internationally each year, and the global area of these crops increased from less than five million hectares in 1996 to almost 70 million hectares in 2003.

The issue is particularly important for developing countries. While GMOs may pose risks to the environment or human health, they may also have the potential to advance sustainable

continued on page 42

continued from page 41

development. This was the philosophy underlying the Cartagena Protocol on Biosafety (2000), which entered into force in 2003. This is why the Protocol—a central mechanism for international cooperation on the prevention and management of risks associated with GMOs—was strongly advocated by developing countries.

Hence, it seems obvious that developing countries should support the Protocol, promote its implementation and ensure that it works. For this to happen, it is necessary to build consensus on broader standards and guidance as early as possible, as opposed to getting stuck in the nitty gritty. Developing countries will suffer most if supplementary instruments are not in place in the Protocol. A poorly functioning Protocol will likely result in the GMO agenda being taken over by the WTO system, which arguably would be more problematic for developing countries.

While Southern solidarity remains an important value for developing countries, it has remained difficult to achieve and uphold in this area. The negotiation of the Protocol demonstrated specific difficulties in reaching common positions among developing countries because different developing countries have very different approaches to the importation and use of GMOs. These difficulties are probably even greater now because the number of developing countries relying, to some extent, on genetically modified crops has increased. A common approach presupposes coordination among developing countries. This could be facilitated by regional cooperation. However, it is equally important to develop policies reflecting national needs and conditions. Most importantly, national policies should be truly national and not influenced by industrialized countries. Much is at stake, including the risk of being influenced by multinational corporations. A balanced approach is needed; one that neither under-regulates, nor over-regulates.

National policies should be the result of coordinated approaches between trade and environment ministries. Fighting for the precautionary principle in the framework of the Protocol and, at the same time, being skeptical of applying environmental principles to trade-related issues in WTO negotiations—as it appears is the strategy of some countries—does not make much sense. In this respect, it is essential to build developing country capacity, particularly in the area of policy coherence between the trade and environmental regimes.

The Cartagena Protocol on Biosafety is a central instrument for international regulation of issues relating to the safe handling and managing of GMOs, especially in the transboundary context. The Protocol is, to a large extent, the creation of developing countries. Therefore, it is in their interest to contribute actively and constructively to ensuring that the Protocol is a well-functioning instrument.

The reality is that industrialized countries will be able to find ways and means to cope with the advent of GMOs, even if the Protocol does not function well. The real question is whether developing countries will be able to do so. In many respects, the Protocol represents the best chance for developing countries to pursue a balanced and equitable outcome to deal with the complex issues raised by GMOs.

Veit Koester, from Denmark, was with his country's Ministry of Environment and is now the Chairman of the Compliance Committees of the Cartagena Protocol and the Aarhus Convention. This essay is written in his personal capacity.

Interests and Fault Lines

The production of biotech crops is dominated by a handful of countries. In 2006, just six countries accounted for 96 per cent of global crop area: the United States (54 per cent); Argentina (18 per cent); Brazil (11 per cent); Canada (six per cent); India (four per cent); and China (three per cent). Other minor biotech producers include (in order of hectarage) Paraguay, South Africa, Uruguay, the Philippines, Australia, Romania, Mexico, Spain, Colombia, France, Iran, Honduras, Czech Republic, Portugal, Germany and Slovakia. Herbicide-tolerant or insect-resistant soy, corn, cotton and canola are the main GM crops under cultivation.

Policy-makers in the U.S. generally regard modern biotechnology as just another form of genetic modification that has been practiced ever since farmers started to crossbreed plants. This attitude is clearly reflected in the regulatory framework, which does not establish specific legislation or institutions to deal with biotechnology, but rather splits the responsibility between the existing ones. Biotech products have been on the market in the U.S. since 1994 and the American public has by and large been supportive of—or at least not openly opposed to—genetically modified organisms (GMOs).

The European Union, in contrast, has established a distinct and thorough risk assessment and approval process for biotech products. The EU cites the Biosafety Protocol in support of its approach, which it sees as recognition by the international community that such products require their own authorization process. Its regulations also respond to widespread resistance to biotech crops and foods among European consumers, who are insisting on their "right to know" and "right to choose." Among other factors, this skepticism can be traced to a general mistrust towards food safety authorities and governments' ability to manage food crises, in particular following the handling of the spread of mad cow disease in the late 1990s.

While the U.S. and EU positions are comparatively clear-cut, any generalization for the rest of the world will necessarily be rather broad. This is partly due to the fact that biotechnology cannot be characterized as a typical North-South issue, but rather finds fervent opponents and supporters on both sides. Broadly speaking, countries with significant biotech interests, such as Argentina and Canada, have largely followed in the footsteps of the U.S., while many other countries have moved more cautiously, aiming to set up the necessary regulatory frameworks before embarking on the biotech path. Many in these countries have stressed the need to take into account the local environment and capacity constraints when assessing and managing the risks associated with biotechnology. They would also like to see local research and development capabilities strengthened to allow for the development of GMOs adapted to local needs. They also consider it important to ensure the ability of poor farmers to access and reuse seeds that are not protected by patents.

The Latin American region is marked by stark differences in their dealings with biotechnology, with Argentina and Brazil among the region's leaders in terms of production, while others, in particular the Central American and Andean countries, continue to lag behind in setting up regulatory systems and developing their biotechnology research capacities. Brazil is a particularly interesting case. While some government officials and industry groups have pushed for the adoption of GMOs and the country counts among the research leaders in the developing world, civil society groups have waged a continued battled against the introduction of biotechnology. In the meantime, biotech seeds have been smuggled across the Argentinean border into the southern states, assuring Brazil a place among the top agrobiotech producers in the world.

Asia, and notably China, has been generally quicker to engage in the biotech business,

opting in particular for medical and industrial applications. Several Asian countries, including China, Korea, Japan and Thailand, have set up stringent import regulations, with Japan and Korea emerging, like the EU, as markets particularly averse to GMOs. With regard to agricultural biotechnology, the region has focused much of its attention on GM cotton grown in China, India and Indonesia. Some countries are also considering the introduction of GM rice, raising serious concerns among environmental groups that the GM rice could contaminate traditional varieties, in particular given that China is a centre of origin for rice. Critics point to similar experiences in Mexico where traces of transgenic corn had been found in native landraces despite a ban on GM corn cultivation.

Most African nations, in contrast, have become pawns in the biotech game and remain far behind in this field. They often lack the scientific, financial and institutional capacities to conduct biotech research (with the notable exception of South Africa and more recently Kenya and Egypt). Opinions appear deeply polarized in some regions, while others show a cautious willingness to assess the merits and dangers of biotechnology. Biotech crops adapted to harsh conditions, such as drought tolerance, or with nutritional benefits, such as added vitamins or vaccines, have most to offer for the continent, provided that concerns over the ownership of seeds, the need to assess the risks within particular local conditions and the adaptation of biotechnology to local requirements are addressed.

Labelling

The U.S. regulatory system does not require labelling for biotech product, which is in line with its approach that GMO products are not distinct from conventional products *per se*. Other biotech producers, such as Canada and Argentina, have followed a similar approach, while South Africa and Australia only require labels for a restricted set of GMOs. The EU stands at the other end of the spectrum with a stringent labelling and traceability system that even covers products derived from GMOs, but where the GM content is no longer detectable (such as soy oil made from GM soy). The EU considers such a system essential to enable consumer choice, allow for withdrawal of a product should unforeseen risks occur, and monitor potential effects on human health and the environment. Labelling mechanisms are also becoming increasingly prevalent in some developing countries, such as Brazil, Mexico, China, Thailand and Korea.

Given these differences in approach, labelling of LMO commodity shipments emerged as one of the most contentious issues during the negotiations of the Biosafety Protocol and detailed documentation requirements were left to be developed after the Protocol's adoption. African countries insist that the LMO content of a shipment, whether known or potentially present, should be clearly specified. The EU was pushing for requirements similar to its own regulations, including the use of "unique identification" to clearly identify each transgenic plant line and flexibility for countries to set thresholds for the accidental presence of LMOs. In contrast, the main LMO exporters, such as the U.S., Australia and Canada, would have liked to keep documentation requirements to a minimum so as not to hinder trade, and they do not support the inclusion of the unintentional presence of LMOs. The final agreement on labelling rules reached in March 2006 was only possible by leaving the most contentious points sufficiently ambiguous to accommodate the different positions.

Labelling of biotech foods also continues to bog down discussions at the Codex Committee on Food Labelling, which has been working on a related standard since 1993. Given the quasi-legal status of the Codex standards, countries' positions have reflected their domestic labelling practices in an effort to obtain international backing and

a stronger defense for their national labelling regulations should they ever become subject to a WTO challenge. This is clearly reflected in the two labelling options that have crystallized in the debate. Under the first, which is supported by the U.S. and Canada, labelling would only be required where the biotech product differs significantly from its conventional counterpart with regard to composition, nutritional value or intended use. The emphasis here is clearly on food safety. Under the second option, which is favoured by the EU, Switzerland, India, Norway, Brazil and others, all genetically modified foods would be labelled to provide consumers with the freedom to choose.

Precaution

The role of a precautionary approach in biotech trade and decision-making remains hotly debated. Many consider the Biosafety Protocol's references to the precautionary approach in the preamble and the flexibility for countries to reject LMO imports where they lack scientific certainty as the first operationalization of the precautionary principle in international law. In WTO law, more limited space for precautionary decision-making is provided in Article 5.7 of the SPS Agreement, which allows countries to take provisional SPS measures in cases where scientific information is insufficient, provided that these measures are reviewed within "a reasonable period of time" and Members continue to "seek additional information." The Codex principles for risk analysis of biotech foods include elements of precaution, requiring authorities to take into account uncertainties identified in safety assessment and allowing them to implement appropriate risk management measures. At the Codex Committee on General Principles, however, differences over the inclusion of references to precaution in the risk analysis principles have stalled talks for the past few years.

At the international level, the U.S. has strongly resisted references to the precautionary prin-

Biotechnology and the multilateral trading system

By Gustavo Alanís-Ortega

The multilateral trading system is in real danger. And negotiators, public officials and civil society from around the world seem to be disregarding this. They are letting inertia and legaloid meandering strip away the system from its usefulness and relevance.

The latest culprit? The overblown "biosecurity" menace put forward by the "immoral," "vicious" and "greedy" biotechnology multinationals. The contention is that with their "reckless" flooding of international markets with diverse biotechnology products, they constitute the most refined form of "Frankenstein" science that, along with an open system of trade, will produce catastrophes of a global scale, from food security to biodiversity loss and social instability.

If this were really true, what should we do about it?

If the current strategy of several key players in this controversial debate sheds any light on this matter, the answer would be to introduce the "precautionary principle" into the exceptions provisions of the WTO. Should we do that? Let's explore this question.

It is, of course, true that there is a long history of scientific "breakthroughs" that eventually reveal a sinister side. It could be that the biotechnology boom may prove to be more of a nuisance than a blessing. And of course, civil society has a duty to point this out and help exhaust every source of doubt, however minimal. And it is the *purpose* of public policy to develop and enforce regulation that offsets any undesired effects on society as a whole of any technological advances. Furthermore, if a transboundary, regional or global case appears, public policy *must* address this on the appropriate level.

continued on page 46

continued from page 45

A first step in addressing the potential "sinister" side of biotechnology on a global scale is the Convention on Biological Diversity's (CBD) Cartagena Protocol on Biosafety, which includes the "precautionary approach" to decision-making regarding potential biosafety hazards, even if the relevant decision relates to trade. This is a remarkable and major triumph in the development of multilateral environmental agreements (MEAs).

The Cartagena Protocol could be a success story if it got enough support and scrutiny from civil society. Unfortunately, it is not getting the support it deserves. It would represent an unforgivable mistake on all sides if efforts like the Cartagena Protocol and other MEAs were not taken to their full potential. Nevertheless, more needs to be done; this is where the multilateral trading system comes into play. But what should be done?

It is essential to clarify the relationship between the multilateral trading system and multilateral environmental agreements, which use trade measures to be effective. This could mean that certain "approaches" or "principles" that countries agreed to on a specific environmental matter could be fully recognized, in one way or another, within the multilateral trading system. However, little has been advanced since the issue appeared in the Doha agenda. The excuse of "no negotiation until agriculture" has been used to sideline important issues relevant to all countries and, in many cases, these issues have gone directly to dispute settlement instead of the negotiating table.

While the Biotech dispute at the WTO did little to clarify the role of the precautionary principle or approach in the WTO, the possibility of such a clarification through future disputes cannot be ruled out. It is worrisome that this would occur without negotiations on the part of the WTO membership as a whole. The point is: there is a strong possibility for a major precedent to be set that could change the way trade is conducted, but in the absence debate and negotiations within potentially affected parties.

How crucial is this potential precedent? It is worth noting that no system based on non-discrimination and equal treatment can function under the principle of "precaution." If the multilateral trading system has any value for its Members, it is its reliance on non-discrimination. Any deviation from this principle should at least be the result of negotiations among the entire WTO membership, and not the result of a single case of dispute settlement.

On the other side, it is also a fact that environmental agreements cannot function without discrimination. That is why negotiation is so important, and hence the issue of clarifying the relationship between the WTO and MEAs. Unfortunately, after the initial thrust from organized civil society that helped put the environment on the negotiating agenda at WTO, follow-up has dwindled and what little remains of the efforts from civil society has gone instead to influence dispute settlement outcomes.

This shift in strategy from many civil society organizations has two awkward results for global environmental stewardship.

First, this shift in strategy tends to focus on the multilateral trading system as one of two extremes: either a "solution to all problems," or an "entity of evil." The first vision tries to induce substantive change into the system (such as the introduction of the precautionary principle). On the other hand, proponents of the second vision work to undermine the system. The result, in the best of cases, will be a dysfunctional and irrelevant multilateral trading system as well as an incompetent multilateral environmental system.

Second, this shift in strategy diverts attention away from MEAs by disregarding them as a matter of principle. MEAs are the best tool for global environmental stewardship that we have as of now. True, MEAs are perfectible; yet, the key contributions from civil society—effective participation and scrutiny—have practically disappeared.

There is no doubt that biotechnology—and its potential crimes and misdemeanors—is a major concern with respect to the need to

continued on page 47

continued from page 46

safeguard both the environment and trade. However, biotechnology should not be an excuse to disregard environmental negotiations and eventual agreements. And it must not be a stumbling block towards a more fair and equitable negotiated multinational trading system. Furthermore, it should serve as a reminder for organized civil society that more involvement and scrutiny are necessary if we want a better system of environmental governance and a more accountable way of managing its relationships with the trading system.

Gustavo Alanís-Ortega is President of the Centro Mexicano de Derecho Ambiental (CEMDA) and teaches environmental law at the Universidad Iberoamericana in Mexico City.

ciple—stressing the need for science-based, case-by-case decision-making—and disputes that the Biosafety Protocol enables countries to invoke the principle. The EU, in contrast, has introduced the precautionary principle as the basis of policy with its inclusion in the 1993 Maastricht Treaty and is a strong defender of the principle as a basis of international law. Developing countries appear to be ambivalent in their support for either position. Many of them strongly advocated mention of the precautionary approach in the Biosafety Protocol negotiations while taking a non-committal stance (in the case of many African countries) or opposing such references (in the case of some Latin American and South-East Asian countries) in the Codex Alimentarius Commission.

Trends and Future Directions

Given continued scientific uncertainties, high economic stakes, deep-seated divisions and ongoing trade liberalization that will bring the various perspectives into ever closer contact, the biotechnology debate is likely to remain controversial for some time. Developing countries are often stuck in the middle of these debates, facing the challenge of assessing their interests and evaluating them against associated risks and opportunities. Strengthening scientific, regulatory and institutional capacities—including to better understand countries' regulatory flexibility to take measures that respond to their self-defined goals in light of multilateral trade interests and obligations—combined with inclusive policy-making processes and priority-setting, will be fundamental perquisites to allow for informed decision-making on their biotech future.

The agreement on documentation requirements has given the Biosafety Protocol renewed political credibility and parties can now turn to the task of implementing the treaty's provisions, although a number of trade-related issues, including compliance measures and liability, remain to be hammered out. The labelling debate can also be expected to start afresh in 2012 when the documentation decision is again up for review. The main challenge now will be to get the key biotech exporting countries on board. While the U.S. cannot be expected to join the Protocol in the near future, efforts will need to focus on involving some of the other biotech exporters, such as Canada, Australia and Argentina, who will have to weigh the competitive advantages and disadvantages of joining the pact.

Moreover, there is a need for greater recognition of the growing role of the international standard-setting bodies in light of their relevance to the WTO system, notably the Codex Alimentarius Commission where negotiations on an international standard for domestic biotech labelling continue. To date, participation of developing countries in the standard-setting process remains limited, owing in part to the complexity of the discussions and the lack of capacities and

resources to engage in the negotiations. This has led to the adoption of standards that reflect the domestic standards of industrialized countries, with insufficient regard for the capacities of developing countries to implement these standards and for the products and issues of interest to them. Thus, capacity building and technical assistance efforts should focus on improving effective participation of developing countries to ensure that agreed standards take into account their interests and constraints.

Capacity Building

Christophe Bellmann

"There is also a need to provide developing countries with assistance to identify possible policy options to implement their rights and obligations under international treaties and to strengthen the reform of domestic institutions and regulatory frameworks."

The pursuit of economic growth without taking into account the broader public policy agenda on human development (e.g., education, health and nutrition); equity (e.g., livelihood security, income distribution and gender equality) and the environment is unlikely to result in lasting poverty reduction. As a response to these concerns, the last decade has seen increasing recognition by the donor community of the need to assist developing countries in integrating environment, development and trade concerns into policy-making and in maximizing net sustainable development gains from trade.

At the fourth WTO Ministerial Conference in Doha, promises of new technical assistance commitments, together with numerous references to capacity building in as many as 12 paragraphs of the Doha Ministerial Declaration, played a critical role in securing developing countries' acceptance to initiate a broad-based round of negotiations. The launch of negotiations on fisheries and environmental goods and services also generated momentum for trade and environment capacity building as reflected in Paragraph 33 of the Doha Declaration, which highlights the importance of technical assistance in this area. Since Doha, many developing countries consider technical assistance and capacity building (TACB) to be a key element of a "development" round.

Interests and Fault Lines

TACB concerns are not exactly a "negotiating item," but it is clear that recipient and donor countries are motivated somewhat differently. Even though all countries share the broader goal of capacity enhancement in developing countries, and while Doha commitments are resulting in increased financial and organizational resources, there are serious concerns that the type of assistance provided so far has not adequately responded to the specific needs of developing countries and failed to yield the desired outcome.

Developing country interests in trade, environment and development TACB relate to policy formulation; participation in international rule making and standard setting; domestic regulatory reforms and implementation of international commitments; and compliance with environmental and food safety standards. In this section, we will first look at each of these developing country interests and then review the issues from the perspective of the providers of technical assistance and capacity building.

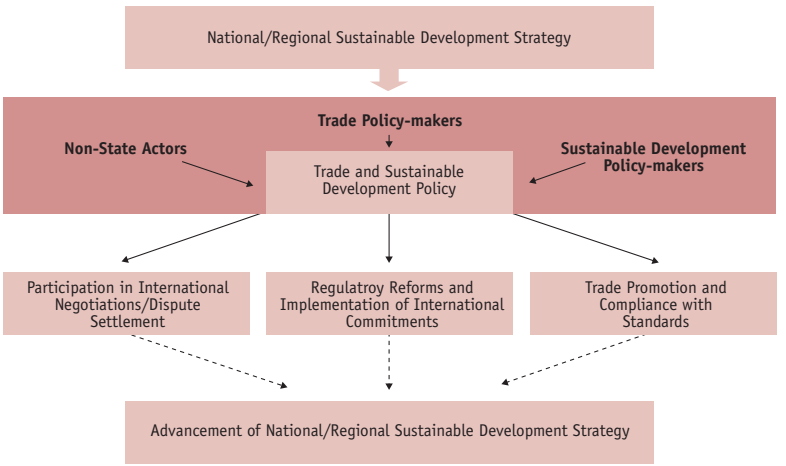
Enhancing Domestic Policy-making

For most countries, a major policy challenge consists of integrating environment, development and trade objectives into a mutually supportive policy framework that maximizes the net sustainable development gains from trade. Building on earlier work by Solignac Lecomte, the accompanying figure provides a schematic description of the various stages of an ideal stylized policy process. First, the definition of domestic interests needs to be framed in the broader context of the national sustainable development strategy and developed through a participatory process involving both state and non-state actors. The interests identified through this process then form the basis of the country's negotiating positions, the orientations and content of domestic regulatory reforms, and the trade promotion strategy. Finally, roles are attributed and resources are allocated to pursue those policy objectives.

It is inappropriate for technical assistance providers to intervene in the definition of national interests and the assessment of different policy options, not least because their own interest might conflict with recipient priorities. However, donors may want to support an integrated policy-making process by strengthening domestic analytical capacities and facilitating policy dialogues with relevant stakeholders. This can be accomplished in three main ways: Through building domestic analytical capacities, promoting participation, and facilitating the policy-making process.

Building domestic analytical capacities. A solid understanding of the costs and benefits of trade liberalization from a sustainable development perspective is a *sine qua non* condition for informed decision-making. However, with very few exceptions, developing countries lack the analytical capacities to conduct applied research at home, undertake informed cost-benefit-risk analysis and to anticipate the necessary social and environmental adjustments associated with trade liberalization. Most of the analysis produced in this field is generated in the North. Building backstopping analytical capacity in developing countries requires strengthening centres of excellence (universities, think tanks) that look at trade in the broader context of sustainable development and can provide informed inputs into the policy-making

Figure 1. Domestic policy formulation process on trade and sustainable development.



process, but that are independent institutions. The creation of specific academic curricula in developing country universities would also contribute to filling this important gap.

Promoting participation. International trade rules affect a broad range of stakeholders concerned with multiple agendas, such as fish stocks management, water sanitation, biodiversity conservation, soil erosion and pesticide use. While governments should maintain their role as decision-makers and arbitrators between different national interests, inclusiveness and participation in policy-making are fundamental for assuring legitimacy, good governance and acceptable results for the society at large. It is also essential to ensure integrated policy-making that goes beyond short-term mercantilist interests and reflects broader public policy concerns. Traditionally, the conception of stakeholders or constituencies in the trade and environment field has been narrow, limited mostly to ministries of trade and ministries of environment. This conception needs to be broadened to include the variety of actors who are actively involved in sustainable development policy-making.

Facilitating the policy-making process. The active participation of relevant and well-informed stakeholders is not sufficient in itself. It is equally important to put in place formal (inter-ministerial committees and public-private dialogue platforms) and informal (lobbying) mechanisms through which interaction can take place. In most countries, very little has been done so far on the integration of environment, development and trade; there are concerns that the few embryonic mechanisms that have been put in place often remain "empty shells" due to a lack of political leadership or a low level of understanding of the issues. Donors could play a role in supporting the establishment of permanent advisory committees for trade, environment and development, which could become the focal point for inter-agency coordination and the integration of sustainable development concerns into policy-making.

The Andean experience on capacity building

By Luisa Elena Guinand and María Elena Gutiérrez

The trade and environment negotiations underway in the World Trade Organization (WTO) underscore the need of the Andean countries to assess the implications of the negotiations and to strengthen their capacity to design and implement public policies on trade, environment and development. The Andean Community's member countries—Bolivia, Colombia, Ecuador, Peru and Venezuela—have responded to the challenge, given the significant issues at stake for the sub-region.

The Andean countries are considered to be "the global epicenter of biodiversity" and biodiversity issues are particularly important to these countries. Together, the five Andean countries shelter approximately 25 per cent of the planet's biodiversity and are centers of origin of important phytogenetic resources. They are also home to various indigenous communities, which for years have preserved and used these resources and developed a rich base of traditional knowledge. With the progress of biotechnology and the opening of new markets for biodiversity-derived products, the granting of patents for inventions in developed countries is increasing, without necessarily fully complying with multilateral biodiversity agreements. Significant efforts are being made by Andean countries to clarify the debate on biodiversity-related issues and to put forward specific proposals in the WTO trade negotiations.

continued on page 52

continued from page 51

Capacity building efforts in the Andean sub-region have concentrated on issues related to biodiversity, especially those surrounding intellectual property rights (IPRs), genetic resources and traditional knowledge. Initiatives by the General Secretariat of the Andean Community (CAN) have focused on fostering dialogue among relevant authorities in Andean countries by strengthening the Andean Committee on Genetic Resources, undertaking regional projects, and positioning the region in international negotiation fora, specifically with respect to defining an international regime on access to genetic resources and benefit sharing.

In coordination with the Andean Development Corporation (CAF), a program to support Andean negotiators was launched in 2001 focusing on access to genetic resources, protection of traditional knowledge and intellectual property in various negotiating fora. In this context, workshops have been conducted to encourage dialogue between representatives of intellectual property and environmental institutions in Andean countries. A guidebook prepared by Andean experts was published to provide technical support for Andean negotiators on access to genetic resources and protection of traditional knowledge. The sub-region has been investing in capacity building to empower indigenous experts from Andean countries to participate in the policy-making process on traditional knowledge and biodiversity-related issues. The importance of this effort lies in its value at the level of the Andean Community, whereby the formulation of policies and regulations is conducted from the bottom up, thus ensuring that stakeholders' interests are represented from the outset.

Another area of regional capacity building within the Andean Community is Biotrade. Biotrade involves the collection or production, processing, and sale of goods and services derived from native biodiversity (species, genetic resources and eco-systems) under environmental, social and economic sustainability criteria. This can represent an important source of income for countries with vast natural wealth, such as those in the Andean Community. Biotrade activities are aimed at preserving biodiversity while promoting the development of the local population that depends on these resources. The development of Biotrade National Programs started in 1997. During the World Summit on Sustainable Development in Johannesburg in 2002, a triple partnership was consolidated between CAF, CAN and United Nations Conference on Trade and Development (UNCTAD) to launch the Andean Biotrade Program. Capacity building activities to stimulate biotrade have focused on enhancing the dialogue and joint actions between stakeholders to promote exports.

Although the Andean countries have made capacity enhancement a priority, a number of challenges remain. First, there are very few institutions and individuals knowledgeable on the issues that are of high priority in these countries. Second, there is a lack of human and financial resources, not only within these countries but also internationally. Third, because of the high political instability in these countries, key individuals tend to move from one job to another and built capacities are lost. Fourth, defining the key priorities and getting consensus on these priorities itself requires significant effort. Fifth, trade institutions and decision-makers tend not to interact with environmental institutions and decision-makers. Sixth, the capacity building programs of international agencies tend to focus on their own agendas rather than on the activities of interest to Andean countries, and particularly to local communities. Finally, funding for capacity building tends to be scarce, unpredictable and short-term.

As one looks towards the future, it is clear that the demand from Andean countries for capacity building on trade and environment will increase. As the Andean environmental agenda develops, so will capacity building needs expand to include issues such as climate change, water management and the relationship between trade and investment. The most important lesson that has been learnt is that capacity building efforts will be most successful when they are country-driven. When the agenda on trade and environment is set by stakeholders in a participative manner,

continued on page 54

Table 1. Stakeholders who should participate in policy formulation.

Stakeholder Groups	Relevant Institutions
Trade Policy-makers	Ministry of Trade
	Ministry of Foreign Affairs
	Ministry of Finance
	Permanent Missions (Geneva, New York, Brussels)
Sustainable Development Policy-makers	Ministry of Environment
	Ministry of Agriculture
	Ministry of Health
	Ministry of Education
The Legislature	National Parliaments
Non-state Actors	Private Sector
	Academia/Research/Scientists
	Farmers/Fisher Groups
	Community-based Organizations, Indigenous People
	Consumers
	Development and Environment NGOs
	Trade Unions
	Media

Participation in International Rule Making and Standard Setting

There is a need to assist developing countries in advancing their sustainable development interests in international negotiations. This can come in the shape of strategic advice, formulation of negotiating proposals, coalition building, public awareness campaigns and financial support for participation in negotiations. For example, developing countries need to design offensive and defensive strategies not only on the various negotiating items but also on the implications of other related areas of the negotiations. The fact that Western and Southern African countries, for example, have been virtually absent from the negotiations on fisheries subsidies, even though many of them have major trade and natural resource management interests, is symptomatic of the need for TACB in this area.

Beyond the WTO, developing countries are simultaneously negotiating at multiple levels, ranging from multilateral negotiations under various multilateral environmental agreements (MEAs) to bilateral and regional free trade agreements. Another major area of concern relates to the ability of countries to participate in international standard setting bodies, such as the Codex Alimentarius Commission. Developing country participation is crucial as standards developed by those institutions form the basis of international harmonization, which is encouraged under the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). The risk for many countries is to end up with standards set at levels inappropriate to their situation or which require infrastructure that is unavailable domestically.

continued from page 52

the probability that countries will adopt a proactive role in trade negotiations is enhanced.

Thus, capacity building efforts have an important role to play in developing a participatory, multi-stakeholder agenda. However, given that this is a lengthy process, capacity building programs need to be designed for the medium term, assigning predictable resources in coordination between agencies. For example, the Andean process on biodiversity and IPRs took four years to reach consensus on a regional position on biodiversity. This process involved linking biodiversity issues with trade negotiations, disseminating knowledge on these links between national environmental and trade authorities (specifically intellectual property authorities), positioning the issue at the subregional level so that it could be presented in bilateral, regional and multilateral negotiations, and, finally, reaching agreement among Andean countries to jointly negotiate at the WTO to amend the TRIPS Agreement to include the requirements of disclosure of origin, benefit sharing and prior informed consent.

Luisa Elena Guinand, from Venezuela, is the Coordinator for Environment and Sustainable Development at the General Secretariat of the Andean Community,

María Elena Gutiérrez, from Peru, studies sustainable development and conservation biology at the University of Maryland, U.S.

Regulatory Reforms and Implementation of International Commitments

There is also a need to provide developing countries with assistance to identify possible policy options to implement their rights and obligations under international treaties and to strengthen the reform of domestic institutions and regulatory frameworks.

Translating WTO or MEA commitments into domestic law can be costly and burdensome. The implementation of the SPS Agreement, for example, involves building new public agencies, educating personnel, establishing notification and enquiry points, upgrading national standards to world-class levels and creating domestic capacities to undertake risk assessment. Beyond the cost of implementation, many developing countries face difficulties in implementing their obligations under different international instruments in an integrated and coherent manner. The absence of international mechanisms to ensure policy coherence among the different regimes not only generates legal insecurity, it also places the burden on individual governments to reconcile any inconsistencies. While the WTO agreements and MEAs are mutually supportive in principle, experience has shown that conflicts between regimes might arise at the implementation stages. This was the case, for example, in the highly controversial debate on the compatibility between the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) and the Convention on Biological Diversity (CBD). While this challenge applies equally to developed and developing countries, the latter are often not sufficiently equipped to resolve potential conflicts.

Compliance with Environmental Requirements in Export Markets

A growing number of products from developing countries are subject to environmental and health measures in Northern markets. These measures involve economic instruments, technical regulations and standards, and quantity import controls. Knowledge of existing standards is limited in developing countries and the cost of compliance can be high, particularly if new requirements are regularly introduced. For example, the SPS regulations in the European Union that establish "farm to fork" tracing requirements, maximum residue levels of pesticides or hygiene regulations have a significant effect on the ability of developing and particularly least-developed countries to export products

such as fruits, vegetable or fish. Access to, and local adaptation of, environmentally sound technology (EST) plays an important role to help countries upgrade their production processes and meet growing consumer preferences for green products in the North.

On the other hand, voluntary instruments such as eco-labels or geographical indications have the potential to help developing countries enhance their market penetration and facilitate the creation of specific niches for environmentally preferable products (EPPs). The production and promotion of EPPs or products based on traditional knowledge, which are often produced by poor rural communities, can also contribute to poverty reduction. Taking advantage of these opportunities, however, often involves high investment, well-adapted marketing tools and knowledge of potential export markets. In practice, few countries have the capacity to promote such forms of sustainable trade without long term and well-targeted TACB.

Providers of Technical Assistance and Capacity Building

The supply of TACB encompasses a wide variety of services provided by a myriad of international, bilateral and non-governmental donors. It mostly takes the form of training packages and seminars for government officials, manuals and handbooks, policy research and dialogues. Providing an accurate overview of trade and sustainable development TACB, however, is complex; not least because of the lack of reliable data and the large number of small-scale, one-time workshops or conferences. Another difficulty relates to the cross-cutting nature of the trade, environment and development debate. Many technical assistance services related to agriculture, intellectual property rights and market access often address environmental concerns even if this is not their primary objective.

The most elaborated source of information on TACB is the joint WTO-OECD Doha Development Agenda Trade Capacity Building Database (see http://tcbdb.wto.org), which compiles data reported from bilateral donors and regional and multilateral agencies. According to this source, donor commitments on trade and environment amounted to US$84.2 million in 2001. This figure decreased to US$25.4 million in 2003 even though the number of activities increased from 64 to 70. It should be noted, however, that this database only provides a partial and probably underestimated overview. Reports by donors including major ones are often incomplete. It is clear, however, that trade and environment related TACB remains a marginal area of capacity building. In 2002, for example, it only represented four per cent of the WTO's assistance, with only 21 of a total of 488 courses and seminars focusing on trade and environment issues. In subsequent years, this percentage decreased to less than 1.8 per cent, with eight activities out of 451 in 2003 and nine out of 501 in 2004.

The main providers of trade and environment TACB can be divided into three broad categories.

- *International and regional organizations* assist government officials to adjust to international rules and disciplines, implement obligations, comply with environmental requirements, participate in international negotiations and exercise their membership rights.
- *Bilateral governmental donors* vary considerably in the scale and geographical coverage of their TACB. The main providers include the European Union and its members, the United States, Japan and Canada. They address a wide range of needs by providing assistance either multilaterally by contributing to international agencies or bilaterally through national development cooperation and environment ministries. They also contribute to projects undertaken by non-traditional providers, such as non-governmental organizations (NGOs).

- *Non-traditional providers* have become important TACB providers over the last decade. They include environment and development NGOs, consumer groups, activists, think tanks and universities. Most rely on funding from bilateral donors and private foundations. Their activities focus on policy analysis, policy dialogue, support to negotiations and advise on implementation of international commitments. As opposed to multilateral agencies, they tend to deal with a broader set of stakeholders, including government officials, the private sector and grassroots organizations. They also fill important gaps in areas where traditional donors are less active such as policy dialogues.

Trends and Future Directions

Ensuring that the limited resources allocated to TACB effectively respond to the expectations of developing countries requires a comprehensive review of existing policies and practices by donors as well as recipients. This section identifies a few strategic considerations that should be explored further and are likely to be critical in shaping the future of TACB discussions.

A Sustainable Development Approach

Despite recent efforts to promote a holistic approach, most TACB activities remain compartmentalized and have failed to move from isolated to integrated policy-making. In particular, a sustainable development approach that goes beyond short-term mercantilist interests and effectively encompasses environmental, human development and equity concerns still evades the design and delivery of trade-related capacity building activities. A significant extent of trade and environment related TACB services, for example, focuses narrowly on the agenda of the WTO Committee on Trade and Environment (CTE) with little attention given to other dimensions of the trade, environment and development interface.

A Beneficiary-driven Approach

Overall, technical assistance services remain essentially conceived by the providers with a low degree of diversification and responsiveness to the particular needs of the beneficiaries. Seminars and training packages are largely standardized with little attention being paid to the country's level of development or cultural differences. Neither is assistance tailored to regional needs, environmental concerns and economic interests of the country in question. For example, most technical assistance focuses on multilateral negotiations with few initiatives for bilateral and regional negotiations. TACB also tends to be centered on export needs, without ensuring that local consumers benefit. Technical assistance for compliance with SPS standards, for example, often results in better quality and safety standards, but only for exported goods and rarely for the local market.

Building Local Capabilities

Frequently, TACB is designed as a transfer of knowledge and solutions from the North to the South. Trade experts come to lecture or train developing country officials. Local skills and capabilities to find solutions are not created within local institutions. Donors should also be aware of the risks associated with placing excessive emphasis on individual capacity building over institutional development. Experience has shown that technical assistance programs targeted at individuals all too often result in those individuals leaving the civil service for more lucrative positions in the private sector or in international organizations once they have accumulated expertise. In contrast, few resources are invested in strengthening centers of excellence in developing countries, which can provide lasting analytical capacities to inform the policy-making process.

Targeting the Right Participants

Despite a wide recognition of the need to promote policy dialogue, a large majority of activities remain focused on training and

Table 2. Capacity building needs and technical assistance services provided by the main donors.

Main Types of Technical Assistance Needs								
Technical Assistance Providers	**Policy Formulation**		**Participation in International Norm Setting**		**Regulatory Reform & Implementation**		**Trade Promotion & Compliance with Standards**	
	Analysis	Policy Dialogue	Rule Making	Standard Setting Reforms	Legal and Institutional	Implementation of International Commitments	Compliance with International Standards	Sustainable Trade Promotion
International and Regional Organizations								
UNEP/ UNCTAD	■	■			■	■	■	■
ITC	■	■		■			■	■
WTO	■		■			■		
OECD	■		■		■	■	■	■
Codex				■		■	■	
Bilateral Donors								
U.S.	■				■	■	■	■
EU	■	■	■		■	■	■	■
Japan	■		■			■	■	
Canada	■	■	■		■	■	■	■
Non-traditional Providers								
ICTSD	■	■	■			■		
IISD	■	■	■			■		■
Field	■	■	■			■		
WWF	■	■	■			■		■

teaching policy-makers instead of promoting long-term interaction among stakeholders. Among policy-makers, beneficiaries are often mid-level government officials who have little influence in their ministries and who may not be in a position to share or put in practice what they have learned. TACB providers should consider selecting participants more carefully to ensure that they reach out to key people within different stakeholder groups.

Establishing Long-term Relationships

Technical assistance services, all too often, take the form of one-off conferences or workshops with little or no efforts to build long-term relationship. Activities are isolated, unlinked to others and lacking follow-up, evaluation and *ex post* assessment to adjust future activities to country needs. They also continue to be delivered in an uncoordinated and *ad hoc* manner by different institutions.

Promoting Diversification of TACB Supply

Finally, most of the financial resources are concentrated in a limited number of providers. While donor coordination and synergy are essential, particularly if TACB is to promote integrated policy-making, there is a case for a more diversified supply of technical assistance to allow beneficiaries to choose among different providers. Of course, this presupposes the beneficiaries' ability to make appropriate choices and highlights the importance of effective policy formulation in developing countries. Such "competition" might help to improve the quality of technical assistance and ensure that the services provided effectively respond to the beneficiaries' specific needs.

Climate Change and Energy

Malena Sell

"At the global level, climate change mitigation and adaptation and trade liberalization are managed under separate and complex legal regimes. The UNFCCC and Kyoto Protocol do not mandate specific policies and measures but set targets for emissions reductions that countries must reach; binding targets, in the case of Kyoto. Countries have multiple regulatory measures at their disposal."

At first glance, climate change may appear to be rather a non-issue at the World Trade Organization (WTO). There has been some discussion of the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol within the debate on the relationship between the WTO and multilateral environmental agreements (MEAs) in the WTO Committee on Trade and Environment (CTE), but this discussion has yielded little in concrete terms. However, climate change is an emerging issue at the WTO. It can be seen as a new generation environmental challenge that transcends the confines of a limited, traditional definition of an environmental problem to be resolved by a targeted environmental treaty with some accommodation in the trade realm.

Dealing with climate change is fundamental to economic activity in all its forms—how we produce, use and trade energy and goods. Emissions of carbon dioxide, the number one greenhouse gas amongst the six covered by the Kyoto Protocol, is a side effect of most production processes. Therefore, climate change mitigation measures have implications for most WTO agreements in some form or other, be it rules on subsidies, taxation, intellectual property, technology transfer, agriculture or environmental goods and services.

The use of fossil fuels for the production of energy to power industrial processes and transportation is leading to the buildup of an atmospheric shield of carbon dioxide, which traps heat and warms up the Earth. The result is changing patterns of precipitation and drought, increasing extreme weather events and sea-level rise. These changes affect poor countries and vulnerable people disproportionately, in the form of failed crops, devastating floods and vector-borne diseases. Species and *habitat* loss is also exacerbated. Efforts to curb climate change particularly focus on how we use energy.

As the Kyoto Protocol entered into force in February 2005 high levels of energy use continued in industrialized countries. Rapid economic growth in China and India was driving up energy consumption rates worldwide and greenhouse gas emissions were rising at a rate of 1.9 per cent a year. The International Energy Agency (IEA) projects that energy demand and prices will continue to soar, with the world set to use 60 per cent more energy in 2030 than in 2005. Scientists estimate that the greenhouse gas emissions of the past two centuries, mostly from developed countries,

have contributed to raising temperatures worldwide by 0.6 degrees centigrade (°C). Over the next century, the Earth's temperature could increase by an estimated 1.4°C at the very least. If economic growth continues on its current trajectory, and emissions are not reduced, temperature could rise by 5.8°C, with disastrous consequences for the environment.

At the global level, climate change mitigation and adaptation and trade liberalization are managed under separate and complex legal regimes. The UNFCCC and Kyoto Protocol do not mandate specific policies and measures but set targets for emissions reductions that countries must reach; binding targets, in the case of Kyoto. Countries have multiple regulatory measures at their disposal. These measures, the Protocol states, "should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade," and they should be implemented in ways that minimize adverse trade effects.

WTO trade rules—through, among others, disciplines on subsidies, border measures, technical requirements, government procurement and taxes—determine the options countries have to use economic and other regulatory tools. International trade negotiations may impose constraints on countries implementing climate and sustainable energy measures if the links between climate change mitigation and adaptation goals and trade-supported instruments are not clear. Therefore, actively pursuing the right to retain and expand the necessary policy space in trade negotiations, allowing Members the flexibility to enact policy in support of climate change mitigation and adaptation is increasingly becoming a consideration for some countries in the Doha Round.

The Doha Round negotiations provide an opening for Members to ensure that the multilateral trade rules support climate change policy. New opportunities include negotiations on the accelerated liberalization of trade in environmental goods and services (EGS)—conducted with a view to phasing out tariffs and non-tariff barriers—which could be harnessed for the promotion of sustainable forms of energy use and trade. Subsidy reform, an essential liberalization component in the Doha Round negotiations, suggests potential lessons for the energy sector. Based on the experiences in agriculture as well as the fisheries negotiations, the feasibility of disciplining energy subsidies in the WTO context could be explored in future negotiations. In addition, the WTO Agreement on Agriculture and negotiations will affect carbon management globally, as changes in land use patterns have major impacts on the carbon balance. The overhaul of agricultural subsidies provides an opportunity to promote genuinely sustainable agricultural production and practices, including the expansion of biofuels—clean-burning, carbon-neutral fuels derived from agricultural crops that can be used to partially replace liquid petroleum products.

Interests and Fault Lines

While there has not yet been an overall discussion on trade rules and climate change, certain dimensions of the issue have been debated, including at the CTE. In discussions on the WTO-MEA relationship, Kyoto countries have generally pushed an expansive reading of the Protocol's obligations. For example, Switzerland has suggested utilizing the concept of "obligation de résultat" in the interpretation of the Kyoto Protocol in the WTO context, given the flexibility countries have in how to implement it, and thus lack of defined specific trade obligations (STOs). Non-parties, such as the U.S., have underscored that they are by no means bound by Kyoto obligations. Developing countries have kept a relatively lower profile in the debate this far.

Environmental Goods and Services

If governments are to foster technologies that emit low or no greenhouse gases, and goods

that are energy efficient, they need to distinguish them from conventional technologies. As part of the Doha mandate, WTO Members are to negotiate on the reduction, or elimination of tariffs and non-tariff barriers on environmental goods and services. Lower tariffs would reduce their costs, thereby increasing trade and providing an economic incentive to manufacturers to produce more of them.

Renewable energy technology has been flagged as possible environmental goods. As discussions progress, three types of possible environmental goods leading to positive climate outcomes can be envisaged: low-carbon fuels such as ethanol or bio-diesel; renewable technologies such as solar cells or wind turbines; or energy efficient environmentally preferable products (EPPs) such as efficient refrigerators. As such, EGS could function as an incentive for innovation both for new energies and for new energy efficient technologies.

However, key definitional issues in the EGS debate have stirred controversy. All Members agree that goods and services whose "end-use" is for an environmental purpose are legitimate (end-of-pipe technologies). Beyond this basic criterion, there is no consensus. Developing countries have opposed incorporating process and production methods (PPMs) into the definition on the basis that this would create a *de facto* trade barrier for them, since only the wealthier countries have the financial and technical resources to comply with high standards. Carbon dioxide emissions during the production process and their impact on climate change could only be acknowledged if PPMs were considered in the definition of an environmental good. Members also disagree on the desirability of including EPPs, such as energy efficient products, as environmental goods, in part because this would require a dynamic, or "living" list given the drive for constantly updating and improving technologies.

Doing trade and climate policy together

By ZhongXiang Zhang

Climate and trade policies both affect the use of natural resources. Their linkages are recognized in the objectives of the corresponding agreements to safeguard the two regimes. The ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to stabilize greenhouse gas concentrations in the atmosphere. An underlying principle to guide this effort is that "measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade." At the same time, the World Trade Organization (WTO) Agreement recognizes that trade should be conducted "while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to provide and preserve the environment and to enhance the means for doing so."

Clearly, the main aim of both the UNFCCC and the WTO is to ensure efficiency in the use of resources, either from the perspective of maximizing the gains from the comparative advantage of nations or of ensuring that economic development is environmentally sustainable. Therefore, the objectives of the UNFCCC (and its Kyoto Protocol) and the WTO do not explicitly conflict with each other.

However, the possibility of conflicts may arise in implementing the Kyoto Protocol. With the Kyoto Protocol having entered into force, Annex 1 countries are preparing, adopting and implementing comprehensive measures to meet their emissions targets set under the Protocol. The Kyoto Protocol gives these countries considerable flexibility in the choice of domestic policies to meet their emissions commitments. Possible climate measures include carbon/energy taxes, subsidies, energy

continued on page 62

continued from page 61

efficiency standards, eco-labels, government procurement policies, and flexibility mechanisms build into the Kyoto Protocol. The implementation of these measures has the potential to affect trade and thus raises concerns about compatibility with WTO rules. In order to meet their Kyoto emissions targets with minimum adverse effects on their economies, it is very likely that Annex 1 governments with differentiated legal and political systems might pursue emission reduction policies in such a way as to favour domestic producers over foreign ones. Such differential treatment could occur in governing eligibility for, and the amount of, a subsidy, in establishing energy efficiency standards, in determining qualification as eco-labeled products and the procedures for establishing eco-labels, and in specifying criteria for tenders and conditions for participating in government procurement bids. In the case where a country unilaterally imposes a carbon tax, it may adjust taxes at the border to mitigate competitiveness effects of cheaper imports not subject to a similar level of the carbon tax in the country of origin. Measures of this sort raise complex questions with respect to their WTO consistency and the conditions under which border taxes can be adjusted to accommodate a loss of international competitiveness.

It should be emphasized that some of these potential trade practices may be particularly worrisome and detrimental to developing countries because they often do not have the technical and financial capacity to adapt their process and production methods (PPMs) to those required in the importing developed countries. Developing countries have not committed themselves to legally binding greenhouse gas emissions targets as have their developed counterparts. Hence, importing developed countries could claim that the absence of emissions commitments in these trading partners would be equivalent to giving an implicit export subsidy, which favours their energy-intensive sectors as the costs of environmental degradation are not reflected in the prices of those exported products.

On this ground, importing countries may impose countervailing duties, although doing so poses a "slippery slope" problem of where to draw an appropriate line in distinguishing desirable "like" products from unacceptable non-product related PPMs without opening the door to abuse. Also, eco-labels are increasingly based on a life-cycle analysis of the environmental effects of products, which may contain product and non-product related PPMs criteria. Where developed countries use an eco-label as the criterion to purchase products from developing countries, this may constitute a *de facto* market access barrier and adversely affect developing countries' ability to export to developed countries.

Clearly, these domestic climate policies have the potential to bring countries into conflict with their WTO obligations. In many cases, however, such conflicts are not so intractable as to threaten the integrity of either the Kyoto Protocol or the WTO agreements. Provided that WTO rules are carefully scrutinized at the time when Annex 1 governments design and implement measures to achieve the required reductions in greenhouse gas emissions, these conflicts can be avoided or at least minimized.

Another issue of particular interest to developing countries, which has garnered attention, concerns embodied carbon dioxide (CO_2) emissions in international trade. Emissions from production in developing countries are higher than from consumption. The developing countries are in effect emitting CO_2 to meet the consumption needs of rich developed countries. Clearly, under the Kyoto accounting framework of in-country production emissions, a country's measured emissions levels may be misleadingly low if it produces very few emissions but imports large quantities of goods whose production gives rise to significant emissions, indicating that a production-based indicator which does not take into account trade flows can give a misleading underestimation of the emissions caused by a country's consumption patterns. This issue remains central to any discussion on establishing an equitable distribution of future mitigation efforts by industrialized and developing countries.

ZhongXiang Zhang, from The Netherlands, is a Senior Fellow at the East-West Center, Honolulu, Hawaii, and a visiting professor at the Chinese Academy of Social Sciences, Peking University and Chinese Academy of Sciences, Beijing.

In general, developed countries have a comparative advantage in producing many technologies and products with an environmental end-use. Their export interests are apparent, while developing countries have yet to identify products of particular interest to them in the negotiations. In this regard, the idea of including agricultural environmental goods of developing country export interest has been floated. Among products not yet clearly defined as being either industrial or agricultural are different forms of biofuels, which developing countries could produce for an export market.

Energy Subsidies and Taxation

Conventional energy is heavily subsidized, and the energy market distorted. For renewable, climate-friendly energy to take off it is today widely recognized that government support or incentives are needed. The WTO Agreement on Subsidies and Countervailing Measures sets the ground rules for permitted subsidies in the trade context. Subsidies should not target exports, should be general rather than aimed at specific industries, and should not lead to discrimination against "like" imported products.

Governments also use taxes and tax breaks to provide incentives to energy producers and users to become climate friendly. A carbon tax can be applied in various ways: as an excise tax on consumption; as an excise tax on energy inputs; as an excise tax based on energy production processes; and as a border tax adjustment. Nothing in the WTO prevents a member from deciding how much tax to apply to a good. It only requires that the tax be applied equally to domestic and foreign products that are similar or "like." WTO law deems products to be "like" if they are "directly competitive or substitutable." To apply a carbon tax to fossil fuels and exempting renewable energies from a similar tax requires proving to the WTO that the two energy sources are not like or "directly competitive or substitutable." It is obvious that fossil fuels are directly competi-

Can trade be an instrument of climate policy?

By Gao Pronove

If political economy has a single truth to offer it is this: free trade increases the productive powers of capital.

When trade is allowed to flow freely around the planet it rationalizes the global division of labour, enhances economic efficiency, and leads to productivity gains on an international basis. And, indeed, compelling evidence exists that since the creation of the open international trading system in the wake of World War II, the gradual movement toward free trade has made important contributions to global economic growth.

Yet, the six-decade history of the world trading system has revealed another truth: free trade can undermine non-market social goals, such as poverty alleviation, equitable development and environmental preservation. The task confronting forward-looking policy-makers is how to harness the best of what free trade has to offer, while not losing sight of the ultimate objective: a world characterized by just, balanced and sustainable development.

The idea that free trade can help achieve non-market social goals was prominent in the minds of the founders of the postwar world trading system, who saw free trade as part of a larger social project among developed countries in the West: the creation of a robust welfare states nestled within full employment economies generating high and rising real wages. If free trade and these social goals came into conflict, free trade was to yield; for free trade was a means towards an end, not an end in itself.

Yet somewhere along the line this hierarchy of priorities was turned on its head. Free trade became an end in itself. While this revolutionary change got its start prior to the formation of the World Trade Organization (WTO),

continued on page 64

continued from page 63

the WTO has emerged as its chief enforcer. Given the extraordinary scope of its free trade rules and the unprecedented power of its dispute settlement mechanism, the WTO stands as the chief obstacle to the implementation of public policies that require subordinating free trade to the attainment of non-market social objectives.

Nowhere is this clearer than in the field of environmental policy. It is now well established that conflicts exist between the enforcement provisions of numerous multilateral environmental agreements and WTO trade rules; and while these conflicts have yet to be adjudicated, the balance of opinion is that, when they are, the WTO and its mercantilist impulse is likely to triumph. Indeed, in conflicts between free trade and the environment involving domestic environmental policies, WTO dispute settlement panels have tended to find in favour of free trade.

The implication for policy-makers concerned with sustainable development is clear: how to maneuver within an international policy-making environment dominated by the free trade rules of the WTO? Two complimentary paths are open. One is to change the priorities of the WTO; in effect, pushing the organization to return to the priorities that guided the founders of the postwar international trading system—priorities that made free trade serve non-market social goals. But reform of the WTO is a long-term proposition. In the near term, policy-makers must devise solutions to social problems, including environmental degradation that work with the market, not against it, and thus are beyond the reach of the WTO.

Perhaps the most exciting example of such an approach is found in the field of climate change where the Kyoto Protocol established a global regime for emissions trading. The Kyoto Protocol envisages a global system where governments regulate the greenhouse gas emissions of economic entities (especially energy producing and energy-intensive industries) so that they meet global quotas using market forces. How governments regulate the use of policy instruments such as taxes, duties, subsidies, procurement measures, quotas, and other instruments of change may or may not interface with the WTO. If and when they do, it would be a challenge to mold trade rules to meet a global problem like climate change.

A global system of permits such as that envisaged under the Kyoto Protocol also introduces a new tradable good—environmental permits that directly affect economic activity. How the WTO will nurture such trade to meet environmental objectives will be a major opportunity to promote sustainable development. The current talks on trade and environment do not even begin to consider such scenarios.

Indeed, there is much to do on trade and environment and how we use trade rules and mechanisms to achieve social and environmental goals that promote a just and sustainable future. Free trade has brought a mixed bag that has both advanced our material well-being and advanced the degradation and exploitation of natural resources and the environment. Can the WTO contribute to advancing the protection of our planet while maintaining economic growth and development? This is the core challenge for the future.

Gao Pronove, from the Philippines, is the Executive Director of Earth Council Geneva.

tive; the issue then becomes to prove that they are not like or substitutable. As a general rule, the WTO has not distinguished goods on the basis of how they are produced, i.e., based on PPMs. Countries implementing climate policy could argue that similar goods with similar end use produced in different ways are "unlike." However, this has yet to be done, and would require either the judgment of a dispute settlement panel, or an agreement between WTO Members, to recognize the distinction. A carbon tax on production methods could possibly also be defended as an environmental exception under GATT Article XX, with the support of the WTO's Preamble recognizing sustainable development.

Border Tax Adjustments

As countries choose different energy paths in the short to medium terms, some will be facing higher costs up front. Countries taking on carbon reduction commitments may experience some negative competitiveness effects, and there have been calls—among European parliamentarians, for example—for the use of border tax adjustments (BTAs) to offset such competitiveness effects with regard to countries that are not limiting their emissions under the Kyoto regime or under other future regimes. The WTO allows Members to apply border tax adjustments. However, the legality of applying a border tax adjustment based on a product's implicit carbon content is still undecided and BTAs are controversial.

Agriculture

Global shifts in cropping patterns are expected to result from an eventual Doha Round agreement in the area of agriculture. In terms of subsidy reform, promotion of practices that increase carbon sequestration, as well as production of crops that serve as feedstock for biofuels could potentially expand. Better management practices include no-till or low-till agriculture, use of shelterbelts, terracing of slopes and organic farming.

While there are few agricultural subsidy programs focusing on carbon sequestration specifically, these may become more prominent in the future. As they relate mainly to better management practices or set-aside programs, they would fall naturally into the Green Box (subsidies that do not distort trade). Current subsidy reform, with the emphasis shifting towards decoupled payments and extensification, may also naturally lead developed countries towards practices that support carbon sequestration. On the other hand, trade in agricultural products globally is likely to increase as a result of tariff and subsidy reduction; and with it greenhouse gas emissions.

The production of feedstock for biofuels represents an emerging opportunity within agriculture to contribute to climate mitigation. Overall, the greatest potential for the production of biofuels can be found in the South where climatic conditions are favourable; whereas developed countries, under their Kyoto commitments, potentially provide the largest markets. Currently, Brazilian ethanol processed from sugar cane is the only biofuel produced at a competitive price. The U.S. is the second largest producer, mainly converting corn into ethanol. The production of biofuels in the EU is centered on biodiesel derived from oilseeds (such as rape seed). Significant research is going into new options, particularly ethanol production based on dedicated energy crops, such as poplars or switch grass.

International trade in biofuels is limited due in part to tariff barriers. The Doha Round negotiations on the liberalization of EGS could provide some opportunities for expanded international markets. For developing countries in need of seed funding to convert to biofuels or enter the biofuels market, the potential of the Clean Development Mechanism (CDM)—which allows developed countries to offset some of their own emission reduction commitments by funding reductions in developing countries—could

be explored. However, as biofuel production increases, this will create complex interactions with the production of commodities and food prices, which currently are poorly understood. Safeguards may be needed to ensure sustainable farming methods.

Energy in Accession Negotiations

Discussions of energy—traditionally left outside the WTO—have become more explicit through the accession processes of the oil-exporting countries, most notably members of the Organization of the Petroleum Exporting Countries (OPEC) but also Russia and Central Asian countries. These accession negotiations are in effect a bargain between energy exporters and importers. In the bilateral discussions, WTO Members, such as the United States and the European Union, have used their leverage to seek to force these countries to abandon dual pricing policies—selling energy much cheaper domestically than for export.

The acceding countries are also being asked to liberalize their energy services under their schedule of commitments in the General Agreement on Trade in Services (GATS). The idea of some form of competition agreement has been floated as well, although it has now been officially dropped from the Doha agenda. Overall, these discussions on energy represent a potential opening for wider discussions on the topic at the WTO.

Trends and Future Directions

In the medium term, at the latest, the issue of WTO rules and climate change action will become much more concrete, and is likely to draw more attention. While a small body of academic literature exists on the relationship between trade and climate change rules, it is theoretical and even hypothetical to the extent that it has failed to generate significant interest among practitioners. However, this situation is changing, both due to the entry into force of the Kyoto Protocol and implementation of parallel initiatives (often driven by the private sector), and discussions on the next (post-2012) commitment period under the Kyoto Protocol regime.

However, the world remains divided between those countries that believe in strict Kyoto-style targets and timelines, such as the Europeans, and those that prefer to tackle climate change through a focus on new technologies and voluntary initiatives—a camp led by the U.S. and Australia.

Both camps agree that the UNFCCC is the forum for a future agreement. What form this instrument will take, and how it will be implemented will have major implications for the global trading system. Implementation will likely require fundamental socio-economic adjustment in production and trade across sectors and countries.

As the post-Kyoto agreement begins to take shape, close cooperation is needed between the climate negotiations and those on trade. Already, ministries of trade and industry are key players in new climate policy, although climate change negotiators are scantly involved in international trade policy-making. Better information exchange between and knowledge across the two spheres should be the starting point. Foreseeing potential conflicts and resolving them in time would prevent complicated and costly legal disputes at the WTO.

Dispute Resolution

Howard Mann and Yvonne Apea

"One of the most important spin-offs from the trade and environment debate and related disputes in the WTO has been the emergence of investor-state arbitration processes as a tool to challenge environmental protection measures."

The relationship between trade and environment has been one of the main battle lines in the development of trade law. The battleground for skirmishes on this issue has primarily been the dispute resolution mechanisms of the international trading system.

The battle line was drawn initially with respect to two disputes under the General Agreement on Tariffs and Trade (GATT). The *Tuna-Dolphin* cases between Mexico and the United States in 1991 and between the European Union and the United States in 1994 concerned a U.S. import ban on tuna caught in a manner that harmed dolphins. This embargo was applicable to domestic and foreign fishing vessels as well as third countries where tuna was processed before its final destination into the United States. In both cases, the measures to preclude direct trade and indirect trade through a third country were found to be inconsistent with the GATT.

The *Tuna-Dolphin* cases raised two important issues that are at the crux of the trade and environment debate. First, they challenged the meaning of "like" products within the context of the GATT principles of most favoured nation and national treatment. From an environmental perspective, products should be distinguished based on process and production methods (PPMs) (i.e., how they are produced)—so that tuna caught in a manner that harms dolphins is differentiated from tuna caught without harming dolphins. The panel, however, held that "likeness" should be determined based on the physical characteristics of a product and not the manner in which they are processed or produced. This interpretation was favoured by many developing countries, which feared the imposition of environmental standards addressing non-product related PPMs. The concern of developing countries was that introducing PPMs as a criterion to determine "like" products could open the door to trade protectionism and restrict market access for their exports.

Secondly, in the *Tuna-Dolphin* cases, the GATT panel was confronted with the question of whether a country could extend its environmental regulations beyond its borders as a necessary measure for the protection of animal, plant life or health or exhaustible natural resources as provided under the Article XX exceptions to GATT obligations. The panel found that the GATT does not permit extraterritorial protection of life and health and that, even if it did, in this case, the United States had not taken all necessary measures or explored all other available options including negotiation of international agreements to pursue its objective of dolphin protection.

The *Tuna-Dolphin* decisions and their impact on public opinion signaled several things, depending on the audience. For developing countries, they signaled both the risk of environmental protection acting as a brake on trade liberalization and the opportunity to use trade law to confront environmental barriers to trade. Developing countries, in particular, vehemently voiced their concern that environmentalism had become the new framework for constraining development and vowed to fight the acceptance of green protectionism in the trading system. For many developed countries and their non-governmental organizations (NGOs), they signaled the risk of trade rules overriding legitimate and necessary environmental protection measures, both domestic and international. By the entry into force of the North American Free Trade Agreement (NAFTA) on 1 January 1994 and the World Trade Organization (WTO) on 1 January 1995, the legal, political and policy relationship between trade and the environment had taken firm root in trade institutions and policy debates. It was the *Tuna-Dolphin* cases that created the political conditions for this development.

In large part due to the public pressure from NGOs following the *Tuna-Dolphin* cases as well as the results of the 1992 United Nations Conference on Environment and Development (UNCED), the Agreement establishing the WTO recognized the need for trade to be consistent with the goal of sustainable development and established a Committee on Trade and Environment (CTE).

Ultimately, the debate of the early 1990s led to important changes in how both trade agreements and environmental agreements are constructed and interpreted, mobilized a new generation of civil society activists, was one factor leading to public activism at trade meetings, and set a political context that continues to generate both attempts at conciliation and ongoing antagonism on trade and environment issues.

Interests and Fault Lines

The role of GATT and WTO disputes has been seminal in the evolution of the trade and environment debate. While the restrictive legal interpretation in the *Tuna-Dolphin* cases characterized the initial debate as one of trade versus the environment, the dynamics of the relationship have evolved significantly since the establishment of the WTO, largely through the WTO dispute settlement system. The first WTO case to be brought to the newly created Appellate Body was environment-related. This dispute concerned the import of reformulated gasoline into the U.S. from Venezuela. From this case forward, the Appellate Body has reshaped the legal interpretations of the *Tuna-Dolphin* cases in the GATT, establishing a role for multilateral environmental agreements (MEAs) in the context of trade law and setting new tests for balancing trade and environmental issues. The Appellate Body has devised a two-tier approach to analyzing the exceptions provisions set out in GATT Article XX in the environment-related cases that have come before it.

Trade Versus Environment

In *Reformulated Gasoline,* the Appellate Body ruled on a January 1995 claim by Venezuela and Brazil that U.S. laws for conventional and reformulated gasoline discriminated against gasoline from their refineries and, therefore, were in breach of GATT obligations and could not be justified under the exceptions provisions. GATT Article XX(g) provides an exception from the trade rules for measures that relate to the conservation of exhaustible natural resources. In Reformulated Gasoline, the Appellate Body held that WTO law must be understood and applied within the context of the broader body of international law. The Appellate Body emphasized that "in the preamble to the WTO Agreement and in the Decision on Trade and Environment, there is specific acknowledgement to be found about the importance of coordinating policies on trade and the environment."

These major shifts in legal approach by the Appellate Body had the effect of altering how the trade and environment relationship was to evolve in the following years. This shift in interpretation was fully revealed in the *Shrimp-Turtle* case. Originally launched against the United States by India, Pakistan, Thailand and Malaysia in 1997, the dispute concerned an import ban by the United States on shrimp that was not harvested in a way that was certified as complying with U.S. standards to protect endangered sea turtles.

Initially, the four countries that brought the dispute to the WTO were successful in their claim. In 1998, the Appellate Body ruled that the U.S. regulation in question unjustifiably and arbitrarily discriminated between countries where the same conditions prevail. Nevertheless, the legal reasoning and interpretation of Article XX innovatively dealt with the difficult issue of non-product-related PPMs. The final approval of the U.S. measure in the *Shrimp-Turtle* case includes elements of two issues: the accommodation of North-South interests and the protection of the global commons.

This case marked a major milestone in the shift from trade versus environment to an integrated approach to trade and environment. The Appellate Body called for multilateral solutions to address concern for endangered turtles. The decision in effect accepted that there was an international consensus to protect certain species of endangered sea turtles. A "line of equilibrium" was set between the right of a country to market access and the right to take measures relating to the conservation of exhaustible natural resources—endangered sea turtles—under Article XX(g). The *Shrimp-Turtle* decisions made clear that environmental protection could be integrated into trade law. The isolation of the trading system from the broader corps of international law was thus ended, emphatically. A new era of considering how to incorporate the environmental into trade law had begun.

Reforming the DSU

By Welber Barral

At the end of the Uruguay Round, the Dispute Settlement Understanding (DSU) was seen as an enhanced mechanism for guaranteeing predictability in the world trading system. The DSU eliminated the unstable, consensus-based enforcement provisions in the General Agreement on Tariffs and Trade (GATT); thus, the expectations about its capability to make the system more rule-oriented and stable were high.

A decade later, opinions as to the success of the DSU are mixed. The DSU created the most used international court in human history and contributed remarkably to the legitimacy and legal security of the World Trade Organization (WTO). Furthermore, the evolution of case law contributed to international law in general by facing complex issues and raising the interest for legal aspects of international relations; indeed, a remarkable contribution in times of chronic unilateralism.

The glass-half-empty critics, however, recall that most developing countries have never used this mechanism and accuse its pro-trade bias of eclipsing other development concerns. Political criticisms abound: governments have accused panels and the Appellate Body of judicial activism, of being a threat to sovereignty, of adopting extended interpretations that lead to deadlocks.

Most of these criticisms disregard the fact that any mechanism for dispute resolution is derived from a limited political commitment. As a consequence, WTO panels and the Appellate Body are constantly treading a fine line: they must bring a solution to the dispute using the literal interpretation of pro-trade, purposely ambiguous, compromise language, while respecting the rights and obligations of WTO Members.

continued on page 70

continued from page 69

In any case, some of these shortcomings were implicitly recognized in Doha. Hence, the Ministerial Declaration dedicates a paragraph to the reform of the DSU (Paragraph 30). Reform would not be linked to the negotiations and should have been completed by May 2003.

That deadline proved unrealistically optimistic, for the reform of the DSU is stuck in the mud of mistrust that has pervaded Geneva since 2001. DSU reform became an element in the customary trade-offs in trade negotiations and its result, consequently, will most certainly follow the destiny of the overall negotiations. The proposals advanced so far have the potential to solve procedural flaws (like the "sequencing" problem); other proposals could reinforce special and differential treatment for developing countries and make effective the hortatory provisions in the DSU.

WTO Members, however, are skeptical about bringing any proposal to reform the DSU that could be specifically directed at sustainable development. Such an omission is politically understandable. On the one hand, it derives from the apprehension of developing countries that any mention of concerns other than trade could legitimate protectionist devices. On the other hand, this omission is based on the reasoning that sustainable development, if and when taken into account in the WTO, should be considered in substantive provisions, such as in the exceptions provisions set out in GATT Article XX or the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). Moreover, the argument follows, substantive results should be negotiated in the Committee on Trade and Environment if it moves beyond the rhetorical phrases that have plagued its meetings so far.

Undeniably, changing the WTO agreements is the best option to address environmental concerns. Nevertheless, procedural rules may bring considerable implications for the interpretation of these texts, as demonstrated by cases such as U.S.-*Reformulated Gasoline* and *EU-Beef Hormones*. One idea to improve the decisions in this sense involves giving more leeway for the system to consider development, including sustainable development, as a criterion for interpreting WTO commitments. That involves changes in the way these commitments are construed by panels. In jurisprudential terms, this proposal involves the acceptance of principles of international public policy as valid hermeneutical tools. In practical terms, it could be achieved by reforming DSU Articles 1 and 7 in order to mandate a legal interpretation integrated with the corpus of international development law.

Such a move would clarify the relevance of multilateral environmental agreements and other pro-development multilateral commitments (such as the United Nations Millennium Development Goals) in the interpretation of obligations under the multilateral trading system. Another practical proposal would be to rephrase DSU Article 11 in order to allow panels to take international environmental commitments into account whenever evaluating domestic trade policies.

Evidently, the proposals above are dangerously generic, and any language that intends to improve interpretative rules should be carefully crafted. Otherwise, negative political effects—in terms of legal uncertainty and loss of legitimacy—will certainly occur. In addition, any proposed change should consider the mistrust from developing countries (as to the risk of protectionism) and from developed countries (as to the risk of judicial activism).

In conclusion, a decade of experience with the DSU has shown that the system tends to a literal identification of commitments expressed in the WTO agreements. The insertion of development-related language in the agreements is consequently the first thought whenever the world trading system is mentioned. Nevertheless, procedural changes in the DSU may become equally relevant. Dispute settlement is not only a technical device for calming two litigating parties, but also a political tool for bringing stability and legitimacy to the system. Changes in procedural aspects, especially those related to legal interpretation, may move development concerns (including sustainable development) to center stage. Presenting politically acceptable proposals is therefore the complex task faced by those concerned with sustainable development.

Welber Barral, from Brazil, is a professor of law at the Federal University of Santa Catarina, Florianópolis, Brazil.

The corollary also turned out to be true over this same period. MEAs were paying more attention to trade rules when designing trade-related provisions. The Stockholm Convention on Persistent Organic Pollutants (2001), the Cartagena Protocol on Biosafety (2000), and the Rotterdam Convention on Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade (1998) refer to their relationship with other international agreements. For example, the relationship between the Biosafety Protocol and WTO rules was one of the crucial issues during the negotiation of the Protocol; the preamble states that the Protocol shall not be interpreted as implying a change in rights and obligations of parties under other existing international agreements, and take into account that this shall not mean that the Protocol is subordinate to other international agreements.

In the subsequent *Asbestos* case, which involved a challenge by Canada to a French import ban on asbestos and asbestos-containing products, the Appellate Body further illustrated its ability to interpret WTO rules of importance to the environment in expanding the test for "like" products to include toxicity in a report issued in 2001. The Appellate Body addressed the inclusion of the health impacts of a product as part of the "like" product analysis required to establish a breach of GATT Article III (national treatment). In its simplest form, if two products are not considered to be "like," the treatment they receive under national regulations can differ.

A key question in the *Asbestos* case was whether the negative human health impacts of a product could be considered in determining whether products were "like." The Appellate Body ruled that such effects were a relevant factor. Although market substitutability remained the key test in determining "likeness," the Appellate Body made clear that the health impacts of a product were part of the public perception of market substitutability. Here again, the WTO dispute settlement system struck a compromise between trade and non-trade concerns. If health considerations, such as toxicity, are relevant to the determination of "likeness," will the environmental effects of production methods be next? The *Shrimp-Turtle* and *Asbestos* decisions took this expectation one step closer to reality.

Developing Country Concerns

The Appellate Body's interpretation of Article XX, particularly with respect to non-product-related PPMs in the *Shrimp-Turtle* case and the inclusion of non-economic factors to differentiate between "like" products in the *Asbestos* case are considered problematic by many WTO Members. Many developing countries, in particular, are concerned about the resort to unilateral actions in environmental and potentially other non-trade matters. However, much of the concern expressed hides a critical fact in practice: the acceptance by three of the original four complaining states in the *Shrimp-Turtle* case to negotiate an international agreement on sea turtle conservation. Malaysia was the only complainant to seek to reverse the ruling on the need to negotiate in the first decision of the Appellate Body.

In *Shrimp-Turtle*, it is clear that, in allowing a unilateral U.S. import ban on shrimp, which in particular came from developing countries, the Appellate Body was conscious of the North-South relationship. As such, the Appellate Body sought to impose a cooperative process that emphasized "good faith" negotiations towards the development of bilateral or multilateral agreement for the protection and conservation of sea turtles. It sought to buffet any negative impacts of the requirement to negotiate with obligations for capacity building and technical assistance to supply the necessary technologies, support negotiating costs, ensure sufficient transition periods, and seek balanced solutions that were in keeping with developing country capacities.

Protection of the Domestic Versus the International Environment

A key aspect of the evolution of trade and environment disputes was the Appellate Body's rejection of the *Tuna-Dolphin* jurisprudence that only measures taken to protect the domestic environment (not the global commons or shared environmental resources) were consistent with trade law. The Appellate Body recognized the need to see the environment in a more holistic way noting that, in the particular circumstances of the *Shrimp-Turtle* case, there was a sufficient link between the policy goal of protecting migratory and endangered marine populations which transcended U.S. jurisdiction and the trade measures that the U.S. had adopted for their protection. Nonetheless, the trade measure was originally found to constitute arbitrary discrimination in that it sought to impose guidelines on other countries without assessing the appropriateness of those guidelines for the specific conditions prevailing in those countries. However, the panel charged with ruling on Malaysia's challenge to the U.S. implementation of the Appellate Body decision affirmed that the application of the revised guidelines by the U.S. had addressed the concerns set out by the Appellate Body, given the offers of technical support and good faith negotiations towards an agreement by the U.S.

In the *Shrimp-Turtle* case, the Appellate Body established, but did not elaborate upon, a "sufficient nexus" test that required a link between the protection of the domestic environment and the international environment. In *Shrimp-Turtle*, this nexus was based on the fact that the endangered sea turtles migrated through U.S. territorial waters. It is clear from a comparison of the *Shrimp-Turtle* and *Asbestos* cases that having a sufficient nexus is not the only condition for regulations impacting a foreign jurisdiction's environmental policies and measures. In the Asbestos case, the Appellate Body gave a wide berth for France to set its domestic human health protection goals and the measures to achieve these goals. However, in *Shrimp-Turtle*, the Appellate Body placed significant restrictions both as to the process for establishing measures applicable to activities outside a country's jurisdiction and to the nature of such measures. This differentiation is a reflection of the balancing of trade and environmental interests.

Tariff Preferences

Environmental advocates point to the April 2004 WTO Appellate Body ruling in the *Generalized System of Preferences (GSP)* dispute as further cementing the Appellate Body's endeavor to achieve a balanced relationship between trade and environment concerns. In this case, India challenged the WTO consistency of tariff preferences accorded under the EU's special arrangement for combating drug production and trafficking (drug arrangement) for being "discriminatory" as the benefits granted were only available to certain developing countries. The Appellate Body overturned the panel's earlier decision and held that developed countries were not prohibited by WTO rules from granting different tariffs to products originating in different developing countries under the Generalized System of Preferences (GSP) provided that identical treatment was made available to all "similarly-situated" GSP beneficiaries that shared the "development, financial and trade needs" to which the treatment in question was intended to respond.

Significantly, the Appellate Body found that because the preferences granted under the drug arrangements were not available to all GSP beneficiaries that were similarly affected by a drug problem they were not justified under the enabling clause. In contrast to the drug arrangements, the Appellate Body noted that the EU's "special incentive arrangements for the protection of labour rights" and the "special incentive arrangements for the protection of the environment" (which were not at issue in this case) includ-

ed detailed provisions setting out the procedure and substantive criteria that apply to a request by a country to become a beneficiary. This would imply, albeit subtly, that these environment arrangements were WTO compatible, confirming that WTO Members are free to include sustainable development concerns in their GSP schemes provided they meet the relevant conditions and are justified under the relevant WTO rules.

Investment Agreements and Investor-State Arbitration

One of the most important spin-offs from the trade and environment debate and related disputes in the WTO has been the emergence of investor-state arbitration processes as a tool to challenge environmental protection measures. Originally seen as a logical extension of trade rules to the flow of capital, many trade negotiators and trade institutions in the early- to mid-1990s took up the cause for investment agreements. The NAFTA, with its Chapter 11 on investment, became the first of its type of integrated regional trade and investment agreements. Over 2,400 bilateral investment agreements have been concluded, notably with little notice or fanfare.

A key feature of these instruments has been a special dispute settlement system known as the investor-state arbitration process. This allows private foreign investors to sue the host state in an international arbitration under international investment rules. Environmental protection measures and key development-oriented policy measures have been the subject of several challenges by investors under this system. A key feature of the investor-state cases is that they can lead to immediate awards of damages, and awards of over $100 million are no longer uncommon, with some reaching almost half a billion dollars. Whereas trade cases result in periods to change the measure at issue, the potential for awards and the ability of investors to take the cases directly means that resort to investor arbitrations can be anticipated to increase.

PPMs, trade law and the environment

By Robert Howse

A widely held assumption is that international trade law, especially the law of the World Trade Organization (WTO), prohibits states from regulating imported products based on the environmental impacts of their process and production methods (PPMs). This assumption has had a profound influence on the debate on trade and environment. However, the text of the WTO treaties contains no such prohibition. It is an invention of practice under the General Agreement on Tariffs and Trade (GATT)—the WTO's predecessor regime; by contrast, the recent case law of international trade in the WTO does not support the notion of a prohibition on PPM-based environmental regulations that affect imported products.

The only textual reference to the PPMs concept in the WTO treaties is in the Agreement on Technical Barriers to Trade (TBT), establishing that technical regulations for purposes of the Agreement *include* regulations that address not only the characteristics of products but their "related" process and production methods. The word "related" here indicates that since the TBT Agreement deals with trade in goods, regulation of process and production methods apart from the goods that are there as a result is not a TBT issue. Such regulation may well be a services or intellectual property matter and thus fall under some WTO Agreement not concerned with trade in goods as such.

The PPMs notion was brought into being in the context of the notorious GATT era *Tuna-Dolphin* dispute. The United States had imposed a ban on sale in the U.S. of both domestic and imported tuna that was fished in a manner that led to excessive incidental killing of dolphins. In theory, assuming that the ban were imposed *evenhandedly* on both domestic and imported tuna, under the law of

continued on page 74

continued from page 73

the GATT it would be viewed as an "internal law, regulation or requirement" that met the National Treatment obligation in Art. III:4 of the GATT that such measures provide "no less favourable" treatment to imports than to "like" domestic products.

The GATT dispute panel found such a consequence unacceptable. The underlying thinking was apparently that such a measure, even if evenhanded, imposed unilaterally on the country of export American environmental standards, which would be an illegitimate exercise of extraterritoriality. The panel considered it intuitively obvious that such measures could not be consistent with the GATT regime. In order to create a legal foundation for this intuition, the panel suggested that the National Treatment obligation in Article III:4 of the GATT pertained only to measures that directly regulated the imported "product" as a physical commodity, in this case tuna; measures that purported to regulate how a "product" was produced would need to be assessed, not as "internal laws, regulations or requirements" under Article III:4, but rather as quantitative restrictions under Article XI. While Article III:4 allows evenhanded measures that fall within its ambit, Article XI operates differently; once a measure is determined to fall within Article XI, then it is *per se* illegal under GATT, subject only to certain exceptions. The panel also found that the ban could not be justified under either the animal health and life (Article XX(b)) or conservation (Article XX(g)) exceptions in the GATT. Here, the panel was more direct in its reasoning, asserting the view that measures that are somehow "extraterritorial" cannot be justified under GATT Article XX exceptions.

As jurisprudence, the panel's approach was clearly wrong. From the early *Italian Agricultural Machinery* case on, GATT panels had, in fact, rejected the notion that a measure did not fall under Article III because it did not regulate directly the imported product as a physical commodity. After all, the text of Article III did not apply to measures regulating products, but to any internal law, regulation, or requirement affecting, *inter alia*, the marketing and sale of the product.

Perhaps for these reasons, an alternative theory of the PPM doctrine was already visible even from the second panel in the *Tuna-Dolphin* case. This theory was that, even if Article III:4 were applicable, domestic and imported products are "like" even if they have different PPMs. Only different physical characteristics can distinguish products as not "like." Thus, dolphin-unfriendly imported tuna is "like" dolphin-friendly domestic tuna and must be treated the same.

The *Tuna-Dolphin* rulings were controversial and never adopted, but the idea of PPMs as illegal in the GATT stuck and became conventional wisdom. In the WTO era, a case came before the dispute settlement system not dissimilar to *Tuna-Dolphin*. The *Shrimp-Turtle* dispute concerned a U.S. ban on shrimp fished without technologies that prevented killings of endangered species of sea turtles. In that case, the U.S. did not challenge the PPM construction, but instead invited the WTO Appellate Body to reject the GATT notion that measures directed at other countries' PPM policies could not be justified under Article XX. In broad measure, the Appellate Body agreed with the United States, but addressed concerns of unilateralism and inequity (particularly where measures were targeted at developing countries) through its interpretation of the chapeau of Article XX, i.e., the requirement that justified measures not arbitrarily or unjustifiable discriminate between different countries. The impact of the *Shrimp-Turtle* case is to blunt the importance of the PPM assumption, since the very kinds of measures supposedly prohibited through that assumption may well be justifiable under the conservation or life and health exceptions in Article XX.

The assumption has also been bypassed by recent jurisprudence of the WTO Appellate Body on "like" products in Article III:4 (the *Asbestos* case); consumer habits and tastes may be of decisive importance in determining whether products are "like," thus belying the notion that only physical differences in themselves count in the analysis. In sum, from a legal perspective, the PPM assumption has

continued on page 75

continued from page 74

not been overruled, but made largely irrelevant jurisprudentially. At the same time, the policy concerns remain—i.e., the meaning of unilateralism and its acceptability in addressing global environmental commons issues, as well as equity between developed and developing countries and worries about green protectionism.

Robert Howse, from Canada, is the Alene and Allan F. Smith Professor of Law at the University of Michigan Law School and a former Canadian diplomat.

Trends and Future Directions

Many environmental observers are concerned that the current Doha Round of trade negotiations will provide an opportunity for a rollback of the perceived gains in the trade and environment debate, such as outlined above. Critics point to the limited negotiating mandate given to the CTE in Special Session in Paragraph 31 of the Doha Ministerial Declaration.

Several developed countries are pushing for more transparency and public participation in the context of the review of the WTO Dispute Settlement Understanding (DSU); an agenda that is favoured by many in the environment community interested in participating in key trade and environment disputes. For instance, the U.S. and the EU have submitted proposals in favour of opening up the dispute settlement process to the public, as well as the establishment of guidelines for handling *amicus curiae* submissions.

In 2005, the WTO panel hearing the EU's challenge against continued retaliatory sanctions on its exports imposed by the U.S. and Canada in the long standing *Beef Hormones* dispute announced that the proceedings would be open to the public. This development, the first of its kind in the history of WTO dispute settlement, comes in response to a joint request filed by all three countries. It will be interesting to see how this step towards opening up dispute proceedings in the WTO is reflected in the DSU review negotiations. Two questions are raised. Firstly, whether this sets a precedent for future practice in dispute settlement proceedings and, secondly, whether public participation in the *Beef-Hormones* proceedings could revive the debate on transparency in the DSU review.

To date, the position of panels and the Appellate Body with respect to *amicus curiae* submissions has been that, while they are under no obligation to consider these briefs, they have the authority and discretion to accept and consider them. *Amicus* briefs have been submitted by environmental and other NGOs in *Shrimp-Turtle*, *Asbestos* and the recent U.S.-EU *biotech* dispute involving genetically modified organisms (GMOs). Civil society's push for transparency and access to the WTO dispute settlement system has faced opposition from the WTO membership, particularly developing countries, which tend to be largely opposed to such participation because it can create an imbalance in the process. Moreover, developing countries are wary of green protectionism. In practice, this opposition has not stopped the acceptance of *amicus* briefs, despite the fact that WTO Members have yet to adopt any formal procedures to regulate how to deal with these submissions.

With a view to advancing the objectives of sustainable development, policy-makers have sought to work towards a convergence between trade and environment. To this end, trade negotiators made reference to the environment in the preamble to the WTO Agreement, and the WTO dispute settlement process has shown its ability to accommodate environmental concerns. While the balance may not be perfect and stakeholders from dif-

ferent perspectives continue to disagree over a myriad of issues, it is clear that a return to trade versus the environment is no longer acceptable. Thus, developments in WTO rules will have to be based on a better mutual accommodation of interests in pursuit of development that is sustainable. MEAs, which represent a multilateral consensus on specific environmental concerns, are likely to be used as an interpretive aid to trade rules in the interests of incorporating WTO law into the wider corps of public international law.

II

Environmental Goods and Non-agricultural Market Access

Nathalie Bernasconi-Osterwalder, Linsey Sherman and Mahesh Sugathan

"Many studies also point, in particular, to the benefits of eliminating barriers to imports of so-called 'environmental goods.' There is an ongoing debate, especially within the context of WTO negotiations, on the scope of what constitutes environmental goods."

The relationship between the environment and trade liberalization in industrial goods is complex and of great interest to the trade, environment and development communities. Literature and impact studies point to the negative environmental impact of liberalization in forestry, fisheries and minerals in the absence of sound environmental policies. At the same time, liberalization may have environmental benefits. Tariff barriers on processed or value-added products are in general much higher than the raw natural resource exports from which they are derived. As a result, many developing countries have exported large quantities of natural resources for the sake of relatively little export revenue. Reducing high tariffs on processed, value-added products could ensure that developing countries earn more through their exports at a lower cost to their natural resource stocks.

Non-tariff measures (NTMs, referred to in the negotiations as non-tariff barriers or NTBs) used by developed countries that often fulfill important environmental or health policy objectives continue to be perceived by developing countries as significant trade barriers to their exports (particularly for fishery and forestry products). Developing countries, on the other hand, generally apply high tariffs on manufactured products. Hence, the focus of attention for developed countries in market access negotiations is often tariffs, while for developing countries it is NTMs. The exception is developing country demands for the elimination of extremely high tariffs on particular tariff lines (tariff peaks) and higher tariffs for higher value-added products (tariff escalation) in developed country markets.

Many studies also point, in particular, to the benefits of eliminating barriers to imports of so-called "environmental goods." There is an ongoing debate, especially within the context of World Trade Organization (WTO) negotiations, on the scope of what constitutes environmental goods. While developed countries enjoy a comparative advantage in the production of industrial environmental goods used for environmental remediation, and argue for the definition to include these products, many developing countries are interested in including environmentally preferable products (EPPs). However, the standards these products might have to meet to qualify as "environmental," such as certification, standardization and labelling, might impose equivalent costs and could be construed as barriers to trade.

Relevant WTO Negotiations

The Doha Ministerial Conference in 2001 mandated the WTO Committee on Trade and Environment (CTE) to launch specific negotiations on trade and environment including on the reduction or elimination of tariff and non-tariff barriers to environmental goods and services (EGS) under Paragraph 31(iii) of the Doha mandate. This is an entirely new issue for the WTO and it establishes a direct link between negotiations in the CTE and in the Negotiating Group on Market Access (NGMA) on industrial goods (or non-agricultural market access, NAMA). (*See related discussion on Environmental Services.*)

Negotiations relating to NAMA are primarily taking place in the NGMA, where much of the discussion in the negotiations has centered on cutting tariffs. In that context, discussion has focused on variations of different formulae that, if agreed, would then be applied by Members to systematically reduce their current tariff levels. The type and construction of the formula has been a point of controversy and WTO Members have been divided on the issue largely, but not exclusively, along developed-developing country lines. In addition, small groups of countries have begun additional "informal" negotiations on the complete elimination of tariffs in specific sectors, including environmentally-sensitive sectors, such as forestry and fisheries.

The second significant aspect of current NAMA negotiations is the discussion related to NTMs. At the insistence of developing countries in Doha, NTMs were included in the negotiations on NAMA, both to address the use of non-transparent NTMs in developed countries and to counterbalance the effects of reducing their own tariffs. In the negotiations on NTMs, Members have been requested to notify those measures problematic for their exporters to the NGMA. Several Members, from both developed and developing countries, have notified various environmental, safety and/or health standards as barriers to their exports. It is important to note that these notifications are not intended to indicate whether or not measures are perceived as illegal or whether or not they pursue legitimate public policy objectives. Notification simply reflects the perceived restrictive effects on trade of these measures.

Interests and Fault Lines

Tariff Negotiations: Sectoral Agreements

Although sectoral agreements for tariff elimination have generally been opposed by developing countries, this process has moved forward informally amongst interested Members, such as the United States, New Zealand and Thailand. Most developing countries have not considered it to be in their interest to scatter tariff negotiations into individual discussion groups on a sectoral basis. However, it is expected that a small group of countries will agree to eliminate tariffs in a variety of sectors, which they will present to the NGMA as finished deals. In this case, the benefits would be extended to all Members, although the commitments would only be binding on the small group of countries involved. Sectors that have been proposed for accelaterated liberalization also include a number of environmentally-sensitive sectors, such as fisheries, forestry products, chemicals and raw materials.

There are no indications that WTO Members are taking environmental considerations into account as they engage in tariff elimination negotiations in sensitive sectors in the NGMA. This, despite the fact that some evidence exists to show the likely negative environmental impacts some countries will experience as a consequence of complete tariff elimination. For example, the European Union commissioned a sustainability impact assessment (SIA) of the WTO negotiations, released in June 2005, which focused, *inter alia*, on liberalization of the forestry products sector. Using a model scenario of full liberal-

ization (zero tariffs), the SIA study predicts that developing and some transitional economies that have problems with forest governance could face significant social and environmental costs, which could outweigh any economic gains from additional trade liberalization in the absence of adequate safeguards.

While some proponents of sectoral agreements argue that increased economic activity will allow developing countries to reinvest in environmentally sound infrastructure, the EU SIA finds that complete liberalization is more likely to magnify existing policy and institutional strengths and weaknesses rather than drive forest governance change. During the course of discussions at the WTO, some Members have been in favour of full liberalization of all raw materials, citing "win-win" opportunities for exporting countries through increased market access, and for industrialized countries through cheaper raw materials for processing industries. Others, for instance Japan, have recognized the potential dangers posed to conservation by liberalization of raw materials, such as fisheries and forestry products.

Currently, only a few countries, such as Canada, the United States and the European Union, regularly conduct environmental impact assessments of trade negotiations and agreements. In most cases, assessments undertaken with respect to developed countries find that these countries have sufficient domestic regulatory frameworks in place to counterbalance any negative environmental effects in sensitive sectors. However, many developing countries do not yet have the resources to develop strong regulatory schemes and their domestic environment may be unduly affected by the sectoral tariff liberalization being promoted by developed country trading partners.

Non-tariff Measures Negotiations

Since agreement on the "July Framework" in 2004, the Chair of the NGMA conducted a

Liberalization of environmental goods: A double-edged sword or a panacea?

By Beatrice Chaytor

When I first wrote about the issue of environmental goods and services in 2002, my premise was that the negotiations could serve as a model for so-called "win-win" scenarios in the trade and environment debate. Wins for both environment and trade objectives and wins for both developed and developing countries. A third win—for development—was seen as possible through the generation of new markets in environmental goods and services. A few years down the line, however, the negotiations continue without much progress, mired in clashes over definition and classification.

Win-win scenarios are still possible following the liberalization of environmental goods in particular, but all World Trade Organization (WTO) Members must find viable economic and environmental interests in the negotiations. Firstly, the lists put forward by the Organisation for Economic Co-operation and Development (OECD) and the Asia Pacific Economic Cooperation (APEC) forum must be updated to reflect the current state of the environmental goods industry, and include environmentally preferable products (EPPs). In this way, developing countries can use the update exercise as a way of mainstreaming some of their core interests in the multilateral trading system; the focus on development and equity with technology transfer and capacity building as essential aspects of the negotiations.

Secondly, the definitional discussion is superficial if it fails to substantively address some of the most critical issues at the heart of the trade and environment debate: such as "like product," process and production methods (PPMs) and eco-labels. Naturally, there is wariness about the consideration of PPMs in

continued on page 80

continued from page 79

broadening the definition of environmental goods; this could be the slippery slope to the entry of PPMs generally in trade and environment issues and into the WTO. At the same time, liberalization of environmental goods may present considerable gains in international trade for some developing countries. Moreover, these gains would not just be restricted to traditional areas, such as organic or sustainably harvested goods.

Developing countries must surmount the psychological hurdle of PPMs and be strategic in defining their interests within the negotiations. In what products do they have specific comparative advantage? What distinguishes those environmental goods from other products? What specific trade barriers are faced by categories of these environmental goods? Are they tariff or non-tariff barriers? PPMs should be tackled head on as a useful tool for creating space for comparative advantage, particularly where there is a widening of the scope and definition of environmental goods. Developing countries must decide how to advance their desired outcome at both the national and international levels. They should achieve their "wins" one step at a time, taking a medium to long-term view.

At the national level, what particular environmental issues need addressing? For instance, with respect to cleaner energy, water treatment, air purification and fuel efficiency. Can these issues be addressed through the use of environmental goods? If so, those environmental goods need to be assigned customs codes at the national level to distinguish them from other products. At the international level, developing countries across the economic spectrum must participate fully in the World Customs Organization (WCO) to harmonize these national codes to ensure that environmental products for which developing countries have a competitive advantage are included in the various classifications. For example, products dealt with under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal have already being included in customs codes developed by the WCO.

That said, things are not that simple, especially where huge economic interests are at stake. There is general consensus that the environmental industry in OECD countries is well organized, with a fairly mature industry in traditional environmental goods. The entry into force of the Kyoto Protocol will only add to the demand for cleaner energy and energy/fuel efficient products that will widen the market for such goods. Add to this the rise of biotechnology products and the environmental goods industry potentially widens. Industry analysts suggest that OECD countries will not dominate the environmental goods industry for long. Some countries in Latin America and Asia are already competitive in technology that addresses air pollution, health and sanitation and water quality. I would hazard a guess that, even if the definition of environmental goods is restricted to the narrow OECD-APEC lists, the more advanced developing countries are still likely to emerge as the biggest winners in the environmental goods trade. Even though the vast majority of least developed countries do not yet have well developed markets or industry in such products (making them "slow winners" in this trade), South-South trade in green products would enhance the wins among a wider group of developing countries.

All WTO Members need to take a realistic look at the liberalization of environmental goods that is underway. The industry, far from exhibiting the static nature inherent in the APEC and OECD lists, is a fast moving, dynamic sector that has the potential to allow some countries to leap frog the current technological divide, contrasting the impasse in the WTO with the dynamism of the environmental goods industry. Developing countries have a lot to play for here. While they discuss widening the definition of environmental goods in the WTO and work on harmonization of customs codes in the WCO, developing countries should make sure that the domestic regulatory and market environment exists for their products (whether technological or otherwise) to remain competitive and innovative.

Beatrice Chaytor, from Sierra Leone, served as a trade negotiator for her country and is now the Director of the Policy, Planning and Research at the Sierra Leone Ministry of Trade and Industry. This essay is written in her personal capacity.

notification exercise in which Members were invited to notify NTMs that hindered their exports in various markets to the NGMA. The notification exercise has been perceived to be extremely difficult and complex for many, especially smaller, developing countries. As a result, many developing countries have not notified the NTMs that are problematic for their industry and, therefore, the overall picture of notifications is not representative of developing country concerns.

Several proposals support a horizontal approach to negotiations, which would have Members discuss several selected NTMs across all sectors. Some Members, however, have strongly advocated a vertical approach, according to which Members would focus on NTMs of interest to particular industries. This suggestion could be problematic for some developing countries that do not want to establish any formal link between a vertical approach in NTMs negotiations and the possibility of sectoral initiatives in tariff formula negotiations. Those Members supporting a vertical approach to modalities favour the use of plurilateral group discussions, with the results to be applied on a most favoured nation (MFN) basis. In other words, a small group of interested countries would decide to address NTMs in a particular sector and then apply the benefits of these new rules to all Members (although those not party to the discussions would not be bound by the rules). Additionally, others have proposed that NTMs covered in existing WTO agreements, such as the Agreement on Technical Barriers to Trade (TBT), should be addressed through dispute settlement as a "compliance" issue and not through negotiations. Their argument is that the NTMs faced by exporters in practice sometimes occur because Members are not appropriately implementing their commitments.

Some of the NTMs that have been identified as problematic to certain industries and notified to the NGMA are important tools for domestic environmental policies. For

Are environmental goods good for the South?

By Amb. Magda Shahin

After over a decade of relentless efforts and difficult negotiations, discussion on the relationship between trade and environment in the WTO seems to have entered a vicious circle, which—if it goes out of control—could very well undermine the "Doha Development Round." Although the ongoing debate has not brought the key concerns surrounding the relationship much closer to being resolved, it has helped clarify the underlying rationale and purpose of the issues involved.

Before the Doha Ministerial Conference in November 2001, developing countries had never shown interest in giving additional ground to the environment in the trade debate, least of all in a round that is supposed to be, at least by proclamation, a development round. It had seemed clear that the trade and environment debate in the WTO, with its ten item agenda mandated at the Singapore Ministerial in December 1996, was leading nowhere. Had it not been for the maneuvering of the Nordic countries, the trade and environment relationship would have remained a forlorn issue in the WTO. Disregarding altogether the ten items on the agenda of the Committee on Trade and Environment (CTE), the three items in Paragraph 31 of the Doha Ministerial Declaration were carefully negotiated into the "Doha Development Agenda." The real innovative addition was sub-paragraph 31(iii), which calls for the reduction or elimination of tariffs and non-tariff barriers to environmental goods and services.

The issue was force-jumped into the front seat, and negotiations on the reduction of tariff and non-tariff barriers became a priority. With the inclusion of this topic, WTO Members agreed to venture again into a cycle of endless debate between environmentalists and

continued on page 82

continued from page 81

business interests, who want to see as broad a definition as possible for environmental goods, and "developmental tradists," who resist enlarging the definition. The basic question that remains unanswered, is: Why should developing countries legalize preferential trade in terms of zero tariffs for environmental goods?

Even if the narrow definition of environmental goods prevails and they are defined according to end-use criteria based on a process and production methods (PPM)-free rationale, the complexities attached to favouring environmental goods as exceptions would tilt the entire market access debate in favour of developed countries. It is worth recalling that the original intention of bringing market access and competitiveness concerns into the interface between trade and environment was to balance an already lopsided debate. With the market access component of the debate now focused on environmental goods and services, to the predominant interest of developed countries, the objective of the former market access discussions (under Item 6 of the Marrakech Agreement agenda for the CTE) have been rendered void and futile.

With the objective of safeguarding the interests of developing countries—which have refused any automatic linkage between trade liberalization and environmental protection—Item 6 was the only item on the CTE agenda stressing the link between trade, environment and development and the inter-relatedness between poverty and environmental degradation. It was intended to promote goods and services of export interest to developing countries, with a view to promoting developing country participation in the trading system and enabling them to protect their environment and improve their capability to implement sustainable development.

Importantly, the concept of environmental goods is relative. What may be defined as an environmental good in one country could be treated very differently in another. Developed country recycling regulations, which discriminate against environmentally friendly and biodegradable products from developing countries, remain a valid example of the subjectivity of the concept. Moreover, using the lists forwarded by European and Asian countries as a basis for defining environmental goods is prone to risks, given that these lists are as biased towards the interests of the sponsoring countries. Developing countries should not be lured into accepting different lists at their face value. With regard to environmental services, why should developing countries concede on issues related to the services negotiations, when developed countries have not yet budged on the movement of natural persons—the so-called Mode 4 supply of services—which constitutes the priority issue for developing countries?

On the whole, Doha Round negotiations seem to be in a state of flux. Environmental goods are not necessarily good for developing countries. A case has not yet been made for why this issue merits priority in a development round. Maybe not coming to a conclusion on this issue would not be a bad thing. At this critical juncture of the negotiations, we should avoid detracting the development round with issues that do not help integrate developing countries in the multilateral trading system.

Ambassador Magda Shahin is Egypt's Assistant Foreign Minister for International Economic Affairs and earlier served as her country's Ambassador to Greece and its chief trade negotiator. This essay is written in her personal capacity.

instance, the United States has notified policies that promote fuel efficiency, distinguishing between vehicles based on engine size, while China has notified regulations that promote energy efficient policies for household appliances, air conditioning units and heating, as implemented for instance in the EU. Bringing such a broad range of measures into the NAMA negotiations could weaken existing environmental standards and limit Members' ability to adopt new legislation for legitimate policy objectives. While this should be avoided, it is also important to recall the objectives of the "Doha Development Agenda;" it is essential that Members address the relationship between legitimate standards and regulations of developed countries, and the lack of capacity of developing country exporters to meet these standards and regulations. In this regard, effective and operational technical and financial assistance will play an important role.

Defining Environmental Goods

The Doha mandate does not provide guidance on the definition of environmental goods, or on the modalities for negotiating tariff reductions. In early 2002, Members agreed to shift the Paragraph 31(iii) mandate on liberalizing environmental goods to the NGMA. However, since there is no clear definition of environmental goods, the CTE in Special Session (CTE-SS) has continued to examine the scope and definitional aspects of this mandate. The most commonly discussed approach to the negotiations is the "list" approach, whereby Members submit lists of environmental goods they wish to negotiate, based on which the CTE-SS would agree on a final list of products to be liberalized. India has suggested an alternative approach, which would classify goods as environmental based on their use in "environmental projects."

Those advocating the *list approach* (primarily the developed countries) propose that, following submissions of goods from Members, the CTE-SS would negotiate a final list of goods considered to be environmental. Many advocates of the approach consider this to be the only practical option for coming to agreement on a set of products for which tariffs would be reduced. The Organization for Economic Cooperation and Development (OECD) and the Asia Pacific Economic Cooperation (APEC) Forum have produced lists of environmental goods, from which many WTO Members have drawn in drafting their proposals. However, many developing countries have raised concerns about focusing exclusively on these lists, particularly since they were created largely by developed countries and do not contain products of export interest to many developing countries. Another criticism of the list approach is that it focuses on goods with an environmental end-use only, and does not include goods produced in an environmentally sound manner.

UNCTAD has done extensive work, outside the context of the WTO negotiations, on a category of goods described as environmentally preferable products (EPPs), which has generated substantial discussion. Although an agreed definition has yet to emerge, UNCTAD defines EPPs as "products that cause significantly less 'environmental harm' at some stage of their life cycle than alternative products that serve the same purpose." Brazil, Switzerland, New Zealand and the European Union support including EPPs within the list framework. Members that are supportive of a narrow list argue that broadening the definition would result in the inclusion of "multiple-use" products, which could be used for both environmentally sound and destructive purposes.

Given rapid technological advances, there is also concern that a static list of environmental goods could become obsolete in a few years. Therefore, New Zealand and the EU have proposed the concept of a "living list," to which products could be added and deleted as technology evolves. The fact that "environmental friendliness" is a relative concept poses potential problems, especially where

superior substitutes exist or may be used in the future. For instance, some experts believe that if hydrogen evolved into a fuel for popular use, natural gas would have less claim to be considered an environmental good. Yet, once tariffs for natural gas have been eliminated, it would be difficult to raise them again.

Some developing countries have also noted the lack of special and differential treatment provisions in current list approach proposals. Cuba has outlined areas where development concerns are not being taken into account in the CTE-SS discussions and formally supports a proposal from China, which suggests a "common list" of goods and a "development list," "which comprises those products selected by developing and least-developed Members from the common list for exemption or a lower level of reduction commitment." New Zealand has also proposed a "dual list" approach, supported by the United States, with a core list applicable to all Members and a complementary list, from which Members would self-select an agreed percentage of products for tariff reduction.

The reality is that most developing countries lack a comparative advantage in traditionally defined environmental goods that are capital or technology-intensive. In many cases, process and production methods (PPMs) would be the only criteria for including such products of export interest to developing countries. However, most WTO Members, particularly developing countries, want to avoid using PPM criteria to define EPPs, partly based on the fear of setting a precedent for introducing this concept in the WTO.

India's *environmental project approach* was presented as an alternative to the list approach; it would define environmental goods based on their use in a given environmental project. National authorities would grant projects "environmental" status for a set period of time, during which tariffs and NTBs would be reduced on designated goods for use in the project. This would be a continuous process, as new projects become designated "environmental" and existing projects are terminated. The CTE-SS would formulate the criteria that a designated National Authority could use to screen projects for approval.

Many developing countries support a project-based approach, largely because it solves the problems associated with multiple-use products and directly addresses special and differential treatment for developing countries. They argue that the mandate from Doha is essentially environmental-benefit oriented, and market access is a means to that objective; not the objective itself. However, some WTO Members are concerned that this approach could prevent small and medium-sized enterprises from benefiting from tariff reductions on environmental goods, because they do not have the capacity to mount large-scale projects, or the resources to engage in possibly complex certification procedures with national authorities. There are also some concerns on the appropriate definition of an "environmental project," as well as how this would be administered multilaterally on an MFN basis.

Trends and Future Directions

The outlook for multilateral trade liberalization in environmental goods remains cautious and uncertain. Lists submitted so far have focused on "end-of-pipe" equipment and remedial technologies. The environmental and developmental benefits of these environmental goods should be clearly demonstrated. Moreover, negotiators may also need to consider the environmentally sound and developmentally supportive characteristics of EPPs. At the same time, negotiators should specifically focus on increasing market access for environmental goods produced by developing countries in order for developing countries to be fully engaged in, and fully benefit from these potentially important negotiations.

In addition, a transparent negotiating process is essential to assess the environmental trends that are likely to result from proposed liberalization in sensitive sectors, such as forestry and fisheries products, chemicals and raw materials. Negative environmental impacts could be particularly significant in these areas for countries that do not have established structures of environmental governance. Negotiators should take these challenges into account and identify flanking measures or, where necessary, refrain from negotiating further liberalization.

It should also be noted, however, that while WTO negotiations on non-agricultural market access could have major environmental consequences, trade liberalization through autonomous policies and bilateral and regional trade agreements could be just as influential. For example, if a country, such as China, has enormous demand for environmentally-sensitive natural resources and decides to autonomously reduce its applied tariffs regardless of the WTO, this could also have environmental (and developmental) consequences in the exporting countries.

Environmental Services

Mahesh Sugathan and Johannes Bernabe

"Arguably, greater and cost-effective access to environmental services in developing countries would potentially help them progress towards implementing the Johannesburg Plan of Implementation and achievement of key MDGs..."

Paragraph 31 (iii) of the Doha Ministerial Declaration which calls for the "the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services" has raised more questions and speculation on possibilities than any other item in the Doha negotiating agenda on trade and environment. During the negotiation process, the issue has taken on dimensions that might not have been anticipated at the time the issue was originally singled out for liberalization and there continue to be uncertainties about how to proceed. Negotiations related to environmental goods are primarily taking place in the Committee on Trade and Environment (CTE) and the Negotiating Group on Market Access (NGMA), and issues related to environmental services are being negotiated within the Special Sessions of the Council for Trade in Services.

Before focusing on the specifics of the environmental services discussions, it might be useful to start with a two-fold conceptualization of environmental goods and services (EGS), as a category. The first is the conventional view that focuses on treating a specific environmental problem through the end-use of a particular good or service. This characterizes the traditional classification of EGS and includes goods such as wastewater treatment equipment or solid waste disposal services. The second conceptualization is broader and includes environmentally preferable products (EPPs) and services. The environmental benefits may arise from the more environmentally benign production method, during the course of it use—e.g., through lesser pollution and energy-consumption—or during the disposal stage of the product. In many, if not most, cases these will have non-environmental counterparts and this raises the question of *like products and services*. There may also be an overlap between these two categories and some EPPs may be used to prevent or treat environmental problems as well. (*See related discussion on Environmental Goods.*)

Both these conceptualizations of EGS are important in the context of trade, environment and development. Trade liberalization in EGS both narrowly and broadly defined could enable a freer flow of goods and services relevant to environmental protection. However whether this will translate into greater access to these goods and services in developing countries remains to be seen. It is here that the role of suitable flanking policies and their mainstreaming into WTO rules may be important.

Arguably, greater and cost-effective access to environmental services in developing coun-

tries would potentially: (a) help developing countries progress towards implementing the Johannesburg Plan of Implementation and achievement of key Millennium Development Goals (MDGs) particularly through the provision of critical services such as clean water and sanitation aided by appropriate goods and technology; (b) provide a means of employment and economic activity particularly in the case of trade in environmental services via Mode 3 (commercial presence); (c) enable developing country firms to economize on resource and energy use; and (d) increase access to new technologies and knowledge.

Interests and Fault Lines

The mandate for negotiating liberalization of trade in environmental services arose out of the built-in agenda stipulated under Article XIX of the General Agreement on Trade in Services (GATS), which provides for successive rounds of progressive liberalization across all services sectors, with the first round beginning in January 2000. In this context, negotiating proposals of WTO Members with a keen interest in this sector, such as the European Union (EU), Canada, Switzerland, Australia, Colombia and Cuba, were submitted to the Council for Trade in Services Special Session (CTS-SS), with a view to presenting these countries' vision of how environmental services should be liberalized.

Subsequently, requests were put forward by Members in the framework of the bilateral *request* and *offer* process whereby one Member can ask another Member to open up certain sectors to which the Member will respond with a specific offer.

Moreover, under the plurilateral request process initiated at the 2005 Hong Kong Ministerial meeting as a complement to the bilateral process, a group of countries—led by the EU and including Australia, Canada, Japan, Korea, Norway, Switzerland, Chinese Taipei and the United States—circulated a collective request in February 2006 for a number of large developing countries to open the environmental services markets.

While some Members' offers have included liberalization of trade in environmental services, it is fair to say that the breadth of countries as well as the depth of these offers fall quite short of the expected levels. This situation is of particular concern for some Members—most especially, the EC—who view liberalization of environmental services as a fundamental element of any successful outcome. Although a fair number (48) of WTO Members made commitments in environmental services during the Uruguay Round, proponents of liberalization in this sector had hoped that this situation would improve under the Doha Round of services negotiations, through an increase in the number of Members undertaking commitments as well as in an improvement in the breadth and scope of commitments. This has not materialized. Moreover, there is a continuing lack of substantive engagement by developing countries in the discussions and negotiations, especially by those who regard this issue as one where they have primarily a defensive interest. These may in large part be attributed to the factors discussed below.

Classification

The main stumbling block in substantive discussions relates to classification issues. Traditionally, the basis for most Members' commitments in environmental services has been the WTO Services Sectoral Classification list (W/120), which in turn cross-refers to the UN Provisional Central Product Classification (UN CPC). Some Members however argue that the W/120 classification is no longer consistent with commercial reality of the way industry operates.

Hence, even before the launch of the Doha Round of services negotiations, the Europeans made a submission proposing to update the classification system used for environmental services. They argued that W/120

did not reflect changes in the environmental industry, which was developing beyond traditional end-of-pipe/pollution control/remediation/ clean-up towards integrated pollution prevention and control, cleaner technology and resources and risk management. They proposed an alternative classification which referred to (i) "core" environmental services, or those which can undisputedly be classified as "purely" environmental and where the services are classified according to the environmental media (i.e., air, water, solid and hazardous waste, noise etc.); and (ii) environmental related sub-sectors which could be the subject of "cluster" negotiations together with the services in the "core" environmental activities. These sub-sectors pertained to services which have an environmental end-use or contribute to the production of an environmentally-friendly good or service, such as design, engineering, research and development, and consulting services.

This approach has, however, elicited reservations from a number of WTO Members, who are particularly concerned with the risk of making unintended, crosscutting commitments in a broader set of services activities than had been originally envisaged. For instance, under the European proposal, architectural services, integrated engineering services, consulting services for tourism, transport, fishing, sustainable land use etc.—insofar as they may have an environmental component when performed in conjunction with certain activities—would be the basis for a more "holistic" approach towards liberalizing environmental services. Other countries fear that the inclusion of such "environment-related sub-sectors" would necessarily include all activities, whether or not they have an environmental component. In the course of negotiations, the EC has refined their proposal on the "cluster" approach, and clarified that it intended the cluster of activities to be used primarily as an *aide memoire* or a checklist of activities which Members can refer to when they engage in bilateral request-and-

Making trade liberalization work for the poor

By Sitanon Jesdapipat

When read carefully, the General Agreement on Trade in Services (GATS) is simply an investment agreement in disguise. The modes of liberalization and classification of environmental services are so comprehensive that one wonders how the fate of developing countries can escape the fine net of the private sector.

Unbridled liberalization can create a one-way street for the private sector to take away services traditionally provided by the government, and place high price tags on them. It represents a costly recourse for developing countries, once they are committed to the process. Although access and affordability are widely and often questioned, other inevitable impacts have not yet been adequately addressed. Local communities, for example, can be deprived of their right to help themselves, to innovate and reap the benefit from appropriate technologies; such as, for example, cheap, simple and cost-effective end-of-pipe water treatment. Instead, expensive, complex and sometimes outdated "white elephant" technologies exclusively imported from foreign producers are not only encouraged, but often mandated.

Not only is it difficult to tame privatization—especially when local capital weds foreign capital—it can also force local communities and individuals to unnecessarily become dependent on foreign technology, the choice of which is often driven by the needs of the investor rather than those of the users. The inability to innovate and self-help marks the end of development in its truest sense. The true social and environmental costs of liberalized trade can be significant for developing countries, especially if local innovation is foregone for the sake of increased foreign investment at all cost.

continued on page 90

continued from page 89

One, therefore, wonders if freer trade at any cost is really good for developing countries. Given the nature and extent of the dependence it can create, can this really be a lasting motor of sustainable development? A more pertinent question, perhaps, is how to innovate a global policy that can ensure more than a short-term win-win outcome for private investors and host countries.

If trade is to be an instrument for delivering improved human well-being and if the profit motive is to be used as a vehicle for sustainable development, then the processes, instruments and end results all have to be realigned to be humane. This is different from the notion of human development that emphasizes efficiency, empowerment, participation and equity—which are necessary but insufficient conditions for humane development.

Specifically, if freer trade is to be an instrument for humane development, then participation and democratization of negotiations on trade in services must be a precondition, with due respect for systems of local governance, local priorities and local innovation. It is obvious that unequal capacity to negotiate cannot ensure a fair and efficient outcome. Because trade in services can often affect basic human necessities such as water, it is critical that prior to negotiations on free trade in services, careful and transparent assessments of the potential impacts of liberalization be conducted and broad structured participation be ensured—or even mandated, if the North are to practice the good governance they preach.

Importantly, communities and consumers of environmental services—particularly the poorest and most vulnerable communities—must be allowed to use maximum flexible safeguards to protect their long term interests in the process of implementation. Moreover, domestic capacity needs to be enhanced to adequately implement commitments. Otherwise, developing countries may become victims of their own naïve, honest, but poorly informed negotiating positions.

The final text of a negotiation, however, is not the sole indication of freer services trade. The consequences of an agreement are the true test of the value of free trade—that is, the extent to which weaker parties stand to lose or gain from an unequal balance of power in the negotiating process. Equally important are how injuries are redressed and win-win expectations actually realized. Given that the distribution of benefits may not be fairly and justly managed, it is also crucial that a redistribution of benefits is dealt with as an integral part of the final package of the trade negotiations. Otherwise, freer trade will not succeed in serving the objectives of sustainable development, and might even work against such a goal.

While all of this is true for most trade negotiations, it may be most true for negotiations related to trade in environmental services. This is because such services are often the foundation of the most basic human needs, and bring large multinational corporations face-to-face with poor and vulnerable population groups in the most unequal negotiations. The poor can often have the most to lose from such negotiations, and it is their interests that must be protected above all else.

Sitanon Jesdapipat, from Thailand, is a Technical Advisor for the Red Cross/Red Crescent Climate Centre in the Netherlands.

offer negotiations on the environmental sector, or when they negotiate other sectors where these related services may fall under.

Among developing countries, Colombia has proposed that the following additional activities be included in the list of environmental services: (i) the implementation and auditing of environmental management systems, (ii) the evaluation and mitigation of environmental impact, and (iii) advice in the design and implementation of clean technologies. In this respect, Colombia implicitly acknowledged that the W/120 classification scheme needs updating and needs to incorporate new services not envisaged in W/120. Such a revised model would then be used for the negotiation of environmental services, with the caveat that the services to be negotiated must be specific to the sector and should not duplicate activities listed elsewhere in W/120.

However, none of the proposed alternative classification schemes appear to have yet gained acceptance among the general membership of the WTO. Deliberations at the WTO Committee on Specific Commitments, which provides the main forum for technical discussions on classification and scheduling issues on services trade, remain at a standstill. Given this and that Members are free to make use of their own classifications, it is likely that Members will continue to decide unilaterally their own classification and scheduling approach and will use W/120 by default; though perhaps with a few commitments on additional environmental services culled by cross-reference to other specific activities contained in the UN CPC that are not presently detailed in W/120.

Environmental Infrastructure Services and the Issue of Water

It has been argued that foreign commercial presence through Mode 3 could help ease the constraint on domestic resources in developing country provision of safe water as well as treatment of polluted water. Some see the GATS as a suitable instrument to offer binding and predictable market access for foreign investment in this sector. Others including many developing countries question the value of this, particularly as it raises issues of affordability to poorer sections of the population as well as fears about private ownership and control of water.

These fears were brought into focus when the European Union proposed that "water for human use and wastewater" should be included under "environmental services" in its alternative classification. The proposal marked a shift away from the W/120 classification which does not address water at all and mentions only sewage treatment and tank emptying.

General obligations under the GATS such as the most favoured nation (MFN) or national treatment do not apply to "services supplied under government authority" that are not supplied on a "commercial basis" or in "competition with other service suppliers." In the case of water supply, for instance, only if the sector already has private actors or if the sole state entity in charge supplies water on the basis of commercial considerations, would a WTO Member be required not to discriminate between water supply service providers from different Member states or grant them the same treatment as domestic entities. Assuming that private participation and commercial considerations do exist in the delivery of environmental infrastructure services, Members may wish to preserve regulatory "policy space" and incorporate adequate safeguards in their GATS commitments so as to facilitate other models for delivery of water and the use of policy instruments, such as subsidies or tax incentives.

In response to widespread concerns raised by civil society groups and some developing countries, the EU subsequently retracted its proposal and the plurilateral request explicitly excludes any request for water for human use (i.e., the collection, purification and distribution of natural water).

Domestic Regulations

Detailed knowledge of domestic regulatory and administrative regimes will be relevant for trade negotiations in environmental services as in other services. This is because domestic regulations touch upon provision of services through Mode 3 (commercial presence) and Mode 4 (movement of natural persons) through foreign investment, health, environment, immigration and intellectual property rights laws and regulations.

WTO Members should therefore assess ongoing negotiations in the WTO Working Party on Domestic Regulation in light of their regulatory requirements. It is argued that various kinds of contractual arrangements, such as build-operate-transfer (BOT), are actually a combination of government procurement and market access concessions. Any future disciplines on government procurement and subsidies could have implications for market access commitments already made.

Environmental Services of Export Interest to Developing Countries

The prevalent proposals on the classification of environmental services reflect sectors where developed countries enjoy a comparative advantage, as many of these sectors are capital and technology-intensive. However, many developing countries are interested in market access for environmental services that they could possibly export, particularly in Mode 4. Cuba for instance—where service segments such as environmental studies, assessments and consultancy services are particularly well developed—has exported such services to Brazil, the Dominican Republic, Haiti, Mexico, Nicaragua, Spain and Venezuela. Assessing the opportunities in this sector will however imply as assessment of the impact of foreign immigration regulations that are a part of domestic regulation, as well as other requirements such as quality assurance and educational requirements. Provision of consultancy services through Mode 1 (cross-border supply) could also hold out opportunities for developing countries for export of environmental services.

Trends and Future Directions

As in the case of environmental goods, the outlook for trade liberalization in environmental services remains cautious and uncertain. Very few commitments have been made by developing countries in environmental services. Their reluctance, according to several delegates, is largely attributable to prevalent uncertainty particularly on regulatory autonomy in key services such as water supply. This is despite the increasing need for environmental services in all developing countries, and particularly in rapidly growing countries such as China. Moreover the rapidly expanding environmental service industry in developing countries such as those based on consultancy and Mode 4 need to be reflected in the market access commitments of developed countries.

The key challenge is to get Member countries, especially developing countries, excited about the issue and for them to take a more proactive, as opposed to defensive, stance on environmental services. This will require significant investments of analysis and research on the part of developing countries themselves.

Finally, it is important to stress the need to adopt a coordinated strategy between environmental goods and services as they are frequently inter-linked. At present Members have not agreed to adopt a single strategy within the context of the WTO negotiations but are likely to tailor individual strategies to respond to specific country interests in both goods and services negotiations. Some have suggested that Paragraph 51 that calls upon the CTE and Committee on Trade and Development (CTD) to identify and debate the environmental and developmental aspects of the Doha negotiations should play a more useful role in this regard.

Environmental Technologies

Sandeep Singh

"Although, some developing countries have been able to develop limited domestic capacities in the production of these technologies, the majority are still dependent on the developed world for high-end and sophisticated technologies."

Technology is considered to be one of the key determinants of socio-economic development and its transfer and dissemination to the developing world is deemed essential in the context of sustainable development. Environmental technologies—or environmentally sound technologies (ESTs)—have emerged as a distinct category of technologies; the need for innovation, transfer and dissemination of which has been emphasised in several international agreements, including the 1992 Rio Declaration emerging from the Rio Earth Summit, and various multilateral environmental agreements (MEAs).

Rapid industrialization coupled with urbanization and population growth has caused serious environmental problems in many parts of the developing world. Recognition of the increased magnitude of these problems by the public, industry and governments has lead to tremendous growth in the market in ESTs. Although, some developing countries have been able to develop limited domestic capacities in the production of these technologies, the majority are still dependent on the developed world for high-end and sophisticated technologies.

The significance of ESTs

While the transfer of ESTs has several commonalties with the transfer of any other technology, ESTs are distinct in terms of their significance for sustainable development. ESTs have featured prominently on the agenda of international environmental and trade negotiations. Developing countries require ESTs to ensure (a) compliance with MEA targets; (b) environmental requirements in export markets; and (c) improving environmental quality and achieving sustainable development in the domestic context. The significance also stems from the fact that the dissemination of ESTs is defined by increasing international consensus for environmental protection in addition to commercial interests that go along with the initiative.

Over thirty years ago, the UN Conference on the Human Environment (UNCHE) in 1972 in Stockholm highlighted the need to promote scientific research and development in the context of environmental problems. The UNCHE emphasized that ESTs should be made available to developing countries on terms that would encourage their wide dissemination without constituting an economic burden.

Two decades, later the Agenda 21 action plan for sustainable development, adopted at the 1992 UN Conference on Environment and Development (UNCED), reiterated the importance of ESTs, calling for the transfer of environmentally sound technology "on

favourable terms including concessional and preferential terms."

International discussions on trade, environment and development in the World Trade Organization (WTO), the United Nations Conference on Trade and Development (UNCTAD) and other parts of the United Nations system have repeatedly referred to the importance of access to and transfer of technology. The WTO Committee on Trade and Environment (CTE) has focused on the relationship between the generation of, access to, and transfer of ESTs and the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS). WTO Members have also raised the issue of access to and transfer of technology with respect to environmental requirements and market access, eco-labelling, trade liberalization and MEAs.

Comprehending ESTs

There is no universally accepted definition of ESTs. However, Agenda 21 sets out that ESTs are technologies that "protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than they technologies for which they are substitutes."

In the context of industrial manufacturing, ESTs can be broadly clustered in two categories: end-of-pipe technologies and cleaner technologies. End-of-pipe technologies are essentially those focusing on removal and treatment of pollutants from the waste stream at the end of the manufacturing process. Technologies necessary for solid waste treatment, wastewater treatments and air pollution control fall into this category. Cleaner technologies are those that seek to optimize the process of production by making necessary changes in order to avoid generation of pollution.

There are four major components of ESTs: hardware, software, brainware and support net. The hardware component relates to the physical equipment, structure of components and layout. Software is the "know-how" needed to accomplish a specific task, such as the operation and maintenance of equipment. The "brainware" component is more intricate as it includes the necessary knowledge and understanding related to the application and justification of hardware and software deployment. It is also called the "know-what" and "know-why" of technology. Finally, "support-net" comprises the complex network needed to support the effective use and management of technology.

From the sustainable development perspective, transfer of "brainware" and "support-net" are crucial to ensure effective innovation and technology transfer to the developing world.

The Trade and Environment Context

In the evolving debate on trade and environment, the issue of ESTs has always been an important one. In the WTO negotiations, Paragraphs 31(iii) and 37 of the Doha Ministerial Declaration and Paragraph II(ii) of the Decision on Implementation-related Issues and Concerns are relevant to ESTs. Paragraph 31(iii) provides a mandate to negotiate "the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services." The definition of environmental goods could include ESTs as well. Paragraph 37 mandates WTO Members to examine the relationship between trade and technology transfer in general. Paragraph 11(ii) reaffirms that the provisions of Article 66(ii) of the TRIPS Agreement are mandatory. Article 66(ii) of the TRIPS Agreement commits developed countries to provide incentives to their own enterprises to transfer technologies to least-developed countries.

Interests and Fault Lines

Broadly, there are two sets of overlapping interests in trade in and transfer of ESTs—commercial interests and environmental interests. In the majority of cases, the set of com-

mercial interests are altogether different for developing and developed countries. Developed countries dominate the production of these technologies and are primarily interested in capturing emerging markets in the developing word. According to UNCTAD, the worldwide market in environmental goods and services (EGS)—of which environmental technologies are an important pillar—is bigger than the pharmaceutical market, with 85 per cent captured by Western firms. Hence, the trade interests are significant.

Although some developing countries are also net exporters of these technologies, e.g., India in the case of renewable energy technologies, for most part developing countries are net importers. The commercial interest of developing countries mainly lies in the fact that the import of environmental technologies enables them to meet environmental requirements on exports of other products to Western countries. On the other hand, some developing countries that have over time developed some capacity in the environmental sector are also concerned about maintaining and further augmenting their capacity. The environmental industry in most developing and least-developed countries is largely dominated by small and medium-sized enterprises.

From the submissions in various WTO bodies, it is clear that developed countries are primarily interested in selling environmental equipment and necessary knowledge of maintenance and operation. This constitutes only the "hardware" and "software" components of technology transfer. As outlined in the accompanying figure, such transfers correspond to the inputs needed to deliver a capital good/plant or to modernize an existing one, and the know how to operate and maintain it.

Developing countries, on the other hand, are increasingly realizing that their developed counterparts tend to gain additional market access, but remain reluctant to transfer core technologies. Increased trade in environmental equipment might enable recipient coun-

Encouraging trade in biofuels

By Suani Teixeira Coelho

The Doha Ministerial Declaration of the World Trade Organization (WTO) mandated negotiations to liberalize trade in environmental goods and services (EGS) to enhance the mutual supportiveness of trade and environment. In the negotiations to date, it has become clear that developed and developing countries look at this issue from different perspectives. While developed countries expect greater access to emerging markets for their export-oriented environmental services and technologies, developing countries seek to pursue economic, social and environmental policies and expand their exports of environmental goods and technologies.

For developing countries, the liberalization of EGS can make an important contribution to the UN Millennium Development Goals, the Johannesburg World Summit on Sustainable Development objectives and the Kyoto Protocol. For example, the Kyoto Protocol calls for the replacement of fossil fuels by renewable sources of energy so as to reduce carbon dioxide and other greenhouse gas emissions. Opportunities exist for renewable energy technologies in all countries, especially for biofuels—not only for developed countries that can use them to replace fossil fuels, but also for developing countries that can produce biofuels for internal use and/or export.

Biofuels are a renewable energy source derived from biomass, and include ethanol, biodiesel, and methanol (when produced from wood or crops). Bioenergy accounts for about 15 per cent of the world's energy consumption, which is used mainly in developing countries. Despite the advantages of biofuels in contributing significantly to sustainable development, only a few countries foster their use, and trade in biofuels is still incipient. As the

continued on page 96

continued from page 95

WTO looks at environmental technologies, there is a strong case to be made for eliminating tariffs and non-tariff barriers to the trade of biofuels. Trade liberalization of renewable energy, including biofuels, could provide a "win-win-win" solution through promoting trade, improving the environment, and also alleviating poverty.

Today, Brazil represents a benchmark in renewable energy use, an example that could be followed by other countries. The main environmental benefit from the use of ethanol emanates from the fact that alcohol fuel is made from biomass energy derived from agricultural crops—a renewable energy source. Other positive externalities include: job creation; reduction of health costs related to pollution in urban areas; diversification of energy sources; secure supply and economic feasibility; development of new car engine technologies; and development of environmentally sustainable agricultural production processes.

In Brazil, ethanol is used in cars as an octane enhancer and oxygenated additive to gasoline (blended in a proportion of 20 to 26 per cent in volume of anhydrous ethanol-gasoline in a mixture called gasohol) in dedicated hydrated ethanol engines or in the recently introduced flexible fuel vehicles (FFVs) that run on any blend of alcohol and gasoline. Sales of FFVs commenced in 2003 and dominate the current market. By 2007, all new models of automobiles sold in Brazil are expected to be FFVs, allowing the user to choose which fuel to use, according to price and availability.

Consumers also appear to prefer ethanol, which sells for 60 to 70 per cent of the price of gasoline at the pump, due to the significant reduction in production costs. The break-even ethanol/gasoline price ratio is 70 per cent (without any government subsidies). These results show the long-term economic competitiveness of ethanol fuel as compared to gasoline. A common argument used against renewable energy—and, indeed, against many environmental technologies—is the lack of economic competitiveness. However, the Brazilian experience shows that costs can drop continuously through the so-called "learning curve effect."

Alcohol fuel that can be used in automotive vehicles is also a feasible option for developed countries which are obliged to reduce their carbon emissions through the Kyoto Protocol,that can be used in automotive vehicles. In their search for cost effective and environmentally sound alternatives to fossil fuels, developed countries should consider importing biofuels from developing countries.

The WTO has a role to play with respect to making biofuels more attractive as an alternative to fossil fuels. Working towards trade liberalization and sustainable development, the Doha Declaration set the stage for negotiations on the reduction or, as appropriate, elimination of tariff and non-tariff barriers for EGS. Considering the current import duties in many developed countries on environmental goods (including environmental technologies), negotiations to liberalize trade could forge the necessary trade-offs to enhance trade in biofuels.

An enhanced commitment to market access is one of the foundations of the "Doha Development Round," which includes supporting accelerated liberalization of trade in environmental goods and technologies of interest to developing countries. Production and export of biofuels represents a concrete option to reduce poverty and enhance sustainable development in developing countries.

Suani Teixeira Coelho, from Brazil, is São Paulo State's Deputy Secretary of State for the Environment and Head of the Brazilian Reference Center on Biomass, University of São Paulo. This essay is written in her personal capacity.

tries to upgrade their end-of-pipe pollution control capacities as well as promote cleaner processes in the short term. As a result of low trade barriers, they are likely to have relatively easy access to relevant engineering and managerial services, capital goods and relevant knowledge for operation and maintenance.

In the long term, however, merely transferring capital goods does not necessarily raise the technological level of recipient countries. Environmental technologies are not a static concept; technologies that are in use today will become outdated tomorrow. Hence, with a short-term approach, the recipient countries are likely to remain dependent on the technology suppliers.

The recipient country should promote the generation of indigenous technological capacity—stream C in the accompanying figure; i.e., "brainware" and "support net"—and the necessary knowledge and expertise required for implementing technological change. Recipient countries need to develop their own capacity to produce and manage ESTs that are suitable for their respective and specific requirements.

This remains a missing link in the ongoing WTO negotiations.

Paragraph 31(iii): EGS Negotiations

Under the Paragraph 31(iii) negotiations, it has been proposed by some WTO Members that the negotiations to reduce trade barriers should take place according to a list-based approach, rather than a definitional approach, as it is difficult to agree upon a common definition of environmental goods. Such a list could include both end-of-pipe pollution control equipment and cleaner technologies.

Most developed countries have taken an offensive position and are in support of rapid trade liberalization in selected goods and technologies as their companies stand to gain in terms of increased market access in developing country markets. These countries include the United States, Japan, the European Union, Korea and New Zealand.

Developing countries, on the other hand, have not shown much enthusiasm to put forward proposals in the negotiations thus far as most of the proposals by developed countries only discuss the need for reductions in trade barriers in developing countries. Submission by India and China have highlighted the importance of concrete technology transfer initiatives, the negative impact of rapid reduction of tariffs on infant environmental industries in developing countries and issues related to the development of the environmental industry in these countries in the long-term. However, not much progress has yet been made on defining the scope of the negotiations mandated under Paragraph 31(iii).

Paragraph 37: Working Group on Trade and Transfer of Technology

The Working Group on Trade and Technology Transfer was established under the mandate of Paragraph 37 of the Doha Ministerial Declaration. Its mandate covers technology transfer in general and includes ESTs. As developing countries are the main *demandeurs* of technology transfer, they are playing an active role in the Working Group. Joint submissions from several developing countries outline the provisions in the WTO agreements stipulating the need for technology transfer. In particular, developing countries have called upon the Working Group to examine the following:

- The provisions in various WTO agreements relating to technology transfer with a view to making these provisions operational and meaningful.
- Those provisions that may have the effect of hindering transfer of technology to developing countries and how to mitigate their negative effects.
- The restrictive practices adopted by multinational enterprises in the area of technology transfer.

- The impact of tariff peaks and tariff escalation in developed countries on technology transfer and come up with recommendations to remove the adverse impact.
- The difficulties faced by the developing countries in meeting the standards set by different agreements because of non-availability of the relevant or required technology.
- The need for internationally agreed disciplines on transfer of technology with a view to promote trade and development.

While developing countries have outlined an ambitious agenda for the Working Group, developed countries, including the U.S. and Japan, have shown little enthusiasm to embark on substantive debate, defining the exercise as merely analytical and academic. The expectation of developing countries is that the Working Group can formulate appropriate recommendations to assist them in strengthening their technology base.

Paragraph 11(ii): Links to Intellectual Property Rights

The mandate of Paragraph 11(ii) is also applicable to technology transfer in general, which covers ESTs as well. The TRIPS Council has taken a decision that requires developed countries to submit annual reports on actions taken or planned in pursuance of their commitment under Article 66.2. In general, however, developing countries remain skeptical about sincere efforts by developed countries in this regard. They maintain that developed countries need to establish norms and practices that lower the transaction costs of intellectual property and technology dissemination.

Other Fault Lines

In negotiations on trade and environment issues, the focus has mostly been only on removing trade barriers. A close analysis of the associated problems, however, reveals that reducing trade barriers is only one of the factors that could encourage technology transfer. It does not address the basic issue of affordable prices that are often determined by patent holder Western companies.

There has been no emphasis on provision for finance for ESTs and on the lack of capacity with regard to technology identification, assessment and selection, adaptation and assimilation in many developing countries. Without tackling these issues, the current approach may have negative consequences for some developing countries, which have developed a certain level of capacity to produce ESTs. Competition from Western companies may erode this capacity, which clearly falls in the infant industry category. In addition, as a result of significantly lower tariffs, Western companies are likely to prefer the trading route, thereby negatively affecting investment in the environmental sector in developing countries.

Trends and Future Directions

Like innovation, technology transfer is a dynamic and complex process, which is shaped and influenced by interactions between various factors ranging from international political economy to the adaptability and affordability of technology. Transfer and dissemination of appropriate ESTs to developing countries needs to be perceived in terms of achieving the twin objectives of transferring plant and equipment with acquiring the necessary operation and maintenance knowledge, as well as generating new knowledge.

Unfortunately, the current approach in the trade-environment negotiations only focuses on the former. The transfer of "know-what," "know-why" and "support-net"—which is essential for enhancing the technological capacity of developing countries—has been a missing link. In the EGS negotiations, commercial interests have clearly overshadowed the environmental objectives of the initiative.

Thus far, developed countries have only shown interest in maximizing market access for their industries, with little willingness to promote effective technology transfer.

It is also important to note that the technology transfer that takes place among developed countries is fundamentally different from the one that takes place from developed countries to developing countries. The former is relatively straightforward because the technological level is comparable whereas the latter is more fluid due to the technological disparity between supplying and receiving countries.

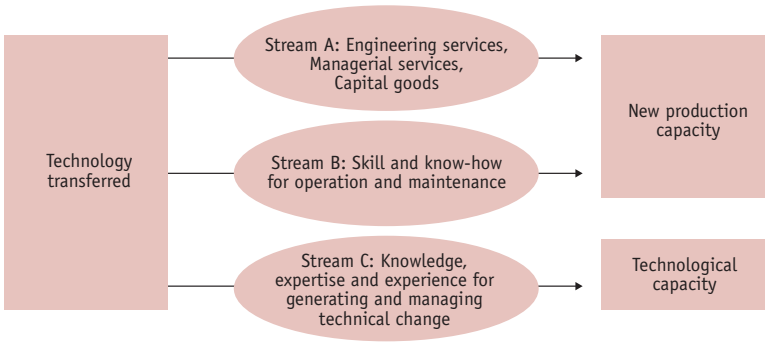
The differences between developed and developing countries go beyond technological levels to differences in terms of organizational and managerial systems, economic characteristics, telecommunication systems, skills, and value systems, among others, all of which matter for transfer of ESTs. Trade liberalization helps in the process but does not guarantee dissemination of "appropriate ESTs."

Another trend worth noting is restrictive practices by multinational companies as highlighted in developing countries' submissions in the Working Group on Trade and Technology Transfer. With the removal of barriers on investment many multinationals are setting up wholly owned subsidiaries in developing countries and are increasingly becoming reluctant to transfer technology through licensing or joint ventures.

Transfer and dissemination of technology is the central focus of the TRIPS Agreement's objectives. Article 8.2 of the Agreement clearly notes that abuse of intellectual property rights may adversely affect the international transfer of technology. Thus operationalizing these provisions is important because providing developing countries with access to appropriate technologies is an essential way to accelerate their economic and social development. It would be worthwhile if the review of the TRIPS Agreement also takes into account the impact of implementing the TRIPS Agreement on the transfer and dissemination of technology and the related trade and development prospects of developing countries.

In sum to be effective, transfer of ESTs should harness the development of indigenous capabilities, which in turn have many dimensions ranging from technology search, assessment and selection, adaptation and assimilation, replication, development and, ultimately, innovation.

Figure 1. Technological content of technology transfer arrangements.



Fisheries Subsidies

Anja von Moltke

"…the lapsing of the 'Green Box' means that even environmentally or developmentally positive fisheries subsidies could be subject to challenge if they are trade distorting."

Seventy-five per cent of commercially exploited fish stocks worldwide are either depleted or threatened by overfishing. Estimates suggest that commercial fishing fleets' overcapacity is as high as 250 per cent. Here is a clear case of a "tragedy of the commons"—despite the global interest in conserving fish stocks, there are immediate economic incentives for owners of fishing vessels to catch as much fish as possible. This incentive naturally increases when fishing is subsidized.

Subsidies represent nearly 20 per cent of fishing industry revenue and total fisheries subsidies worldwide have been estimated at US$20 billion per year. These subsidies to the fisheries sector have both trade and environmental consequences. Reducing the cost of fishing or enhancing its profitability by increasing revenue allows subsidized producers to reduce prices, gain market share and limit access to common fisheries resources for non-subsidized fleets. This subsidy cycle reinforces tendencies to over-fish and over-invest.

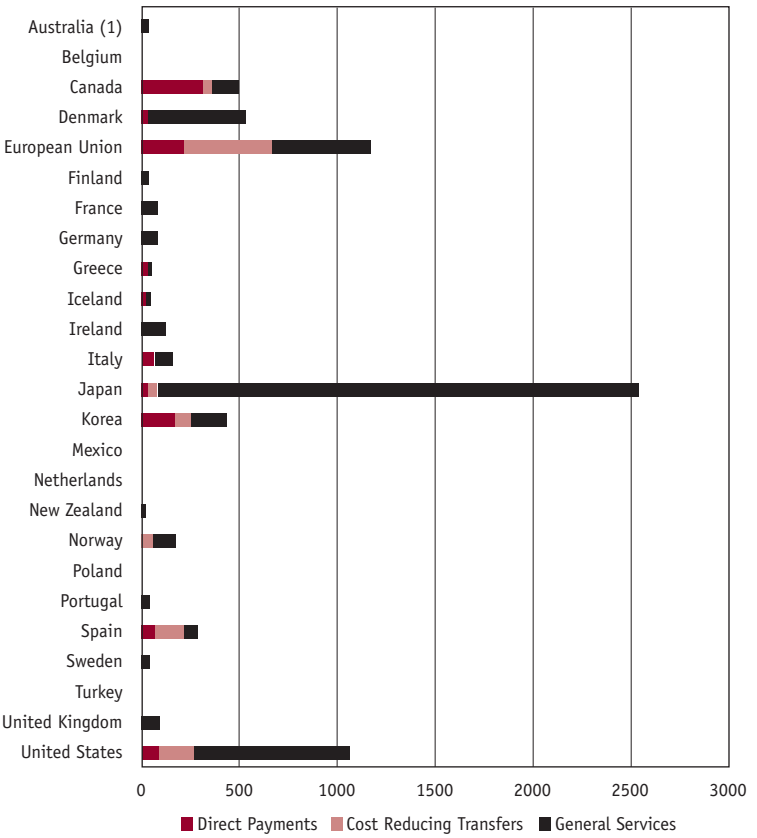
The Worldwide Fund for Nature (WWF) reports that 90 per cent of all reported fisheries subsidies are granted by only seven major industrialized economies: Japan, the European Community (EC), the United States, Canada, Russia, Korea and Chinese Taipei. These subsidies have significant effects on developing country fisheries, through trade distortions that inhibit developing countries access to markets of industrialized countries and through production distorting distant water fishing operations that deprive local people access to their fisheries resources. Analysis from the United Nations Environmental Programme (UNEP) of the environmental impact of different types of subsidies under different management conditions has shown that under most real-world conditions—i.e., less than perfect management schemes and fully exploited fish stocks—subsidies have harmful, and often irreversible, environmental effects.

Subsidies are recognized as trade distorting measures, interfering with the principle of comparative advantage. Consequently, the WTO Agreement on Subsidies and Countervailing Measures (SCM) prohibits certain types of subsidies to industries and enables WTO Members to challenge other Members' subsidies that distort trade. Article 1 of the Agreement defines a subsidy as any financial contribution by a government that confers a benefit on a domestic industry. The SCM Agreement is based on the colors of traffic lights: red (prohibited), amber (actionable) and green (permitted). The *Red Box* contains subsidies that are prohibited *per se* without the necessity to demonstrate their adverse effects (Article 3). The *Amber Box*

contains subsidies that are subjected to disciplines in case specific "adverse effects" are demonstrated. The disciplines include the removal of the adverse effects or the removal of the subsidy itself (Articles 5, 6 and 7). Provisions for the *Green Box*, containing non-actionable subsidies, i.e., subsidies that had been exempted from any discipline on the basis of certain conditions (Article 8), expired in 2000. In addition, Article 27 sets out provisions giving developing countries special treatment, including transition time for least-developed countries (LDCs) to phase out export subsidies.

Fisheries subsidies are currently disciplined only by the general rules found in the SCM Agreement. However, there are several reasons why this Agreement has limited relevance to fisheries subsidies. First, the narrow WTO focus on trade distortions as they relate to export markets clearly does not capture the notion of other economic distortions, specifically those related to patterns of production or environmental harm. Hence, there is no *ex ante* prohibition, even on the most economically and environmentally harmful fisheries subsidies.

Figure 1. Government financial transfers to marine capture fisheries in OECD countries 2000 (million US$).



Source: OECD, (2004). Synthesis Report on Environmentally Harmful Subsidies, OECD, Paris.

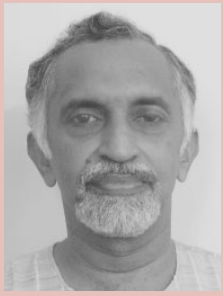
Second, Article 6 of SCM Agreement considers a demonstration of adverse trade effects through comparison of indicators such as market shares or prices in an export market. The distinctive trade distortions of fisheries subsidies (limiting access of non-subsidized fleets to exhaustive resources) would render these effects much more difficult to demonstrate.

Third, the lapsing of the "Green Box" means that even environmentally or developmentally positive fisheries subsidies could be subject to challenge if they are trade distorting. Finally, the SCM definition of a subsidy creates ambiguities with regard to some kinds of fisheries subsidies, most notably payments for access, fisheries management services and infrastructure. Such support mechanisms are potentially important to development and environmental management and thus need to be clarified.

Interests and Fault Lines

Fisheries subsidies have been addressed in the WTO Committee on Trade and Environment (CTE) since 1997. At the WTO Seattle Ministerial Conference in 1999, a group of countries, the so-called "Friends of Fish" (Argentina, Australia, Chile, Ecuador, Iceland, New Zealand, Norway, Peru, Philippines and the United States), put forward proposals to discipline fisheries subsidies that distort trade, harm the environment and impede development. Those proposing strong disciplines are often countries whose foreign revenue comes from fisheries export or those who strongly depend on the fisheries sector for food security. Japan and Korea, who are amongst the larges subsidizers, were against developing such disciplines beyond those that generally apply under the SCM Agreement. They argued that the fisheries sector was not different from other sectors of the economy and, therefore, did not require specific disciplines. Furthermore, they raised substantial questions on the causal link between subsidies and overexploitation

Fisheries subsidies and beyond



By John Kurien

"It is a very common clever device that when anyone has attained the summit of greatness, he kicks away the ladder by which he had climbed up, in order to deprive others of the means of climbing up after him." – *Frederick List*

This is a good characterization of the current negotiations on fisheries subsidies undertaken as part of the "Doha Development Agenda" of the World Trade Organization (WTO). Developed nations have provided substantial subsidies—sometimes even as high as 60 to 80 per cent of the value of the harvest—to develop their fisheries and fishing communities over the last several decades. Today, most of these countries are raising questions about the wisdom of continuing to provide such support and pointing fingers at developing countries; most of whom only offer trivial amounts of subsidies, if any at all.

Much is being said today about the presumed impacts of subsidies on fish stocks. Subsidies lead to overcapacity, we are told. This causes enhanced fishing effort leading to overfishing and resource depletion. Stop subsidies. However, not a word about the singular role played by subsidies in enhancing the quality of human development of fishing communities in developed countries!

This partial statement about the effects of subsidies is unfortunate. I personally attribute both development of their fishing communities and the depletion of their fishery resources to subsidies. In my understanding, even the direct relationship between subsidies and overcapacity and overfishing is largely untenable. The issue is far more complex.

There are several interacting and dynamic causal factors, which can promote the expansion of fishing activity and harvesting capacity and lead to overfishing. The first and most

continued on page 104

continued from page 103

overarching factor is the rapid global expansion of the market for fish and fisheries products. At any given level of technology, this is a prime cause for expansion of fishing activity (effort) and, subsequently, for the physical expansion of harvesting capacity (craft and gear). Given the perishability of fish, fishers will catch more than they need for subsistence only if there is a market for their product.

A second factor spurring fishing effort and capacity are changes in harvesting technology. Technological change and its spread are greatly spurred in the context of an expanding market. The classic example is the diffusion of bottom trawling in Asian waters in the 1960s following the expansion of the market for shrimp in the United States, Europe and Japan. Today, bottom trawling is a bane to Asia's fisheries resources.

Thirdly, there is the opening up of access rights to the resource. Historically, socially and culturally determined closed and/or limited access was a barrier to entry into fisheries resources. State control over the coastal waters altered the rules and norms governing access. While coastal waters were legally pronounced as state property, they deteriorated into a realm of open access where only possession rights prevailed. This created more incentives for unbridled fishing activity and raised fishing capacity.

Fourthly, market expansion creates demands for new products, which greatly expands fish processing facilities. The requirement for raw material for processing in these facilities fuels the expansion of backward linkages into the fishing activity and enhances capacity.

Finally, there are financial and other supports or subsidies in the system. These can exacerbate an already existing overcapacity problem. Such incentives, provided directly or indirectly by government or private sources (e.g., multinational fishing companies) play a role in enhancing activity and capacity. The extent to which this support is sustained will depend on the individual or joint presence of the other four mentioned factors.

For developing countries, trade in fisheries products provides a major source of quick and valuable foreign exchange earnings. In value terms, the global exports of fisheries products increased from US$6 billion in 1980 to US$58 billion in 2003, with developing countries accounting for half this trade. Net receipts from fish trade by developing countries increased from around US$4 billion to US$18 billion during this period. This revenue was greater than that from the total net exports of other agricultural commodities, such as coffee, bananas, rice and tea.

Supporting activity and investments in fisheries makes eminent sense for developing countries. The natural resources are available if properly managed. Skilled human capacity in the fisheries sector is plentiful. A judicious combination of these two factors will yield substantial economic and social returns over the long term.

Developing countries, which have a comparative advantage in fisheries products, should adopt a proactive strategy. They should pay greater attention to management of their fisheries resources, develop markets for their products and enhance the welfare of their fisherpeople. This will involve a menu of measures.

First, a program for aquarian reforms should be undertaken to grant priority rights of access to the productive coastal waters exclusively to those who fish and to grant the right of first sale of the produce to this "community" of fishers. This will create incentives for resource stewardship and greater producer control over the lower end of the commodity chain. The result will be greater incomes for the 30 million fishers and their dependents.

Secondly, developing countries need to negotiate reductions in tariff escalation to ensure that they graduate from exporting fish as a raw material to offering value-added food products.

Thirdly, developing countries should explore the scope for technological blending. The skills of artisanal small-scale fishers and the best of science-intensive technologies can

continued on page 106

of fish resources and argued that the effects of subsidies on resources depended on the different resource status and fishery management regimes.

Despite this dissent, the Ministerial Conference in Doha in 2001 resulted in agreement to launch negotiations aiming to "clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries" (Paragraph 28). In this context, explicit reference is also made to Paragraph 31 of the Doha Declaration, which recalls the aim of "mutual supportiveness of trade and environment" and agrees on further negotiations on trade and environment.

Since then, while references to fisheries are still occasionally made in the CTE, the negotiations on fisheries subsidies are primarily taking place in the WTO Negotiating Group on Rules, which is under the authority of the WTO Trade Negotiations Committee (TNC). A considerable shift has taken place during 2004, mainly due to changing positions by the EC and Japan, moving the negotiations from the question whether new rules are needed to the question of nature and extent of such rules.

In December 2005 at the 6th Ministerial Meeting in Hong Kong, Ministers then agreed to identify and prohibit fisheries subsidies that lead to *overfishing* and *overcapacity*. For the first time, this mandate explicitly includes environmental criteria for the new disciplines. Ministers also acknowledged that "appropriate and effective special and differential treatment" should form an integral part of the negotiations, highlighting the sector's importance to poverty reduction, livelihood and food security concerns.

Despite these considerable advances, there remain several unresolved issues that are central to meeting the Doha goals. Debates playing out in the Rules Group negotiations still include: the structure for prohibiting and allowing subsidies, the application of the traffic-light approach to specific subsidy types, special and differential treatment for developing countries, the use of sustainable development criteria, as well as transparency and notification requirements.

Top-down Versus Bottom-up Approaches

Most of the proposals on new disciplines build upon the "traffic light" approach of SCM Agreement. Two alternative frameworks to implement this approach, however, are still characterizing the negotiation: the "top-down" approach (negative list) and the "bottom-up" approach (positive list). The "top-down" approach originally proposed by the "Friends of the Fish" starts from a general prohibition on fisheries subsidies and focuses the negotiations on identifying and defining exceptions. The "bottom-up" approach, supported by Japan, Korea, Chinese Taipei and the EC, centers the negotiation on identifying and defining subsidies that would be prohibited. This approach, they believe, would avoid a "race for exceptions."

Although it is often argued that the final result of both approaches could be very similar, the method might have implications on the scope of prohibitions, notification requirements, burden of proof as well as the level of transparency achieved in the negotiations themselves. For example, whereas the "top-down" approach puts the burden of proof on subsidizing countries to define their programs, the "bottom-up" approach requires the countries who seek to strengthen the disciplines to prove that some programs are harmful and need to be prohibited.

Prohibited Subsidies: The "Red Box"

While prohibiting subsidies that contribute to overcapacity and overfishing is now the explicit goal of the negotiations, it is clear that these concepts themselves are not appropriate as a legal basis for a "red light" category. Neither of the two terms could be the criteria for an *ex ante* prohibition, since no subsidy would be "designed" to lead to overca-

continued from page 104

create artifacts that are environmentally benign, with more emphasis on the quality of the fish harvested than on the throughput from the ecosystem.

Fourthly, ensuring international consumer solidarity for this agenda is important. This can shape the contours of sustainable fish consumption and play an important role in modulating market forces. This will place premiums on seasonally and sustainably harvested resources.

Fifthly, developing countries should negotiate to ensure international agreements that foster fair trade, ensure equitable access to resources and honor commitments in support of developing countries.

Finally, developing countries should provide judicious financial support in the form of subsidies, taking into consideration the "public good" nature of marine fisheries resources and the "merit good" nature of the human development requirements of fishing communities. Funds for this objective could be earmarked from their expanding export earnings from fish.

Developing countries need several ladders to climb to the heights of just, participatory and sustainable fisheries development. The subsidies ladder is one among them. Don't kick it down yet!

John Kurien, from India, is a professor at the Centre for Development Studies, Thiruvananthapuram.

pacity or overfishing. Furthermore, the judgment of whether a certain practice leads to overcapacity or overfishing is clearly beyond the competence of the WTO.

For this reason, other criteria for prohibiting subsidies have been suggested, including enhancing capacity and effort. Such subsidies can be distinguished by design or context, without information about the actual impact. Some Members have argued, however, that costs and revenues factors can be quantified more easily, thus lending themselves to direct application in improved subsidy disciplines for fisheries and ensuring that the WTO is not drawn into areas beyond its traditional competence.

Those countries favouring a "bottom-up" approach, have proposed exhaustive lists of subsidies types to be banned, including for example, subsidies for vessel construction or modernization, the transfer of fishing vessels to foreign countries' waters and illegal, unreported and unregulated (IUU) fishing. Despite increasing concern and evidence about subsidized IUU activities, their effects of distorting competition and exacerbating the problem of overcapacity, there is no agreement on whether WTO disciplines would be able to effectively tackle this problem.

Proposals based on the "top-down" approach start with an outright ban, but envisage exemptions for all Members. Proposed exemptions include for instance subsidies that can help the transition to sustainable fisheries, such as short-term emergency relief, or that are most important for development purposes.

Non-actionable Subsidies: The "Green Box"

The essence of non-actionable subsidies is different from the exceptions to the Red Box, since the Green Box would protect certain subsidies from challenge under WTO rules. The main categories of subsidies proposed for the Green Box include: government expenditure for management frameworks and

research; subsidies for infrastructure; subsidies to improve safety or product quality or to promote environmentally preferable fishing gear; subsidies for subsistence fishing activities and subsidies for the reduction of capacity (tie-up schemes, decommissioning programs, retraining, early retirement).

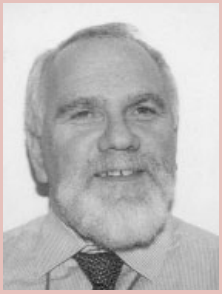
Capacity-reducing subsidies merit special attention. Decommissioning subsidies in particular have a record of worsening the state of the fish stock, since they often have unintended impacts on industry behaviour. To avoid reinvestment of the subsidy (or perceived reduction of investment risk by vessel owners), several countries have proposed strict conditions like mandatory physical scrapping of decommissioned vessels, prohibitions on the introduction of new vessels, commitment to a time-limit of the program, or rigorous controls to prevent increased effort.

Actionable Subsidies: the "Amber Box"

Some Members are also calling for an amber light category to contain subsidies that require withdrawal if they have adverse effects. For them, all subsidies that are not prohibited by the "Red Box" would fall into this category, giving the Member state that has suffered adverse effects the possibility of challenging the subsidy before a dispute panel. Chile suggest that, when the subsidizing Member has failed to notify an amber light subsidy, it would bear the burden of demonstrating that this subsidy does not cause trade injury to the complaining Member. For other subsidies, the complaining Member would have to provide evidence showing adverse trade effects of such subsidies.

The United States considers a "dark amber" category in which a subsidy would be presumed to be harmful unless the subsidizing government could affirmatively demonstrate that no overcapacity, overfishing or other adverse trade effects have resulted from the subsidy. For the Amber Box, the current SCM definition of "serious prejudice," that

Fixing Cotonou's rules of origin regime



By Roman Grynberg and Natallie Rochester

The environmental and commercial implications of the rules of origin regime for canned and loined fish products under the Cotonou Agreement between the European Union (EU) and 77 developing and least developed countries may seem an arcane subject to some, but it is of great significance to the livelihoods of many.

Rules of origin determine which goods can benefit from the lower rates of customs duty under preferential trade arrangements such as the Cotonou Agreement. Under the Cotonou Agreement, products from African, Caribbean and Pacific (ACP) countries enter the EU duty free. In the case of a can of tuna from non-ACP countries, the rate of import duty into the EU is 24 per cent. When a product, such as a can of tuna, uses inputs from a number of countries, it is necessary to have a rule that determines whether that can qualifies for preferential treatment. The current rules of origin used by the EU are complex and susceptible to abuse.

The Cotonou Agreement and related annexes provide for the preferential access of ACP exports into the EU and the rules of origin that allow products to qualify for preferential treatment. In the case of canned and loined fish, fish caught in ACP territorial waters (12 miles from shore) automatically qualify irrespective of who catches the fish. However, catches from the exclusive economic zone or EEZ (200 miles from shore or beyond) are

continued on page 108

continued from page 107

subject to vessel ownership criteria. Only if the vessel is owned by an EU or ACP country will that can of fish be deemed to have originated in the ACP and to qualify for preferential access into the EU market.

This has a number of effects. First, it encourages fishing effort in the territorial sea and increases competition between medium-scale or industrial fleets and artisanal and subsistence fishers. Second, this rule of origin creates a long-term subsidy for EU distant water fleets in ACP territorial waters. As few ACP states have large capital intensive purse seine fleets, this in effect means that fish, such as tuna, must be caught by EU fleets in order to qualify for preferential treatment. Such a predetermined supply chain results in price distortion for EU-caught fish.

Consequently, there is an incentive for tuna-rich ACP states with canning capacity (e.g., Ghana, Mauritius, Papua New Guinea, Senegal, the Seychelles and the Solomon Islands) to grant access to their EEZ to the EU rather than other states, even though it may be cheaper to import raw material for processing from states geographically closer than the EU, or even more lucrative to export raw fish to the EU. This rule of origin, therefore, imposes significant costs on developing countries and limits the potential to develop their fisheries industries in a sustainable manner. It also skews investment patterns, dissuading non-EU distant water fishers and increasing ACP dependence on EU firms.

For example, Mauritius, one of the three Indian Ocean countries with a Fisheries Partnership Agreement (FPA) with the EU, incurs an increase in the cost of sourcing fish to comply with the EU rules of origin regime, thereby reducing its overall competitiveness. Mauritius processes around 50,000 metric tonnes (MT) per year. In 2003, Mauritius paid an average of US$61 more than the world price for fish sourced in the Indian Ocean per MT and US$31 more per MT in 2004. In effect, this means that part of the 24 per cent margin of preference given to ACP states is being passed up the value chain to EU vessels. In Papua New Guinea, the volume of exports of the country's tuna cannery to the EU was limited because that cannery and the related fishing capacity were controlled by Philippine interests. In order to overcome the constraints on exports caused by the rule of origin, Papua New Guinea went to the United Nations and redefined its territorial sea to include its extensive archipelagic waters. Thereafter, it was able to export freely to the EU.

Development of the ACP fisheries industry requires greater domestic ownership of fleets and increased capabilities to produce value-added fisheries products, which would diversify ACP fisheries exports to Europe and increase potential revenues from fisheries trade with the EU. Often, these ambitions are in direct conflict with the EU objective of supplying its canneries with raw fish, as opposed to importing value-added fisheries products. Through bilateral access agreements, ACP states charge European vessels an access fee to fish in ACP waters. These traditional "cash for access" agreements have been overhauled and renamed Fisheries Partnership Agreements, which are supposed to ensure the interests of EU distant water fleets as well as sustainable fisheries in the waters of the ACP partner. The 24 per cent preferential margin under the current EU rules of origin regime gives a subsidy to those ACP states with fish canning capacity to provide EU vessels with access to ACP waters. This also provides tariff protection for EU canneries and ACP canneries exporting to the EU. Together, these effects concentrate harvesting of fisheries resources in certain ACP waters. This raises crucial issues about the food-security situation in ACP countries.

To have the preferential origin of a country, fish must be "wholly obtained" in that country or, where this is not the case, have undergone sufficient processing there. In order to make these rules of origin less destructive and more conducive to sustainable development of ACP fisheries, the definition of "wholly obtained" fish should be amended to allow fish caught by any vessel within an ACP state's EEZ to qualify for preferential treatment, so as to reduce the subsidy to EU vessels.

continued on page 110

protects the interests of a country against the negative trade effects of subsidies, would have to be clarified to include economic distortions at the fisheries production level.

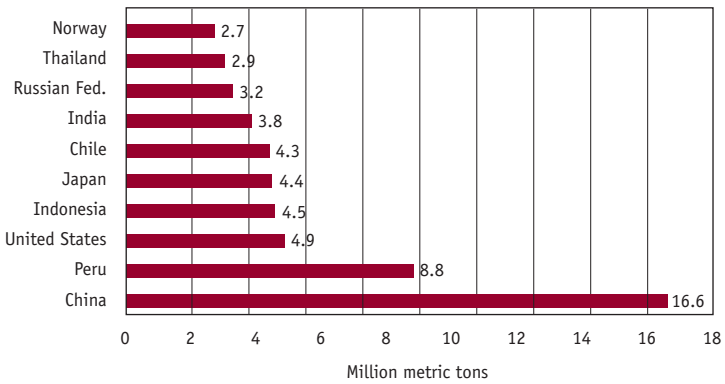
Special and Differential Treatment

The Doha Declaration mandates that negotiations take into account the importance of the fisheries sector to developing countries. Whereas early negotiations emphasized the need for clarity in general disciplines before evaluating necessary special and differential treatment (S&DT) provisions, leading developing countries to assert that S&DT must be negotiated as a central aspect of general disciplines. Many developing countries argue for S&DT on the basis that fisheries, particularly artisanal and small-scale fisheries, are a vital source of food security, employment and foreign exchange.

According to the International Collective in Support of Fish Workers (ICSF), artisanal fisheries comprise 45 per cent of global fisheries and 90 per cent of fish workers worldwide. Despite the need to provide developing countries with the opportunity to develop their fishing industries, it is important to bear in mind that artisanal fleets often represent a larger proportion of total catch and are more profitable than industrial fleets in developing countries. Similar to industrial fishing, the effects of subsidies depend on the state of fisheries and on the existing management conditions. For instance, subsidies provided to artisanal fleets in under-managed fisheries will have the same "race for fish" effects as capacity-enhancing subsidies that lead to serious resource depletion and poverty concerns.

Determining the type of S&DT necessary for the artisanal sector is made particularly difficult by the lack of a clear definition of the term. Brazil has advanced the issue by differentiating between artisanal as subsistence fishing and small-scale fishing. Subsidies for subsistence fishing would be allowed for both developed and developing countries whereas subsidies to small-scale fishing, presumed to cause adverse effects by increasing capacity, would be actionable. In addition, Brazil looks towards the applications of S&DT for vessel construction and modernization and gear acquisition, under the condition that the fishery is "not patently at risk." This would be the case if the status of fisheries is "overexploited, depleted or recovering, according to the FAO." Argentina proposes to add a management dimension by

Figure 2. Marine and inland capture fisheries: Top producer countries in 2002.



Source: Modified from FAO, (2004) The State of World Fisheries and Aquaculture, FAO, Rome, Italy.

continued from page 108

This would also lessen fraudulent declarations of origin and other forms of corruption that undermine the fisheries industry. Under the current EU rules of origin, it is possible for an ACP country to use fish caught in neighbouring ACP states and these fish are considered "originating" fish. However, where countries are not ACP states, and not part of the same regional organization, the ACP state cannot use the fish of these countries. Thus, for example, the Mauritius cannery can use fish caught in the Seychelles, but not fish caught in the neighbouring Maldives because the Maldives is not part of the same economically-integrated regional entity.

Highly migratory fish stocks, such as tuna, require regional management mechanisms. Current EU rules of origin encourage fishing in a particular area by particular boats and, therefore, impede a balanced regional approach to fisheries management. The limited scope under these rules of origin for the "cumulation" of origin with neighbouring states reinforces the dependence on EU fleets as suppliers of raw fish.

Roman Grynberg, from Canada and Australia, is the Director for Economic Governance at the Pacific Islands Forum Secretariat.

Natallie Rochester, from Jamaica, is a Services Analyst with the Caribbean Regional Negotiating Machinery. This essay is written in her personal capacity.

requiring subsidizing developing country Members to adhere with the FAO Code of Conduct for Responsible Fisheries.

Small island developing states (SIDS) are among the most vulnerable regarding overexploitation of fisheries and market distortions that result from subsidies of large fishing powers. However, they share a concern that new disciplines could limit their possibilities to further develop their fisheries and to conclude agreements with foreign fishing nations or fleets to allow access to their exclusive economic zones (EEZs). A group of twelve SIDS proposes to include under S&DT: development assistance to coastal states, assistance to artisanal and small-scale fisheries, fiscal incentives to fisheries development, and access fees (i.e., government-to-government payments in return for access to a country's EEZs).

In many cases, access agreements constitute significant sources of income in SIDS, meet legitimate development needs and are, in fact, authorized by the UN Convention on the Law of the Sea. It is clear, however, that the terms of access agreements have not always favoured host countries. Many developing countries have witnessed the depletion of stocks as a result of activities of subsidized foreign fleets. Several countries suggest that WTO disciplines could contribute to reforming access agreements towards greater sustainability and transparency, without impeding or discouraging access payments on which many small vulnerable economies depend.

Transparency

Support programs in the fisheries sector are notorious for their lack of transparency. Lack of reliable information has made it particularly difficult to quantify, analyze and report on subsidy programs. Several Member states have called for negotiations on strengthening SCM notification provisions (Article 25) in order to improve data availability and enforcement of notification requirements.

Emphasizing that "increased transparency is a condition *sine qua non* to deal effectively with the problem of fisheries subsidies," the EC suggests a "scoreboard" of notifications per Member and per type of program that would be made publicly available by the WTO Secretariat. Taking this suggestion further, any subsidy that is not notified would be presumed to be prohibited. The exact content of the notifications, including the biological and regulatory condition of the fishery, subsidy amounts, recipients and ways of granting, also needs to be established.

Trends and Future Directions

Since the World Summit on Sustainable Development (WSSD) in 2002, which required states to "eliminate subsidies that contribute to illegal, unreported and unregulated (IUU) fishing and to overcapacity," significant progress on the issue of fisheries subsidies has been made. Whereas just a few years ago, views differed on whether there was a need for new disciplines, there is now common ground even on some technical questions on the design of the new disciplines.

Table 1. Impact of decommissioning schemes.

Decommissioning Program	Payment based on vessel catch or revenues?	Retirement of vessel from fishing required?	Reduction of total capacity achieved?	Reduction in total effort achieved?	Increased capacity/effort in specific fisheries encouraged?
Denmark	No	Yes	Yes	No	No
Norwegian Purse Seine	No	Incentives provided	Yes	No	No
United Kingdom	No	No	No	No	Yes
Chinese Taipei	No	Yes	No	No	Yes
Netherlands	No	No	No	No	Yes
U.S. NE Multi-Species Groundfish	Yes	Yes	No	No	Yes
Canada Atl. Groundfish	Yes	No	No	No	unclear
Canada Inshore Lobster	Yes	No	No	No	Probably
France Scallop	No	No	Yes	No	unclear
Japan Akita	No	Yes	Yes	Yes	No
Japan Shimane	No	Yes	Probably not	Probably not	Probably

Sources: UNEP, (2004) Analyzing the Resource Impact of Fisheries Subsidies, UNEP. Geneva.

Table 2. Impact of eight categories of fisheries subsidies on fish stocks.

	Catch Controls			Open Access		
	Over-capacity	Full capacity	Less than full	Over-capacity	Full capacity	Less than full
Fisheries Infrastructure	H	H	NH	H	H	NH
Management Services	NH	NH	NH	NH	NH	NH
Access to Foreign Waters	H	H	NH	H	H	NH
Decommissioning	PH	PH	—	H	PH	—
Capital Costs	H	H	H	H	H	H
Variable Costs	H	PH	PH	H	H	PH
Income Supports	PH	PH	PH	H	H	PH
Price Supports	H	H	PH	H	H	PH

NH = Not Harmful
PH = Possibly or Probably Harmful
H = Harmful
— = Not Applicable

Source: Modified from UNEP, (2004) Analyzing the Resource Impact of Fisheries Subsidies: A Matrix Approach. UNEP, Geneva.

A number of significant challenges, however, remain. First, it is essential to ensure that new disciplines are transparent and formulated to achieve the Hong Kong mandate which clearly includes environmental and development criteria. To achieve transparency, it will be important to capture all subsidy programs by new rules and exclude only those that are clearly beneficial (e.g., for environmentally preferable gear) under appropriately strict conditions. Elaborating new rules via a negative, rather than a positive list approach may minimize circumvention risks. Since there is still disagreement on the approach to take, the WTO Rules Group needs to continue the discussion on the different types of subsidies, their respective treatment under new disciplines as well as strict modalities for their notification. New mechanisms for enforcement and regular review are also indispensable.

Second, since the difficulty in designing new rules comes in substantial part from the interdisciplinary nature of the problem, the competencies and authorities of the WTO need to be respected. The challenge is to develop disciplines that contribute directly to sustainable development and conservation, thus avoiding the need for judgments by the WTO related to environmental or management conditions of fisheries. Furthermore, institutional mechanisms for enforcement and compliance would need to contain expert advice from multilateral institutions with fisheries expertise, such as the Food and Agriculture Organization (FAO), regional fisheries management organizations, or UNEP. Enhanced coordination and information exchange among those bodies, other concerned stakeholders and especially within and between governments, are essential to meeting the sustainable development goals inherent in these negotiations.

Third, negotiations must give more attention to the unique challenges faced by developing countries, including their heavy dependence on fisheries, on international revenue from trade in fisheries, and on income from fisheries access agreements. Developing countries have a legitimate interest in sustainably expanding their local fishing activities and in participating in sustainable, equitable access agreements. In determining what kind of S&DT is appropriate for developing countries, it is important to bear in mind, however, that overfishing is a large problem in the vast majority of developing countries. While providing temporary benefits to the fishing industry, capacity-enhancing subsidies mostly work at the expense of future fish supplies and food security. Furthermore, since S&DT provisions are meant to protect developing countries whose fishing industries operate on a small scale and whose impact is relatively low, clear limits of eligibility of S&DT provisions particularly for large industrial fishing nations need to be set.

Limited diplomatic resources have made it particularly difficult for many LDCs to be actively engaged in the negotiations. If the new disciplines are to take due account of LDCs' interests, as required in the "Doha Development Agenda," national and international capacity building and resources for active participation in the WTO and other international fora are indispensable.

No other issue intersects trade, environment and sustainable development as much as fisheries subsidies. The nexus is one that must be carefully maneuvered to achieve the goal of sustainable development. Fisheries negotiations offer a unique opportunity for the WTO to operationalize the sustainable development objective in the WTO preamble and to prove that win-win-win outcomes for trade, environment and development are more than rhetoric.

Illegal Trade in Natural Resources

Duncan Brack

"The major categories of natural resources traded illegally are wildlife, timber and fish. It is of course impossible to know for sure the total value of illegal trade in these products, but educated guesses put it at a minimum of US$20 billion a year..."

Over the last three decades, the national and international framework for the protection of the natural environment has evolved rapidly. As legislation has expanded, however, so too have opportunities to evade it. International environmental crime—i.e., deliberate evasion of environmental laws and regulations by individuals and companies in the pursuit of personal financial benefit, where the impacts are transboundary or global—is a serious and growing problem.

It has been made worse by the general trend towards trade liberalization and deregulation; wherever the legal movement of products across borders is facilitated, so too are illegal movements. Yet the topic has hardly ever been discussed at the World Trade Organization (WTO). In fact, those hostile to various measures proposed to control illegal trade have often cited WTO rules as an obstacle to their adoption; though whether WTO rules really would impede them is entirely speculative.

The major categories of natural resources traded illegally are wildlife, timber and fish. It is of course impossible to know for sure the total value of illegal trade in these products, but educated guesses put it at a minimum of US$20 billion a year, perhaps up to 25 per cent of the total legal trade and over five per cent of the size of the global drugs trade. Other natural resources, including oil, diamonds and other gemstones, and minerals such as coltan, are also traded illegally, but in general less extensively than the three main categories considered here. They are also more commonly associated with conflict, which raises slightly different questions.

Why does international environmental crime exist? In practice, there are a number of drivers behind the formation of environmental black markets:

- *Enforcement failure.* Where illegal activities exist because of problems with enforcement, including suitability of regulations, costs of compliance (detection of environmental contraband is often very difficult), lack of resources and expertise, corruption, and political and economic disruption.
- *Regulatory failure*. Where illegal activities result from a lack of appropriate regulation, including failures to determine and/or protect property rights.
- *Differential costs or values.* Where illegal activities are driven by regulations creating cost differentials between legal and illegal products, by differential compliance costs (or different consumer prices) in different

countries, by demand for scarce products for which substitutes are not available or accepted, and by a lack of concern for the environment.

The reported incidence of illegal activities has undoubtedly grown in recent years, partly because the implementation of new multilateral environmental agreements (MEAs) has provided new opportunities for evasion, and partly because greater public and governmental awareness has led to more investigation of the issues.

Other contributory factors include the general trend towards trade liberalization, as noted, and increased regional economic integration, which both make enforcing border controls more difficult, and the growth of transnational corporations, amongst whom regulations are difficult to enforce. The transformation of the former Soviet bloc, and the difficulties of environmental law making and law enforcement and the rise of organized crime in many ex-Soviet economies, have also contributed to the problem, as has the growing involvement of developing countries in MEAs, but—in many of them—a lack of adequate resources to implement their provisions effectively.

Wildlife

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was agreed in Washington in 1973 and came into force in 1975. It has 169 parties, and is generally regarded as one of the more successful of the international conservation treaties.

The illegal trade in wildlife, in contravention of the controls established by CITES, is perhaps the highest-profile area of international environmental crime. The poaching and smuggling of commodities such as ivory, rhino horn, tiger bones, sturgeon eggs, bear galls, wild-caught parrots and other wildlife with a high commercial value directly threatens some or all of the populations of these species in the wild. Unfettered trade in derivatives from hundreds of other less charismatic species also serves to further deplete wild populations subject to many other pressures. Because of its diverse origins, multiplicity of products, broad consumer base and innately clandestine, high-value/low-volume nature, it may also be one of the hardest to control—though there are many instances where enforcement authorities have learnt to cooperate with some success.

The wildlife trade flows predominantly from less developed to more developed countries (i.e., South to North) and reflects consumption patterns ranging from medical need through to the frivolous. Major sources of demand are the exotic pet and flower trade, ingredients for traditional East Asian medicine, cultural materials (such as ivory for personal hanko seals in Japan and rhino horns for dagger handles in the Yemen) and exotic curios and accessories. The clandestine nature of the illegal trade means that live specimens are frequently transported in terrible conditions and many die en route; mortality levels of 80 per cent, for example, were associated with the wild-caught bird trade from Africa to Europe in the late 1980s.

CITES relies on a system of export and import permits issued by national management authorities for controlling the trade in some 34,000 species of wildlife; it does not seek to regulate habitat protection or control harvesting operations within countries. The most obvious way of circumventing these trade controls is through direct poaching and smuggling. Fraudulent applications for genuine CITES permits, faked certificates, making false declarations to customs or laundering illegal specimens as captive-bred or as pre-Convention stockpiles, have also been used to aid and abet illegal traffic.

Compiling data from various sources, the total global commercial exchange of wildlife has been estimated at between US$10–20 billion a year, of which some US$5 billion

may be in contravention of CITES. Smuggling of wildlife species can be highly lucrative. An African grey parrot exported from the Ivory Coast, for example, may be worth US$20 at the time of capture, US$100 at the point of export, US$600 to an importer in the US or Europe and over US$1,100 to a specialist retailer.

Logging

Illegal logging takes place when timber is harvested, transported, bought or sold in violation of national laws. By logging in protected areas (such as national parks) or over the allowed quota, by processing the logs (into plywood, for example, or pulp for paper) without acquiring licenses, and by exporting the timber and wood products without paying export duties, companies may be able to generate much greater profits for themselves than by adhering to national laws and regulations. The extent of illegal logging in some countries is so large, and law enforcement is so poor, that the chances of detection and punishment may be very small—and the incentives to operate illegally correspondingly large.

The impacts of these illegal activities are multiple. Most obviously, these are environmental: illegal logging depletes forests, destroys the habitats of endangered species and impairs the ability of land to absorb carbon dioxide emissions. They are also economic: estimates from Indonesia suggest that the government is currently losing more than US$1 billion a year in unpaid taxes (out of a total budget, in 2003, of about $40 billion). World Bank studies in Cambodia in 1997 suggested that illegal extraction, worth US$0.5–1 billion, was over 4 million cubic meters a year, at least ten times the size of the legal harvest. If that level of extraction continues, the country will be logged out within ten years of the industry starting, removing a valuable source of employment and export revenues for the future.

Illegal logging also undermines respect for the rule of law and of government, and is fre-

Illegal trade in tropical timber

By Chen Hin Keong

Illegal logging and illegal timber trade not only undermines conservation, but also results in reduced profitability of legal trade, loss of foreign revenue and currency exchange, uncollected forest-related taxes and depleted forest resources and services.

Illegal logging not only affects the main tropical timber producing countries in Southeast Asia, Central Africa and the Amazon, but also the temperate forests of regions such as the Caucuses and the Russian Far East. There are no reliable statistics of the percentage of timber entering international trade that is illegal, though figures of between 20-80 per cent have been reported. Even ranges of figures for individual countries vary widely, with the figures for Indonesia, ranging between 40 to 80 per cent of total wood production.

One reason why these figures are difficult to quantify is because illegal logging and illegal timber trade encompasses a wide range of practices. This may include illegal occupation of forest lands; obtaining logging concessions through bribes; logging protected species; logging outside of concession boundaries or within protected areas; illegal timber transport, trade and smuggling; transfer pricing and other illegal accounting practices; undergrading, under-measuring, under-valuing; misclassification of species; and illegal processing of timber.

The lack of an internationally accepted definition of what constitutes legality of timber products further complicates the issue. In the simplest form, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) provisions of using a permit and certificate system, through the provisions of the text relating to legal procurement, is a proxy for ensuring that timber that is traded is not illegally obtained.

continued on page 118

continued from page 117

However, the legality or illegality of shipments of timber in international trade may vary at different points of the trade chain.

Logging should therefore not be examined in isolation from the trade in timber. To a large extent, the latter drives the former and is one of the main causes of uncontrolled logging and illegal logging. There are a number of elements that contribute to illegal timber trade, one of which is lack of transparency. Increased transparency, in particular the analysis and comparisons of data for timber exports and imports, could provide valuable indicators of possible illegality. The discrepancy in international timber statistics is a serious issue as statistics are one tool by which governments and other stakeholders can monitor the situation of forestry in countries.

Trade discrepancies may also be an indicator of illegality, though a number of factors could contribute toward such trade discrepancies. These may vary from "routine" practices, such as changes in fiscal year, method of product valuation, time lag between export and import, exchange rate fluctuations, and conversion of product weights to volumes, combined shipment of mixed products, to possible illegal activity, mis-specification of product characteristics, fraudulent trade data and smuggling.

There are a number of international initiatives to address issues in illegal logging and timber trade. In 2001, the Forest Law Enforcement and Governance and Trade (FLEGT) processes were initiated in Asia, followed by similar initiatives in Africa in 2004, and in Europe and North Asia in 2005. At the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, the Asia Forest Partnership (AFP) and the Congo Basin Forest Partnership (CBFP) were announced. In recent years, some governments have resorted to bilateral or regional agreements with their trading partners in an attempt to gain urgent support and focus on issues relating to illegal logging occurring within their countries. The International Tropical Timber Agreement (ITTA), as the only tropical timber commodity agreement between producer and consumer nations, is solely concerned with international tropical timber trade and places illegal logging high on its agenda for action.

Pre-dating these international initiatives, CITES already provides a mechanism to regulate trade in CITES-listed timber species and products. CITES is, in fact, considered the only international mechanism that could regulate international trade in wild species including timber trade between CITES parties.

At the national level, timber tracking systems can provide a chain of custody to a level of confidence that can assure consumers that the majority of timber products leaving those countries are from legal domestic or imported sources. Most developing countries already have some form of timber tracking systems for logs and some primary processing, though these are by no means comprehensive.

Approval granted by the authorities for one segment of the chain, in many cases, has no bearing on the approval to be given at the next stage in the chain. Hence, illegally sourced timber products could find their way into international markets even if regulatory conditions and documentation for export and import is met. For instance, illegal export from one country may be acceptable as legitimate import into another as long as the import requirements are met.

Therefore, the burden of combating illegal logging and illegal timber trade should be the responsibility of both producer and consumer countries, including stakeholders in governments, industry, civil society and consumers.

Chen Hin Keong, from Malaysia, is the Senior Forest Trade Advisor to TRAFFIC International, based in Malaysia.

quently associated with corruption, particularly in the allocation of timber concessions. For example, Judge Barnett's report on the timber industry in Papua New Guinea in 1989 described companies "roaming the countryside with the assurance of robber barons, bribing politicians and leaders, creating social disharmony and ignoring laws."

The substantial revenues from illegal logging sometimes fund national and regional conflict. In Cambodia, Khmer Rouge forces were sustained primarily by the revenue from logging areas under their control for several years in the mid-1990s, until, under donor pressure, Thailand and the Cambodian government cooperated to close their joint border to log exports at the end of 1996, forcing the insurgents to open peace negotiations.

Finally, as illegally logged timber is invariably cheaper than legitimate products, it distorts global markets and undermines incentives for sustainable forest management. A U.S. industry study published in 2004 estimated that world prices were depressed by between 7 and 16 per cent (depending on product) by the prevalence of illegal products in the market, resulting in a loss to U.S. firms of at least US$460 million each year in foregone sales. As the World Bank observed in 1999, "widespread illegal extraction makes it pointless to invest in improved logging practices. This is a classic case of concurrent government and market failure."

It is believed that more than half of all logging activities in the most vulnerable forest regions—Southeast Asia, Central Africa, South America and Russia—may be conducted illegally. Worldwide, estimates suggest that illegal activities may account for over a tenth of the total global timber trade, representing products worth at least US$15 billion a year.

Fishing

As with the illegal wildlife trade, illegal fishing poses threats to species survival (including other species caught alongside the fish, such as sea turtles or seabirds), but it also causes major economic costs through exhaustion of fish stocks, a problem in particular for developing countries, which often rely on fish as a major source of protein. UN terminology recognizes "illegal, unreported and unregulated" (IUU) fishing: illegal fishing takes place where fishing is against the law; unreported fishing takes place where legal instruments are in place to control fishing, but no requirements for reporting, or penalties for non-reporting, exist; and unregulated fishing occurs where legal instruments are not required, not applied, or not adequate.

A United Kingdom study of ten developing countries in Africa and Oceania in 2005 estimated that IUU fishing was worth an average 23 per cent of the total declared catch. The study showed a strong inverse relationship between the extent of IUU fishing and the level of fisheries monitoring, control and surveillance in the country, and also its general level of governance. Extrapolating these findings worldwide gave an estimated annual value of IUU fishing of US$4.2 billion to US$9.5 billion.

One of the best-known examples of IUU fishing is that of the Patagonian toothfish, a large, long-lived and slow-growing deepwater fish increasingly in demand as a replacement for over-exploited whitefish such as cod. Systematic commercial exploitation started only in the late 1980s, but rapidly exhausted stocks off Argentina and South Africa. In 1996–97, authorized catches under the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) amounted to 10,370 tonnes (with an additional 22,386 tonnes in catches in exclusive economic zones), but estimates from port landings and trade data suggested that an additional 42,800 tonnes were caught illegally. The price of the toothfish fell drastically, and illegal fishing in 1997–98 was estimated to have reached the lower figure of 33,500 tonnes.

Extensive exploitation of toothfish stocks was undertaken by ships operating out of non-CCAMLR states. As Convention member states gradually closed their ports to unlicensed landings, the pirate ships switched to transshipping their haul directly to freighters at sea; the catch was then processed on land, often passing through free trade zones. This demonstrates many of the problems connected with controlling IUU fishing: non-signatory states to the relevant convention, ships flying flags of convenience to escape domestic controls, and the enormous difficulty of tracking illegal activities across a huge area of ocean.

Even in comparatively well-regulated European waters, illegal fishing is rife, created largely by the shrinking quotas—including those set under the European Union's Common Fisheries Policy—for commercially valuable human consumption stocks. Misreporting of catches and retention of undersized fish or fish caught over the allowed quotas is common; recent estimates suggest that up to 40 per cent of the total catch of the Scottish fleet, for example, may be illegal. Financial and contractual pressure from retailers (usually supermarket chains) to supply regular quantities of fresh fish often forces the processors to buy from the black market, which in turn undercuts legitimate sales.

Interests and Fault Lines

Everyone is opposed to international environmental crime; at least ostensibly. In reality, of course, many private individuals, companies and government officials benefit from illegal trade, either directly, or indirectly, through bribery and corruption.

In the long run, it will be difficult to address the root causes of illegal trade without dealing with many other issues, including the legal and regulatory structure (sometimes laws are so complicated and contradictory that it is impossible—or at least uneconomic—to operate legally), government budgetary policy (in some countries the armed forces operate logging concessions to generate the income they need), and corruption. This is why illegal trade is increasingly being seen more broadly as an issue of governance.

It is nevertheless clear that when resources and political will are focused on the issue, enforcement operations can have dramatic effects. In response to international pressure stimulated by non-governmental organizations (NGOs), in spring 2005, Indonesia launched a huge crackdown on the illegal trade in merbau logs from West Papua to China. 400,000 cubic meters of logs were seized in just two months (equivalent to 3 per cent of the annual global tropical log trade), and 173 arrests were made; shortages of merbau and price rises were reported in both Indonesia and China, and almost a quarter of a billion dollars of revenue losses to the Indonesian government were prevented. However, this is far from the usual story. Enforcement agencies are generally understaffed and under-resourced and often lack political backing.

In recent years, attention has focused on the role of consumers in fuelling illegal trade through providing markets for illegal products. The Group of Eight (G8), for example, which includes all of the biggest consuming countries of natural resources apart from China, expressed concern over environmental crime in general, and illegal logging in particular, in 1998 and 2005. Most attention in recent years has focused on the debate over the control of illegal logging, with a series of World Bank-coordinated Forest Law Enforcement and Governance conferences bringing together consumer and producer country governments, industry and civil society in East Asia (2001), Africa (2003) and Europe & North Asia (2005). In 2003 the EU launched its Forest Law Enforcement, Governance and Trade (FLEGT) initiative, of which the centerpiece is a new licensing system designed to exclude imports of illegal timber and timber products from cooperating producer countries.

Trade control mechanisms like this are becoming more common, often learning from thirty years' experience with CITES export and import permits. CITES has had considerable success, though it is hampered by the lack of a financial mechanism to provide assistance with compliance and enforcement. Most of the species it protects are not of significant commercial importance, which means that important trading interests have not, in general, been threatened, but this is beginning to change, with the gradual introduction of more widely traded timber and fish species to the CITES appendices.

No single global agreement governs fisheries management, though a number of regional fisheries agreements have introduced trade controls to tackle IUU fishing. The Catch Documentation Scheme for the Patagonian toothfish, introduced under CCAMLR in 2000, is designed to exclude illegally caught toothfish from international markets. The Scheme has had a clear impact on the price of toothfish, with legal fish able to command a 20-30 per cent price premium—overcoming, at least to an extent, the problem of legal harvesting being undercut by cheaper illegal activities. In 2003, a number of governments established the High Seas Task Force, with the objective of defining practical solutions to the problem of IUU fishing.

As noted above, the EU FLEGT initiative introduces a timber licensing scheme, similar in principle to the CCAMLR Catch Documentation Scheme; it came into force in December 2005. Producer countries with whom the EU will negotiate bilateral "voluntary partnership agreements" will ensure that all exports destined for the EU have been legally produced and processed at every stage of their chain of custody; some form of independent verification of the licenses is likely. Building up the scheme through a series of bilateral agreements—a necessity given the lack of a multilateral framework for the timber trade—does, of course, render it vulnerable to evasion by shipping products via non-partner countries, but the EU is hopeful of reaching regional agreements. A number of EU governments have also started to use public procurement policy to source only legal (and, where possible, sustainable) timber and timber products, and several private certification schemes—such as the Forest Stewardship Council—exist which can guarantee this. In some countries, particularly the United Kingdom, this combination of policy measures is beginning to have a clear market impact.

The use of trade controls such as licensing and public procurement has raised concerns amongst some major timber-exporting countries, which fear the emergence of potential barriers to markets for their exports. Most developing countries, however, seem ready to accept the EU licensing scheme (it also contains a promise of capacity-building assistance), and the main antagonist at present is the U.S., whose timber industry is based on a large number of small forest owners amongst whom certification systems are difficult to promote. During the G8 discussions on illegal logging in 2005, the U.S., while content to support enforcement assistance (particularly of the high-tech variety) to timber-producing countries, was notably less enthusiastic about procurement and licensing systems.

Trends and Future Directions

Despite the increasing attention paid to these areas in recent years, and despite some individual success stories, there is little evidence as yet of systematic progress in reducing illegal trade in natural resources. Mechanisms designed to exclude illegal products from international markets, however, seem likely to grow in scope and size. Trade controls of this type bring about at least the potential for conflict with WTO rules, and opponents have sometime raised the specter of a clash as an argument against their adoption.

There has never been a WTO dispute involving CITES or CCAMLR, and the applica-

tion of permit and license systems within a multilateral framework makes it unlikely. The Kimberley Process, which is designed to exclude conflict diamonds from world markets and therefore shares a number of characteristics with trade controls aimed at illegal products, has, however been discussed explicitly within the WTO. In late 2002, a number of participating states applied to the WTO General Council for a waiver from their WTO obligations in this regard, and the waiver was duly granted in February 2003. Most Kimberley Process signatories, however, did not support this move, implying as it did that the Process contravenes basic WTO disciplines, which they did not accept.

The potential interaction of the EU's FLEGT timber licensing scheme with the WTO has also been discussed, though mostly outside the WTO. Japan has raised the general issue of illegal logging and the possibility of trade controls within the WTO Committee on Trade and Environment (CTE), but without generating any debate or conclusions. The introduction of the EU scheme through a series of bilateral agreements rather than as part of a multilateral framework raises rather different questions from those around licensing systems in MEAs, but it seems highly unlikely that any of the countries involved in the agreements (which will be the only ones affected by the trade restrictions) would open a dispute within the WTO. WTO rules will, however, constrain the EU's adoption of additional measures to control imports of illegal timber from non-partner countries (currently under discussion). However, the most likely outcome—the adoption of legislation to make the possession or handling of timber produced illegally overseas illegal in the EU—is not a border measure and should not raise any WTO problems.

In theory, the general topic of illegal trade and how to control it could usefully be discussed within the WTO. WTO negotiators' inbuilt bias towards trade liberalization, however, and hostility towards any discussion of trade restrictions, and their limited knowledge about environmental policy in general and environmental crime in particular, must create doubt over whether such a discussion would generate any useful outcome. As long as the measures adopted to control flows of illegal trade in natural resources abide by the general WTO principles of non-discrimination, transparency and predictability—and there is no reason why they should not—the matter of their interaction with the WTO should remain, as it now is, entirely speculative.

Intellectual Property Rights

David Vivas-Eugui and Heike Baumüller

"International discussions on traditional knowledge tend to appear in two distinct formats: one defensive and one proactive. Defensive initiatives are designed to guard against the 'misappropriation' of the rights of indigenous peoples and local communities while proactive initiatives tend to assign legitimate and legal rights."

Much of the debate on environment, trade and intellectual property rights (IPRs) revolves around a basic challenge: How to balance the increasing shift of knowledge and technology from the public domain to private ownership that has occurred because of the strengthening of the global IPR regime in the 20th century?

This global regime—which includes the World Trade Organization (WTO) Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), agreements under the World Intellectual Property Organization (WIPO) and a new generation of bilateral and regional trade agreements with IPR obligations—has given titleholders exclusive rights over the use and marketing of the resulting products and processes. This protection has made it considerably more profitable for business to invest in research and development. At the same time, however, many existing genetic resources and forms of traditional knowledge (TK) have been used or incorporated in "inventions or discoveries" (whether products or processes) in third country markets.

This situation has raised a variety of environmental, socio-economic and ethical concerns, including that the IPR system encourages "biopiracy" and the "misappropriation" (illegal access and use) of genetic resources and TK. Critics have warned that global IPR rules increase the monetary incentives for such actions, without imposing any corresponding obligation to promote biodiversity conservation or other social objectives.

A variety of other concerns have been voiced about unbalanced intellectual property protection, including:

- limitations placed on access to seeds for use and breeding;
- shift in research priorities in the agricultural and environmental field away from less profitable research that responds to public needs towards technologies with high marketing potential;
- increased prices for and reduced access to environmentally sound technologies;
- promotion of research into genetically modified organisms without requiring appropriate risk assessments;
- erosion of genetic diversity resulting from an increased focus on a limited number of high-yield agricultural varieties;
- the appropriateness of the IPR system to protect traditional ecological knowledge; and

- ethical considerations related to the patenting or "privatization" of life forms.

These concerns have given rise to a complex and overlapping regulatory framework at the national, regional and international levels. While some agreements seek to introduce ever-higher levels of protection for intellectual property, others seek to mitigate some of the cited environmental, ethical and socio-economic concerns. The consequence has been a tapestry that is rich in contradictions and unanswered questions.

At the international level, the 1961 International Union for the Protection of New Varieties of Plants (UPOV) was the first instrument to reflect the philosophical shift away from national sovereignty over biological materials as a common heritage, towards a system of private ownership rights benefiting those who could manipulate new plant varieties. The 1991 version of UPOV went further in this direction, by further strengthening breeders' rights and providing the option of protecting plant varieties through breeders' certificates of patents.

To balance these breeders' rights, the International Undertaking on Plant Genetic Resources for Food and Agriculture adopted under the auspices of the United Nations Food and Agriculture Organization (FAO) in 1983 was based on the principle that plant genetic resources for food and agriculture are a "heritage of mankind" and should be available without restriction. The agreement introduced the concept of farmers' rights "arising from past, present and future contributions by farmers to the conservation and maintenance of plant genetic resources for food and agriculture," allowing farmers to re-use, sell and exchange these resources. The agreement was revised in 2003 to become the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), establishing a multilateral system that aims to facilitate access and benefit-sharing (ABS) arising from the use of such resources.

The 1992 Convention on Biological Diversity (CBD) sought a balance between national sovereignty over biological resources and a need to respect, preserve and maintain the knowledge, innovations and practices of indigenous and local communities. Like the ITPGRFA, the Convention's Article 8(j) highlights the critical importance of indigenous and local communities' traditional knowledge for the conservation and sustainable use of biodiversity. The issue of IPRs has repeatedly cropped up in CBD debates amongst parties since the Convention's adoption and plays a central role in the ongoing negotiations of the international regime on ABS which were launched in April 2004.

The TRIPS Agreement, which was adopted in 1992, offered the most radical extension of private rights to date. The TRIPS Agreement provides that patents shall be available for any invention, whether products or processes, in all fields of technology subject to certain criteria. Article 27.3(b) allows countries to exclude plants and animals from patentability as long as plant varieties are protected either by patents, or by an effective *sui generis* system (of its own kind), or by any combination thereof. The definition of micro-organisms for purposes of patentability remains a contested issue under the TRIPS system.

Finally, in 2001, WIPO added to the debate over intellectual property protection and the public patrimony, with the establishment of the Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. WIPO uses IPRs primarily as a tool for strengthening private ownership rather than as a means for achieving public policy objectives, such as the conservation and sustainable use of genetic resources, benefit-sharing or preserving access to commonly shared resources as embodied in the CBD and the ITPGRFA.

Some have raised the concerns that the modern IPR system might not be suitable for preserving and protecting traditional systems of

knowledge sharing and genetic resource use. However, within the context of the current IPR system, efforts have also been made to take advantage of existing IPRs for the purpose of environmental and biodiversity protection. Among them, so-called geographical indications might provide a potential tool to promote the preservation and lucrative use of TK.

Interests and Fault Lines

There are multiple issues related to the debates at the intersection of trade, environment and IPRs. Three are of particular importance (a fourth area, related to environmental technologies, is discussed elsewhere).

Access and Benefit-sharing (ABS)

A central challenge for policy-makers has been to address the problem of resources that have been patented without disclosure of sources, and/or sharing of benefits. This challenge has given rise to extensive discussions and has served to highlight the different aims and objectives of the various agreements which comprise the global IPR regime.

A key concern has been that IPR filing procedures allow the granting of patents regardless of whether a particular invention uses or incorporates illegally accessed genetic material or associated TK (i.e., without prior informed consent and benefit-sharing). This concern has been most acute in cases where the transboundary movement of genetic resources or TK has circumvented national regulations designed to ensure the existence of prior informed consent and benefit sharing and to prevent the illegal access. Indeed, only a dozen countries have implemented the CBD at the national level, while only a few have introduced legal measures which target illegal access to genetic resources. In contrast, a great majority of countries have incorporated the minimum standards of intellectual property protection at the national level (in some cases, also adopting TRIPS-plus provisions).

While discussions on amending the TRIPS Agreement in light of the CBD objectives and

The limits of geographical indications

By Dwijen Rangnekar

In recent years, geographical indications (GIs) have been seen by some as a means to achieve multiple policy objectives including: protecting the environment, promoting sustainable development, securing rural livelihoods, protecting and rewarding holders of traditional knowledge and developing niche markets. There is a need for developing countries to review just how much GIs can deliver, and how.

There is an obvious overlap between some of these policy objectives. For example, efforts at re-balancing economic interests between primary producers and others in the supply chain of globally traded agricultural commodities focus on increasing value-addition at the source and changing market access regulations in the North (e.g., tea and coffee). Here, GIs (e.g., Jamaican Blue Mountain coffee or Darjeeling tea) can help develop niche markets and localize economic returns.

It is also true that GIs can dovetail into sustainable development strategies as they can be used alongside other socially constructed markers like "organic," "fair trade" and "ethically traded." In the case of traditional knowledge, authentication marks and GIs can be used to localize control in the manufacture and sale of handicrafts as exemplified by the "Igloo tag" for certifying authenticity of Inuit Art and the "Maori Made Mark" to protect Maori cultural expressions.

According to the GI definition used by the WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) the indication can only be used by those within the designated territory. It is this "club-like" exclusionary property of GIs that has appealed to a wide variety of commentators. The rules are, in effect, the codification of long established cultural repertoires of producing a good; thus,

continued on page 126

continued from page 125

easily compatible as a means for protecting artifacts embodying traditional knowledge. Tying the rules of club membership strongly to a particular territory would allow for a greater share of economic returns to be locally appropriated.

Surprisingly, the relationship between GIs and trademarks has not been a focus of policy discussions. This raises important concerns. For instance, the TRIPS Agreement generally prohibits the protection of trademarks that are misleading with respect to the geographical origin of the good (Article 22.3) and provides for an outright ban in the instance of GIs for wines and spirits (Article 23.2). However, there are differences on what is considered "misleading" and the lowering of the threshold of distinctiveness (e.g., "Texmati" and "Kasmati") renders the prohibition void. Trademarks incorporating indications of geographical origin are also refused on the grounds that their grant could hinder other companies located in the geographical region. Guidance is needed on situations where GIs can take precedence over trademarks (or vice versa) and in which circumstances the two can co-exist.

It is also necessary to qualify the enthusiasm surrounding GIs. While there is promising evidence in each of these areas, it would be unwise to impose on GIs the multiple expectations of protecting traditional knowledge, localizing economic control and enabling sustainable development. Moreover, in every instance, GIs work in concert with other policy interventions. At times, the results have been adverse (e.g., Tequila).

In addition to these qualifications, there are other important factors to be considered. To begin, use of TRIPS provisions is contingent on the prior protection of the indication in the country of origin; thus, *demandeurs* for stronger protection urgently need to complete their homework.

Second, at the heart of a *club* are membership rules and compliance mechanisms. This requires all firms throughout the supply chain to cooperate in agreeing on a set of rules and adhering to them. In addition to the organizational task, it is crucial that consumers are aware of the rules.

Third, while intelligent framing of rules allows for localization of economic control, it is important to examine the distribution of returns along the supply chain. There is no *a priori* reason for assuming that the returns will be equitably distributed between firms.

Fourth, as GIs protect an "indication" and not a product, process or the embodied knowledge as such, they will remain deficient when used to protect traditional knowledge. To be clear, GIs can be part of a larger strategy for the protection of traditional knowledge.

Fifth, much like trademarks, GIs are about buying and selling. Thus, their benefits depend on complementary efforts at protecting and promoting the "indication." In many cases (e.g., tea and coffee), this involves overcoming high levels of consolidation at the market end of the supply chain.

Finally, developing country *demandeurs* need to evaluate their negotiating strategies so as to effectively shape the agenda.

Dwijen Rangnekar, from India, is the Research Councils U.K. Senior Fellow jointly at the School of Law and the Centre for the Study of Globalization and Regionalization, University of Warwick.

principles have been ongoing for some time in the WTO, the Doha Ministerial Declaration gave new impetus to the debate by explicitly referring to these issues for the first time. Thus, Paragraph 19 instructs the TRIPS Council "to examine, *inter alia*, the relation between the TRIPS Agreement and the CBD, the protection of traditional knowledge and folklore [...]. In undertaking this work, the TRIPS Council shall be guided by the objectives and principles set in Articles 7 and 8 of the TRIPS Agreement and shall take fully into account the development dimension." Given the linkages of these TRIPS-related issues with environmental concerns, the WTO Committee on Trade and Environment (CTE) has a mandate to give particular attention to "the relevant provisions" of the TRIPS Agreement. Discussions in the CTE have largely mirrored those in the TRIPS Council.

In an effort to bring the TRIPS Agreement into line with the CBD objectives, a group of developing countries, led by India and Brazil, have been pushing for an amendment to the TRIPS Agreement, which would require patent applicants to disclose the origin of biological resources and associated TK. The amendment would also require applicants to provide evidence of prior informed consent and benefit-sharing. These proposals have received strong support from the African Group as well as other developing countries at the WTO. The African Group has gone further by advancing a separate proposal, which calls for Article 27.3(b) to be revised so as to prohibit patenting of plants, animals and micro-organisms.

The EU has signaled its willingness to discuss mandatory origin disclosure for genetic resources and TK in the form of a "self-standing" requirement. However, the EU believes that such a requirement should not constitute a formal or substantial patentability criterion and that consequences for failure to disclose should lie outside patent law. Other countries, such as Switzerland, would prefer these issues to be dealt with outside the WTO, through an

Protecting genetic resources

By Manuel Ruiz

Since 2002, the Group of Like-minded Megadiverse Countries has been calling for and promoting the establishment of an international regime on access to genetic resources and benefit-sharing (ABS). In its founding declaration at the World Trade Organization (WTO) Ministerial Conference in Cancun in 2003, and statements thereafter, the Group has repeatedly called for the establishment of an international regime on ABS. As a result, with the backing of the political mandate of the Convention on Biological Diversity's (CBD), the *Ad Hoc* Expert Working Group on ABS has started the process of creating an international ABS regime.

What is the nature of the international regime on ABS and, more importantly, does it need to be created? The answer to these questions is not as straightforward as the enthusiasm among certain countries would suggest.

Firstly, it is difficult to obviate the fact that an international regime on ABS *already exists in practice*. A "regime" is defined as a set of international, regional and national laws, policies instruments, rules, principles and practices which govern a certain issue. One could argue, then, that an ABS regime already exists in the form of the complex interrelations, overlap and contradictions of a host of international instruments—the UN Food and Agriculture Organization's (FAO) International Treaty on Plant Genetic Resources for Food and Agriculture, the CBD and the Bonn Guidelines on ABS, Decision 391 of the Andean Community on ABS, the Organization of African Unity (OAU) model law, ABS institutional policies and codes of conduct, and more.

As a second comment, a different issue is *whether this regime operates in an effective way* and takes into account the needs and interests of (especially) developing countries and countries of origin. From preliminary,

continued on page 128

continued from page 127

almost anecdotal information, one could conclude that this regime is still in the process of becoming fully functional and achieving an equitable balance of interests among countries. If this is so, then the question is not whether we need to negotiate an international regime (which brings us dangerously closer to negotiating yet *another* international ABS instrument, which will almost certainly look like the Bonn Guidelines, albeit of a binding nature), but how do we ensure that the regime currently in place becomes operational.

Thirdly, if this is so, it is then important to *identify where there may be gaps and problems in the existing international ABS regime and how they can be overcome and solved*. One area is the need to establish a necessary linkage between ABS instruments and intellectual property rights (IPR) regimes—especially in the case of patents, plant breeders' rights and plant variety protection. Whether the gap implies a need for new patentability criteria, new disclosure requirements or certificates indicating legal provenance and origin prior to granting IPRs, these issues have all been part of considerable debates in the CBD, the World Intellectual Property Organization, the Council for Trade-related Aspects of Intellectual Property Rights, FAO and others. This is certainly an area where the current international ABS regime is missing necessary commitments and even differentiated obligations among countries. This gap in the ABS regime could be overcome through a precise decision, a mandate to amend national legislation, or, even, a protocol or annex to the CBD, as well as developing strong and coherent negotiating positions in the diverse fora in which ABS-related matters are being discussed.

Fourthly, given the current push to modify IPR standards worldwide—to satisfy industrialized countries', and especially U.S., interests—there is a need to counter balance this pressure by either precluding the standardization of patent, plant breeders' rights or plant variety protection rules (which should really respond to countries' scientific, social, industrial and economic needs) as the ideal negotiating position or ensuring that biodiversity-related concerns are recognized and specifically addressed in new legislative instruments, whether at the national or international levels. Two examples of the way in which developing countries have creatively addressed this situation are India's Plant Varieties and Farmers Rights Act (2001) and the Andean Community Decision 486 on Intellectual Property (2000), containing provisions on disclosure and ensuring legal provenance of resources and traditional knowledge (TK) prior to the granting of patents. By allowing for the protection of local innovation through farmers' rights incorporated in the plant variety protection regime and by requiring disclosure of origin and legal provenance of resources and TK respectively, both these instruments contribute to a creative interpretation of the TRIPS Agreement, the practical use of its flexibilities and the establishment of positive synergies between the IPR and ABS systems.

Finally, the key to the success of the CBD is not to overburden its already impossible agenda. Much can be achieved simply by building upon the potentially useful and practical options available—for example, linking the ABS and IPR regimes. Moreover, after more than ten years, it is time to implement and apply existing tools and instruments to ensure the realization of the CBD's objectives. It is often said that international instruments are naturally cumbersome, certainly complex, and tend to be slow in becoming operational. To a considerable extent this is true. To overcome this tendency closer cooperation needs to be undertaken between scientists, legal experts and policy-makers.

Manuel Ruiz, from Peru, is Director of the Programme on International Affairs and Biodiversity of the Peruvian Society for Environmental Law (SPDA).

amendment to WIPO's Patent Cooperation Treaty (PCT) allowing countries to require patent applicants to declare the source of any genetic resources and TK used.

Australia, Canada, Japan and the United States continue to oppose such proposals, arguing that the IPR system should not be used as a means to enforce ABS systems and that these types of requirements could become a legal nightmare for patent applicants. Rather, they propose the WIPO IGC as the appropriate venue. Importantly, in 2003, the WIPO General Assembly approved a new mandate for the IGC, which "will focus on its international dimension without prejudice to work pursued in other fora." Also, "no outcome is excluded, including a possible development of an international instrument(s)."

The need for disclosure requirements in the patent filing procedure has been raised during other negotiations, including the CBD's Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, which were adopted in 2002. The issue was resolved by adding requirements for disclosure of the origin of the genetic resources and TK as a possible means of compliance. In addition, countries were encouraged to include disclosure requirements on genetic resources and associated TK in patent applications.

Discussions on disclosure requirements have largely focused on the appropriate forum that should deal with this issue. Given that discussions in WIPO have resulted in more emphasis on the protection of private rights of IPR titleholders than the promotion of sustainable development and the protection of developing countries' biodiversity, many developing countries, including Brazil and the African Group, continue to question whether the IGC is the appropriate body to address disclosure requirements. They are concerned that hosting the discussions in the IGC will distract from the negotiations in the TRIPS Council.

Traditional Knowledge (TK)

Traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities, which has been developed based on experience over time and adapted to the local culture and environment. TK is often collectively owned by indigenous and local communities. Appreciation of the value of TK has increased as its use in modern industry—especially, plant based medicines—and agriculture has grown.

Table 1. Comparison of the main elements of the TRIPS Agreement, CBD and ITPGRFA.

	TRIPS Agreement	CBD	ITPGRFA
Objectives	Promotion of innovation and technology transfer	Conservation, sustainable use	Agro-biodiversity, food security
Scope	Inventions, creations s and sign	Genetic resources and traditional knowledge	Plant genetic resources for food and agriculture (crops/forages)
Legal rights	Exclusive/private rights	Sovereign rights and Public good/collective rights	Public good/collective rights
Mechanism	Right to capture benefits	Access and benefit-sharing	Benefit-sharing (system)

International discussions on traditional knowledge tend to appear in two distinct formats: one defensive and one proactive. Defensive initiatives are designed to guard against the "misappropriation" of the rights of indigenous peoples and local communities while proactive initiatives tend to assign legitimate and legal rights. Defensive proposals may include disclosure or certification requirements as part of patent filing procedure, as well as requirements for proof of prior informed consent and the existence of mutually agreed terms. On the other hand, proactive international measures would include the setting of clear objectives, the recognition of customary law, required compensation for right holders, the grant of exclusive rights, maintenance of databases or registers on TK, and the establishment of incentives for the promotion of the use of traditional practices.

These debates, of course, take place in multiple fora. In the WTO, for example, the African Group has sought proactive measures and proposed that TK be classified as a category of intellectual property rights. Meanwhile at WIPO, the IGC agreed in 2004 to accelerate its substantive work on the protection of TK and folklore. This includes the identification of policy objectives and core principles, as well as the compilation and analysis of specific policy options. This work is expected to provide the foundations for policy-making at both the domestic and international levels, including a possible international instrument for the protection of TK and folklore.

Similar debates are also taking place in the CBD and, in particular, with respect to the development of the international ABS regime. Thus, the CBD Working Group on Article 8(j) and related provisions, dealing with indigenous issues, has been mandated to make recommendations to ensure that the ABS regime includes *sui generis* systems and measures for the protection of TK. The Working Group is examining several other issues, including: the role that databases and registers might play in the protection of TK; the potential for existing and new forms of IPRs to contribute to the objectives of Article 8(j) and related provisions; and non-intellectual-property-based *sui generis* forms of TK protection.

Groups representing indigenous peoples feel that their participation in discussions regarding protection of TK has been limited. They have cautioned that without the meaningful participation of indigenous peoples, there will be no legitimacy for any of the results of these international discussions. However, for many of these groups, TK is not on the top of the agenda. Many believe that there are more urgent needs to be addressed including customary law, self-determination, human rights, land rights, and religious and ethical issues.

At the national level, many countries have started to develop a new generation of TK laws with the aim of preserving, protecting and promoting TK. These laws have used a variety of approaches, including customary law, ABS systems, IPR-derived frameworks, and sectoral systems of protection (medicinal, agriculture, folklore).

Geographical Indications (GIs)

Indications of geographical origin—e.g., Bordeaux wine, Parmigiano Reggiano—have been historically recognized as indicators of the origin, reputation and quality (or other aspects) of a product. The TRIPS Agreement establishes new standards and norms for such indications. It introduces geographical indications (GIs) as a new category of IPRs, providing a relatively narrow definition of GIs as "indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin."

Geographical indications can be linked to biodiversity conservation and sustainable use;

they could be used to protect products that have a positive impact on the environment or help in the preservation of plant varieties. Cases of Cacao de Chuao or Quinoa Real show positive links with biodiversity and human development. In other cases, GIs could have a negative impact on biodiversity conservation. Mexico's Tequila industry, for instance, relies on a single plant variety (*blue agave*), which has led to the promotion of genetic homogeneity and intensive land use to respond to the huge market demands. It is important to note, however, that GIs protect the name of the product but not the product itself or the know-how that might have been used in its production. Thus, anyone is free to replicate the GI-protected product outside the region as long as the name is not used.

The WTO negotiating mandate on GIs is two-fold. First, Paragraph 18 of the Doha Ministerial Declaration instructs the TRIPS Council "to negotiate the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits." While these negotiations should have been finalized by 2003, Members failed to reach an agreement and the deadline has been postponed. Second, the possibility of extending the higher level of GI protection that is currently accorded to wines and spirits to other products ("GI extension") has been raised by developing countries as an "implementation issue"—issues were developing countries need certain adjustment in current agreements in order to generate some benefits.

Unlike most other provisions in the TRIPS Agreement, the positions on the subject of geographical indications do not reflect the usual North-South divide. *Demandeurs* for expanded GI protection include developing countries such as Cuba, India, Kenya, Pakistan, Peru, Sri Lanka, Thailand, as well as Switzerland and the EU. Opponents, which can be broadly categorized as "new world" countries include Argentina, Australia, Canada, Chile, Japan and the U.S. This latter group strongly resists proposals for GI extension, and favours a system

Focusing on the local agenda

By Stella Wattimah Simiyu

The first principle of the Rio Declaration states that human beings are at the center of concern for sustainable development and that they are entitled to a healthy and productive life in harmony with nature. This principle should anchor all development and environmental frameworks negotiated the international level, including those on issues related to intellectual property rights (IPRs).

Of the controversies arising out of international debates on trade and environment that may potentially have adverse or positive impacts on local communities and national economies in Africa, the two most emotive and yet potentially liberating issues are access and benefit-sharing (ABS) and related IPRs with reference to trade in biodiversity products.

At the national and international levels, these issues are often negotiated independently, in disparate fora, by different experts, and by different government agencies. Thus, conservation related agencies and experts talk within the frameworks of the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture, while trade-related agencies and ministries discuss these issues in the World Trade Organization (WTO) and World Intellectual Property Organization (WIPO). Especially in developing country contexts, there is little if any interaction between the stakeholder groups.

However, at local community level, these issues are not independent, rather, they are inextricable linked. Thus, at higher levels, there is a potential risk of these issues being turned into disenfranchised intellectual and legal pursuits at the expense of delivering benefits to local communities who are in dire need and whose lives and livelihoods largely

continued on page 132

continued from page 131

depend on biodiversity products. Ultimately, the opportunity to enhance the local community capacity for innovation to meet local needs could be lost forever because we disaggregated something globally that was inextricably linked locally.

In Africa, for example, 80 per cent of the population relies on traditional medicine and medicinal plants. With the highest incidence of Malaria, HIV-AIDS, and other major killer diseases in epidemic proportions, provision of health care is not a luxury. Plants are not a source of supplements but rather the main source of foods and medicine. However, in a bid to protect local knowledge, local experts in traditional medicine and medicinal plants have adopted a commercial perspective in anticipation of potential IPR benefits. Hence the impact of the ABS and IPR debate could quickly become both a curse and a blessing.

The potential and opportunity is real. But efforts are largely focused on gaining benefits from local products in international markets. The opportunity for the better utilization of these products locally, and for ensuring that the benefits of these products are channeled to local communities is being squandered. Importantly, the potential "trade" use of genetic resources is overwhelming both the traditional "livelihoods" use and the biodiversity use of these resources.

Short of fast-tracking innovation on this knowledge, its value to local communities is frozen in time. Elements of the ABS and IPR debates and resultant seminars and workshops have focused more on the protection of the knowledge. No interim mechanisms have been devised to identify potential opportunities, develop creative ways and means to empower the communities and practitioners to innovate, or to define a favourable regulatory and policy framework for ABS and IPR as a means for improving local livelihoods. Lets not forget that the local forest may be the pharmacy, supermarket, gas station and grocery for many communities.

To be effective, the results of ongoing negotiations on ABS and IPR will need to augment and support structures and mechanisms at local level to empower communities and meet their needs for foods, medicines, natural products and environmental services. Anything short of this will be of limited value to the very people who have safeguarded these genetic resources so diligently for so long. There is therefore a great anticipation that the proposed international regime on access and benefit sharing aim to balance local needs with national and international priorities.

Stella Wattimah Simiyu, from Kenya, is the Programme Officer on Global Strategy for Plant Conservation at Botanic Gardens Conservation International, currently seconded to the CBD secretariat.

that would merely serve as a database where countries are free to register their GIs.

Arguments in favour of an extension of the present system have been largely economic. The *demandeurs* note that there are no economic or systemic reasons for protecting GIs for wines and spirits differently from others. Extending the higher level of protection, they argue, would avoid free-riding on the reputation of a genuine GI, enhance consumer choice, provide legal certainty and market opportunities (thereby fostering the development of local rural communities), and encourage a quality agricultural and industrial policy. Opponents, however, counter that GI extension would not provide meaningful benefits and would create additional administrative burdens.

Trends and Future Directions

Significant activity is happening in each of the three areas discussed above. The trends, however, are mixed.

Access and Benefit-sharing

Creating synergies between the IPR regime and ABS systems will have to be a multi-step process. Key steps include final ratification by all signatories of the CBD and the ITPGRFA, including the main user countries of genetic resources, such as the U.S. and Japan. Subsequently, it will be important to ensure full implementation of these treaties and the TRIPS Agreement. Specific tasks and competencies will need to be assigned to the various fora—in accordance with their specific mandate—in order to promote coherence while avoiding duplication of work and "forum shopping." Finally, measures should be incorporated into the IPR system, as well as in the future international ABS regime, to address illegal access and transboundary movement of genetic resources.

While strong opposition to all these steps remains, advances in the ratification and implementation of the CBD and the ITPGRFA are strengthening international legal frameworks. This will make it difficult for the IPR system to ignore biodiversity-related concerns and should augment the need to find mutually supportive solutions. Even some traditionally reluctant countries, such as the EU and Switzerland, are slowly warming to the idea of bringing more coherence between the intellectual property regime and biodiversity protection systems. Developing countries can be expected to continue their pursuit of concrete results in the WTO and WIPO in order to make current IPR rules supportive of biodiversity concerns.

Traditional Knowledge

While countries might differ on the means for providing proactive TK protection at the international level, there is a growing acceptance of the need for such protection. Governments will need to reconcile divergent views on many definitional issues, including:

- scope (wide versus restricted);
- the legal nature of defensive/positive measures (binding or not);
- type of objectives (protection, promotion, preservation, commercialization);
- potential solutions (whether based on IPR/ABS systems or on customary law); and
- the means to implement those solutions (enforcement mechanisms).

Recent submissions by the African Group, Brazil and India on behalf of several developing countries in WIPO and the WTO will help to keep these issues on the agenda. However, developing countries and indigenous peoples will need to coordinate their efforts if these discussions in multiple fora are to yield solutions that are both acceptable and coherent.

Meanwhile, at the national and regional levels, the number of ABS/TK laws will likely continue to grow. Many countries have

already approved legislation (sectoral or other) on the matter, including Bolivia, Brazil, China, Colombia, Costa Rica, India, Panama, Peru, the Philippines, Portugal, Thailand and Venezuela.

Geographical Indications

The debate in the TRIPS Council on GI extension remains at an impasse. Members generally agree that the hierarchy between wines and spirits and other GIs has no rational or legal foundation, but is an outcome of earlier negotiation trade-offs. Thus, a case can be made that acceding to *demandeurs* in the Doha Round will be balanced by concessions in other areas of the trade negotiations. It will be up to negotiators and policy-makers to assess the benefits from increased GI protection against those concessions. However, the fact that progress on other "implementation issues" appears directly linked to progress on GI extensions may complicate the debate and raise the stakes for developing countries in particular.

At the same time, countries have yet to take full advantage of the existing protection that is already provided by the TRIPS Agreement and to develop the necessary legislation to put this into practice. Nothing in the TRIPS Agreement prevents Members from designing their own national or regional GI system in such a way that takes into account human factors in a manner supportive of sustainable development. Efforts in the near future should focus on closing this gap and assessing the potential that GIs might have for achieving environmental and social goals so as to better inform the underlying legal and policy frameworks.

Investment

Luke Eric Peterson

"In view of the negligible success at the multilateral level, many have sought to hedge their bets by pursuing so-called bilateral investment treaties or investment rules in the context of wider bilateral or regional free trade agreements."

Over the last 20 years, the attitude of developing countries to foreign direct investment (FDI) has undergone a sea-change; with most countries liberalizing their rules on foreign participation in their economies and actively seeking foreign investment. While foreign investment can bring with it a host of benefits—employment, tax revenues, technology transfer, skills and know-how—it can also have negative consequences for sustainable development, particularly where domestic regulatory capacity is weak, ineffective or corrupt.

In terms of some of the key environmental impacts of enhanced FDI, there may be *scale effects*, arising from the sheer increase of economic activity and its attendant draw upon natural resources and generation of various externalities. Likewise, there may be discernible *technology effects*, depending on the nature of technologies brought in. Additionally, there may be *regulatory effects*, depending on the host states' decisions to strengthen or enforce environmental standards—or, conversely, to freeze or lower them—in the context of heightened global competition for FDI. It has become clear that the scope for regulation of foreign investment will also be conditioned by international treaties. In particular, concerns have arisen that investment treaties may limit the ability of governments to regulate investment in the public interest, to impose necessary performance requirements, or to impose and enforce appropriate health, safety and environmental regulations.

While the past half-century has seen the gradual elaboration of a broad, multilateral architecture governing global trade, the governance of international investment offers a very different picture. Enterprises wishing to invest abroad need to be familiar with a staggering array of bilateral, regional and, to a limited extent, multilateral rules and regulations. Periodic efforts to elaborate a single, overarching multilateral agreement have been met with indifference or indignation and have ended in ignominy. Beginning with attempts to include investment rules as part of the ill-fated International Trade Organization in the 1940s, and following unsuccessful efforts to elaborate conventions at the United Nations (UN) and Organization for Economic Cooperation and Development (OECD) in subsequent decades, the World Trade Organization (WTO) is only the latest institution to grapple with this thorny topic.

Despite much effort, investment has only managed to gain a toehold in the WTO system. To the extent that trade in services requires a commercial presence by a foreign

service-provider in the territory of another state, the provider may enjoy certain investment rights under the WTO General Agreement on Trade in Services (GATS). Additionally, under WTO rules, investment measures, such as local content rules or trade-balancing requirements, would be prohibited, to the extent that they impact upon trade and violate the GATT (General Agreement on Tariffs and Trade) rules on national treatment and quantitative restrictions.

At the 1996 Singapore Ministerial Conference, an agreement was struck to create a committee—the Working Group on Trade and Investment—to analyze the investment issue. At the Doha Ministerial in 2001, this Group was given a new mandate: to clarify seven specific issues and to launch negotiations "on the basis of a decision to be taken, by explicit consensus." Members disagreed sharply as to the meaning of this opaque phraseology, with some insisting that negotiations were a foregone conclusion, subject only to agreement about procedural modalities (such as time and number of negotiation sessions), while others insisted that negotiating would only be launched once there was a convergence on substantive modalities (consensus as to the nature and direction of the obligations to be negotiated). In the end, these differences of opinion proved intractable and contributed, in part, to the breakdown of the Cancun Ministerial meeting. In the summer of 2004, WTO Members conceded that "no work towards negotiations on [investment] will take place within the WTO during the Doha Round."

In view of the negligible success at the multilateral level, many have sought to hedge their bets by pursuing so-called bilateral investment treaties (BITs) or investment rules in the context of wider bilateral or regional free trade agreements (FTAs). Figures compiled by the UN chart a fivefold rise in the number of BITs during the 1990s—with nearly 2,500 investment treaties concluded. At the same time, there has been a surge in bilateral FTAs, many of which also contain investment rules.

On occasion, these bilateral and regional investment rules may be formulated with an eye towards broader industrial and development goals of the host countries, however, most investment treaties are conceived with the interests of capital exporters very much in the foreground. While most BITs do not mandate market access *per se,* they do set into place a series of protections tailored to the interests of those foreign investors who have been given a green light to establish investments in a given territory. Standard investor protections include the provision of: non-discrimination against foreign investment; compensation in the event of nationalization or expropriation; minimum standards of treatment (e.g., "fair and equitable treatment"); repatriation of capital; and mechanisms for dispute settlement.

Although bilateral investment treaties date to the late 1950s, for several decades they had a low profile. This changed with the inclusion of investment provisions in the North American Free Trade Agreement (NAFTA) in the early 1990s. The NAFTA investment commitments had the potential to cast a shadow over a wide range of government measures, administrative decisions and even court decisions. This first became clear when the U.S.-based Ethyl Corporation filed suit under the NAFTA in an effort to challenge a Canadian trade ban on the gasoline additive methylcyclopentadienyl manganese tricarbonyl (MMT). Ethyl alleged that Canada had violated its legal commitments to foreign investors, and the firm sought multi-million dollar compensation. Rather than contest this claim, the Government of Canada offered partial compensation and rescinded the offending government measures. An increase in similar "copycat" litigation soon followed under the NAFTA, as well as under other BITs.

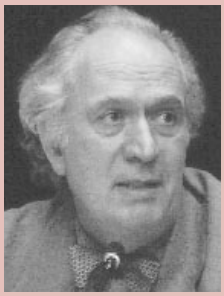
Today, questions still remain unanswered about the meaning and policy implications of key investment treaty disciplines, particularly as they relate to the environment. It is unclear to what extent governments may regulate

investments for health, safety or environmental reasons without running afoul of their treaty obligation to compensate foreign investors affected by "indirect" forms of expropriation. In a 2005 NAFTA arbitration between the Canadian-based Methanex Corporation and the United States Government, the arbitration tribunal observed that legitimate non-discriminatory regulations should not be considered to constitute a form of "indirect expropriation" of a foreign investment. It is unclear, however, whether this position will be followed by subsequent tribunals (which are not bound by the doctrine of precedent). Likewise, it is unclear to what extent the fear of treaty litigation by foreign investors will continue to discourage new regulation or be used to pressure governments to abandon proposed policies, particularly in developing countries lacking the resources to engage in expensive and time-consuming international arbitrations with foreign investors. Some also fear that national treatment obligations (i.e., to treat foreign investors on a comparable footing to domestic investors) might jeopardize the ability of governments to impose progressively more stringent environmental regulations as a given eco-system reaches its environmental carrying capacity.

Concerns have been raised about the preference of arbitration tribunals to interpret key treaty provisions in manners more favourable to commercial interests. This concern has been exacerbated by the relative absence of environmental and social provisions in most investment agreements, and the failure to list environment and sustainable development as treaty objectives, which could impact upon the subsequent treaty interpretation by arbitral tribunals.

As increased attention has come to focus upon the potential implications of these investment treaties, some governments, particularly in the developing world, have been hesitant to negotiate an even more ambitious *multilateral* accord on investment. Somewhat

Investment rules for sustainable development



By Konrad von Moltke

Investment determines the future of any market economy. It is at the heart of efforts to promote sustainable development. Without investment, all efforts to achieve sustainable development will be futile. As more investment becomes international in character, international agreements will be needed to ensure that such investment also promotes sustainable development. These rules will be of paramount importance to developing countries if they wish to avoid the mistakes concerning environment and development that were made over the past century by the industrialized world.

Governments and commentators have thus far failed to adequately recognize differences between international trade and international investment. The issue linkage "trade and investment" trips off the tongue with deceptive ease. Yet, trade and investment are distinct economic activities, as far removed from one another as the two sides of a balance sheet—assets and liabilities on one side; profits and losses on the other. The two are inextricably linked, yet nobody would confuse assets with sales. Indeed, to do so is a criminal offense in most market economies. It should consequently be self-evident that trade and investment require distinct regimes with rules and institutions that fit the needs of each activity.

The genius of the World Trade Organization (WTO) has been its ability to fashion rules that are appropriate to trade. Yet the temptation to take this success and apply it to investment must be resisted. It is hard to imagine how WTO rules can be made to fit the needs of investment. Indeed, even the negotiation process of the WTO is designed to meet the needs of trade rules, with a process of give and take, and may prove quite unsuitable to the development of investment rules, where right and wrong prevail.

continued on page 138

continued from page 137

Governments have thus far negotiated investment agreements that address a limited part of the international investment agenda, namely investor protection. There are now nearly 2,500 bilateral investment treaties (BITs), but there is no clear evidence that this vast structure has contributed to better investment or has promoted development in poorer countries. Yet, governments persist in their attempts to create such rules by including them in bilateral and regional trade agreements or by folding them into other issues such as trade in services or non-tariff barriers to trade.

In the past ten years, governments twice sought to transform these patchwork investment rules into a universal agreement—and twice they failed. First at the Organisation for Economic Co-operation and Development (OECD) with the Multilateral Agreement on Investment (MAI) and again at the WTO with the attempt to include investment in the Doha Round. Yet, no lessons seem to be learned from this experience. Governments persist in negotiating rules that do not meet the core challenge of international investment, namely how to balance private rights and public goods in a manner that is legitimate, transparent and accountable. Such rules would also create a structure that promotes sustainable development.

Ultimately rules for international investment are about good governance for the global economy. Financial flows are already fairly unrestrained and countries compete to attract investment so that investor access is usually possible—what remains at stake are the conditions of access and operations, and that requires a continuous balancing of investor rights and the development priorities of the host state. That goal is much more difficult to achieve than simple liberalization of trade or opening of investment opportunities. It should be evident that investment agreements will be unlike trade agreements—and the institutions required to support them will be unlike those of the WTO.

These differences are most obvious when it comes to dispute settlement. Trade disputes are about rules made by states and can be settled between states. Investment disputes are often about individual investments; they involve an investor and a state and thus require institutions that are capable of recognizing the legitimate interests of both (private) investors and public authorities. Settlement of investment disputes bears only passing resemblance to the settlement of trade disputes, and it must meet the essential criteria of being legitimate, transparent, and accountable.

The differences in dispute settlement are just the tip of the iceberg: international investment rules involve different parties, different issues, different principles, and different institutions than trade rules. Attempts to link them to trade agreements risk obscuring these differences and producing rules that neither promote investment nor support development.

International investment agreements involve three critical actors in the investment process: investors, host governments where investments are located, and home governments of the investors. Each of these actors has rights and obligations in relation to international investment, and rules governing these rights and obligations must be proportionate to the investments themselves: large investments in activities that are sensitive from the perspective of environment and development must carry more obligations than smaller investments in activities of lesser sensitivity. Getting this balance right requires a process of negotiation that is transparent and that is guided by a desire to promote public welfare even as investment is rendered more predictable and investor rights are protected.

Are there prospects that governments will finally begin to craft such international investment rules that serve both investors and the goals of public policy? Ultimately governments will have little choice but to do so because the logic of investment is inexorable, and international investment requires appropriate international rules. The question is only how long the detour to reach that outcome will continue to be.

The late Konrad von Moltke, from Germany, was a Senior Fellow at the International Institute for Sustainable Development (IISD) and Adjunct Professor of Environmental Studies at Dartmouth College.

paradoxically, *bilateral* agreements continue to be negotiated—albeit for other, often political, reasons. Nevertheless, it is clear that many developing countries are becoming more mindful of the experience with the NAFTA and bilateral treaties, which has led to calls for revisions or amendments to the standard treaty format.

Interests and Fault Lines

At the WTO, a number of countries have criticized the Doha negotiating agenda's inclusion of the investment issue as overly ambitious, and have noted the lack of capacity of smaller developing countries to meaningfully engage in this discussion. Beyond this general concern, a host of more specific concerns have been raised in the Working Group on Trade and Investment, especially including a growing sense that the concrete meaning of many standard investment treaty disciplines has yet to be fully clarified.

Indeed, litigation under investment treaties is a relatively recent phenomenon, and dozens of disputes remain unresolved, with the consequence that tribunals have rarely had to interpret the meaning of key disciplines, such as national treatment, most-favoured nation (MFN) treatment and, to some extent, expropriation—much less, clarify how they may impact upon regulation and policy in sensitive areas such as the environment. Due to the lingering uncertainty about the meaning of some of the basic investment disciplines, governments have been wary about cementing those disciplines into a binding multilateral pact.

At the most basic level, the WTO discussions have seen disagreement as to the breadth of investments that might be covered. Some developing countries, such as China, favour a narrow definition covering only productive, long-term foreign direct investment, while developed countries tend to support a broader definition, which encompasses financial and other portfolio assets. Generally, bilateral investment treaties have adopted the latter

Investment law as if development mattered

By Marcos A. Orellana

Why was it that we needed international rules to govern international investment? Collective memory seems to be fading. Did it have anything to do with sustainable development, or was international law an instrument co-opted by the rich and powerful to re-discipline and exploit the decolonized nations of the world? Not the latter, many would argue. But certainly not the former either.

The search for investment law has been motivated by the desire to provide some measure of security to creative and imaginative investors who ventured into territories riddled with conflict or otherwise controlled by rudimentary governments and inadequate legal systems. Of course, these territories were rich with timber, minerals, oil and other commodities that could be extracted utilizing cheap labour, without worries of environmental regulation, typically at a huge profit. So, first with canons and gunboat diplomacy, and later with *coups d'états* and the promise of ready cash for debt-stricken countries or their leaders, international investment law jumped onto the scene.

Somehow the developmental dimension of investment law was thrown out with the bath water. A narrow mention of development did, however, find its way into the opening line of the International Centre for Settlement of Investment Disputes (ICSID) Convention's preamble, which refers to the role of international investment in international cooperation for economic development. Development concerns have since raised their head as an element in the definition of "investment" in international arbitral jurisprudence, for example, *Salini v. Morocco (Juris)*, thus influencing the scope of arbitral jurisdiction. It is here that a fork in the road becomes apparent. One

continued on page 140

continued from page 139

of the two diverging paths is the so-called "ideological" route; where arbitral panels have simply assumed that investment automatically benefits the host state with technology, capital and know-how. The other is the "reality" route, where panels ask for indicators that can empirically measure the development impacts of investment.

The ideological approach is obviously attractive to operators used to dealing with formal representation, sanitized rates of return and no questions asked. This route, however, is not contextualized within sustainable development goals and can ignore impacts related to social inequity, environmental damage, and even the economic priorities of the host country. A few examples illustrate the problem: open-pit mining that affected sacred indigenous lands in California (*Glamis* case); water delivery services that excluded poor people from coverage in Bolivia (*Bechtel* case); a cigarette export business that could only be profitable if it violated Mexican tax laws (*Feldman* case). These cases illustrate investments that failed to deliver on their promised contribution to development, but nevertheless entangled the host state in international litigation.

The reality route to investment law can also be problematic. This is partly because development is not a black and white, fill-in-the-box, or go-down-the-list exercise. It involves highly contextual value judgments and evaluations. Clearly, arbitral tribunals are ill-equipped to determine what constitutes development because there are no precise indicators to assist them. Additionally, particularly in constitutional democracies, *ad hoc* arbitral tribunals lack the legitimacy to balance the fundamental developmental issues at stake. In the face of such practical and theoretical obstacles, the search for minimum developmental standards and screening mechanisms is underway.

The Clean Development Mechanism (CDM) of the Kyoto Protocol, for example, embodies an attempt to screen and recognize projects that contribute to global sustainability and the reduction of greenhouse gas emissions. Other screening mechanisms relating to investments have been criticized by capital exporting countries on the grounds that they can be open to corruption unless transparency is ensured at every turn, including in administrative agencies and dispute settlement.

International financial institutions that have a development and poverty eradication mandate seem to be making some progress. If their traditional approach was to measure development by counting royalties, income generation, transfer of funds, etc., the International Finance Corporation (IFC) and the World Bank are reinventing themselves and elaborating a set of indicators that would enable these institutions to screen project sponsors, determine their development impact, and exclude those with a proven negative track record. Major private banks have also announced their decision to apply IFC environmental and social standards. Export Credit Agencies from OECD countries also have agreed to benchmark their projects against the standards applied by the IFC or regional development banks. This diversity of standards and benchmarks speaks to the increasing importance of development concerns in investment financing.

While it is long past time for investment law to recognize these developments, it actually seems to be moving in the opposite direction. Recent bilateral investment treaties (BITs) grant broad rights and enforcement powers to investors, and restrict the ability of national and local governments to regulate the activities of foreign investors to meet local developmental, environmental and social priorities. In addition, the promise of good governance through investment disciplines is frustrated by unacceptable discrimination that provides foreign investors with greater rights than locals. Moreover, the huge transaction costs and potential liability associated with threats of litigation can stifle the development of necessary domestic laws and regulations in the public interest.

Recent analysis on state contracts, such as the Baku-Tbilisi-Ceyhan Pipeline project agreements, reveals an extreme model of investment protection that deprives host states of their regulatory powers and vitiates

continued on page 142

approach, serving to buttress the developed countries argument.

One issue, which is slowly emerging and which may have important consequences for environmental and other regulatory agencies, is the reach of treaty provisions on so-called minimum standards of treatment, for example to provide foreign investors with fair and equitable treatment, or, in the case of some treaties, to ensure that permitting, licensing and other administrative processes are transparent, coherent and responsive to investor interests. While these latter criteria may be viewed as requirements of good governance, it remains the case that the bureaucratic apparatus of many host governments may fall short of these substantive treaty obligations. When not accompanied by appropriate levels of financial and technical assistance, international investment treaty commitments may simply serve to put developing countries in violation of international law, and to provide foreign investors with a vehicle for extracting compensation for such failings. Another perverse consequence may be a heightened reluctance on the part of governments to introduce new regulations, or to seek enforcement of existing health or environmental regulations, lest such activity fail to live up to the standards of transparency and procedural fairness laid out in the investment agreement.

Although transparency is often guaranteed to foreign investors, it rarely extends to outside actors seeking to monitor the impact of foreign investments. Local communities and civil society groups can play a crucial role in mounting public pressure for environmental regulatory compliance. Yet, investment treaties generally fail to acknowledge this role, much less provide for tools—transparency, disclosure of information, public consultation—that might permit local actors to engage in an informed dialogue over foreign investment and environmental regulatory compliance.

Another contentious matter has been the question of whether the grant of non-discrimination should extend to the so-called *pre-establishment* stage of an investment. While investment agreements routinely offer national treatment and/or MFN treatment to foreign investments which have been duly established in the host territory, it is less common for this prerogative to be granted to prospective investments. Under general international law, host governments enjoy full control of entry and establishment, and only a handful of countries have agreed to cede some of this control in their investment treaties. For its part, India has argued in its interventions at the WTO that commitments to accord non-discrimination at the pre-establishment phase are neither feasible, nor necessary, insisting that: "developing countries need to retain the ability to screen and channel FDI in tune with their domestic interests and priorities." Depending upon a given country's priorities, such screening could include assessments of prospective investments for their environmental suitability or their contribution to domestic development goals.

Notwithstanding the opposition, pre-establishment commitments are found in a small, but growing, number of bilateral agreements. The U.S. and Canada have included such provisions in many of their BITs and FTAs, and recently other countries such as Japan, Korea, Singapore and Mexico have begun to incorporate such provisions into investment agreements. In the event that such pre-establishment commitments are undertaken, they could either apply across-the-board, but subject to specific exceptions, through a *negative list approach*; or only to sectors which have been expressly designated by parties to an agreement, through a *positive list approach*. In the WTO context, there has been persistent disagreement as to which is the more appropriate approach. Some developed countries, including Canada, have championed the merits of a negative list approach, while many developing countries have spoken in favour of a positive list approach (notwithstanding

continued from page 140

their laws. These types of contracts force developing countries to capitulate to investor demands and are triggering in a new era of international corporate rule: where foreign investors are insulated from the reach of local laws and subject to their own self-regulation. Undoubtedly, a corporate dream come true—if only in the short term.

Environmental, health, and safety regulation is essential to safeguard fundamental rights of local communities and workers. Any project that cannot guarantee these minimum and necessary prerequisites cannot contribute to sustainable development, and must not receive international protection. If development really matters, then investment law needs to come to terms with this simple reality.

Marcos A. Orellana, from Chile, is Senior Attorney with the Center for International Environmental Law (CIEL) in Washington D.C. and Adjunct Professor at American University Washington College of Law.

their general opposition of pre-establishment commitments in any form).

A negative list approach raises concerns insofar as it may be beyond the capacity of less developed countries to analyze fully their economies and future policy priorities, in order to enter exceptions for all areas which should be sheltered from liberalization. By contrast, a positive list approach offers greater scope for committing only to sectors that the host government feels comfortable in committing. Given the relative irreversibility of such commitments once they are made, considerable foresight is required to ensure that crucial policy space is not ceded unintentionally.

On a related note, fault lines have also emerged over the use of performance requirements—i.e., the imposition of certain obligations on foreign investors at the point of entry or at some later stage in the investment. While the WTO Agreement on Trade-related Investment Measures (TRIMs) prohibits a category of performance requirements that impact negatively upon trade (e.g., requirements to export a given percentage of goods), governments generally remain free to impose a broad range of other requirements on foreign investors including requirements to establish joint venture, hire local employees (including from minority or disadvantaged groups), or invest in local research and development. Arguments continue as to the efficiency and effectiveness of such requirements, with some observers insisting that many are counter-productive and may serve to scare away investment, while others note that certain performance requirements can contribute to important policy objectives. One conceivable use for such performance requirements may be to mandate high environmental standards, or to diffuse more environmentally-friendly technologies.

Some governments, including India and Brazil, have called for a scaling back of the performance requirements currently prohibited under the TRIMs Agreement, and have resisted efforts to use bilateral trade and investment agreements to prohibit further categories of performance requirements. Meanwhile, the United States has called for an expansion of the TRIMs Agreement at the same time as it has used its bilateral agreements to ban a wider array of such requirements.

To some extent, disagreements over the imposition of specific performance requirements upon foreign investors foreshadow an underlying disagreement about the appropriateness of holding foreign investors (and even their home states) to broader responsibilities or obligations. The overwhelming proportion of agreements are narrowly focused upon investor rights, rather than responsibilities (such as to undertake environmental impact assessments, to respect basic human rights, abstain from corrupt practices, and

general corporate social responsibility). At the WTO, a number of countries—including China, Cuba, India, Kenya, Pakistan and Zimbabwe—have called for an examination of "legally-binding measures aimed at ensuring corporate responsibility and accountability relating to foreign investors." Such proposals have been rebuffed by others, including the European Union, which insists that an international investment agreement would be binding only on states, not individual enterprises.

One feature of many investment agreements, which has contributed to calls for a balancing of investor rights with responsibilities, has been the grant of direct legal personality to investors; i.e., enabling them to mount an international arbitration against host states. In stark contrast to the WTO dispute settlement rules, which are exclusively reserved for state-to-state disputes, most recent investment agreements provide recourse to so-called investor-state arbitration. This novel device has permitted investors to challenge government measures, policies or actions which are thought to contravene the substantive provisions of a given treaty. The investor-state mechanism has given rise to a substantial volume of litigation in recent years.

Notably, the 2001 Doha Declaration—which charged the Working Group on Trade and Investment with its new mandate—refers only to the need to clarify how investment disputes would be settled between member-states under any prospective WTO investment agreement. Some developing countries, joined by Canada, are opposed to the inclusion of an investor-state dispute settlement mechanism in the WTO (even though such a device is common in bilateral agreements to which they may be party). Others, including Chinese Taipei, have argued for the usefulness of investor-state dispute settlement in the WTO, partly because the overwhelming proportion of bilateral investment agreements already accords this important privilege to investors.

Just as investor-state dispute settlement was not included in the Doha mandate, neither was the contentious issue of expropriation. While this appeased many developing countries, business groups were not enthusiastic about any multilateral agreement which failed to protect against expropriation.

Trends and Future Directions

The consistent failure to launch multilateral investment negotiations has meant that the constellation of bilateral investment treaties and investment provisions in bilateral and regional free trade agreements has continued to expand. Indeed, some of the most investor-friendly provisions which have been so controversial at the multilateral level (e.g., prohibitions against categories of performance requirements, commitments covering investment at the pre-establishment stage) are already enshrined in newer-model bilateral agreements concluded by the U.S., Canada and Japan with a variety of other countries. Discussions in the WTO Working Group on Trade and Investment remained conspicuously silent on the fundamental question of the relationship between the existing bilateral agreements and any multilateral agreement that might emerge.

Investor enthusiasm for these bilateral agreements can be seen both in the strong surge in litigation under the agreements, and in the fact that many influential business groups were agnostic about a proposed WTO investment agreement. The prevailing view in the United States and in other industrialized countries seems to have been that the business community could secure more favourable terms in bilateral agreements than in any multilateral agreement launched under the auspices of a so-called "Development" Round.

As the bilateral arena continues to see a flurry of negotiations, some governments are taking notice of the potential environmental

impacts of such agreements. Recent negotiating templates unveiled by Canada and the U.S. seek to clarify that non-discriminatory health and environmental regulations will rarely be deemed to constitute an indirect form of expropriation; thus seeking to allay some concerns that public interest regulation could be construed as conflicting with investment rules on expropriation. However, civil society groups have called for more comprehensive efforts to incorporate environmental considerations into investment agreements.

While greater attention is starting to be paid to the potential impact of ambiguous treaty language upon the right to regulate in sensitive sectors such as health and environment, it remains the case that investment agreements continue to commit developing countries to a series of extensive and sometimes unclear legal obligations. This is particularly the case when binding commitments are undertaken to liberalize certain sectors. An absence of foresight may lead to consternation in future, as the policy implications of (perhaps ill-considered) treaty commitments come to exert pressure on governments. Moreover, the bilateral negotiating dynamic tends to be highly asymmetrical—with a powerful (often developed) government insisting that negotiations proceed from a template of its own design.

While the prospects for a multilateral agreement seem dim following the decision to exclude investment from the current round of multilateral trade negotiations, it may be time for a fundamental rethinking of international investment agreements, perhaps leading to the elaboration of a balanced, model agreement which could set forth a more nuanced package of rights and responsibilities for investors and governments alike. To this end, in 2005 the International Institute for Sustainable Development (IISD) unveiled a proposed *Model Agreement on Investment for Sustainable Development*. Any successful multilateral agreement will need to appeal to all stakeholders—Northern and Southern governments, business and civil society groups—if it is to supplant and supplement the existing expanse of bilateral, regional and multilateral rules which have grown up over the last half-century. In the interim, bilateral and regional investment agreements continue to proliferate at a remarkable rate, in the absence of clarity about the full implications of such agreements for health and environment, and in a context where developing country interests are more easily marginalized.

Multilateral Environmental Agreements

Vicente Paolo B. Yu III

"...the WTO dispute settlement system has already played a significant role in defining the relationship between MEAs and the WTO. For example, in its decisions on the U.S.-Reformulated Gasoline and U.S.-Shrimp-Turtle cases, the WTO Appellate Body recognized the legal inter-relationship between trade law and public international law."

The Doha Round includes a negotiating mandate on clarifying the relationship between trade measures in multilateral environmental agreements (MEAs) and the rules of the World Trade Organization (WTO). In particular, Paragraph 31 of the Doha Declaration seeks "mutual supportiveness of trade and environment" and calls for negotiations on "the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements." It also calls for "procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status."

However, the issue is not a new one and discussions on it have been ongoing in the WTO for over a decade. The number of MEAs has rapidly risen in recent years and, according to the WTO, nearly 250 MEAs are currently in place, of which some 20 contain clear trade-related provisions. Such provisions have made their way into these MEAs for a variety of reasons, including: (a) creating a regulatory framework to correct market or policy failures; (b) regulating transboundary movements of environmentally-harmful substances; (c) removing market incentives that promote or cause environmental harm; (d) encouraging compliance with MEAs; and (e) promoting broader participation by states in MEAs to address free-rider situations.

For instance, trade measures contained in the Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol) were instrumental in reducing global emissions of ozone-depleting substances. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel Convention) has led to a reduction in the dumping of hazardous wastes in developing countries. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has served to ensure that international trade in wild animals and plants does not threaten their survival.

MEA trade measures are usually part of a broader package of measures that MEA parties negotiate to achieve the MEA's objectives. These include non-trade measures like technical and financial assistance and capacity building to assist MEA parties (especially developing countries) to comply with their obligations and to encourage non-parties to join the MEA. Trade measures can take many

different forms, including: (a) reporting requirements; (b) labelling or other identification requirements; (c) notification requirements and consent procedures; (d) export and/or import bans; and (d) transformation measures, such as taxes, charges and other fiscal measures, and non-fiscal measures such as government procurement.

Theoretically, MEA trade measures and WTO rules can and should interact in a positive and synergistic way. In their original intent, both MEAs and the WTO are instruments designed to promote the shared objectives of the international community. As such, both MEAs and the WTO *should* be mutually supportive. Nevertheless, while there has not been any dispute in the WTO related to MEA-based trade measures to date, concerns about a potential conflict persist. This potential for conflict can stem from multiple sources:

- *Inconsistency of legal provisions.* Measures taken by an MEA party are inconsistent with its WTO obligations, or vice-versa.
- *Competing or overlapping jurisdictions.* The dispute settlement mechanisms of both MEAs and the WTO have policy jurisdiction over, or are used to settle disputes relating to, the same policy or legal issue.
- *Party/non-party disputes.* Countries that are parties to both an MEA and the WTO use trade measures allowed by the MEA against countries that are WTO Members but are not parties to that MEA.
- *National policy incoherence.* Failures in policy coordination and coherence among national trade and environmental officials result in inconsistent national implementation of MEA trade measures and WTO rules.

Moreover, the current situation of legal uncertainty about the WTO-MEA relationship has led to unease amongst some WTO Members and has motivated the negotiating mandate for clarification of the WTO-MEA relationship in the Doha Round. Importantly, the development of MEAs and the WTO have followed two separate but parallel paths, which reflects fundamental differences in their underlying legal philosophies. Both MEAs and the WTO contain dispute settlement procedures that resort to higher bodies of international law—to the International Court of Justice (ICJ) or the Appellate Body (AB) respectively. However, while dispute settlement is central to the WTO, MEAs generally emphasize compliance through supportive measures (e.g., financial and technical assistance). Thus, resort to formal dispute settlement in international trade relations is more common than in MEAs. While both MEAs and the WTO agreements are the result of multilateral cooperation to pursue mutually beneficial goals, the approach in MEAs is based on mutual cooperation while that in the WTO is rule-based.

Clarifying the MEA-WTO Relationship

As already mentioned, the desire to clarify the MEA-WTO relationship is not a new one. The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil in 1992 and the Uruguay Round trade negotiations from 1986 to 1994 sought to clarify the relationship between MEA trade measures and the rules of the multilateral trading system. At UNCED, countries agreed to a set of principles on sustainable development, including Principle 12 of the Rio Declaration which deals with the trade and environment interface:

> "States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures address-

ing transboundary or global environmental problems should, as far as possible, be based on an international consensus."

At around the same time, trade negotiators at the Uruguay Round created the WTO with provisions that recognize the objective of sustainable development for the global trade system while seeking to prevent the use of environmental regulations in ways that unnecessarily restrict trade. These include: the "sustainable development" clause in the WTO Agreement's preamble; the "environmental" exceptions in the General Agreement on Tariffs and Trade (GATT) Article XX(b) and (g) and in the General Agreement on Trade in Services (GATS) Article XIV(b); and various environment-relevant provisions in the Agreements on Technical Barriers to Trade (TBT), the Application of Sanitary and Phytosanitary Measures (SPS), Trade-related Aspects of Intellectual Property Rights (TRIPS) and Agriculture.

Specific MEAs have also included clarifying provisions to reinforce the understanding that nothing in the MEA will adversely affect a country's right or obligation under other existing international agreements, including WTO agreements. Such provisions are included in the UN Convention on the Law of the Sea (UNCLOS), Article 311(2); the UN Convention on Biological Diversity (CBD), Article 22(1); the Cartagena Protocol on Biosafety (the Biosafety Protocol) to the CBD, Preamble, clauses 9 to 11; the UN Convention to Combat Desertification (UNCCD), Article 8(2); and the UN Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention), Preamble, clauses 8 to 10.

Such provisions are considered by some to be "WTO saving" clauses because they suggest that WTO rules may trump MEA trade measures. Additionally, the WTO's strong compliance mechanism—unmatched by any MEA—has led several governments and

The logic of the WTO-MEA relationship

By Amb. Alejandro Jara

The Doha Declaration mandates negotiations on the relationship between existing World Trade Organization (WTO) obligations and "specific trade obligations" (STOs) set out in multilateral environmental agreements (MEAs). After more than five years of negotiations and many proposals, it is still difficult to envisage the final result, but a number of important questions about the WTO-MEA relationship are being answered.

Some MEAs have STOs, which may lead to the application of trade restrictions or prohibitions. Is a conflict with the WTO possible? Assume that, pursuant to an obligation under an MEA, country B applies a trade measure that restricts goods exported by country A. Both are WTO Members and signatories to the MEA. However, country A considers that this restriction exceeds what is "necessary" to meet the obligations pursuant to the MEA, and invokes the dispute settlement mechanism (DSM) of the WTO.

Obviously, country B would argue that the measure is justifiable under the general exception of either Article XX(b) of General Agreement on Tariffs and Trade (GATT) 1994 or Article XIV(b) of the General Agreement on Trade in Services (GATS). Both provisions allow measures necessary to protect human, animal or plant life or health, thus making room for trade measures under an MEA, yet establishing limitations to prevent disguised protectionism or arbitrary discrimination.

Under the DSM, a panel and the Appellate Body must examine the complaint and will determine whether the measure is "necessary" to protect human, animal, or plant life or health. While the consistency of the MEA's objectives with the Article XX exception can be assumed, it does not automatically follow that all measures applied in pursuance of such objectives are "necessary" or that they do not arbitrarily or

continued on page 148

continued from page 147

unjustifiably discriminate between countries where like conditions prevail.

This scenario is hypothetical but not implausible, and it poses important political and systemic questions.

First, the public policy objective to protect human, animal or plant life or health is defined by the MEA. Presumably international cooperation is required because national measures are insufficient. Is the WTO the appropriate forum to test the necessity of a trade measure taken by a government in pursuance of the MEA's objectives? A public policy objective contained in an MEA is no different from a similar objective defined in a country's legislation. No government could object to the examination by the DSM of a trade measure applied under domestic legislation; likewise, there could be no objection if the same measure is taken pursuant to an MEA.

Secondly, is the WTO equipped to examine cases that are technically complex and involve policies other than trade? The DSM already has had to deal with complex cases in the areas of Trade-related Aspects of Intellectual Property Rights (TRIPS) and GATS involving a myriad of public policies. Furthermore, the complexity is the same under an MEA or domestic legislation.

Some may react strongly against the notion of a trade forum determining the necessity or proportionality of an environmental measure. However, what is the alternative? A system that allows an MEA-based measure to automatically prevail over WTO trade obligations could be abused and lead to protectionism. The WTO jurisprudence in the few environmental cases that have come before it seems to be largely satisfactory to interested actors. At present, MEAs have weak dispute settlement systems, partly because compliance problems are usually related to capacity or resource constraints, which are better addressed through cooperation and technical and financial assistance programs. With stronger dispute settlement provisions in MEAs, controversies over the "necessity" of a domestic measure, in all probability, would be examined by that specialized forum rather than the WTO.

Would it be different if the aggrieved party is not a signatory of the relevant MEA but a Member of the WTO? The party would have no alternative other than recourse to the DSM to protect its WTO rights. The dispute would probably center on whether the measure qualifies as an Article XX exception. Consequently, it should make no difference whether the complainant is or is not a party to the MEA.

In the final analysis, a balance of interests is required. All stakeholders must perceive that their concerns and interests can be protected. This is particularly true of the poorer and weaker countries that often cannot actively participate or engage in the law-making and cooperation processes of MEAs, but have recourse to action under the WTO.

There is little room for conflict of law or jurisdiction. Moreover, the problem is more political than legal. Indeed, it could be said that the Doha mandate on MEAs and the WTO was conceived as a means to neutralize hostility to the Doha negotiations by environmental stakeholders. The same holds true for the mandate that envisages liberalization of environmental goods and services. Paying particular attention to such goods and services is fine, but liberalization will occur regardless of this mandate. Political solutions could be a more appropriate means of addressing these issues than upsetting a system which protects all interests in a balanced manner.

A political solution could take the form of a substantive and formal declaration by Ministers spelling out the legal framework contained in the relevant exceptions of the WTO, as confirmed by jurisprudence. Thus, the international community would be reassured that MEA-related trade measures are allowed provided they are not disguised protection or discriminate arbitrarily or unjustifiably.

Alejandro Jara, from Chile, is a Deputy Director-General of the World Trade Organization (WTO and was formerly the Chair of the WTO Committee on Trade in Services Special Session and Ambassador and Permanent Representative of his country to the WTO. This essay is written in his personal capacity.

environmental non-governmental organizations (NGOs) to raise concerns about the potential for a clash between MEA trade measures and WTO rules. The fear is that these can combine to create a "chilling" effect on environmental policy because of the potential legal challenges to the "WTO-conformity" of MEA trade measures; and that this could discourage the use of trade measures in existing MEAs or the inclusion of trade measures in new MEAs in the future.

Based on the seminal 1996 report of the WTO's Committee on Trade and Environment (CTE) to the Singapore Ministerial Conference, WTO Members agreed that: (a) MEAs are as the best solution to transboundary environmental problems; (b) trade measures, while not necessarily the most effective policy instruments for MEAs, can in some cases play an important role in carrying out their objectives; (c) existing WTO rules provide enough leeway for WTO Members to apply MEA trade measures in a WTO-consistent manner; (d) better national-level trade and environmental policy coordination was the best solution to prevent WTO disputes over the use of MEA trade measures; and (e) in case of such a dispute, especially where one of the parties is not a party to the MEA concerned, the WTO dispute settlement system would be able to handle the dispute.

Indeed, the WTO dispute settlement system has already played a significant role in defining the relationship between MEAs and the WTO. For example, in its decisions on the U.S.-*Reformulated Gasoline* and U.S.-*Shrimp-Turtle* cases, the WTO Appellate Body recognized the legal inter-relationship between trade law and public international law. The sentiment of the Appellate Body has been that WTO law is "not to be interpreted in clinical isolation from" public international law; when relevant, international environmental law can be a legitimate source of applicable legal principles for the interpretation and application of WTO provisions.

MEA misconceptions and contradictions

By Rob Monro

The vigorous debate on the relationship between World Trade Organization (WTO) rules and multilateral environmental agreements (MEAs) has mostly focused on clarifying legal complexities. However, in order to support development that is truly sustainable, discussions both in MEAs and the WTO need to examine the potential contribution of trade to the conservation and sustainable use of natural resources. Despite the South's biological richness and significant natural resources, using trade as a means of directing this comparative advantage towards poverty alleviation and sustainable development is not only largely ignored, but actively discouraged; notably by developed countries.

The reluctance to condone trade in biodiversity goods and services stems from a variety of reasons. These range from a misconceived relationship between international trade and environmental conservation to emotional feelings toward plants and animals. Misconceptions of conservation are vigorously promoted and reinforced by a growing and politically powerful "green" protectionist movement rooted in a Western-centric urban culture. These misconceptions lead to policy contradictions. Even well-intentioned conservation policies end up defeating their objectives by failing to address the root of the environmental problems, or refusing to take the realities and needs of local communities into account.

Examples of ill-informed international decisions influenced by emotionally charged environmental campaigns include the elephant ivory trade issue in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the moratorium on commercial whaling imposed by the International Whaling Commission (IWC) and

continued on page 150

continued from page 149

the CITES listing of all whale species on Appendix I, and trade restrictions on harp seal skins in the United States and European Union.

These trade restrictions have two common elements. The first is that their financial cost (in terms of foregone income) is largely borne by some of the poorest communities in the world. Such communities—for example, rural communities in Africa, the Maori in New Zealand, indigenous Andean communities in South America, the Inuit and Saami peoples in North America and the Arctic, etc.—tend to be particularly dependent on natural resources for their livelihoods. The second, and equally disturbing, factor is that the resources or species in question are very often not really endangered or threatened with extinction. For example, there are an estimated 150,000 elephant in Botswana and Zimbabwe alone, some 800,000 pilot whales only in the North Atlantic, and around 4 million harp seals off the coast of Greenland alone.

Within the context of the WTO, an example of misguided conservation initiatives is the campaign launched in June 1999 by U.S. environmental groups to oppose tariff reductions on wood products. This campaign was so successful that it resulted in a letter to U.S. President Clinton from 48 members of the U.S. Congress urging the U.S. to withdraw from WTO negotiations towards the elimination of tariffs on paper and wood products. Echoing the alarmist sentiments of environmental groups, the letter argued that eliminating tariffs would encourage unsustainable logging and violate U.S. environmental laws. Ironically, Canada had reported at the March 1999 meeting of the WTO Committee on Trade and Environment (CTE) that lower U.S. tariffs (through the elimination of tariff escalation) as required under the North American Free Trade Agreement (NAFTA), had led to increased economic and environmental efficiency because of a relative shift in Canada's comparative advantage in paper production.

Canada's experience with paper—as well as others experiences, including in wildlife products under Zimbabwe's CAMPFIRE program—belies the Western-centric cultural perception of "wild" resources as sacrosanct and the misguided belief that any harvest or consumption of these resources will inevitably lead to their extinction or unsustainable depletion. As has been amply demonstrated in Zimbabwe's sustainable use experiment under the CAMPFIRE program, when landholders and landowners are allowed to manage and benefit from natural resources under secure property rights regimes—as they are with domesticated species such as cattle, cotton or tobacco—it enables wild species to effectively compete as a viable economic land use against other land use practices. Other land use practices, such as agriculture, for example, can often be more environmentally harmful, requiring massive land clearance resulting in loss of natural habitat and biodiversity, and involving the application of artificial fertilizers and pesticides.

Thus, far from leading to environmental destruction and loss of wild species, economic and financial returns from trade in biodiversity goods and services can provide the very incentive or motivation for landholders and landowners to conserve and invest in the environment. Yet, the irony is that by opposing such trade and so depriving environmental resources of real economic value, environmentalists are directly removing the incentive for their protection. It is time to stop this farce and for environmental agreements and trade policy to find common cause in seeking innovative approaches to use trade and markets for the benefit of the world's threatened biodiversity and its equally threatened poor.

The difficult reality is that for most rural communities in the South, particularly for rural Africans, the priority is human survival, not biodiversity conservation. Thus, unless biodiversity can directly and tangibly contribute to human survival, prospects for its conservation are bleak.

Rob Monro, from Zimbabwe, was the head of Zimbabwe Trust, an NGO which was one of the founders and promoters of the CAMPFIRE program.

Interests and Fault Lines

This environmental mandate was placed on the "Doha Development Agenda" at the insistence of the European Union (EU) and Switzerland. For their part, developing countries—which have broadly supported the objective of sustainable development and the protection and preservation of the environment in a manner consistent with their development needs—were hesitant in accepting this inclusion, especially the clause related to the WTO-MEA linkage. From the outset, developing countries have stressed that current WTO provisions are adequate to deal with any possible conflicts between MEA trade measures and WTO rules and, therefore, it is not necessary to alter current WTO rules or to elaborate new rules to address hypothetical legal conflicts between MEAs and the WTO. Instead, many developing countries have suggested that the "first-best" solution is to devote additional financial resources and capacity building towards meeting the objectives of MEAs. This concern notwithstanding, developing countries acquiesced to these negotiations hoping that—in exchange for and in the context of the overall Doha negotiating agenda—broader developmental and trade interests in agriculture, services, special and differential treatment, and other areas would be addressed effectively.

The CTE in Special Session, which has been the venue of recent trade and environment negotiations, has dealt with five aspects of the MEA-WTO linkage: (a) definition of an MEA; (b) definition of specific trade obligations (STOs) in an MEA; (c) legal relationship or hierarchy between MEAs and the WTO; (d) "party versus non-party" issue; and (e) possible outcomes of the negotiations.

In terms of *MEA definition*, countries are examining various criteria, including the legal effect of the agreement, the multilateral character of the MEA, "openness" of the MEA to participation by all WTO Members; and substantive environmental content or objective of the agreement. Most developing countries favour a narrower definition, which would encompass only those MEAs currently in force. Moreover, these MEAs should have been negotiated under United Nations auspices, and must be open to effective participation by all WTO Members.

Proponents of the WTO-MEA negotiations—including the EC and Switzerland—favour a broader definition of MEAs. For example, the EC would like to include regional agreements, as well as treaties between at least three parties that have the main aim of protecting the environment or are relevant to the environmental exceptions in GATT Article XX(b) or (g), and which were negotiated under the UN or under procedures for negotiation open to all WTO Members. Japan has suggested that MEAs that have not yet entered into force should also be covered by the negotiations.

Specifically on the question of which MEAs to focus upon, there has been some convergence amongst WTO Members. The following MEAs are frequently mentioned in this context: CITES; the Montreal Protocol; the Basel Convention; the Rotterdam Convention; the Stockholm Convention on Persistent Organic Pollutants (the Stockholm Convention); and the Biosafety Protocol.

However, there has been less agreement as to *which* specific trade measures in these MEAs should be the subject of discussion. On the question of *defining specific trade obligations*, some countries (for example, the United States and Hong Kong) would like to limit STOs to include trade measures that are mandatory and specific, with negotiations based on the list of MEAs with trade measures provided by the WTO Secretariat. Others, including the EC, advocate pursuing a general approach that would establish the principles governing the MEA-WTO relationship, including what constitutes an STO.

In this regard, the EC has identified four categories of measures arising from MEA trade obligations: (a) trade measures explicitly pro-

vided for and mandatory under MEAs (e.g., CITES, the Stockholm Convention, the Biosafety Protocol); (b) trade measures not explicitly provided for nor mandatory under the MEA itself but consequential of the "*obligation de résultat*" of the MEA; (c) trade measures not identified in the MEA which has only an "*obligation de résultat*" but that Parties could decide to implement in order to comply with their obligations; and (d) trade measures not required in the MEA but which Parties can decide to implement if the MEA contains a general provision stating that parties can adopt stringent measures in accordance with international law (e.g., the Montreal Protocol, the Rotterdam Convention).

Some countries—including Argentina, Chinese Taipei, India, Korea and Norway—have attempted to define relevant terms in the phrase "specific trade obligations set out in MEAs" in order to develop criteria. India, for example, has suggested that relevant STOs should be: mandatory (i.e., MEA trade obligations that are general or rely upon the discretion of the MEA parties for their adoption or implementation should not be considered to be STOs); clearly defined in the MEA (i.e., whereby the MEA sets out the result to be achieved and measures to be used); or related to the import or export of a tangible item and to which MEA parties have to adopt or comply with.

In trying to *define the relationship between MEAs and the WTO*, there has been general agreement that MEAs and the WTO represent equal bodies of international law and their implementation should be mutually supportive. Countries, however, diverge on how to operationalize this relationship. The EC, Switzerland and some other, mostly developed, countries favour developing commonly agreed general principles, such as "no hierarchy" and "mutual supportiveness and deference" in order to clarify the MEA-WTO relationship. Other countries, such as Japan, have suggested that mandatory trade measures explicitly provided for in an MEA should be presumed to be WTO-consistent.

Most developing countries, however, oppose suggestions for new WTO rules on the MEA-WTO relationship, arguing that these could alter existing WTO rights and obligations. Interestingly, many of these same countries were often leading proponents for trade measures to be incorporated into MEAs during their negotiation. However, these countries have since sought to retain the right to question the implementation of MEA trade measures at the WTO, if such implementation adversely affects their WTO rights. Accordingly, these countries have raised concerns about proposals to recognize *a priori* those MEA trade measures as WTO consistent.

It is generally understood that, as stipulated in the mandate, the *party vs. non-party issue* is excluded from the Doha negotiations. Hence, MEA obligations which may require MEA parties to take trade actions against MEA non-parties and the relationship between such measures with WTO rules is not part of the current negotiations.

Finally, in discussions on the *possible outcomes of the negotiations*, some countries, such as Japan and Switzerland, propose that the negotiations should result in an interpretative decision or understanding. This would set out general principles to clarify the MEA-WTO relationship in order to provide guidance for WTO dispute settlement panels in the event of a dispute. The introduction of an "MEA exceptions clause" by amending GATT Article XX has also been suggested. However, most developing countries, along with the U.S. and Australia, have stated that the negotiated outcome should not change the existing balance of WTO rights and obligations.

Trends and Future Directions

Together with enhancing national policy coherence and coordination, negotiations on criteria for the granting of observer status to MEA secretariats and on procedures to facilitate information exchange between MEA

secretariats and the WTO may be amongst the most cost effective and least controversial ways to advance this issue. Currently, only some (albeit the main) MEA secretariats have observer status in the CTE regular sessions and their participation in the CTE Special (negotiating) Sessions as observers is *ad hoc* and limited. This issue has become linked to the broader but stalled debate in the WTO on the granting of observer status to other international organizations. Future headway on this issue could provide useful opportunities to strengthen the WTO-MEA linkage.

The increasing number of trade disputes with environmental implications shows that the likelihood of WTO trade disputes involving MEA trade measures exists. The dispute resolution system would can be expected to continue to play an important role in defining the WTO-MEA relationship. To the extent that this is necessary, relevant environmental organizations—including MEA secretariats and environmental NGOs—should be consulted by the WTO dispute resolution panels on an *ad hoc* basis, following the Appellate Body's guidelines for the submission of *amicus curiae* briefs. However, many WTO Members have stressed that the WTO dispute settlement mechanism is not the ideal venue for dealing with MEA issues; rather, MEA issues should be resolved in MEA fora. Hence, it would be much more desirable if MEA dispute settlement mechanisms were strengthened and spillover of MEA disputes into the WTO be minimized.

Negotiations on the MEA-WTO relationship have prompted MEA secretariats, together with the United Nations Environment Programme (UNEP), to look at how WTO rules could interact in a mutually supportive way with MEA trade provisions. MEA decision-making bodies may need to review their own activities and strengthen the implementation of their respective obligations. Furthermore, changes in global economic and environmental conditions will require a strong multilateral framework for coordinated action. These conditions could push countries to strengthen and reaffirm the role of the UN as the primary global governance institution.

The CTE and the WTO Committee on Trade and Development (CTD) have held discussions relating to the integration of sustainable development into the Doha negotiations pursuant to Paragraph 51 of the Doha Declaration. However, both the CTE and the CTD have encountered difficulties implementing this mandate. Indeed, sustainable development remains a difficult concept to translate into concrete policy. However, there is an opportunity embedded within this CTE-CTD dialogue to meaningfully operationalize the WTO's preambular emphasis on sustainable development as an overarching goal for trade policy.

In general, developing countries recognize that environmental protection is an important policy objective within the context of sustainable development and is essential to the development process. However, they remain vigilant to disguised protectionism in the form of unjustified environmental measures. In this respect, improving market access and guarding against eco-protectionism remains a critical issue for developing countries in the trade and environment debate. The role of the WTO, developing countries argue, is to ensure market access and prevent abusive trade protectionism. This unease is unlikely to disappear soon and future developments related to the WTO-MEA relationship will have to continue grappling with this.

Finally, the importance of countries undertaking policies that are coherent and consistent with the objective of sustainable development is well recognized. However, in practice, much remains to be accomplished in this regard. The most important future challenge for both the WTO and for MEAs is how to meet the sustainable development objective which, theoretically, is the principal motivator of both regimes. In terms of trends and challenges, this means that the future of the WTO-MEA relationship will be determined

not only by how the WTO relates to trade measures contained in MEAs, but also by how MEAs evolve to relate to global trade policy in general, including but not limited to WTO agreements.

Table 1. Conventions and their highlights.

Convention	Highlights
Convention on Biological Diversity (CBD) *The objective of the CBD is the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources*.	• Countries must respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities that are supportive of biological diversity, an agenda on traditional knowledge running parallel to the WTO Agreement on Trade-related Aspects of Intellectual Property Rights; • Guidelines on access and benefit-sharing of genetic resources require prior informed consent of the country providing resources; • Countries will cooperate to ensure that patents and other intellectual property rights are supportive of biodiversity; • Environmental impact assessments must be conducted on any project likely to have significant adverse effects on biodiversity.
Cartagena Protocol on Biosafety *The objective of the Biosafety Protocol is to ensure an adequate level of protection in the field of safe transfer, handling and use of LMOs that may have adverse effects on the conservation and sustainable use of biological diversity, also taking into account risks to human health*.	• Establishes an advanced informed agreement (AIA) procedure that applies to the first transboundary movement of a particular living modified organism (LMO) for intentional introduction into the environment; • National decisions on whether to use LMOs as food or feed or for processing (FFP) must be notified to the other parties; • Countries can use a precautionary approach when making decisions on whether to allow imports of a LMO; • LMOs intended for contained use or intentional introduction into the environment must be labelled as such and have documentation.

Convention	Highlights
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) *The objective of CITES is the control of international trade in endangered species and their products by the provision of a framework for the sound management of wildlife trade.*	• Creates a system that restricts and regulates trade in species whose survival is threatened to varying degrees; • Appendix I species are the most endangered, including those directly threatened with extinction, while Appendix III are the least threatened; • Includes trade requirements for each Appendix that can range from trade bans or quotas for more threatened species—agreed upon at the Conference of the Parties and by the CITES Plants and Animals Committees—to documentation or notification requirements for less threatened ones.
Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC) *The Kyoto Protocol aims to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human-induced interference with the climate system.*	• Has legally binding target of 5 per cent reduction of emissions of six key greenhouse gases in developed countries by 2008-2012 compared to 1990, which effectively represents a 20 per cent cut compared to levels that are projected for 2010 without measures; • Industrialised countries are able to trade emissions credits among themselves and use a "clean development mechanism" to encourage sustainable development by financing emissions-reduction projects in developing countries for credit; • The UNFCCC says that measures taken to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.
Montreal Protocol on Substances that Deplete the Ozone Layer *The Montreal Protocol aims to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete the ozone layer.*	• Has phase-out schedules for ozone-depleting chemicals that constrain production, consumption and export and import, with different schedules for developed and developing countries; • All parties to the Convention must ban exports and imports of controlled substances to and from non-parties; • Production and consumption of CFCs, halons and other ozone depleting chemicals have been phased out in developed countries since 2000 and a schedule is in place to eliminate the use of methyl bromide, a pesticide and agricultural fumigant, in developed countries, thereby affecting relative production costs.

Convention	Highlights
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal *The Basel Convention aims to protect human health and the environment against the adverse effects which may result from the generation and management of hazardous and other wastes through control of the transboundary movements of hazardous wastes*.	• Parties can notify the Secretariat of their decision to prohibit the import of hazardous wastes specified in Annexes I or III of the Convention, in which case other Parties have to prohibit the export of those wastes to the party that has notified; • Any party wishing to export hazardous wastes to another party (which has not notified the Secretariat that imports of the waste are prohibited as per the last point) must notify, in writing, the potential importing party and ask them for permission for the transboundary movement; • Aims to ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with environmentally sound and efficient management; • Requires packaging, labelling, and transport of hazardous wastes.
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade *The Rotterdam Convention aims to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to environmentally sound use*.	• Creates a "prior informed consent" (PIC) procedure in order to formally obtain and disseminate the decisions of importing countries whether they want to receive shipments of hazardous chemicals that are covered by the Convention; • Chemicals are subject to the PIC procedure when notifications have been received from both Convention regions, or are severely hazardous pesticide formulations that have been nominated for coverage because of the hazard they pose to developing countries or economies in transition, and have been recommended by the Convention's Chemical Review Committee; • Requires information on national bans or severe restrictions of a chemical; exports a chemical from a country which bans or severely restricts it; and for safety data with any shipment of Convention chemicals to be used for occupational purposes.

Convention	Highlights
Stockholm Convention on Persistent Organic Pollutants *The aim of the Convention is to protect human health and the environment from Persistent Organic Pollutants (POPs) by reducing or eliminating their release into the environment.*	• Requires that POPs be handled, collected, transported, stored and disposed of in an environmentally friendly way, including by not transporting them across international boundaries without taking into account relevant international rules, standards and guidelines; • The Convention also has promotional measures aimed at the minimization and, where feasible, elimination of the releases of unintentionally produced POPs; • Eliminates import and export of POPs except for environmentally sound disposal, specific national exemptions, or to a non-party to the Convention who certifies that it will use them sustainably.
UN Convention on the Law of the Sea *The Convention is based on the principle that states should cooperate to ensure conservation and promote the objective of the optimum utilization of fisheries resources both within and beyond the exclusive economic zone.*	• Establishes countries' sovereignty over exclusive economic zones (EEZs) that extend 200 nautical miles from the territory of states; • Obliges states to determine the allowable catch, which will allow fish stocks to be maintained at sustainable levels, and adopt conservation measures to maintain or restore populations of harvested species at levels which can produce maximum sustainable yield, as qualified by relevant environmental and economic factors; • Also obliges states which are unable to fish all their allowable catch to sell rights to that catch to other states.

Policy Coherence

Otto Genee

"Many countries now realize that economic growth and poverty reduction cannot be sustained if development is achieved without consideration to the environment."

In a globalized economy, domestic policies increasingly have international repercussions. International agreements and rules, through pooling sovereignty to address trans-border or global problems, also reduce domestic policy space.

This is most true for developing countries that are often at the receiving end of the policies of developed countries. Developing countries have less capacity and leverage to negotiate favourable international disciplines across international arenas, since these tend to be already captured by vested interests in developed countries (such as in agriculture or intellectual property rights). To redress these imbalances, the impact on developing countries should be taken into account and should be an integral part of policy-making in developed countries and in negotiating international rules.

Beyond equity reasons, this would also be in the economic interest of developed countries. In an interdependent global economy, developed countries derive benefits from the advancement of pro-poor sustainable development in developing countries. These policies can foster growing demand for high-value exports of goods and services, whereas persistent global poverty, environmental degradation and failing states may trigger negative economic, security, migratory, health and environmental consequences on a global scale.

Recently, the need to enhance policy coherence has been given particular attention in international discussions. In September 2000, the Heads of State and Government of 189 countries adopted the United Nations Millennium Declaration, which sets explicit targets for the reduction of human misery, enhancement of social development and promotion of environmental regeneration. It also calls on developed countries to ensure policy coherence and adequate financial resources for developing countries. The eight Millennium Development Goals (MDGs) developed in this framework contain 18 targets and 48 indicators that build on the outcomes of earlier UN conferences and action agendas. In March 2002, the UN Conference on Financing for Development approved the Monterrey Consensus, which reaffirms these development goals and introduces a mutual accountability framework for developed and developing countries with verifiable indicators of development progress.

The Monterrey Consensus furthered the momentum to address policy coherence by making development a shared responsibility of developing and developed countries. Developing countries committed to good governance and improved policies for devel-

opment and poverty reduction, while developed countries agreed to more and effective aid and policy coherence. Under the umbrella of global partnership for development, MDG 8 formulates a systemic target to "developing further an open, rule-based, predictable, non-discriminatory trading and financial system." Other indicators on aid, market access and debt sustainability for developing countries were developed to monitor progress. MDG 7 adds the goal of ensuring environmental sustainability in developing and developed countries to the poverty reduction and specific social objectives of MDGs 1 to 6. It calls for sustainable development principles to be integrated into national policies and to reverse the rapid degradation of environmental resources.

The Johannesburg World Summit on Sustainable Development (WSSD) in September 2002 offered further guidance on achieving coherence between economic, social and environmental policies. It recommends mutually reinforcing integration into country strategies and international policies. Many countries now realize that economic growth and poverty reduction cannot be sustained if development is achieved without consideration to the environment. Fisheries is an example of a sector where greater coherence is urgently needed between trade, fisheries management and developmental policies at the domestic and international level in order to address the serious crisis of over-fishing by putting in place effective fisheries management and subsidies regimes.

In the "Doha Development Agenda," the World Trade Organization (WTO) Members made a commitment to place the interests and needs of developing countries at the heart of the new round of multilateral trade negotiations and to ensure that trade supports development to the benefit of developing countries. Despite the insistence of the European Union (EU), only a limited number of trade and environment issues were placed on the negotiating agenda, given resistance by the U.S. and many developing countries.

Policy coherence is particularly relevant to trade with its many dimensions and the plethora of "behind-the-border" trade-related rules in the WTO, as well as bilateral and regional trade arrangements. If trade liberalization and WTO disciplines are to foster economic growth, poverty reduction and sustainable development, better coordination with other policies and policy communities at the national and international levels is essential. While developing country governments bear responsibility for policy coherence at the national level, the international policy context in which their domestic policies are framed should be supportive of coherence and promote sustainable development.

Interests and Fault Lines

How does the limited mandate for trade and environment negotiations in the WTO fit into the broader framework of policy coherence for development and could this mandate enhance negotiating leverage from a Southern perspective?

Trade Policy Coherence in the WTO

The importance of enhancing coherence between trade and environment has been discussed for some time in the form of calls for mutual supportiveness of policies. The need to address the complex linkages between trade and environment was recognized in the Rio Principles and Agenda 21, adopted at the Rio Earth Summit, and in the Uruguay Round of trade talks.

This first "trade and" issue resurfaced with the creation of the WTO and its Committee on Trade and Environment (CTE). The CTE has devoted a considerable amount of time to identifying the linkages between trade and environment policies, including the scope for "triple-win" outcomes that benefit trade, development and environment. Particular attention has been given to the potential envi-

ronmental benefits of removing trade restrictions and distortions in the agriculture, fisheries, forestry and energy sectors. The CTE has also examined the market access impacts of environmental measures, particularly with regard to developing country exports.

In this respect, developing countries have raised concerns regarding eco-labelling and "green protectionism." Environmental and health standards and regulations and related consumer and business preferences come in many forms, such as requirements on product-content, packaging, labelling, traceability and certification. An issue of international policy coherence discussed in the CTE has been the compatibility of trade obligations in multilateral environmental agreements (MEAs) with WTO rules.

Beyond the unresolved legal debate, lies the deeper question of how trade measures can strengthen environmental policy to deal with global problems. Trade measures in MEAs have usually been included as part of a broader package that includes technical and financial assistance, which are often more appropriate to deal with the environmental problems. Implementation of MEAs, however, may be less than perfect because these supportive measures are often voluntary and because of perennial funding problems.

The Doha Ministerial Declaration mandated negotiations in the CTE in Special Session on the relationship between existing WTO rules and specific trade obligations set out in MEAs, procedures for information exchange with MEA secretariats, and the reduction or elimination of tariff and non-tariff barriers to environmental goods and services (EGS). This agenda seems too narrow and unbalanced to benefit developing countries, particularly in view of the negotiating power balance in the WTO.

Nevertheless, better access to EGS and related technology could prove beneficial to the environment and resource management in developing countries. Proposals to make

Promoting policy coherence

By Bernice Wing Yee Lee

Are environmental protection policies in Europe legitimate or merely market access barriers for developing countries? Can trade negotiations at the World Trade Organization (WTO) take into account the social and environmental impacts of trade liberalization? How can the agricultural policies of rich countries be designed in a way that would not adversely affect the poor in small and vulnerable economies?

These questions highlight the kind of dilemmas facing policy-makers today. Realigning the myriad policy directions towards internationally agreed sustainable developmental goals and targets lies at the heart of the concept of policy coherence, which is fast becoming one among many "silver bullets" that is supposed to help achieve sustainable development. This is not unlike the way governance, or multi-stakeholder engagement, infiltrated the development vernacular in the 1990s.

We now know that policy coherence should not be promoted for its own sake. Only with clarity of purpose can policy-makers design clear mechanisms and processes to ensure coherence for the greater public good. Championed by stalwarts of the development assistance communities, "policy coherence for development" (PCD) is a catchphrase for those frustrated by how development objectives for poverty reduction, food security, or rural development are undermined by policies advocated by other arms of the same government.

While rich country representatives at the World Bank are telling poor countries to invest in comprehensive primary education, their counterparts at international financing institutions are asking those same governments to cut their education budget to service external debt payments—often owed to rich country private sector banks.

continued on page 162

continued from page 161

Such contradictory policy advice is at best confusing, and often appears hypocritical. Are developed countries simply incapable of coordinating actions to deliver what they profess to propound, or are they just taking with one hand what they offer with the other?

Unsurprisingly, developing country representatives often claim that they prefer to deal with countries that are open about their mercantilist ambitions—better the devil you know. Constrained by dependence on external resources and confronted by conflicting advice from different Northern countries, as well as from different departments within each of these governments, developing country governments often find it difficult to pursue their own policy goals based on an objective analysis of their priorities. In this context, more policy coherence on the part of the Northern countries would indeed be a helpful starting point.

Attempts to promote "policy coherence for development" within rich countries are significant and laudable. Domestic politics is but an arbitration process to mediate among diverse interest groups. Environment and development lobbies tend to be under-represented or under-heard in domestic political arenas in developing countries, not least because they are often weaker than private sector or exporters' interests. Promoting policy coherence within rich countries can bolster the hand of pro-sustainable development domestic constituencies and help foster new ones.

Problems however arise when this domestic analogy is applied to the global sphere, where we attempt to promote policy coherence among international regimes. This comes in the form of advocacy for coherence among, for example, trade and environment regimes, or between finance and trade regimes. Even though the emergence of these regimes was often underscored by interests in delivering global public goods, they have been developed along very different trajectories with diverging assumptions. The institutional evolution of multilateral agreements is often shaped by different ideologies and changing levels of political will, which may fluctuate from one government to the next within the same country.

In the absence of a shared global vision for achieving sustainable development, and a global democratic mechanism to arbitrate among interests of different international regimes, policy coherence alone will not avoid the reality of power politics. Promoting coherence among unequal regimes—pitching finance against the environment for example—is unlikely to challenge the dominance of powerful interests without corresponding normative realignment around sustainable development goals.

At the global level, it is often in the dialectical interaction among different regimes that we see the consolidation and effective articulation of agreed global norms. This has happened, for example, in WTO jurisprudence where environmental norms have been upheld and consolidated through the dispute settlement process. These processes of re-articulation and consolidation are crucial because—in addition to policy coherence—international institutions and regimes need to maintain relevance and be responsive to lessons learned from past policy prescriptions. These processes are also necessary for mediating potential tensions among these different regimes.

Today, with the range of internationally agreed goals and targets, we face unprecedented opportunities for galvanizing political will to deliver on sustainable development. We also face many hurdles due in part to wide divergence on what are believed to be viable sustainable development paths and models. In this context, policy coherence, despite its elusiveness, can provide a much needed tool to assist policy-makers in understanding and mediating these disparities, and in charting potential areas of convergences. There is great hope that, armed with deeper understanding and less ideology, the international sustainable development community will begin to practice what it preaches.

Bernice Wing Yee Lee, from Hong Kong, China, was the Policy Analysis and Strategy Advisor at the International Centre for Trade and Sustainable Development (ICTSD).

these negotiations more meaningful for developing countries by including environmentally preferable products (EPPs), such as natural fibers and organic agricultural products, face problems in agreeing to broaden the dominant definition of environmental goods and differentiating products at the border based on their environmental end-use. Moreover, market access for most EPPs is hampered more by regulatory impediments already governed by WTO disciplines—such as under Agreements on the Application of Sanitary and Phytosanitary (SPS) Measures and on Technical Barriers to Trade (TBT)—than tariffs. This highlights the need for ensuring policy coherence not only amongst trade and other policy areas but also within trade rules themselves.

Although the concerns of some developing countries about broadening the trade and environment negotiating agenda are understandable, attempts to circumscribe it within the CTE, as opposed to other WTO negotiating groups, could prove self-defeating precisely because it undermines the possibilities of coherence and beneficial trade-offs. Currently, negotiations in several areas relevant to trade and environment, such as non-agricultural market access (NAMA) and the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), take place in dedicated negotiating groups, not in the CTE. The CTE is referring most related issues to these groups and is having difficulty performing its overview role foreseen in Paragraph 51 of the Doha Declaration. Positive trade-offs for developing countries are more likely to be found in the core WTO market access areas of agriculture, manufactured goods, services and rules, including on non-tariff barriers and fisheries subsidies.

The Broader Policy Coherence Challenge

A major reason why policy coherence is difficult to achieve is the elusiveness of the concept. It needs to be defined more clearly and dissected into its various dimensions to become useful in policy-making and operational in international negotiations.

Is it, for example, a goal or a process? Policy coherence is often equated to having a fair and transparent process of policy-making in place. This is considered to be sufficient to solve the problem. However, even in perfect circumstances, some incoherence between various policies of any government is unavoidable, since governments represent diverse constituencies with different and often competing interests. Defining coherence as consistency between all policy objectives across all areas turns it into a neutral concept of optimal coordination structures and, thus, rather meaningless.

Policy coherence, therefore, needs to aim for a key objective. What could this objective be in the context of a Southern agenda on trade and environment? The CTE negotiating mandate only refers to mutual supportiveness of trade and environment without defining a clear policy objective. Development, as elaborated in the MDGs and including the focus on environmental sustainability contained in MDG 7, can be the overarching objective. Indeed, because the MDGs are internationally agreed development targets, such a formulation of the objective of policy coherence might also provide a certain political leverage in negotiations across international fora.

In trying to incorporate this broader notion of policy coherence, the Organisation for Economic Co-operation and Development (OECD) has developed a practical working definition of policy coherence for development (PCD), which implies "working to ensure that the objectives and results of a government's development policies are not undermined by other government policies which impact on developing countries and these other policies support development objectives where feasible." This definition has been further unpacked into four interrelated levels at which governments and institutions can seek greater policy coherence, namely:

1. *Internal coherence* is the consistency between the goals and modalities of a government's development policy.
2. *Intra-country coherence* is the consistency among aid and non-aid policies.
3. *Inter-donor coherence* is the consistency of aid and non-aid policies across OECD countries.
4. *Donor-recipient coherence* is the consistency of policies adopted by developed and developing countries and international institutions to achieve shared development objectives.

It has been noted that while distinct decision-making structures may govern these four interrelated levels of PCD, decisions at one level may have implications for one or more other levels. The traditional focus in developed countries has been on level 1 coherence issues, i.e., how the means and aid instruments align with development goals, with a concentration on volume and quality of aid. There is a growing realization that, even if all donors reach the target of 0.7 per cent of GNP and the effectiveness of aid is raised, aid alone will not be sufficient to achieve the MDGs by 2015. More attention is therefore being given by developed countries to levels 2 and 3 coherence issues, such as the ineffectiveness of tied aid, the need for two-way integration between trade, agriculture and aid policies—for example, real market access, abolishing trade-distorting subsidies and more aid for trade to address supply-side constraints—and the need for multilateral rules to reduce subsidies. This is leading to improved coordination across departments and pleas for a "whole-of-government" approach to development in OECD countries. However, considerable policy adjustments are still required in trade, agriculture, environment, climate change, migration, etc.

The defining feature of PCD, however, remains the identification of trade-offs and synergies across policies towards achieving (sustainable) development. In an ideal world, concerned policy communities interact, stakeholders are involved in the decision-making process and balanced decisions are taken on the basis of a comprehensive analysis of possible effects using tools such as impact assessments. The effect of measures is monitored and kept under review and, if necessary, policies are adjusted or accompanied with supportive measures. In the real world, however, governments have to find a working consensus among diverse interests under uncertain conditions and often have to settle for second-best solutions. As a result, expectations should not be exaggerated as to what policy coherence can accomplish. Doing no harm to development should be the first principle and the minimum to be expected, with synergy between policies being an added bonus to be aimed for.

Trends and Future Directions

In principle, the MDGs, the Monterrey Consensus, WSSD, the "Doha Development Agenda" and the UN World Summit have put in place mutually supportive policy processes, all of which call for broad-based policy coherence for sustainable development. These building blocks of the global partnership, however, require institutional improvements and dedicated capacity to deliver coherent results.

While some modest PCD results have been achieved, the overall picture is disappointing and remains unbalanced in terms of mutual accountability between developed and developing countries. In individual recipient countries, donors devote more attention to result-based management systems and converge around the poverty reduction strategy process (PRSP) sponsored by the World Bank and the International Monetary Fund.

Some donors have been helping developing countries to mainstream sustainable development in PRSPs or to implement MEA obli-

gations. However, the record of current PRSPs in fully integrating sustainable development is poor and, at best, an add-on. Donors need to do more through pro-poor environment-related initiatives and in assisting developing countries to strengthen the integration of environmental concerns into policies. Making PRSPs a truly country-owned, MDG-based, and multi-stakeholder process should be the goal. However, the process has tended to focus too heavily on recipient countries' performance, neglecting the impact of other developed country policies on their chance of achieving the MDGs.

The Millennium Task Force of the United Nations faults developed countries for showing a persistent lack of coherence in their development, finance, foreign, trade and environmental policies. They lack firm commitments, action plans, specific timeframes and result-based frameworks in the area of PCD. This should not come as a surprise since decision-making in any country implies weighing competing and conflicting interests. Moreover, foreigners do not vote. Political will and stakeholder power ultimately decide which interests prevail. Yet, the credibility of developed countries and their development promises is now at stake. Consumers and taxpayers in developed countries and the poor in developing countries may again end up bearing the cost of incoherent policies, while well-connected interest groups in developed countries reap the benefits. The Millennium Task Force recommends that developed countries subject themselves to, at least, the same standards of accountability as expected from developing countries. In addition, there is a need for reform of the global "rules of the game," starting with more systematic monitoring and evaluation of international agreements and regulatory regimes.

Obviously, not all PCD issues can be addressed at the same time, nor should they necessarily be the subject of immediate international negotiations. For reasons of political economy, priorities must be set and coalitions

New policy coherence challenges

By Stéphane Guéneau

The creation of the World Trade Organization (WTO) hastened the conversion of what had largely been a multilateral trade regulation system into a public policy coordination system. For example, according to the "single undertaking" principle, the member countries of the WTO are obliged to accept a "package" that includes, amongst others, agreements on sanitary standards, services, intellectual property and agriculture. In addition, through the decisions of its Dispute Settlement Body, the WTO can intervene in public policy in areas such as health, culture, social rights and the environment.

The emergence of the WTO's central role in global governance has emphasized the importance of policy coherence. This, however, has also raised a number of challenges. First, there is often a lack of synthesis between sectoral policies. The contradictions between agricultural policies and development assistance policies of industrialized countries are the most obvious examples of policy incoherence. This lack of coherence is also evident in other fields, such as sanitary safety and the environment. For example, an infinitesimal reduction of a product's sanitary risk can lead to standards that considerably limit the export possibilities for some of the world's poorest countries.

Secondly, there is a lack of consistency between the WTO's objectives and its procedures. The preamble to the WTO Agreement proposes to achieve sustainable development goals by seeking to ensure economic growth, raise income and standards of living, bring about full employment, and by allowing for the optimal use of the world's resources. In practice however, trade liberalization is the top priority for the WTO. This is reflected in the current negotiations consisting essentially of reciprocal bilateral exchanges of strict

continued on page 166

continued from page 165

mercantile trade concessions. These are a far cry from an international trade system aimed at achieving sustainable development as stated in the preamble.

It is not that the architects of the WTO did not anticipate such discrepancies. The Committees on Trade and Development (CTD) and on Trade and Environment (CTE) were formed precisely to examine and ensure some measure of coherence. The mandates of these Committees, however, are rather narrowly defined. For example, the Committee on Trade and Environment (CTE) focuses on the compatibility between environmental policies and global trade rules; but it cannot address the effect of trade liberalization and trade policies on sustainable development.

Furthermore, the solutions suggested for alleviating policy incoherence tend to incline towards demands for further liberalization; for instance, by improving market access and eliminating subsidies. The demand for policy coherence, then, translates merely to a call for other policy areas to conform to the norms of trade policy. For example, a country's policies on food security, rural development, land use planning, sanitary measures, environmental protection and the management of risks related to new technologies, such as genetically modified organisms, are formulated based on legitimate public policy choices. Why should these public policy objectives be subordinated to the overriding objective of trade liberalization?

If we are to deal with the challenge of policy incoherence, at least two issues deserve further exploration. The first concerns WTO reform. Why not completely change the procedural logic of negotiations, focusing on objectives instead of means? In this context, the development goals set out at the United Nations Millennium Summit could serve as a common basis for international negotiations. Trade liberalization would be one of many tools—including international aid, strengthened standards, economic policy, investment, public-private partnerships, etc.—which would make it possible to meet these objectives.

The second relates to sustainability impact assessments (SIA). The special and differential treatment provisions that were so difficult to win during the negotiation of the WTO agreements, now look rather insignificant compared to the equity issues posed by outcome of the negotiations. Developing countries, therefore, are demanding more justice, equity and coherence between sustainable development and trade policies. As a result, SIAs of trade policies and agreements could be a tool for achieving policy coherence. SIAs would make it possible to develop a common definition of the measures to be implemented in order to meet sustainable development objectives.

Discussions of policy coherence must also take into account global socio-political realities. As the world's economic and trade balance evolves, any attempt to improve coherence would have only very limited effect if cooperative relations with emerging players are not examined. For example, what will be the effect of eliminating subsidies for cotton producers when fluctuations in China's demand will be the adjustment variable for global cotton prices? How effective can a European policy for the public purchase of sustainably harvested timber be if the lion's share of Africa's tropical timber exports will soon be exported to China rather than to Europe?

In fact, policy coherence cannot be achieved solely by improving institutional instruments. It also means rethinking the structure of the institutions we have created, tackling the North-South divide that we are still trapped in, examining the new and emerging realities of global trade flows, and taking the overarching goal of sustainable development as the operational, rather than as a rhetorical, objective of trade policy.

Stéphane Guéneau, from France, is a Policy Analyst and at the Institute for Sustainable Development and International Relations (IDDRI) in Paris, France.

formed around converging interests. The final policies will only be coherent if the arenas in which they are negotiated are linked. Coherence should not come as an afterthought and needs to be built into the negotiation of these policies.

Reporting, monitoring and dialogue also have a useful role to play to achieve more coherence in reporting obligations on policies and mutual peer reviews between developed and developing countries. Independent monitoring, performance rating and research on the impact of developed country policies on developing countries is also necessary. The WTO should also devote more attention to the policy coherence efforts of its Members' trade policies, individually, in the Trade Policy Review Mechanism (TPRM) and, collectively, in the Committee on Trade and Development (CTD).

In any institutional environment—be it in developed or developing countries—achieving greater PCD will ultimately be a political, legal and administrative process. There is no substitute for showing political will and leadership, which has to come from the very top of governments and international organizations. Political will and WTO commitments need, however, to be followed through in appropriate coordination structures and consultation mechanisms, adequate capacity and PCD action plans, down to the level of working practices of ministries, to have real impact on the ground.

Regional Arrangements

Aaron Cosbey

"The issue of how to reconcile environmental and trade law has dogged the WTO since its inception. NAFTA, in an illustration of the fact that regional agreements can move beyond impasses at the multilateral level, incorporates specific language on the relationship."

The growth of regional and bilateral trade and investment agreements since the mid-1990s is one of the most significant developments in the landscape of the international system of trade rules since the creation of the multilateral regime half a century ago. In the first 46 years of its existence, as the General Agreement on Tariffs and Trade (GATT), the multilateral regime received notification of 124 such agreements. In the 11 years since the creation of the WTO in 1995, it has received another 186, with an exponentially growing number in the planning or negotiation stages.

But the numbers only tell part of the story. Such agreements have been around for many years; in fact the GATT in 1947 made specific allowance for customs unions and free trade agreements (FTAs). Until the 1990s, however, with notable exceptions such as the European Union (EU), those agreements were dysfunctional, testaments to the failed experiment of import substitution at the regional level.

Today's FTAs are different, focused mainly on exports and market access. As well, many of the moribund "first generation" agreements have been remade as effective instruments of economic integration. And South Asia, the Middle East and Africa—formerly mistrustful of the neo-liberal philosophy of trade liberalization—are now negotiating FTAs with the fervor of the newly converted.

This new dynamic complicates the debates on trade and environment. Each of the hundreds of FTAs has its own approach to environmental matters. Even those negotiated by a single country can differ widely. For example, the U.S.—instigator of many bilateral deals since the North American Free Trade Agreement (NAFTA) of 1994—has evolved through a number of different environmental approaches in reaching its current model. Moreover, the existence of a complex web of trade law regimes outside the multilateral system can pave the way for better solutions at the multilateral level, but it can also constitute a formidable obstacle to progress. What is clear, however, is that those interested in trade and environment debates should keep a close watch on developments in the world of FTAs.

Interests and Fault Lines

A number of key issues have received very different treatment in the various existing FTAs. As we shall see, in the best of cases, FTA negotiations offer a laboratory in which better solutions may be found to the problems facing trade and environment at the

multilateral level. In the worst of cases, they can cement into place approaches that are worse than current multilateral practice, or that offer poor examples of the way in which the multilateral system should proceed. If they follow poor practice from the multilateral level, they can also complicate the process of multilateral reform, given the existence of myriad regional agreements with the same problematic provisions.

Environment and Sustainable Development as FTA Objectives

FTAs can affirm environmental integrity or sustainable development as one of their objectives either in the preamble, or in the body of the agreement where objectives are typically listed. A handful of East-Asian FTAs, for example, include preambular language similar to that found in the agreement establishing the WTO: affirming that economic growth should be carried out in a manner consistent with sustainable development.

For example, Mercosur's treaty of establishment asserts that its development goals must be achieved while preserving the environment. The EU's framework agreement for regional negotiations under which it is putting in place Economic Partnership Agreements with Africa, Caribbean and Pacific (ACP) developing countries specifically affirms sustainable development as a goal of the agreements. Almost all of the recent FTAs signed by Canada and the U.S. follow the NAFTA language in resolving to promote sustainable development, and to strengthen the development and enforcement of environmental laws and regulations.

Among other things, the importance of such language is as a guide to interpreting the intent of the provisions contained therein. The WTO's Appellate Body, for example, relied on preambular language to help interpret GATT provisions in a landmark environmental case (*Shrimp-Turtle* dispute).

Environmental Exceptions in the Agreement

The GATT, the General Agreement on Trade in Services (GATS) and other bodies of WTO law have general exceptions that might include exceptions for environmental measures. In the GATT, for example, there is an exception for measures necessary to protect human, animal or plant life or health (Article XX b), and another for measures relating to the conservation of exhaustible natural resources (Article XX g). The GATS contains a general exceptions clause in Article XIV identical to that in GATT Article XX. Almost all modern FTAs include similar exceptions, many simply reproducing the GATT language.

There are, however, some key variations. Recent U.S. FTAs, for example, note that the parties understand that Article XX(b) covers *environmental* measures, and that Article XX(g) applies to measures related to the conservation of *living* exhaustible natural resources. These significant (and sometimes controversial) interpretations are not explicitly spelled out in the GATT text. It is interesting to note that Mexico, after signing an agreement with such "GATT-plus" language in the North American context, reverted to a simple reference to the GATT text in its subsequent FTA with Chile.

Multilateral Environmental Agreements and Trade Law

The issue of how to reconcile environmental and trade law has dogged the WTO since its inception. NAFTA, in an illustration of the fact that regional agreements can move beyond impasses at the multilateral level, incorporates specific language on the relationship. It allows that in the event of any conflict between NAFTA law and the obligations of specific trade-related multilateral environmental agreements (MEAs), the latter shall prevail provided that the least trade-restrictive measure available is chosen to comply with those obligations. This particu-

lar innovation has not been taken up in many other agreements. Two FTAs subsequently signed by Canada do have such language, and Mexico's subsequent agreement with Chile reproduces this text, but it appears in no other FTAs.

Environmental Impact Assessment

A limited number of FTAs have been subject to environmental impact assessments (EIA) before approval. NAFTA was the first, and the U.S., Canada and the EU now routinely subject their FTAs to such assessments, as does New Zealand (but with a much less rigorous process). Unlike the North American variety, the scope of the EU assessments goes beyond environmental to social issues, and its scope does not stop at the EU borders. In the final event, the EU exercises tend to be highly detailed assessments of the sustainable development implications of the agreement for the EU's negotiating partners.

U.S. negotiators typically require negotiating partners also to undertake environmental reviews of trade agreements, but the trade partners who have done such assessments have not seen fit to conduct these exercises in subsequent FTAs. After doing so for the U.S. and, in the case of Singapore, for Canada, neither Thailand nor Singapore conducted an EIA for their FTAs with Australia. This suggests that many Southern governments see limited value in such exercises. Singapore, for instance, argued in its FTA with Korea that an EIA was not needed because Singapore's environmental regime could deal with all potential impacts.

A key feature of many of the EIAs is the direction they give to subsequent capacity building and environmental cooperation activities, which tend to follow the areas of need identified in the impact assessments.

Regulatory Impacts: Services and Investment

Almost all modern FTAs have provisions liberalizing trade in services (though the depth

Fostering sustainable development with RTAs

By Hank Lim and Matthew Walls

Regional trade agreements (RTAs) and cooperative mechanisms present both opportunities and challenges for sustainable development. While recent RTAs may lead to greater trade diversion and inefficient resource allocation, negotiating a regional or bilateral agreement can also reduce the constraints that limit or slow progress in multilateral talks and can therefore lead to breakthroughs, or "WTO-plus" standards, unachievable in the short-term at the WTO.

RTAs have a further benefit in that they may contribute to regional cooperation or integration on issues outside of, but impacted by trade. For instance, neighbouring countries may find it useful to cooperate on transboundary issues or shared interests to overcome limited financial and personnel resources, or to resolve potential disputes. However, RTAs may just as easily result in countries making tradeoffs to protect domestic industries, or the stronger economic partner unilaterally imposing its standards as condition for market entry. RTAs, then, need to be framed in ways that are beneficial to sustainable development.

To date, few RTAs signed by Southeast Asian countries incorporate the environment into the core text of the agreements. This is hardly surprising, as members of the Association of Southeast Asian Nations (ASEAN) were among the developing countries that opposed stringent environmental standards as disguised trade barriers. The priorities of ASEAN governments have focused on sustainable growth, rather than sustainable development.

continued on page 172

continued from page 171

In practice, this means devoting their limited financial resources to encouraging trade and industry, and avoiding any conditions that may limit growth. However, the region's recent experiences of fire and haze in Indonesia, and dwindling water levels on the Mekong River, with their dramatic illustrations of the economic and social impacts of environmental degradation, have succeeded in raising awareness of the environment.

While regionalism cannot be a substitute for the weaknesses of global institutions, it is also true that regional approaches can provide significant benefits. The preconditions to successful regionalism do not necessarily exist in developing countries in general. Within ASEAN, the prevailing political culture and internal institutional weaknesses remain a problem.

ASEAN's trade agreements, for instance, suffer from a toothless dispute settlement mechanism, and members have failed to follow-through on initiatives to build capacity in the region's less developed countries. An environment fund was established in 2004 to pool ASEAN's limited financial resources. While it was a belated recognition of the economic importance of a sound environment, the fund only attracted US$5 million in commitments. This is mainly because of the absence of regional and domestic institutions to enforce the agreements.

Southeast Asia can learn from the experience and success of the China Council for International Cooperation in Environment and Development (CCICED). It was established by China's State Council in 1992, and since then has contributed significantly in providing constructive and pragmatic recommendations to the Chinese government on environmental protection and sustainable development. One of the most important features that contributed to CCICED's effectiveness in influencing the policy-making process is the interactive and two-way approach that connects international research institutions with China's domestic needs, and the group's proximity to the highest power structure in China (the State Council).

If a CCICED-type group proves to be unfeasible, a Track-II (non-official but close to the power structure) approach could be an effective mechanism to provide linkages among important stakeholders in research and policy-makers both at home, in the region and internationally.

The key point is that regional trade agreements are here to stay and working within their constraints offers many opportunities to encourage sustainable development. Since the primary objective of developing countries is to increase economic and human welfare, the standard preferential trading arrangement is one of the major options available for them. The ASEAN Secretariat and Track-II institutes could help in establishing best-practices to incorporate sustainable development in its RTAs.

Developing a standardized environmental impact assessment methodology and establishing criteria to operate capacity building funds are all areas that can strengthen regional cooperation in trade and environment. Also, while RTAs between developing countries may not incorporate environmental issues to the same extent as a trade agreement with a developed country partner, developing countries stand to benefit from cooperation since they share similar concerns about equitably using indigenous knowledge, developing infant industries and protecting their rich biodiversity, the lynchpin of their tourism industries.

A useful approach for ASEAN and other developing countries may be to adopt a phased approach in their regional arrangements; namely, focusing first on cooperation to strengthen indirect non-economic and economic goals and then expanding the environmental content as the arrangement matures with time. These goals may take the form of socio-cultural, regional security and environmental security within a long-term framework that envisions ultimately liberalizing goods and services and sustainable development.

Hank Lim, from Singapore, is the Director of Research at the Singapore Institute of International Affairs.

Matthew Walls, from Canada, is a freelance journalist and environmental consultant based in Singapore.

of commitments varies greatly) and setting rules to protect foreign investors (an area that was traditionally the remit of bilateral investment treaties (BITs)).

With few exceptions, the modern FTA services texts follow the lead of the GATS, which contains a controversial article mandating negotiations to ensure that domestic regulation of services investments be "no more burdensome than necessary." The intent is to remove hidden barriers to entry of foreign service providers, but recent GATS rulings presage a strict interpretation of "necessary"—one that may erode parties' policy space to regulate in the public interest in areas such as water services and other services with environmental implications.

To date the FTAs differ only marginally from the GATS approach on domestic regulation. This means, of course, that if the existing language is found to be problematic, fixing it at the multilateral level will not be enough; the task will be a more complex one of fixing it at many levels. One key difference between the GATS and the FTA services provisions is that many of the latter are far more comprehensive, covering everything but those sectors that are listed as exceptions. GATS works the other way around, covering just listed-in sectors. The greater scope of the FTAs means that any problems (or improvements) are magnified in effect.

In the area of investment there are a number of environmental concerns, but the most prominent stems from the standard protections against expropriation. These cover both direct (i.e., the nationalization of an investment) and indirect expropriation. The latter refers to measures that stop short of taking over an investment, but which make life so difficult for the investor that the *effect* is like a direct expropriation. In a number of cases under NAFTA and BITs, investors have taken the government to binding arbitration, claiming that non-discriminatory regulatory measures, used to protect public health and the environment, hurt their profits to the extent that they amounted to indirect expropriation. The effect of such proceedings may again be to shrink policy space for regulation in the public interest.

The only FTAs to address these issues are the recent U.S. treaties (beginning with the 2003 U.S.-Singapore FTA), which append interpretive text explaining that regulatory measures undertaken for the public good can only rarely be seen to be indirect expropriation. Along with this innovation, the new model U.S. text makes provision for opening up the investor-state arbitral process to the public, accepting friends of the court (*amicus curiae*) briefs, and considering an appellate body mechanism.

Most services and investment liberalization is driven by demands from Northern negotiators, in the belief that Northern service providers are more competitive, and that the domestic systems of investment protection in the South are inadequate.

The impacts in these two areas are excellent examples of FTA provisions that on the surface have nothing to do with environment, but which through their substantive provisions may have significant effects. They highlight the need for FTA negotiators to study the lessons learned in other agreements on the tensions between commercial and non-commercial objectives, and argue for some sort of assessment process, whether formal or informal, to accompany FTA negotiations.

Intellectual Property Rights

The WTO debates on Trade-related Aspects of Intellectual Property Rights (TRIPS) and environment are discussed in depth elsewhere in this book. One of the key issues is the patenting of life forms, and on this question the TRIPS Agreement gives WTO Members the flexibility to refuse to allow such patents in the case of plants and animals (other than micro-organisms). Where patents cannot be used for plants, then a *sui generis* (that is,

specifically designed for the purpose) system of protection must be used. These provisions are under review in the Doha Round of talks, with the U.S. pushing to reduce the flexibilities, and most developing countries pushing to have them expanded.

The debate has to some extent been sidestepped by the U.S. in its bilateral negotiations, where it wields much more power than it does at the multilateral level. In all its recent agreements, the U.S. has limited the flexibility found in the TRIPS Agreement in a number of ways, two of which in particular are important to the trade and environment debates.

First, in some agreements (such as with Morocco, Jordan, Laos and Singapore respectively), the U.S. has removed the exclusion for patenting of life forms; plants and animals must be subject to patent protection. In others (such as U.S.-Bahrain), animals are excluded. In still others (such as CAFTA), the TRIPS exclusions are adopted for both plants and animals.

Second, in all its modern agreements, the U.S. has specified that the parties must accede to the International Convention for the Protection of New Varieties of Plants (UPOV, 1991). The U.S. has been arguing at the multilateral level that UPOV 1991 should be defined as the only acceptable *sui generis* system allowed as an alternative to plant patenting. Most developing countries disagree, and some have put in place their own systems of intellectual property rights—systems which innovate by recognizing the value of traditional knowledge, and asserting breeders' rights to the seed they have cultivated informally over the years. Adopting the UPOV 1991 would preclude the use of such homegrown, sustainable development-oriented systems. This case illustrates both the "WTO-plus" character of many of the FTAs, but also the potentially more unbalanced negotiating dynamic at that level.

Environmental Governance

Environmental governance in regional and bilateral FTAs refers to the mechanisms used to encourage upward harmonization of standards, to deal with environment-related disputes, to ensure enforcement of environmental laws, to foster environmental cooperation on matters of shared concern, and to foster environment-related capacity building. The various regional and bilateral FTAs offer a wide spectrum of approaches to these challenges.

NAFTA broke new ground by creating side agreements on labour and the environment. The latter has arguably been successful in fostering cooperation on issues of shared interest such as migratory species, persistent organic pollutants, waste management, data standardization and capacity building. It has been less successful at making trade and environment mutually supportive; at the end of the day, trade officials do not feel the need for input from their environmental counterparts.

One interesting feature of the agreement is a facility that allows citizens to complain to an independent body that one of the NAFTA governments is failing to enforce is own environmental laws. There is no real penalty for being caught out—only the power of shame. Other than the CAFTA, which has a similar facility, subsequent agreements signed by the U.S. and Canada differ markedly in approach. Most involve only state-to-state mechanisms for complaining about environmental enforcement—mechanisms that are unlikely to ever be exercised (NAFTA also has one, but it has never been used). The Canadian agreements focus more on capacity building for environmental management, but few of them are well funded. The more recent U.S. agreements seem to have moved in this direction as well.

The EU, in its agreements with the ACP and Mediterranean countries, also focuses more on capacity building. The language is impressive, but there are not yet many institutions set up to carry out the objectives.

Other agreements only slowly assumed an environmental role, none having been envisioned at the outset. Both Mercosur and the Association of Southeast Asian Nations (ASEAN) have active programs of regional cooperation on environmental issues of shared interest such as environmental information sharing and environmental standards. Mercosur, for example, has an Environmental Framework Agreement under which work is ongoing in a number of areas of regional interest, such as eliminating intra-bloc environmental non-tariff barriers, sectoral work in areas like illegal logging, work on international standards such as ISO 14000. Some of the areas for cooperation are not actually trade-related, such as ASEAN's action plan on haze pollution, but were occasioned by the existence of a FTA as a forum for cooperative dialogue. Under both ASEAN and Mercosur, the environmental programs of work arose as the need became obvious, as opposed to being built in to the agreements from the start.

Trends and Future Directions

The most predictable trend in this area is an increase in the number of FTAs worldwide. Based on past trends, if future FTAs are among neighbours that share ecosystems they will probably give rise to environmental cooperation. In partners separated by great distance such cooperation is understandably rare.

In the case of South-South agreements, there are typically few environmental provisions at the outset, but the existence of regional or bilateral fora for discussion, even if created for narrow economic purposes, will tend to foster other types of cooperation as well. Such agreements will undoubtedly foster important efforts toward regional and bilateral environmental cooperation. To the extent they do, they will help make trade and environment mutually supportive.

The "shadow" trading system of RTAs

By Adil Najam and Dirk Swart

There are good reasons why developing countries are attracted to free trade agreements, despite the additional burdens and costs that they impose. Not least of these is the promise of access to a few, sometimes just one, significant market. It is not surprising, then, that recent years have seen a rather spectacular proliferation of minilateral and bilateral agreements.

This sum of bilateral and regional agreements adds up to the creation of a "shadow" international trading system that runs adjacent to the WTO-centric multilateral trading system. This has some significant knock-on consequences:

- It encourages hub and spoke arrangements. This is bad for both hubs (in most cases the European Union or the United States) and spokes (mostly developing countries), but worse for spokes.
- It can help maintain trade barriers, especially in areas that hit developing countries hard like agriculture and textiles by formalizing a system of preferences, allowing agricultural protection to continue and introducing or extending onerous rules of origin.
- It can undermine the WTO principles of most favoured nation and reciprocity in tariff dismantling.
- The trade agreements often include broader political and social issues.

continued on page 176

continued from page 175

In other words, there is a new emergent reality of a web of regional and bilateral agreements which have so proliferated and cover such a diversity of issues that, between them, they add up to a new "shadow" system. There are four primary consequences for developing countries.

A busier system and proliferation of fora increases costs of participation for the South. In addition to the obvious overhead of smaller Southern countries having to split their negotiating forces to handle separate agreements, smaller countries suffer from a loss of policy space for differences in regulatory approaches.

New fora can create duplications, inefficiencies and disadvantages and communication losses. Preferential trading agreements can offer attractive short term political wins and can be sold as less restrictive options. However, the immediate gains from this low hanging fruit are often offset later on. They can foreclose the possibility of future changes and can enmesh countries in a web of agreements creating substantial costs in administering a number of agreements with differing terms. This can create an environment that is even more restrictive than the multilateral system they circumvented. Finally, additive regionalism can mean that countries joining existing agreements are presented with few choices. They can accept the boiler plate ('everyone else signed') format or not, and the price of being excluded can be high.

A busier system can result in giving the South more voice, but less say. There are advantages for countries to focus on both multilateral and preferential arrangements, and many countries do not have the resources to opt for both. Where should they focus their efforts? First, regional agreements should be viewed not as an alternative to the WTO, but as a separate opportunity. Choosing to opt for preferential agreements may not be beneficial in a feudal domain where only one or two players call the shots. Developing countries can have more "voice" in regional arrangements—simply because there are fewer players. However, since the domination of the dominant players is more profound, they often enjoy much less say—in terms of the ability to actually shape the specific terms of such agreements.

Bilateral agreements encourage a trade "feudal system" with Southern spoke counties at the bottom. It is no surprise that Northern countries are enthusiastic proponents of preferential agreements. In a hub and spoke system, hub countries are better off than spoke countries and also benefit from increased negotiating power when others seek to join the system. Unfortunately, the logical end to a hub and spoke system is hub aggregation where one or two large countries set the terms of their agreements which then percolate through to other countries as a sort of a trade "feudal system." This is a fundamental change to the world trading environment.

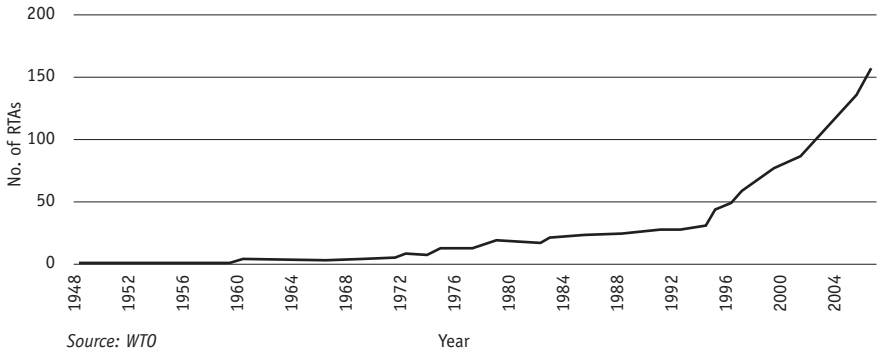
Preferential trading agreements have mixed effects on developing countries. It will introduce a spaghetti bowl of agreements that could well become a nightmare to administer and, in the end, result in spoke countries having less, not more options, and reduced negotiating power.

There is a risk that the new system will halt—if it already hasn't—the slow and steady gains the WTO has brought. Preference erosion will decrease the interest in remaining engaged in the multilateral arena. Recent experience suggests that developing country influence in the WTO has increased over time. The WTO has itself changed as more developing countries have acquired membership and as a greater segment of world trade flows through them. Although negotiating in the WTO is cumbersome and can be frustrating, it offers benefits not available elsewhere. The South needs to remain engaged in the WTO, and encourage the North to remain engaged as well.

Adil Najam, from Pakistan, teaches international negotiation and diplomacy at the Fletcher School of Law and Diplomacy, Tufts University.

Dirk Swart, from South Africa, is a non-academic staff member at Cornell University and an independent researcher.

Figure 1. RTAs in force by date of entry into force.



Source: WTO

This trend may balance against (and in some cases will be in reaction to) negative environmental scale and structural effects, particularly in the context of liberalized trade in natural resource-based products between partners with inadequate regimes for environmental protection. That is, as a result of liberalization some countries may see pressures to expand activity in sectors that involve high levels of environmental damage. The importance of environmental assessment, and of effective environmental management regimes, may be highlighted by FTA-induced economic changes.

Northern negotiating partners will likely continue to propose FTA provisions that seem "green," such as punitive state-to-state mechanisms to ensure environmental laws are enforced, and will continue to include language espousing environmental protection and sustainable development. Based on experience to date, these provisions will have little final impact. There is some promise to the tendency of countries/regions such as Canada, the U.S. and the EU to center the environmental aspects of FTAs on building capacity for environmental management. But the real question will be the level of resources that will be devoted to fulfilling these objectives.

At the same time, however, where their interests are so served, Northern partners will probably continue to press for provisions that may have deleterious environmental effects, in the areas of so-called deeper integration: investment, services, intellectual property and other "non-environmental" arenas.

In the end, the proliferation of rules at the regional and bilateral level will complicate efforts to address environmental matters in the WTO setting. In some cases, such as capacity building for environmental management or trade law-MEAs conflicts, the FTAs offer innovative solutions to problems that dog negotiations in the WTO. In other contexts, such as with intellectual property rights, the innovations offered by FTAs arguably move away from sustainable development and environmental protection. Here the existence of FTA legal commitments may frustrate efforts to attain those goals in the multilateral setting.

Regional and bilateral agreements present an interesting environmental opportunity; clearly the further away from the multilateral level, the easier it is to get agreement on matters of shared environmental interest. This is both because fewer countries are negotiating, and because regional groupings sharing

ecosystems tend to share more or less common environmental concerns and priorities. Bilaterals between non-neighbours, of course, may involve no shared ecosystems, but often involve the forcing of the environmental issue by a developed country partner.

If, as some claim, the potential environmental benefits of trade agreements are mainly to be found in the area of capacity building and collaboration for better environmental management, regional and bilateral agreements probably hold more green potential than the WTO. On the other hand, if the main environmental benefits of FTAs are derived from the economic growth they might bring (as per the somewhat discredited environmental Kuznets' Curve hypothesis), then the greater potential probably lies with the multilateral route.

Standards and Labelling

Tom Rotherham

"The increased fear of protectionism through standards and technical regulations comes at a time when governments are increasingly looking to market-based approaches to address the challenges of sustainable development."

While the *management* of international trade is governed by the policies and rules negotiated by governments, the *practice* of international trade consists of hundreds of thousand of daily interactions between individual companies and their customers. In order to be able to sell a product or service a company must first access the market in which the consumer is based. There are two main types of market access requirements: technical regulations, which are mandatory requirements developed and implemented by governments; and standards, which are voluntary requirements most often developed and implemented by private bodies. Standards and technical regulations are collectively referred to as non-tariff barriers to trade (NTBs).

As tariff levels have been lowered with the successful implementation of binding tariff schedules in the World Trade Organization (WTO), non-tariff barriers to trade have become relatively more important. Given their lack of technical and institutional capacity to deal with NTBs, developing countries in particular are concerned that an increasing number of standards and technical regulations will restrict their exports in the same way that high tariff walls or low quotas used to. While the main focus is often member countries of the Organisation for Economic Co-operation and Development (OECD), standards and technical regulations also reduce trade between developing countries.

The increased fear of protectionism through standards and technical regulations comes at a time when governments are increasingly looking to market-based approaches to address the challenges of sustainable development. The 2002 World Summit on Sustainable Development (WSSD) Plan of Implementation characterizes this shift away from command and control and towards market-based policies. The confluence of these two trends has led developing countries to show particular concern to the potential impact of an increase in standards and technical regulations that address issues such as environmental conservation, health and safety, and social issues—many of which may have an impact on market access for their exports.

At the same time, consumers and civil society groups are increasingly calling for actions to reduce or mitigate the impacts of economic growth and trade liberalization—often leading to policies that enhance the importance of environmental and social standards. In some instances, this pressure has led to the integration of environmental standards in government policies. An example is the recent German legislation that requires all Federal Government Agencies to buy timber from sustainably managed forests. While the

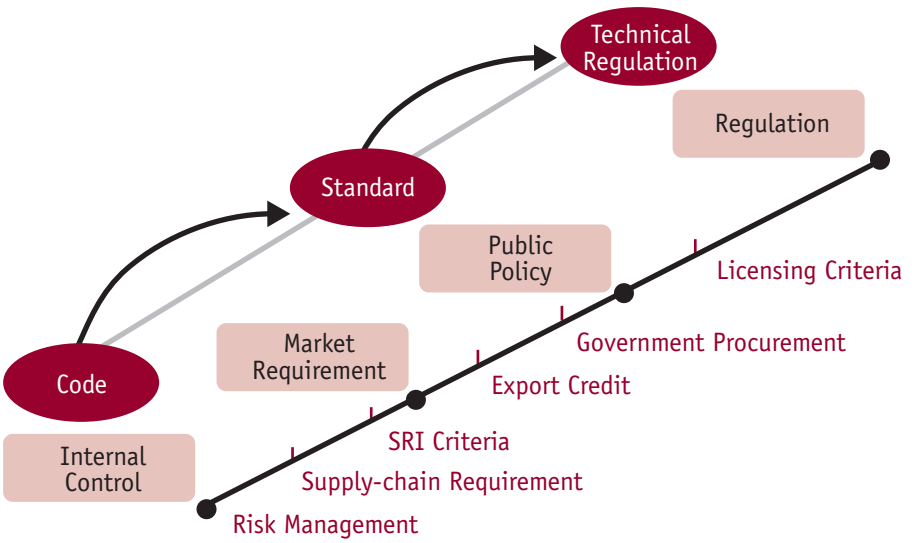
legislation does not ban imports of unsustainable timber products, it does greatly increase the market for sustainably produced timber and increases pressure on exporters to implement voluntary standards.

While the majority of sanitary and phytosanitary (SPS) measures to protect human, plant and animal health and safety are developed and imposed by governments, this is not the case for environmental and social issues. In these cases, the pressure on companies to adopt environmental and social standards is coming primarily from market forces, including from other private companies. In response to consumer demand, pressure from civil society groups and, increasingly, interest from the financial sector, major companies in OECD countries are implementing "sustainable" corporate procurement policies. The corporate social responsibility (CSR) agenda is also an important contributor to this trend. Particularly in industries where market concentration and consumer awareness of impacts is high, these policies are forcing environmental and social standards through supply chains.

Social and environmental supply requirements are already a fact of life in OECD-based industries, such as forestry and textiles, a trend led by the highly concentrated retail sector. Coffee retailers—representing almost 50 per cent of the total market—have recently committed to develop and implement a common baseline environmental and social standard for their suppliers. Leading members of the information and telecommunications sector in OECD countries have also developed a sector-wide environmental and social standard for their supply chain. Why, then, is so much attention being given to issues such as eco-labels and environmental standards in the WTO—a body that regulates the actions of governments and not those of private companies?

From past experience, we understand that standards can evolve rapidly from tools for product differentiation, to market segmentation, to baseline requirements, to instruments of public policy, and, eventually, even to technical regulations.

Figure 1. Evolution of market requirements.



One reason for this is that consumers are also voters. The public pressure that led companies like B&Q (United Kingdom), IKEA (Sweden), Home Depot (United States) and other major buyers of timber products to impose sustainable forest management standards on their supply chain also has an influence on the German Government. Also, once a standard exists, is deemed effective, and is implemented by a significant proportion of companies in a sector or region, it is relatively straightforward and politically easy for a government to integrate it into public policy—which may then have an impact on exporters in other jurisdictions.

Interests and Fault Lines

For a long time, the debate amongst WTO Members with most important repercussions for the use of environmental and social standards in trade policy was over the issue of process and production methods (PPMs), and non-product related PPMs in particular. Some Members argued that the concept of "like product," which is a cornerstone of the international trade rules, precluded the differentiation of products based on anything other than the physical characteristics of a product itself, and not based on how it was made. In effect, this would have made it illegal for trade measures to address the full lifecycle of a product, and so limit them to addressing consumption effects, not production effects. This position was supported by the unadopted dispute panel reports in the 1991 U.S.-Mexico and the 1994 U.S.-EC *Tuna-Dolphin* cases.

However, the concept of "like product" has evolved with the recent rulings of the WTO Appellate Body. In the 2001 *Shrimp-Turtle* case, the Appellate Body ruled that WTO Members can use the exceptions provisions in Article XX to justify the "[imposition of] conditions on imports' PPMs to accomplish environmental objectives both outside their jurisdiction and in the global commons," as long as they are applied in ways that do not

Eco-labels from a Southern perspective

By Veena Jha

Eco-labelling is a fact of the international market place. However, environmentalists would have us believe that they are a dominant factor in the marketplace. Market surveys indicate a small but growing importance of this mechanism. Their effects are more evident in the purchasing practices of bulk buyers rather than of individual consumers. The challenge is how to accommodate eco-labelling programs in the Technical Barriers to Trade (TBT) Agreement, without compromising the basic rules of the World Trade Organization (WTO).

The situation is complicated by the lack of an agreed interpretation on whether private, voluntary eco-labelling schemes are within the scope of the TBT Agreement. Existing WTO jurisprudence, as well as market reality, appears to indicate that eco-labelling already exists in the market place and is widely used as an instrument to inform consumers about a product. So, there are no restrictions to the use of eco-labelling as a market based voluntary instrument.

Discussions in the WTO have focused on multi-criteria eco-labelling schemes, especially those that are based on non-product related process and production methods (PPMs). The effects of eco-labelling on the market place and international trade, particularly on imports from developing countries have been limited. It would appear that the interest in eco-labelling in the context of international trade is, at least in part, attributable to the fact that, from a conceptual and trade policy point of view, it involves many complex issues, such as PPMs, the definition of international standards, and technical equivalence. So far, little progress has been made in dealing with the PPM issue in the context of eco-labelling, particularly in the context of "equivalency."

continued on page 182

continued from page 181

While there may be some advantages to developing countries of clarifying the status of eco-labelling with respect to WTO rules, there may also be some disadvantages. Clarification of the status of eco-labelling may result in greater WTO discipline in certain sectors (e.g., forest products, textiles, cut flowers), where exports from certain developing countries have been adversely affected by such schemes. It may provide an opportunity to force greater WTO discipline for purely private programs and NGO campaigns in areas where trade has been adversely affected. It may reduce pressure for unilateral measures.

Equally, there is a risk of establishing precedents with respect to PPMs, particularly if such precedents were to apply to labour, animal and human rights issues. This is particularly so because the new generation of eco-labels often encompass diverse issues such as labour rights, animal rights, and corporate social responsibility. There is also a risk that clarifying the status of eco-labels with respect to WTO rules would encourage the wider use of eco-labelling in international trade, and often mesh protectionist intent. It may also become more difficult to challenge an eco-labelling measure in the multilateral trading system.

Even if the disadvantages were not at all significant, developing countries have little direct benefits from eco-labels. They do not use eco-labelling to any significant extent in their domestic markets. To the extent that it is demanded through the supply chain, assistance has generally been forthcoming from firms for obtaining these labels. Very few, if any, examples can be found where eco-labels have obtained price premiums, market shares or improved environmental performance. In short, eco-labels may have potentially adverse or at best neutral trade effects for developing countries.

The dichotomy between developed and developing country interests on this issue was never more evident than in the context of the discussions on environmental goods and services (EGS). Instead of agreeing on the definition of EGS or some appropriate criteria, the approach of developed countries was to come up with an illustrative list of EGS for use in the negotiations mandated in the Doha Declaration. In fact, the concept of inherently environmentally friendly products such as organic products, jute and coir products was raised, but this discussion was not conclusive. This showed that EGS was more a marketing than an environmental instrument. The same applies to eco-labelling, where many countries have adopted their own standards.

What is worse is that environmental standards may actually result in the cartelization of a number of industries and sectors. For example, an environmental directive in several developed importing countries, led to the shrinking of fisheries exporters in India from nearly 400 to merely 100. This was because a number of small-scale fishermen could not comply with the standard and were forced out of business. In this case, the environmental standard actually had an impoverishing effect.

Another matter of concern is that as comparative advantage in several areas of production is shifting to developing countries from developed countries, complex trade restrictive environmental standards are kicking in. For example, in the textile and clothing sector, which is the mainstay of a number of developing countries, an elaborate and complex trade restrictive TBT and sanitary and phytosanitary (SPS) non-tariff barrier, a new system called REACH (Registration, Evaluation and Authorization of Chemicals) has been adopted in the European Union. A report from the U.S. Department of Commerce noted that, if adopted, some 30,000 chemical substances will be subject to this legislation and that the U.S. textile industry is likely to be widely affected, as technical requirements and testing procedures will be complex, time consuming and costly. The extent of the impact on developing country industries could be much more severe.

To conclude, environmental considerations, while legitimate objectives, have the potential to create trade distortions. These distortions can have damaging effects on developing countries and can even exacerbate poverty. In addition, developing countries have to trade-off multiple social, development and

continued on page 183

continued from page 182

environment objectives. It is not clear that the ordering preference of developing countries between social and environmental objectives would be the same as that of developed countries.

Veena Jha, from India, is the coordinator of the UNCTAD Initiative on "Strategies and Preparedness for Trade and Globalization in India." This essay is written in her personal capacity.

discriminate between WTO Members. This opened the door to the integration of non-product related PPMs into the trading system. The Appellate Body report in the EU *Asbestos* case also found that non-product related PPM-based measures could be justified under both Articles XX and III. Several independent experts on trade law have also suggested that there is nothing in the WTO agreements to support the view that non-product related PPMs should be treated any differently from other types of requirements. While there are lingering ripples of dissent—in particular among many developing countries—it is now increasingly held that the use of non-product related PPM-based trade measures could possibly be justified under international trade rules.

Although there are some concerns that the provisions dealing with standards are not robust enough, most WTO Members agree that voluntary standards and eco-labels are legitimate policy tools. However, even if this were not the case, the finding would have only indirect repercussions for environmental or social standards because, for the most part, the bodies that develop and impose standards fall outside of the jurisdiction of the WTO.

Standards are addressed in two WTO agreements: the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), which covers standards and technical regulations related to human, plant and animal health, including food safety; and the Agreement on Technical Barriers to Trade (TBT Agreement), which covers the rest. All WTO agreements are negotiated between governments, and therefore define only the rights and obligations of government bodies. While many of the standards covered under the SPS Agreement are developed by governmental bodies, most other standards are developed and implemented by non-governmental bodies. There is no effective mechanism in the TBT Agreement to directly impose requirements on these private standards bodies. There is only an indirect mechanism by which governments are encouraged to take reasonable measures to ensure that standards bodies operating within their jurisdictions comply with the Annex 3 Code of Good Practice for the Preparation, Adoption and Application of Standards. Nevertheless, WTO rules set the framework in which private companies operate.

Discussions on environmental standards (including eco-labelling) have taken place within the WTO Committee on Trade and Environment (CTE) since its inception in 1994. Since then, the CTE has covered the same issues that have cropped up again and again—particularly "like" products; process and production methods; international standards; and technical assistance. However, it was not until the 2001 Doha Round—which gave the CTE a mandate to address "labelling for environmental purposes"—did a WTO body have both a formal mandate to discuss environmental standards and a strict reporting deadline. Despite initial efforts, notably by Canada and the EU, to keep the issue on the table, discussions have made virtually no headway and the WTO negotiations are unlikely to lead to any major advances.

Although the CTE acts as a convener for discussions on eco-labelling it does not have any formal authority for rule-setting in the area.

The TBT Committee is the only body with formal negotiating authority over the TBT Agreement. While Members of the TBT Committee could, in theory, grant negotiating authority to the CTE, they are unlikely to do this because most are not convinced that there is a difference between environmental standards and other types of standards, and therefore question the need for different rules and treatment. Also, there is no distinction in the WTO rules between standards and labels: voluntary labelling measures are treated as standards; mandatory labelling measures are treated as technical regulations. Until a legal distinction is made between standards in general and labelling in particular, anything that the CTE might recommend on eco-labelling would also risk affecting all environmental standards and technical regulations.

Finally, any shift towards acceptance of non-product related PPM-based standards would almost certainly be seen by developing countries as increasing the likelihood that labour standards could become linked with trade measures—something that is met with strong opposition from many quarters, and from developing countries in particular.

In general, while the TBT and SPS Committees may be useful fora in which WTO Members can discuss and set policy objectives (for example, on technical equivalence, special and differential treatment, transparency, etc.) the capacity to deliver on these policy objectives arguably lies outside the realm of trade ministries. In order to further work in this area, the United Nations Conference on Trade and Development (UNCTAD) has established a Standing Committee on Environmental Requirements and Market Access—which can be an alternate forum for addressing issues in a more effective multi-stakeholder context.

Capacity as a Barrier

Even if the legal and policy issues surrounding environmental standards were resolved tomorrow, exporters in developing countries would still have to struggle to identify what standards are required for which market, to access and pay for the technology needed to comply with standards, to demonstrate compliance with them, and to stay continually vigilant for changes to the requirements. It is becoming increasingly evident that the real technical barrier to trade is the lack of institutional and technical capacity to deal with standards. This is particularly acute in developing countries, but also an important issue for most small and medium-sized enterprises (SMEs).

Insufficient technical capacity in three basic aspects makes it difficult for companies to benefit from the TBT and SPS Agreements: rule-making (standards and technical regulations); conformity assessment; and accreditation. Indeed, OECD and UNCTAD case studies which have looked at the barriers imposed by environmental standards, have consistently highlighted the capacity problems that exist in each of these three aspects. So, as the reality of environmental and social standards is increasingly recognized, attention is turning away from discussions on legal issues towards the basic technical and institutional capacity needed to deal with them. This is appropriate because capacity is needed whether or not the requirements are being driven by governments or through supply chains.

Although the TBT and SPS Agreements impose binding obligations on Members to provide technical assistance to help other Members develop their standards bodies, metrology and testing labs, conformity assessment bodies and accreditation agencies, there is very little that can be achieved through the WTO. The promises of technical assistance made in the TBT and SPS Agreements were made by trade ministries that do not have the financial means to fulfill them. Any significant increase in technical assistance for the TBT-related institutions can only come from development ministries, who have limited budgets and their own

processes for assessing development priorities. The main problem caused by environmental standards and regulations—as with any standard or regulation—arises not due to legal deficiencies in the TBT or SPS Agreements, but rather due to deficiencies in the capacity of countries to deal with them. And this is not something that can be fixed inside the WTO.

Consider, for example, Article 2.4 of the TBT Agreement, which strongly encourages Members to base their national standards and technical regulations on existing international standards, and Article 2.6, which encourages Members to participate in the development of international standards. Most international standards are developed within a select group of formal international standards bodies (ISBs). The most important of these traditional ISBs have specific jurisdictions; thus, the International Telecommunications Union (ITU) is the recognized forum for the development of international standards for telecommunications and the Codex Alimentarius Commission of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) is the forum for the development of international food safety standards.

The problem is that there is no such body with presumed jurisdiction over environmental standards. Indeed, there are very few international environmental standards: most are developed at the national level. Those that are developed for international application are largely developed by non-governmental organizations working outside the formal networks of national standards bodies. The Global Eco-labelling Network (GEN) and the International Social and Environmental Accreditation and Labelling Alliance (ISEAL Alliance) are attempting to fulfill this role, but at the moment lack the institutional strength or national networks to be able to undertake the roles of traditional ISBs, such as the ITU, the International Organization for Standardization (ISO), or the

Confronting eco-labelling myths

By Nicola Borregaard and Annie Dufey

The last decade witnessed a growing interest in the market for sustainable products in developing countries. For example, in a recent survey by the Inter-American Development Bank (IDB) of trade and environment activities of Latin American countries the development of strategies towards the production and consumption of sustainable products was identified as one of the seven priority areas in which Latin American environmental authorities should and would like to be more active. Amongst the existing initiatives, the survey identified various programs related to biotrade, including Colombia's Green Markets Program; Uruguay's Law 17.283 on Natural Uruguay; Chile's Public-Private Working Group on Environmental Goods and Services; and numerous other initiatives at the sub-sectoral level, especially in the forestry, tourism and agricultural sectors.

A variety of initiatives are also underway at the international level to assist developing countries to develop these markets and to facilitate and harmonize certification. Examples include: the Asia Pacific Economic Cooperation (APEC) Voluntary Initiatives for Sustainable Production; the International Social and Environmental Accreditation and Labelling Alliance's (ISEAL) Code of Conduct for Setting Social and Environmental Standards; and the International Task Force on Harmonization and Equivalence in Organic Agriculture.

Despite this activity—and the trends they signify—certain myths about eco-labelling

continued on page 186

continued from page 185

and sustainable products persist. The assumptions that underpin these myths are prevalent in important economic and political sectors in developing countries and will need to be confronted before wide-scale headway can be made across the South in changing the status quo. At least three of these myths are of particular importance.

Myth #1: Sustainable product markets are niche markets. Clearly, what was conceivably correct at the beginning of the 1980s and, possibly, for most products even until the early 1990s, is not the case any longer. Sustainable products constitute one of the fastest growing markets. Organic products, for example, now have significantly gone beyond the one per cent market share threshold that might once have categorized them as niche markets. Indeed, approximately five per cent of world trade today is in so-called "green products." The dynamism of markets for products from sustainable forest management, for example, raises expectations as to the increasing importance of markets for a diverse range of sustainable products.

Myth 2: Certification is a private sector business; there is no role for government. In developing countries, especially in those with more neo-liberal economic approaches, there is a common understanding that certification schemes are private sector operations—market responses to market needs by clients or consumers. Indeed, for some sustainable products, it has been the private sector, together with environmental or other non-governmental actors, that has elaborated and implemented certification schemes and criteria.

The most obvious example is the certification of sustainable forestry management. However, in a number of other cases, the role of government has been important. This has been so, for example, in the case of sustainable fisheries where the existence of a regulatory framework that prevents the respective species from being overexploited is one requirement, amongst others, for certification. In the case of organic agriculture, government hasassumed a regulatory role as an overseer of the certification schemes or as the accreditation agency. Importantly, government has also tended to assume its role as an active promoter of sustainable products and an internalizer of environmental and social externalities.

Myth 3: Developing countries have a competitive advantage in the production of sustainable products. Against initial suppositions that developing countries would have a competitive advantage in the production of sustainable products, it is now widely understood that the production of sustainable products implies a variety of costs and expertises that go beyond the traditional equation of labour, land and capital and that have a significant influence on supply and demand and the final market outcome. This includes costs and expertises related to: the internalization of social and environmental externalities, certification, market information and intelligence, and the development of local markets.

Most developing countries are only beginning to take into account *environmental and social externalities*. Governments have tended towards reactive environmental management, mostly through regulatory instruments, a few preventive mechanisms and even fewer instruments directed at the identification and promotion of opportunities for sustainable products. In industrialized countries, on the other hand, support payments that compensate for positive externalities may be very significant; up to 20 per cent of production costs in some cases. Moreover, the internalization of negative externalities generated through the production of conventional products is also significantly more advanced in industrialized countries.

Sustainable product *certification* procedures are often complex and expensive. They require well-established, efficient and effective institutions of certification, standardization, metrology and accreditation, which developing countries often lack. They require an interdisciplinary approach which poses a challenge for traditional certification and accreditation institutions. On the other hand, the "one size fits all" approach of many international certification schemes often fails to consider the realities in developing countries.

continued on page 188

International Electrotechnical Commission (IEC). While it would benefit all WTO Members if the development of environmental and social standards were undertaken in a stronger institutional framework, there is relatively little that the WTO itself can do on this.

A False "Developing Country Syndrome"

At the moment, almost any discussion about environmental and social standards that deals with developing countries adopts a defensive narrative—the implications are that developing countries have more to lose than to gain; that requirements are being imposed by rich countries; that, if they could, developing countries might prefer avoiding any environmental and social regulations at all. Reality, of course, is more nuanced.

First, it is clear that developing countries have their own environmental and social priorities, which are also addressed through standards and technical regulations applied at the domestic level. It is likely that the objection is not to the principle of higher standards, but rather the mechanism through which they are imposed and the fact that the requirements are not appropriate in, or consistent with the developing country context.

Second, environmental and social requirements are not going to stop North-South trade; but they may affect trade patterns. Those countries or regions that are able to develop the capacity to deal with these standards will almost certainly benefit at the expense of the laggards. There is, of course, nothing new in this type of competition.

Third, most environmental and social requirements do not address issues that are of interest to non-OECD countries. Most standards and technical regulations are presently developed by OECD-based interests in response to OECD-related concerns. As soon as developing countries learn to use standards and technical regulations for their own strategic purposes, there is no reason to doubt that they can also address developing country priorities and benefit developing country interests. For this to happen, developing countries must be empowered to become "standards-makers," not just "standards-takers." Of course, the best way to empower developing countries is to facilitate their active participation in standard setting processes and work towards accepting the standards that they set for themselves.

Trends and Future Directions

There are two trends that seem likely to influence the future of sustainable development standards and labelling. First is the recognition that some environmental and social issues are of financial significance to the success of a company. This reality is leading many large investors to pay closer attention to environmental and social practices—not only of the companies in which they invest, but also of the suppliers with whom these companies do business. Large companies have thousands of first-tier suppliers, and tens of thousands of second- and third-tier suppliers. Pressure on one company can therefore have a ripple effect on tens of thousands of companies.

The second trend is the integration of environmental and social issues into a single concept, often referred to as corporate social responsibility or CSR. The concept is already being mainstreamed: the ISO is currently deve loping an international standard on Social Responsibility. If the speed and direction of the evolution of standards into technical regulations is influenced by consumer preferences and by the nature of the standards that exist, then it is almost certain that the codes and standards that are being used to address corporate social responsibility issues today will evolve first into the kinds of instruments that can be integrated into trade policy, and then evolve further into technical regulations that address environmental and social issues. This could most likely lead to

continued from page 186

The proliferation of certification schemes demands *market information and intelligence* that is not always available in developing countries and can make the task of selling sustainable products more complex and, at times, very costly. Moreover, there are scarce trade statistics and market information available for sustainable products. The geographical separation between developing country producers and industrialized country consumers implies increased costs for obtaining reliable information.

Developing countries' *domestic markets* for sustainable products are still in the early stages of development. This implies that access to external markets is crucial for production to expand. It also means that it is difficult initially to acquire experience and training in the market for sustainable products locally.

In conclusion, developing country decision-makers need to confront these myths and base their policies on the emerging trends and experiences if they are to capture what is clearly a growing market in sustainable products.

Nicola Borregaard, from Chile, is Advisor to the Chilean Minister of Economy and Energy. This essay is written in her personal capacity.

Annie Dufey, from Chile, is Research Associate at the International Institute for Environment and Development (IIED).

clashes between those in favour of integrating sustainability issues, including labour standards, into trade policy and those opposed to them.

As pressure mounts on governments to integrate standards into public policies there will also be increased pressure to demonstrate that standards and labelling schemes are effective. At the moment, there are very few data available on the effectiveness of standards in general, or on the effectiveness of one standard over another. This will require the development of more refined methodologies for distinguishing between different types of standards and labels, and commonly accepted approaches for monitoring their environmental, social and trade impacts.

From the perspective of future discussions at the WTO, the main question will almost certainly be whether there is a need for additional rules to deal with social and environmental measures; or of public policy measures in general. Those in favour will have to explain why WTO Members have seen the logic in defining special rules to govern standards and technical regulations on human, plant and animal life and health (the SPS Agreement), but do not see the value in doing so for other public policy issues.

Trade Facilitation

Luke Eric Peterson

"Many investment treaties impose transparency and administrative obligations on governments for purposes of the treatment of foreign investors and investments; these provisions may commit governments to facilitate the movement of goods and services related to foreign-owned businesses in their territories."

In an era where tariffs and certain non-tariff barriers, such as quantitative restrictions, are in decline, attention is shifting to other obstacles encountered in international trade, including customs procedures and technical regulations. By various accounts, inefficient or outmoded customs procedures are a serious (and expensive) impediment to the global economy. Trade facilitation may be defined, in general terms, as an effort to bring greater efficiency to those customs and administrative practices affecting trade across borders.

The term can be defined in broader terms, however, as encompassing the entire business supply chain, including any and all reforms that facilitate the flow of goods and services across borders. Such a broad view is favoured by many business groups, which see a need to bring greater efficiency to all stages of trading activity, including through the use of information technology, transportation, port and infrastructure improvements and the adoption of internationally accepted standards and norms. A narrower view of trade facilitation has been adopted by the World Trade Organization (WTO), which identifies the concept as the simplification and harmonization of international trade procedures, including activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade.

Depending upon the type of reforms contemplated, trade facilitation measures may be brought about by unilateral action on the part of governments; through assistance from aid donors (e.g., providing for improved infrastructure); by bilateral or regional trade initiatives or agreements (e.g., trade facilitation provisions are built into the Canada-Costa Rica Free Trade Agreement); or by multilateral action (e.g., negotiations at the WTO).

Advocates of trade facilitation note that the potential gains accrue not only to multinational business but also to developing countries and small and medium-sized enterprises. For example, efforts to rein in corruption, improve revenue collection, or reduce clearance times often represent win-win situations for governments and business alike. However, even proponents concede that there may be significant front-end costs associated with many trade facilitation initiatives. Moreover, there may be legitimate policy reasons for "throwing sand" into the wheels of cross-border commerce—including security (e.g., drugs, weapons, and people-traffick-

ing), health and safety, and environment. By and large, there has been little analysis of the potential environmental implications of further trade facilitation efforts—whether as part of the WTO Doha Round talks, or other trade negotiating contexts.

Trade facilitation has long seized the imagination of myriad international organizations and business groups, including the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the International Chamber of Commerce (ICC), and the World Customs Organization (WCO). The ICC has produced detailed guidelines on customs administration for use and adoption by governments and business. The World Bank and UNCTAD have initiated a number of programs for modernization and harmonization of customs practices in developing countries. Meanwhile, the WCO is a purpose-built international organization dedicated to improving customs administration, through the development of international instruments and guidelines, such as the 1973 Kyoto Convention on the Simplification and Harmonization of Customs Procedures.

In terms of binding international rules on trade facilitation, these are more often found in bilateral, regional or multilateral trade and investment agreements. For example, the Free Trade Agreement between Canada and Costa Rica contains a stand-alone chapter on trade facilitation, mandating specific legal obligations, as well as future cooperation on a host of customs, standards and transportation issues. Less noticed, but of future significance, is the potential for bilateral investment protection treaties to incorporate trade facilitation obligations. Many investment treaties impose transparency and administrative obligations on governments for purposes of the treatment of foreign investors and investments; these provisions may commit governments to facilitate the movement of goods and services related to foreign-owned businesses in their territories.

At the WTO, trade facilitation provisions are found in various agreements, including the General Agreement on Tariffs and Trade (GATT) 1947/1994, and the Uruguay Round Agreements on Technical Barriers to Trade (TBT), the Application of Sanitary and Phytosanitary (SPS) Measures, Customs Valuation and Preshipment Inspection.

In 1996, at the Singapore meeting of WTO Trade Ministers, Member governments mandated the WTO Council on Trade in Goods to explore and analyze how trade procedures could be simplified and to assess the scope for WTO rules in this area. Subsequently, at the Doha Ministerial Conference in 2001, a Working Group on Trade Facilitation was established, with a particular remit to examine three issues:

- GATT Article V (Freedom of Transit), Article VIII (Fees and Formalities connected with Importation and Exportation), and Article X (Publication and Administration of Trade Regulations).
- Trade facilitation needs and priorities of WTO Member governments, particularly developing and least-developed countries.
- Technical assistance and capacity building.

Full-fledged negotiations on trade facilitation were not launched in 2003 at the WTO Cancun Ministerial Conference, due to widespread opposition to the other Singapore issues (investment, competition and transparency in government procurement) with which trade facilitation had been bundled.

It was only in July 2004, following an unbundling of the four Singapore issues, that WTO Members agreed to launch trade facilitation negotiations. As part of the bargain struck by WTO Members, extensive consideration is to be given to the needs of developing countries. Accompanying commitments for special and differential treatment for developing countries exceed those in other WTO agreements because new obligations on trade facilitation are to be tied expressly to

the successful delivery of technical assistance and capacity building to developing countries.

According to the modalities for negotiations agreed by WTO Members, efforts will focus narrowly upon clarification and improvement of three existing GATT articles as they relate to the movement and clearance of goods:

- Freedom of Transit (Article V).
- Fees and Formalities connected with Importation and Exportation (Article VIII).
- Publication and Administration of Trade Regulations (Article X).

Additionally, the WTO negotiations are supposed to encourage effective cooperation between customs and other authorities on issues related to trade facilitation and customs compliance. While the environment is not mentioned as a specific element of these negotiations, there may be environmental implications, which warrant closer examination in future.

Interests and Fault Lines

In the context of the narrow negotiations being pursued at the WTO, countries have made extensive submissions to the Negotiating Group on Trade Facilitation. An overview of these different submissions reveals that various developing countries have put forward concrete proposals for improving—and in some cases expanding—GATT Articles V, VIII and X.

For example, Argentina has proposed that Members translate all their relevant trade facilitation regulations and post these on-line. While Argentina notes in a 2005 communication that such efforts would require financial support for many poorer Members, it anticipates that long-term revenue gains would be realized thanks to enhanced trade flows.

Turkey has also made several suggestions for improvements in a 2005 submission—

Putting the environment into trade facilitation

By Sachin Chaturvedi

Unlike other Singapore issues, trade facilitation is one area in which most developing country governments are beginning to find agreement.

However, in the euphoria of their success in delinking trade facilitation from other Singapore issues, developing countries are now proceeding to undermine several key concerns in the trade facilitation negotiations, especially related to the environment. The current mandate of the trade facilitation negotiations is too narrowly defined and there is a real danger that the environmental implications will be overlooked.

Developing countries should be concerned about two major issues in the trade facilitation negotiations. First, there is a need to work out the various linkages between multilateral environmental agreements (MEAs) and trade facilitation. Second, the current format of the negotiations completely overlooks environment-related trade barriers, particularly with respect to their impacts on developing countries.

The crucial question is how to define trade facilitation. In the current context, trade facilitation refers to the smooth flow of imports into developing countries, but not exports from developed countries. In the early years of the debate, there was discussion of the cross linkages with sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT), with an environmental focus. Somehow, and sadly, that component has quietly disappeared.

There is the fear that environmental concerns being raised in various multilateral fora may be marginalized while adopting trade facilitation measures in the WTO. For example, GATT

continued on page 192

continued from page 191

Article V refers to an early cargo and consignment clearance of transit goods. This clearance would be disastrous in the absence of adequate infrastructure to assess possible violations of specific obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; as well as genetically modified organisms (GMOs) in transit pursuant to the Cartagena Biosafety Protocol.

Of major concern are the infrastructural limitations of Land Customs Stations; key facilities need to be improved to meet even minimum standards. In many parts of the developing world, there is a need to develop an effective mechanism with neighbouring countries for better border control. Another major problem for many developing countries is that Land Customs Stations are not automated, for example to scan transit containers. This poses a risk management and a potential quarantine threat. A rough estimate suggests that India alone would require more than US$1 billion to implement some of the necessary measures to modernize customs located at transit routes.

Simplified customs documentation, which does not make reference to specific obligations under MEAs, should also be a cause of concern for developing countries. For example, current automation programs do not incorporate environmentally sensitive goods in order to separately reflect specific concerns pursuant to MEAs. This renders ineffective the prior informed consent (PIC) procedures contained in several important MEAs. The problem is more acute in countries, such as Singapore, which have long been a major entrepot for importing and exporting illegal wildlife products, including tiger bones and tiger bone medicines. Singapore's enforcement of CITES and its prosecution of traffickers are essential to stemming illegal wildlife trade in the region.

Working on a case study of South Asian countries, we found that emerging environment-related measures have become potent trade barriers that threaten a substantial proportion of South Asian exports. The WTO agreements on SPS and TBT aim to ensure that these standards and regulations are not used for protectionist purposes and do not cause adverse impacts on trade. However, at present there is considerable discretion for importing countries to impose domestic standards and regulations, such as for the inspection of imports, specific treatment or processing of products, minimum allowable levels of pesticide residue, labelling and packaging requirements, and process and production methods. The flexibility in the TBT and SPS Agreements is being exploited by many developed countries to impose stringent environmental standards and regulations that act as a significant barrier for exports from developing countries.

While not intending to negate the gains from the trade facilitation negotiations, the current scope of the negotiations does not adequately incorporate environmental concerns, especially those related to the objectives of key MEAs. While various measures have been worked out for capacity building and technical assistance, especially for automation, the negotiations should also explicitly deal with the issue of environmentally sensitive goods. On the other hand, developing countries need to explore the impact on their exports of environment-related trade barriers. A comprehensive approach needs to be developed to address these issues. In this respect, commitments for enhanced technical assistance may be a necessary but not sufficient step in the right direction.

Sachin Chaturvedi, from India, is a Research Fellow at the Research and Information System for Developing Countries (RIS), based in New Delhi, India.

including the creation of single trade facilitation enquiry points, as well as systems for pre-arrival acceptance of relevant data and documents to accelerate customs clearance—while recognizing the need to differentiate obligations on the basis of the ability of Members to put them in place.

The African Group has warned that some proposals tabled in the negotiations exceed the negotiating mandate by virtue of their "espousing additional commitments," rather than clarification, improvement and review of GATT Articles V, VIII and X. While acknowledging that the trade facilitation needs of African countries are "enormous," the Group lays particular emphasis upon the equally enormous cost implications of such needs, and the degree to which WTO work must be tied to adequate financial and technical assistance.

Echoing this sentiment, the South Centre—an intergovernmental organization based in Geneva—has noted that the modalities for trade facilitation negotiations expressly rule out any attempt to force governments "to harmonize their trade facilitation regimes at levels that may not be realistic or achievable by developing countries in view of their lower economic development." Moreover, the Centre makes much of the agreement amongst WTO Members that developing countries not be held to new obligations, where those obligations require infrastructure improvements which are beyond the financial capacity of those governments (and where external aid is not forthcoming).

The narrow remit of the WTO negotiations on trade facilitation is a testimony to the trepidation with which many developing countries view a more ambitious trade facilitation agenda. A perennial concern is the need for technical and financial assistance to underwrite improvements in customs and administrative processes.

As was underscored by a recent high level Commission on Africa report, much needed improvements in infrastructure and governance on the African continent will require significant external financial support. Likewise, developing country WTO Members have ensured that the introduction of even minimal new trade facilitation obligations will be accompanied by adequate support to implement those obligations.

Analysis of the environmental impacts of trade facilitation is in its infancy. While there has been considerable discussion and analysis of the SPS and TBT Agreements and their environmental impacts, little attention has been given to the environmental impacts of other trade facilitation initiatives, including those under negotiation in the Doha Round.

Areas where environmental objectives might be impacted by trade facilitation measures include efforts to enforce multilateral environmental agreements (such as those for governing trade in endangered species or governing the transboundary movement of chemicals, hazardous wastes or living modified organisms). It will be important to ensure that more efficient border processes do not lead to an increased incidence of cross-border migration by invasive alien species, an issue being addressed in the Convention on Biological Diversity (CBD).

Importantly, trade facilitation discussions have called for liberalization and streamlining of transportation (to facilitate shipping, express delivery, etc.). This has the potential for both positive and negative environmental externalities. On the positive side of the ledger, more efficient border procedures could reduce waiting lines at busy border crossings, and reduce emissions associated with vehicular idling, having a particularly beneficial impact upon border communities.

Conversely, increased cross-border vehicular traffic can pose a challenge as varying environmental standards are applied to vehicles in different jurisdictions. Recently, a U.S. decision to permit Mexican trucks into the United States has led to controversy, as the

decision was taken without requiring a full environmental impact assessment. Choice of transit routes may have significant environmental implications, especially where shippers or exporting countries desire to traffic goods through environmentally sensitive areas.

Trends and Future Directions

As yet, no one has considered whether a WTO trade facilitation agreement may require special environmental provisions and safeguards, or whether the existing safeguards will suffice. It may be important to first assess the full scope for potential environmental impacts of trade facilitation, before resolving such questions.

Meanwhile, developments outside the WTO also warrant greater scrutiny. Although considerable attention is now being focused on the Doha Round trade facilitation negotiations, the *deeper* trade facilitation commitments are likely to emerge outside of the WTO.

In a 2005 briefing, International Lawyers and Economists Against Poverty (ILEAP) cautioned that regional and bilateral economic agreements are incorporating trade facilitation obligations that exceed in ambition those contemplated at the multilateral level. A further area which has not been examined in the trade facilitation literature, but which may have sizable impacts, is the WTO-plus trade facilitation commitments found in bilateral *investment* treaties (BITs).

While not cast expressly as trade facilitation disciplines, certain provisions of investment treaties may have binding trade facilitation implications, at least insofar as they apply to circumstances where foreign investors are engaged in import or export activity.

A standard obligation found in most investment protection treaties is an undertaking to provide "fair and equitable treatment." Arbitral tribunals charged with interpreting this obligation have since held that this imposes various duties on host states, including providing foreign investors with basic due process, good faith treatment and transparency. In a notable dispute between a Spanish firm and Mexico, a tribunal at the World Bank's International Centre for Settlement of Investment Disputes (ICSID) decreed in 2003 that the fair and equitable treatment obligation requires governments to act: "totally transparently in its relations with the foreign investor, so that it may know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations."

Some investment treaties will be more explicit in dictating that administrative transparency is one of the obligations owed to foreign investors. For example, a bilateral investment treaty between the United States and Kyrgyzstan includes obligations to issue registrations, permits, licenses and other approvals expeditiously. Parties must also endeavor to make public all laws, regulations, administrative practices and procedures, and adjudicatory decisions that pertain to or affect investments.

Investment treaty provisions tend to be legally binding, and subject to a novel investor-state dispute arbitration, permitting foreign businesses to bring claims for damages in cases of alleged breach of the treaty obligations. Disputes under investment treaties have proliferated in recent years, and the full import of treaty obligations is still coming into view.

Extensive concerns have been expressed by civil society organizations about the resource constraints faced by developing countries in the context of WTO negotiations—and a consequent need for new disciplines to be decoupled from dispute settlement and/or accompanied by adequate financial assis-

tance. Thus, it is certainly remarkable that investment treaty obligations—with their binding investor-state dispute settlement mechanisms—have been overlooked in the debate over trade facilitation.

Others have raised concerns about the capacity of poorer developing countries to meet the exacting administrative and procedural obligations set forth in investment treaties. Foreign investors facing significant delays, convoluted customs processes or a lack of administrative transparency may be in a position to mount international arbitrations against developing countries in an effort to recoup monetary compensation for alleged violations of investment treaty obligations.

Clearly, this may be counter-productive insofar as those countries which lack the resources to meet high administrative and bureaucratic standards could be obliged, nevertheless, to pay compensation to foreign investors under the terms of these binding treaties.

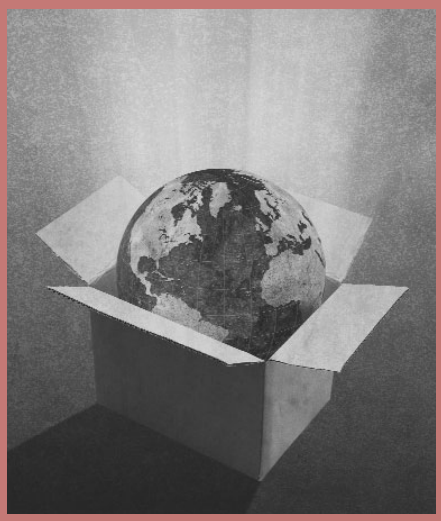
Apart from treaty obligations relating to due process and administration, it is also argued that investment treaties may provide recourse for foreign investors to challenge technical, scientific or other regulatory standards or treatment imposed by border agencies. Litigators have argued that the imposition of sanitary and phytosanitary measures should be challengeable outside the WTO context, by invoking investor protections—and the recourse to international arbitration—found in many international investment treaties.

Indeed, a claim against the United States has been brought on behalf of Canadian ranchers seeking to use the NAFTA's investment obligations to challenge an import ban on live beef cattle from Canada; an import ban imposed by U.S. following the discovery of BSE-infected cattle in Canada. Depending upon how such claims are resolved by tribunals, they may have health or environmental consequences, and may serve to clarify when border measures can be justified. It will be important for developing countries to ensure that investment treaties provide sufficient policy space for legitimate health or environmental measures; often such treaties have not been drafted with sufficient safeguards in mind, even if arbitral tribunals are becoming more sensitive to such concerns over time.

More generally, there is a need for greater coordination and coherence in developing country positions at the WTO and outside the WTO. Otherwise, investment treaties, along with other regional or bilateral economic treaties, may represent a means of bringing in extensive commitments through the "back door," which would never have otherwise been accepted as part of the Doha Round.

(This was written with inputs from Mahesh Sugathan.)

Section III
Resources



The Doha Ministerial Declaration: Annotating the Trade and Environment Linkages

By Adil Najam and Trineesh Biswas

The Doha Ministerial Declaration is widely credited with putting the trade and environment issue squarely into the WTO negotiating agenda. The issue itself is not new to the multilateral trading system, but its inclusion in the negotiating agenda is significant. Although sustainable development and environment are mentioned explicitly in only a few paragraphs—the Preamble and Paragraphs 31, 32, 33 and 51—environmental debates are relevant to much of the Declaration, reflecting the crosscutting nature of these issues.

The following annotated rendition of the Doha Declaration text seeks to highlight some of the most important of these trade and environmental linkages, particularly in the context of sustainable development. The purpose of the annotations is to highlight how trade and environment concerns permeate the entire multilateral trading agenda and should not be seen as being limited only to the paragraphs that explicitly mention such concerns. Importantly, it should be stressed that the annotations point out the possibility of linkages being made without implying that these are the only linkages possible, nor proposing that these are necessarily the most desirable linkages, nor suggesting how the current negotiations are or should be incorporating such linkages in their discussions. What is presented here is not an exhaustive list of the possible linkages; rather, it is a representative set of examples that seek to demonstrate the myriad ways in which the environment and sustainable development logic has, and should, permeate the entire multilateral trading agenda.

MINISTERIAL DECLARATION

Adopted on 14 November 2001

1. The multilateral trading system embodied in the World Trade Organization has contributed significantly to economic growth, development and employment throughout the past fifty years. We are determined, particularly in the light of the global economic slowdown, to maintain the process of reform and liberalization of trade policies, thus ensuring that the system plays its full part in promoting recovery, growth and development. We therefore strongly reaffirm the principles and objectives set out in the Marrakech Agreement Establishing the World Trade Organization, and pledge to reject the use of protectionism.

2. International trade can play a major role in the promotion of economic development and the alleviation of poverty. We recognize the need for all our peoples to benefit from the increased opportunities and welfare gains that the multilateral trading system generates. The majority of WTO Members are developing countries. We seek to place their needs and interests at the heart of the Work Programme adopted in this Declaration. Recalling the Preamble to the Marrakech Agreement, we shall continue to make positive efforts designed to ensure that developing countries, and especially the least-developed among them, secure a share in the growth of world trade commensurate with the needs of their economic development. In this context, enhanced market access, balanced rules, and well targeted, sustainably financed technical assistance and capacity-building programmes have important roles to play.

3. We recognize the particular vulnerability of the least-developed countries and the special structural difficulties they face in the global economy. We are committed to addressing the marginalization of least-developed countries in international trade and to improving their effective participation in the multilateral trading system. We recall the commitments made by Ministers at our meetings in Marrakech, Singapore and Geneva, and by the international community at the Third UN Conference on Least-Developed Countries in Brussels, to help least-developed countries secure beneficial and meaningful integration into the multilateral trading system and the global economy. We are determined that the WTO will play its part in building effectively on these commitments under the Work Programme we are establishing.

4. We stress our commitment to the WTO as the unique forum for global trade rule-making and liberalization, while also recognizing that regional trade agreements can play an important role in promoting the liberalization and expansion of trade and in fostering development.

5. We are aware that the challenges Members face in a rapidly changing international environment cannot be addressed through measures taken in the trade field alone. We shall continue to work with the Bretton Woods institutions for greater coherence in global economic policy-making.

6. We strongly reaffirm our commitment to the objective of sustainable development, as stated in the Preamble to the Marrakech Agreement. We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive. We take note of the efforts by Members to conduct national environmental assessments of trade policies on a voluntary basis. We recognize that under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they 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, and are otherwise in accordance with the provisions of the WTO Agreements. We welcome the WTO's continued cooperation with UNEP and other inter-governmental environmental organizations. We encourage efforts to promote cooperation between the WTO and relevant international environmental and developmental organizations, especially in the lead-up to the World Summit on Sustainable Development to be held in Johannesburg, South Africa, in September 2002.

This is an important and politically symbolic reiteration of the commitment to sustainable development. It could also have operative significance, since prior Appellate Body decisions have used such preambular commitments as a basis for their rulings.

This reiterates that legitimate measures to support the environment or human health are allowed under WTO rules, as in for example Article XX of the GATT, but points out that they are only allowed so long as they do not treat countries differently or unnecessarily restrict trade.

In recognition of the fact that WTO rule-making is one part of multilateral negotiations on sustainable development taking place elsewhere, this statement reminds Members of ongoing processes and highlights synergies.

7. We reaffirm the right of Members under the General Agreement on Trade in Services to regulate, and to introduce new regulations on, the supply of services.

8. We reaffirm our declaration made at the Singapore Ministerial Conference regarding internationally recognized core labour standards. We take note of work under way in the International Labour Organization (ILO) on the social dimension of globalization.

9. We note with particular satisfaction that this Conference has completed the WTO accession procedures for China and Chinese Taipei. We also welcome the accession as new Members, since our last Session, of Albania, Croatia, Georgia, Jordan, Lithuania, Moldova and Oman, and note the extensive market-access commitments already made by these countries on accession. These accessions will greatly strengthen the multilateral trading system, as will those of the 28 countries now negotiating their accession. We therefore attach great importance to concluding accession

proceedings as quickly as possible. In particular, we are committed to accelerating the accession of least-developed countries.

10. Recognizing the challenges posed by an expanding WTO membership, we confirm our collective responsibility to ensure internal transparency and the effective participation of all Members. While emphasizing the intergovernmental character of the organization, we are committed to making the WTO's operations more transparent, including through more effective and prompt dissemination of information, and to improve dialogue with the public. We shall therefore at the national and multilateral levels continue to promote a better public understanding of the WTO and to communicate the benefits of a liberal, rules-based multilateral trading system.

Environmental advocates have long called for greater transparency in the international system, which this phrasing recognizes by urging better dissemination of information and through seeking input from the public.

11. In view of these considerations, we hereby agree to undertake the broad and balanced Work Programme set out below. This incorporates both an expanded negotiating agenda and other important decisions and activities necessary to address the challenges facing the multilateral trading system.

WORK PROGRAMME

Implementation-Related Issues and Concerns

12. We attach the utmost importance to the implementation-related issues and concerns raised by Members and are determined to find appropriate solutions to them. In this connection, and having regard to the General Council Decisions of 3 May and 15 December 2000, we further adopt the Decision on Implementation-Related Issues and Concerns in document WT/MIN(01)/17 to address a number of implementation problems faced by Members. We agree that negotiations on outstanding implementation issues shall be an integral part of the Work Programme we are establishing, and that agreements reached at an early stage in these negotiations shall be treated in accordance with the provisions of paragraph 47 below. In this regard, we shall proceed as follows: (a) where we provide a specific negotiating mandate in this Declaration, the relevant implementation issues shall be addressed under that mandate; (b) the other outstanding implementation issues shall be addressed as a matter of priority by the relevant WTO bodies, which shall report to the Trade Negotiations Committee, established under paragraph 46 below, by the end of 2002 for appropriate action.

One of the so-called "implementation issues" is the relationship between the Convention on Biological Diversity (CBD) and WTO, within which the possibility of amending the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) agreement to require disclosure of the source of genetic resources used by patent applicants along with evidence of prior informed consent and benefit-sharing could be raised, an issue which has also been raised in the context of Paragraph 19 of the Declaration.

Agriculture

13. We recognize the work already undertaken in the negotiations initiated in early 2000 under Article 20 of the Agreement on Agriculture, including the large number of negotiating proposals submitted on behalf of a total of 121 Members. We recall

the long-term objective referred to in the Agreement to establish a fair and market-oriented trading system through a programme of fundamental reform encompassing strengthened rules and specific commitments on support and protection in order to correct and prevent restrictions and distortions in world agricultural markets. We reconfirm our commitment to this programme. Building on the work carried out to date and without prejudging the outcome of the negotiations we commit ourselves to comprehensive negotiations aimed at: substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support. We agree that special and differential treatment for developing countries shall be an integral part of all elements of the negotiations and shall be embodied in the Schedules of concessions and commitments and as appropriate in the rules and disciplines to be negotiated, so as to be operationally effective and to enable developing countries to effectively take account of their development needs, including food security and rural development. We take note of the non-trade concerns reflected in the negotiating proposals submitted by Members and confirm that non-trade concerns will be taken into account in the negotiations as provided for in the Agreement on Agriculture.

Environment has been one frequently cited "non-trade concern" within the agriculture negotiations. This language supports the legitimacy of some countries' concerns regarding the need to take into account the environmental impacts of agricultural practices, reinforcing environmental exemptions used, for example, in the "Green Box" of permitted subsidies.

14. Modalities for the further commitments, including provisions for special and differential treatment, shall be established no later than 31 March 2003. Participants shall submit their comprehensive draft Schedules based on these modalities no later than the date of the Fifth Session of the Ministerial Conference. The negotiations, including with respect to rules and disciplines and related legal texts, shall be concluded as part and at the date of conclusion of the negotiating agenda as a whole.

Services

15. The negotiations on trade in services shall be conducted with a view to promoting the economic growth of all trading partners and the development of developing and least-developed countries. We recognize the work already undertaken in the negotiations, initiated in January 2000 under Article XIX of the General Agreement on Trade in Services, and the large number of proposals submitted by Members on a wide range of sectors and several horizontal issues, as well as on movement of natural persons. We reaffirm the Guidelines and Procedures for the Negotiations adopted by the Council for Trade in Services on 28 March 2001 as the basis for continuing the negotiations, with a view to achieving the objectives of the General Agreement on Trade in Services, as stipulated in the Preamble, Article IV and Article XIX of that Agreement. Participants shall submit initial requests for specific commitments by 30 June 2002 and initial offers by 31 March 2003.

The services negotiations could have implications for governmental regulatory capacity, as well as for services that are profoundly related to the environment, such as sewage, environmental cleanup services and water management and supply.

The reductions in tariffs that result from this paragraph will reduce tariffs on trade in products with particular environmental significance, including fish and forest products, minerals and chemicals. The nature of the reduction formula, sectoral initiatives and special and differential treatment for developing countries will determine the sustainable development impact.

The mandate to negotiate disciplines on non-tariff barriers is relatively broad, and could result in rules on social and environmental regulations that impact on trade, as well as new forms of dispute settlement to determine whether they are legitimate.

The relationship between TRIPS and CBD and issues related to the protection of traditional knowledge are of great concern to developing countries in relation to their environment and development priorities. This language drove discussions on access and benefit sharing, disclosure requirements for genetic resources in patent applications and other debates.

Market Access for Non-agricultural Products

16. We agree to negotiations which shall aim, by modalities to be agreed, to reduce or as appropriate eliminate tariffs, including the reduction or elimination of tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers, in particular on products of export interest to developing countries. Product coverage shall be comprehensive and without *a priori* exclusions. The negotiations shall take fully into account the special needs and interests of developing and least-developed country participants, including through less than full reciprocity in reduction commitments, in accordance with the relevant provisions of Article XXVIII bis of GATT 1994 and the provisions cited in paragraph 50 below. To this end, the modalities to be agreed will include appropriate studies and capacity-building measures to assist least-developed countries to participate effectively in the negotiations.

Trade-Related Aspects of Intellectual Property Rights

17. We stress the importance we attach to implementation and interpretation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) in a manner supportive of public health, by promoting both access to existing medicines and research and development into new medicines and, in this connection, are adopting a separate Declaration.

18. With a view to completing the work started in the Council for Trade-Related Aspects of Intellectual Property Rights (Council for TRIPS) on the implementation of Article 23.4, we agree to negotiate the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits by the Fifth Session of the Ministerial Conference. We note that issues related to the extension of the protection of geographical indications provided for in Article 23 to products other than wines and spirits will be addressed in the Council for TRIPS pursuant to paragraph 12 of this Declaration.

19. We instruct the Council for TRIPS, in pursuing its work programme including under the review of Article 27.3(b), the review of the implementation of the TRIPS Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this Declaration, to examine, *inter alia*, the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments raised by Members pursuant to Article 71.1. In undertaking this work, the TRIPS Council shall be guided by the objectives and principles set out in Articles 7 and 8 of the TRIPS Agreement and shall take fully into account the development dimension.

Relationship between Trade and Investment

20. Recognizing the case for a multilateral framework to secure transparent, stable and predictable conditions for long-term cross-border investment, particularly foreign direct investment, that will contribute to the expansion of trade, and the need for enhanced technical assistance and capacity-building in this area as referred to in paragraph 21, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that Session on modalities of negotiations.

In July 2004, WTO Members decided not to have negotiations on trade and investment, which could have had impacts on the environment.

21. We recognize the needs of developing and least-developed countries for enhanced support for technical assistance and capacity building in this area, including policy analysis and development so that they may better evaluate the implications of closer multilateral cooperation for their development policies and objectives, and human and institutional development. To this end, we shall work in cooperation with other relevant intergovernmental organizations, including UNCTAD, and through appropriate regional and bilateral channels, to provide strengthened and adequately resourced assistance to respond to these needs.

22. In the period until the Fifth Session, further work in the Working Group on the Relationship Between Trade and Investment will focus on the clarification of: scope and definition; transparency; non-discrimination; modalities for pre-establishment commitments based on a GATS-type, positive list approach; development provisions; exceptions and balance-of-payments safeguards; consultation and the settlement of disputes between Members. Any framework should reflect in a balanced manner the interests of home and host countries, and take due account of the development policies and objectives of host governments as well as their right to regulate in the public interest. The special development, trade and financial needs of developing and least-developed countries should be taken into account as an integral part of any framework, which should enable Members to undertake obligations and commitments commensurate with their individual needs and circumstances. Due regard should be paid to other relevant WTO provisions. Account should be taken, as appropriate, of existing bilateral and regional arrangements on investment.

Interaction between Trade and Competition Policy

23. Recognizing the case for a multilateral framework to enhance the contribution of competition policy to international trade and development, and the need for enhanced technical assistance and capacity-building in this area as referred to in para-

graph 24, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that Session on modalities of negotiations.

24. We recognize the needs of developing and least-developed countries for enhanced support for technical assistance and capacity building in this area, including policy analysis and development so that they may better evaluate the implications of closer multilateral cooperation for their development policies and objectives, and human and institutional development. To this end, we shall work in cooperation with other relevant intergovernmental organizations, including UNCTAD, and through appropriate regional and bilateral channels, to provide strengthened and adequately resourced assistance to respond to these needs.

25. In the period until the Fifth Session, further work in the Working Group on the Interaction between Trade and Competition Policy will focus on the clarification of: core principles, including transparency, non-discrimination and procedural fairness, and provisions on hardcore cartels; modalities for voluntary cooperation; and support for progressive reinforcement of competition institutions in developing countries through capacity building. Full account shall be taken of the needs of developing and least-developed country participants and appropriate flexibility provided to address them.

Transparency in Government Procurement

26. Recognizing the case for a multilateral agreement on transparency in government procurement and the need for enhanced technical assistance and capacity building in this area, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that Session on modalities of negotiations. These negotiations will build on the progress made in the Working Group on Transparency in Government Procurement by that time and take into account participants' development priorities, especially those of least-developed country participants. Negotiations shall be limited to the transparency aspects and therefore will not restrict the scope for countries to give preferences to domestic supplies and suppliers. We commit ourselves to ensuring adequate technical assistance and support for capacity building both during the negotiations and after their conclusion.

Talks on making procurement rules more transparent could help developing countries meet green procurement requirements. However, like investment, the issue was dropped from the current Round of trade talks.

Trade Facilitation

27. Recognizing the case for further expediting the movement, release and clearance of goods, including goods in transit, and the need for enhanced technical assistance and capacity

building in this area, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that Session on modalities of negotiations. In the period until the Fifth Session, the Council for Trade in Goods shall review and as appropriate, clarify and improve relevant aspects of Articles V, VIII and X of the GATT 1994 and identify the trade facilitation needs and priorities of Members, in particular developing and least-developed countries. We commit ourselves to ensuring adequate technical assistance and support for capacity building in this area.

Environmental aspects of trade facilitation might include emission implications of transport of goods, as well as controls set up for illegal trade in natural resources and in endangered species.

III

WTO Rules

28. In the light of experience and of the increasing application of these instruments by Members, we agree to negotiations aimed at clarifying and improving disciplines under the Agreements on Implementation of Article VI of the GATT 1994 and on Subsidies and Countervailing Measures, while preserving the basic concepts, principles and effectiveness of these Agreements and their instruments and objectives, and taking into account the needs of developing and least-developed participants. In the initial phase of the negotiations, participants will indicate the provisions, including disciplines on trade distorting practices, that they seek to clarify and improve in the subsequent phase. In the context of these negotiations, participants shall also aim to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries. We note that fisheries subsidies are also referred to in paragraph 31.

Some Members have already proposed the creation of a group of "non-actionable" subsidies for developmental purposes, including those aimed at promoting environment-friendly production.

Government subsidies to the fishing industry can contribute to declining fish stocks and damage marine environments. Improved disciplines on these subsidies could protect marine resources but will need to incorporate the special needs and constraints of small and artisanal fishers.

29. We also agree to negotiations aimed at clarifying and improving disciplines and procedures under the existing WTO provisions applying to regional trade agreements. The negotiations shall take into account the developmental aspects of regional trade agreements.

Dispute Settlement Understanding

30. We agree to negotiations on improvements and clarifications of the Dispute Settlement Understanding. The negotiations should be based on the work done thus far as well as any additional proposals by Members, and aim to agree on improvements and clarifications not later than May 2003, at which time we will take steps to ensure that the results enter into force as soon as possible thereafter.

The dispute settlement system has been central to the evolution of the trade and environment link and is likely to remain so in the future. The future direction of the DSU is, therefore, of great relevance to environmental concerns.

Trade and Environment

31. With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:

This clause makes environment an official subject of trade negotiations.

The mandate for negotiations on the MEA and WTO relationship is limited to determining how WTO rules apply to parties to MEAs that have specific trade obligations (STOs), but could also have impacts in terms of defining which MEAs and STOs are in tension with WTO rules.

This could lead to better and deeper interaction between trade and environmental institutions

This could expand market access, but how environmental goods and services are defined is important.

Although not a negotiating item, and thus only requiring "discussion," this reflects developing countries' fears that environmental measures could affect their ability to export to some markets and thus their economic development prospects.

Developing countries in particular fear that "eco-labels" could become a major barrier to market access. Additionally, the costs of certification can be excessive for developing-country exporters. Eco-labels also bring up the controversial PPM issue.

This language defines the limits on the scope of negotiations on Paragraphs 31 and 32, reiterating that any measures negotiated should not contradict existing WTO rules.

(i) the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question;

(ii) procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status;

(iii) the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.

We note that fisheries subsidies form part of the negotiations provided for in paragraph 28.

32. We instruct the Committee on Trade and Environment, in pursuing work on all items on its agenda within its current terms of reference, to give particular attention to:

(i) the effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed among them, and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development;

(ii) the relevant provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights; and

(iii) labeling requirements for environmental purposes.

Work on these issues should include the identification of any need to clarify relevant WTO rules. The Committee shall report to the Fifth Session of the Ministerial Conference, and make recommendations, where appropriate, with respect to future action, including the desirability of negotiations. The outcome of this work as well as the negotiations carried out under paragraph 31(i) and (ii) shall be compatible with the open and non-discriminatory nature of the multilateral trading system, shall not add to or diminish the rights and obligations of Members under existing WTO agreements, in particular the Agreement on the

Application of Sanitary and Phytosanitary Measures, nor alter the balance of these rights and obligations, and will take into account the needs of developing and least-developed countries.

33. We recognize the importance of technical assistance and capacity building in the field of trade and environment to developing countries, in particular the least-developed among them. We also encourage that expertise and experience be shared with Members wishing to perform environmental reviews at the national level. A report shall be prepared on these activities for the Fifth Session.

Technical assistance and capacity building is likely to be critical to gaining engagement and support from developing countries, which face very significant capacity barriers in this area.

It should be noted that the language of Paragraph 33 encourages national level trade and environment reviews.

III

Electronic Commerce

34. We take note of the work which has been done in the General Council and other relevant bodies since the Ministerial Declaration of 20 May 1998 and agree to continue the Work Programme on Electronic Commerce. The work to date demonstrates that electronic commerce creates new challenges and opportunities for trade for Members at all stages of development, and we recognize the importance of creating and maintaining an environment which is favourable to the future development of electronic commerce. We instruct the General Council to consider the most appropriate institutional arrangements for handling the Work Programme, and to report on further progress to the Fifth Session of the Ministerial Conference. We declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until the Fifth Session.

Small Economies

35. We agree to a work programme, under the auspices of the General Council, to examine issues relating to the trade of small economies. The objective of this work is to frame responses to the trade-related issues identified for the fuller integration of small, vulnerable economies into the multilateral trading system, and not to create a sub-category of WTO Members. The General Council shall review the work programme and make recommendations for action to the Fifth Session of the Ministerial Conference.

Many small economies, particularly island states, also have fragile ecosystems; a combination that can lead to especially pressing trade and environment concerns.

Trade, Debt and Finance

36. We agree to an examination, in a Working Group under the auspices of the General Council, of the relationship between trade, debt and finance, and of any possible recommendations on steps that might be taken within the mandate and competence of the WTO to enhance the capacity of the multilateral trading system to contribute to a durable solution to the problem of external indebtedness of developing and least-developed countries,

and to strengthen the coherence of international trade and financial policies, with a view to safeguarding the multilateral trading system from the effects of financial and monetary instability. The General Council shall report to the Fifth Session of the Ministerial Conference on progress in the examination.

Trade and Transfer of Technology

While not a negotiating item as such, discussions (and possible recommendations) in the Working Group will be of relevance to the transfer of environmentally-sound technologies.

37. We agree to an examination, in a Working Group under the auspices of the General Council, of the relationship between trade and transfer of technology, and of any possible recommendations on steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries. The General Council shall report to the Fifth Session of the Ministerial Conference on progress in the examination.

Technical Cooperation and Capacity Building

As noted, the provision of meaningful technical assistance and capacity building is likely to be critical to gaining engagement and support from developing countries on trade and environment issues.

38. We confirm that technical cooperation and capacity building are core elements of the development dimension of the multilateral trading system, and we welcome and endorse the New Strategy for WTO Technical Cooperation for Capacity Building, Growth and Integration. We instruct the Secretariat, in coordination with other relevant agencies, to support domestic efforts for mainstreaming trade into national plans for economic development and strategies for poverty reduction. The delivery of WTO technical assistance shall be designed to assist developing and least-developed countries and low-income countries in transition to adjust to WTO rules and disciplines, implement obligations and exercise the rights of membership, including drawing on the benefits of an open, rules-based multilateral trading system. Priority shall also be accorded to small, vulnerable, and transition economies, as well as to Members and Observers without representation in Geneva. We reaffirm our support for the valuable work of the International Trade Centre, which should be enhanced.

39. We underscore the urgent necessity for the effective coordinated delivery of technical assistance with bilateral donors, in the OECD Development Assistance Committee and relevant international and regional intergovernmental institutions, within a coherent policy framework and timetable. In the coordinated delivery of technical assistance, we instruct the Director-General to consult with the relevant agencies, bilateral donors and beneficiaries, to identify ways of enhancing and rationalizing the Integrated Framework for Trade-Related Technical Assistance to Least-Developed Countries and the Joint Integrated Technical Assistance Programme (JITAP).

40. We agree that there is a need for technical assistance to benefit from secure and predictable funding. We therefore

instruct the Committee on Budget, Finance and Administration to develop a plan for adoption by the General Council in December 2001 that will ensure long-term funding for WTO technical assistance at an overall level no lower than that of the current year and commensurate with the activities outlined above.

41. We have established firm commitments on technical cooperation and capacity building in various paragraphs in this Ministerial Declaration. We reaffirm these specific commitments contained in paragraphs 16, 21, 24, 26, 27, 33, 38-40, 42 and 43, and also reaffirm the understanding in paragraph 2 on the important role of sustainably financed technical assistance and capacity-building programmes. We instruct the Director-General to report to the Fifth Session of the Ministerial Conference, with an interim report to the General Council in December 2002 on the implementation and adequacy of these commitments in the identified paragraphs.

Least-Developed Countries

42. We acknowledge the seriousness of the concerns expressed by the least-developed countries (LDCs) in the Zanzibar Declaration adopted by their Ministers in July 2001. We recognize that the integration of the LDCs into the multilateral trading system requires meaningful market access, support for the diversification of their production and export base, and trade-related technical assistance and capacity building. We agree that the meaningful integration of LDCs into the trading system and the global economy will involve efforts by all WTO Members. We commit ourselves to the objective of duty-free, quota-free market access for products originating from LDCs. In this regard, we welcome the significant market access improvements by WTO Members in advance of the Third UN Conference on LDCs (LDC-III), in Brussels, May 2001. We further commit ourselves to consider additional measures for progressive improvements in market access for LDCs. Accession of LDCs remains a priority for the Membership. We agree to work to facilitate and accelerate negotiations with acceding LDCs. We instruct the Secretariat to reflect the priority we attach to LDCs' accessions in the annual plans for technical assistance. We reaffirm the commitments we undertook at LDC-III, and agree that the WTO should take into account, in designing its work programme for LDCs, the trade-related elements of the Brussels Declaration and Programme of Action, consistent with the WTO's mandate, adopted at LDC-III. We instruct the Sub-Committee for Least-Developed Countries to design such a work programme and to report on the agreed work programme to the General Council at its first meeting in 2002.

43. We endorse the Integrated Framework for Trade-Related Technical Assistance to Least-Developed Countries (IF) as a viable model for LDCs' trade development. We urge development partners to significantly increase contributions to the IF Trust Fund and WTO extra-budgetary trust funds in favour of LDCs. We urge the core agencies, in coordination with development partners, to explore the enhancement of the IF with a view to addressing the supply-side constraints of LDCs and the extension of the model to all LDCs, following the review of the IF and the appraisal of the ongoing Pilot Scheme in selected LDCs. We request the Director-General, following coordination with heads of the other agencies, to provide an interim report to the General Council in December 2002 and a full report to the Fifth Session of the Ministerial Conference on all issues affecting LDCs.

Special and Differential Treatment

The special and differential treatment accorded to developing countries in many negotiations, including for agriculture, fisheries subsidies and NAMA, will affect their ability to gradually phase in measures that may have an environmental effect, and to adopt measures that take into account their unique sustainable development situations.

44. We reaffirm that provisions for special and differential treatment are an integral part of the WTO Agreements. We note the concerns expressed regarding their operation in addressing specific constraints faced by developing countries, particularly least-developed countries. In that connection, we also note that some Members have proposed a Framework Agreement on Special and Differential Treatment (WT/GC/W/442). We therefore agree that all special and differential treatment provisions shall be reviewed with a view to strengthening them and making them more precise, effective and operational. In this connection, we endorse the work programme on special and differential treatment set out in the Decision on Implementation-Related Issues and Concerns.

ORGANIZATION AND MANAGEMENT OF THE WORK PROGRAMME

45. The negotiations to be pursued under the terms of this Declaration shall be concluded not later than 1 January 2005. The Fifth Session of the Ministerial Conference will take stock of progress in the negotiations, provide any necessary political guidance, and take decisions as necessary. When the results of the negotiations in all areas have been established, a Special Session of the Ministerial Conference will be held to take decisions regarding the adoption and implementation of those results.

46. The overall conduct of the negotiations shall be supervised by a Trade Negotiations Committee under the authority of the General Council. The Trade Negotiations Committee shall hold its first meeting not later than 31 January 2002. It shall establish appropriate negotiating mechanisms as required and supervise the progress of the negotiations.

47. With the exception of the improvements and clarifications of the Dispute Settlement Understanding, the conduct, conclusion and entry into force of the outcome of the negotiations shall be treated as parts of a single undertaking. However, agreements reached at an early stage may be implemented on a provisional or a definitive basis. Early agreements shall be taken into account in assessing the overall balance of the negotiations.

48. Negotiations shall be open to:

(i) all Members of the WTO; and

(ii) States and separate customs territories currently in the process of accession and those that inform Members, at a regular meeting of the General Council, of their intention to negotiate the terms of their membership and for whom an accession working party is established.

Decisions on the outcomes of the negotiations shall be taken only by WTO Members.

49. The negotiations shall be conducted in a transparent manner among participants, in order to facilitate the effective participation of all. They shall be conducted with a view to ensuring benefits to all participants and to achieving an overall balance in the outcome of the negotiations.

50. The negotiations and the other aspects of the Work Programme shall take fully into account the principle of special and differential treatment for developing and least-developed countries embodied in: Part IV of the GATT 1994; the Decision of 28 November 1979 on Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries; the Uruguay Round Decision on Measures in Favour of Least-Developed Countries; and all other relevant WTO provisions.

51. The Committee on Trade and Development and the Committee on Trade and Environment shall, within their respective mandates, each act as a forum to identify and debate developmental and environmental aspects of the negotiations, in order to help achieve the objective of having sustainable development appropriately reflected.

52. Those elements of the Work Programme which do not involve negotiations are also accorded a high priority. They shall be pursued under the overall supervision of the General Council, which shall report on progress to the Fifth Session of the Ministerial Conference.

Paragraph 51 could potentially provide an avenue for assessing the developmental and environmental impacts of negotiations, perhaps in the form of a review mechanism.

One practical challenge in terms of Paragraph 51 is to find a way to incorporate the views of technical experts in the two areas into the deliberations of CTD and CTE, and to then find a way for these deliberations to be reflected into actual negotiations regarding new WTO rules.

A Trade and Environment Timeline

Compiled By Trineesh Biswas

1881 After phylloxera, a tiny insect from the U.S., devastates European vineyards, six European countries sign the *International Convention Respecting Measures to be Taken Against the Phylloxera Vastatrix*, the first multilateral environmental agreement.

1882 France and Great Britain sign a *Commercial and Maritime Agreement* that contains an unconditional exception preserving the right of each party to define for itself the measures deemed necessary for "sanitary reasons."

1900 Eight countries sign the *Convention for the Preservation of Wild Animals, Birds and Fish in Africa*, that includes a system of export licenses for certain rare and endangered species, thus establishing one of the first conservation-related trade measures.

1906 An international conference in Bern adopts a convention that bans the use of white phosphorus in the manufacture of matches in order to protect the health of match producers. It notably regulates based on production *process* instead of final use.

1921 Italy and the Kingdom of the Serbs, Croats and Slovenes (Yugoslavia) sign a convention prohibiting trade in fish caught by methods judged to have "an injurious effect upon the spawning and preservation" of fisheries.

1920s through 1940s Bilateral agreements signed during this period begin to move away from unconditional exceptions for plant- and animal-related laws, and instead start to subject these exceptions to conditions.

1927 Twenty-nine countries sign the *International Convention for the Abolition of Import and Export Prohibitions and Restrictions*, which envisions the abolition of all non-tariff import and export restrictions but provides countries space to maintain some restrictions.

1928–1941 In the *Trail Smelter case*, two separate tribunals hold the Canadian government responsible for the damage in the U.S. caused by sulphur dioxide emissions from a zinc and lead smelter in southern British Columbia. They order Canada to compensate the United States.

1947 The *General Agreement on Tariffs and Trade* (GATT) signed by 23 countries in Geneva. Article XX, entitled "general exceptions," permits Member states to take measures "necessary to protect human, animal or plant life or health," as well as those "relating to the conservation of exhaustible natural resources," so long as the application of the measures does not constitute "a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade."

1948 Charter of the International Trade Organisation (ITO) written by 56 countries at the United Nations Conference on Trade and Employment in Havana. However, the U.S. Congress rejects the Havana Charter, and the ITO is not created.

1951 *International Plant Protection Convention* (IPPC) signed under the auspices of the UN Food and Agriculture Organisation. The Convention comes into force in 1952 and regulates phytosanitary measures taken towards pests and international trade.

1957 The *Treaty of Rome* establishes the European Economic Community. Article 36 includes a number of exceptions allowing for restrictions or bans on imports and exports for "the protection of health and life of humans, animals or plants."

1970 Germany introduces the *Vorsorgeprinzip*, literally "foresight principle," into domestic clean air legislation, introducing the precautionary principle into law. The law says that "society should avoid environmental damage by forward planning."

1971 The GATT Secretariat prepares a study on the effects of environmental policies on international trade for the **1972** Stockholm Conference. The report reflects concerns that policies aimed at environmental protection could become obstacles to trade.

1971 GATT Council of Representatives establishes the Group on Environmental Measures and International Trade (the EMIT group). However, since the Group was to convene only at the request of contracting parties, it did not meet until 1991.

1972 The *United Nations Conference on the Human Environment* held in Stockholm. The meeting increases prominence of trade and environment issues based upon concerns about the negative effects of strong environmental legislation on competitiveness. Leads to the creation of the United Nations Environment Programme (UNEP).

1972 OECD *Guiding Principles Concerning the International Economic Aspects of Environmental Principles* released. Includes the "Polluter Pays Principle," according to which the private sector bears pollution abatement costs that are included in the market price.

1972 Club of Rome publishes a study called *Limits to Growth* which, in spite of its clumsy projections, drew attention to the fact that economic growth based on continuous and increasing use of non-renewable resources was unsustainable.

1973 *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES) signed. CITES comes into force in 1975 and regulates international trade in over 30,000 species, banning trade in some while establishing conditions for trade in others.

1973–1979 During the Tokyo Round, GATT contracting parties adopt the Agreement on Technical Barriers to Trade (TBT) after discussions on the extent to which technical regulations and standards implemented for environmental reasons could pose obstacles to trade flows.

1982 GATT Ministerial meeting decides to examine the exports of products that are prohibited in the exporting countries for environmental, health or safety reasons but are still exported, mostly to developing countries. Leads to the creation of the Working Group on the Export of Domestically Prohibited Goods and Other Hazardous Substances in 1989.

1982 A GATT dispute settlement panel rules that a U.S. ban on the import of all types of tuna and tuna products from Canada violates trade law. The panel rejects the U.S. attempt to use Article XX to justify the ban because no domestic environmental measures had been adopted.

1986 Uruguay Round of GATT trade negotiations begins. The round lasts seven years and includes the liberalisation of trade in agriculture and services, along with intellectual property rights, for the first time. Each new area has major implications for the environment.

1987 "Precautionary approach" mentioned for the first time at the international level in the Ministerial Declaration of the Second Conference on the Protection of the North Sea.

1987 *Montreal Protocol for the Protection of the Ozone Layer* adopted, enters into force in 1989. The Protocol requires developed countries to reduce their consumption of ozone-depleting substances and developing countries agree to gradually reduce consumption of such substances.

1987 World Commission on Environment and Development (also known as the Brundtland Commission) submits a report entitled *Our Common Future* to the United Nations. The report defines sustainable development as "satisfying present needs without compromising the ability of future generations to meet their own needs."

1988 European Court of Justice allows Denmark to keep in force a law requiring beer and soda to be sold in reusable bottles, rejecting the European Commission's argument that the policy constitutes a barrier to the free movement of goods within the European Economic Community.

1989 *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* adopted and comes into force in 1992. The Convention restricts the transboundary movement of hazardous wastes after an increase in such exports by developed countries.

1991 In the famous *Tuna-Dolphin* case, a GATT dispute settlement panel rules that a U.S. embargo on tuna imports from Mexico, imposed because Mexican tuna trawlers were using nets that killed more dolphins than permitted by American law, constitutes an unfair trade barrier.

1992 The *United Nations Conference on Environment and Development* held in Rio de Janeiro. The Rio "Earth Summit" re-focuses attention on sustainable development and the role of international trade in both poverty reduction and environmental protection. Adopts Agenda 21 as an action plan. Also adopts the Convention on Biological Diversity (CBD), which aims to support the conservation and sustainable use of biological resources and the sharing of benefits arising from their use, and the United Nations Framework Convention on Climate

Change (UNFCCC), which seeks to stabilize greenhouse gas concentrations in the atmosphere in an effort to prevent dangerous anthropogenic interference with the climate system. Both agreements enter into force in 1994.

1994 Canada, the United States, and Mexico adopt the North American Free Trade Agreement (NAFTA), aimed at liberalizing trade and investment flows. Includes an investor-state arbitration mechanism and an environmental side agreement.

1994 In a follow-up to the 1991 *Tuna-Dolphin* case, a GATT panel rules that the United States' secondary embargo on tuna imports from countries that trade in tuna with embargoed countries (such as Mexico) is also not permissible.

1994 Uruguay Round of GATT negotiations culminates in the signing of the Marrakech Agreement Establishing the World Trade Organization (WTO). The preamble of the Agreement includes references to sustainable development, environmental protection, resource conservation, and a consideration for the needs of developing countries among the WTO goals. Creates a work program on trade and environment and a Committee on Trade and Environment (CTE) to oversee it.

1994 Negotiations on a Multilateral Agreement on Investment (MAI) launched at an Organisation for Economic Cooperation and Development (OECD) Ministerial Meeting. MAI process goes on to earn heated opposition from civil society groups, partly for environmental reasons, and ends in failure in 1998.

1994–present A rapid expansion in negotiations for bilateral and regional trade agreements. Some of the agreements that are eventually signed have detailed environment provisions; e.g., free trade agreements between the U.S. and Jordan (2000), Chile (2003) and Morocco (2004).

1996 The WTO holds its first Ministerial Conference in Singapore. The Committee on Trade and Environment submits its first Ministerial report; it calls for further study and makes no recommendations for changes to WTO rules.

1998 In the *Shrimp-Turtle* dispute, a WTO dispute settlement panel rules that countries have the right to take trade action to protect the environment but rules against a U.S. ban on shrimp imports from countries which do not impose measures to keep the incidental kill of sea turtles lower than the level permissible in the U.S., because the U.S. discriminated between WTO Members in the technical assistance and transition periods that were provided to shrimp producers from the Caribbean but not to producers from Asia.

1998 *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade* adopted, and comes into force in 2004. Adopts a Prior Informed Consent (PIC) procedure, requiring approval before trade of listed chemicals.

1999 In the run-up to the Seattle WTO Ministerial Conference, the WTO Secretariat releases a special study on the relationship between trade and environment that concludes that trade would "unambiguously improve welfare if proper environmental policies were in place."

1999 The third WTO Ministerial Conference in Seattle becomes the centre of massive protests by environmental and civil society groups. The meeting ends in failure, with countries unable to agree on whether or not to launch a new round of negotiations.

2000 The Conference of the Parties to the *Convention on Biodiversity* adopts the *Cartagena Protocol on Biosafety*. The Protocol aims to protect biological diversity from the risks arising from living modified organisms created by modern biotechnology.

2001 *Stockholm Convention on Persistent Organic Pollutants* (POPs) is adopted and comes into force in 2004. It seeks to eliminate or restrict the production and use of all intentionally produced POPs and imposes certain trade restrictions to achieve this goal.

2001 At the Fourth WTO Ministerial Conference in Doha, Members agree to launch a new round of negotiations that explicitly include environmental issues for the first time. Negotiations are launched on the relationship between the WTO and multilateral environmental agreements; the liberalization of trade in environmental goods and services; and improving WTO disciplines on fisheries subsidies among other issues.

2002 The Parties to the Convention on Biological Diversity adopt the voluntary "Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization," setting out international standards on access and benefit-sharing rules but falling short of international binding rules.

2002 Governments at the *World Summit on Sustainable Development* in Johannesburg adopt a *Plan of Implementation* which, among other actions, launches negotiations on an international regime to promote the sharing of benefits from the use of genetic resources (subsequently broadened to also cover facilitating access to such resources), and calls for all fisheries subsidies that contribute to illegal, unreported and unregulated fishing and to over-capacity to be eliminated.

2005 The Fifth WTO Ministerial Conference in Hong Kong ends without any significant headway on negotiations but with the sense that negotiators are slowly working through the Doha negotiating mandate, including its environmental provisions.

2006 A WTO dispute settlement panel issues final report on the complaint brought by the U.S., Canada and Argentina against an alleged EU moratorium on the approval of new biotech products, finding that the EU did in fact apply a moratorium that resulted in "undue delay" in approvals between 1999 and 2003 that was incompliant with the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. The panel also rules against various national import restrictions instituted by EU member states, rejecting the EU's argument that the measures were necessary for precautionary purposes.

A Trade and Environment Glossary

Compiled By Sarah Mohan and Heike Baumüller

Access and benefit-sharing

The third objective of the Convention on Biological Diversity is "the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding." A number of countries have laws, regulations or incentives that aim to govern the way people and companies gain the right to use genetic resources and establish the associated obligation to share any gains they subsequently earn as a result of their use of the resource. In addition, various international and regional negotiations underway to establish fair international rules to facilitate ABS, such as through patent disclosure requirements in intellectual property rules or the negotiation of an international ABS regime. Relevant negotiations are underway at the Convention on Biological Diversity, the World Intellectual Property Organization and the World Trade Organization. In these talks, countries have differed on their interpretation of the meaning of ABS and the need for international rules.

Adaptation (climate)

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which reduces the harm felt or exploits beneficial opportunities.

Agenda 21

Adopted at the 1992 United Nations Conference on Environment and Development (the "Earth Summit"), Agenda 21 outlines a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations system, governments and other stakeholders in every area in which humans have an impact on the environment. Chapter 2 of Agenda 21 outlines specific action areas aimed at "promoting sustainable development through trade."

Agricultural runoff

The flow of surface water, topsoil and agricultural chemicals from agricultural fields to nearby water bodies because the soil cannot absorb the large quantities of water that falls on the field. Whether it is because of excessive rainfall, land clearing or poor soil quality, agricultural runoff leads to the erosion of valuable soil nutrients necessary for growing healthy crops and also pollutes local waterways.

Agrobiodiversity

The variety and variability of animals, plants and micro-organisms which are necessary to sustain the agricultural ecosystem and its ability to support food production and food security. Agrobiodiversity is affected by the choice of crop grown in a field, the way in which it is farmed and harvested and the well-being of related insects, bacteria, climate, birds and animals. It affects the ability of the natural environment to support agricultural production necessary for human survival.

Amber Box

In the context of the WTO Agreement on Agriculture, all domestic support measures (subsidies) considered to distort production and trade (with some exceptions), such as measures to support prices or subsidies directly related to production quantities. These supports are subject to limits (five per cent of agricultural production for developed countries; 10 per cent for developing countries).

***Amicus curiae* brief**

Literally meaning "friends of the court" briefs, *amicus curiae* briefs are submitted by a person (or organization) who is not a party to a lawsuit but who petitions the court or is requested by the court to file a brief because that person has a strong interest in the subject matter. Debates continue whether WTO dispute settlement panels and the Appellate Body should accept such briefs. In practice, a number of briefs have already been accepted in past cases, notably in disputes dealing with public policy concerns such as the environment or human health.

Article XX (of the GATT)

Article XX of the General Agreement on Tariffs and Trade (GATT) sets out "general exceptions" to multilateral trade rules. For instance, Members may implement measures that violate WTO rules if they are deemed "necessary to protect human, animal or plant life or health" (Article XX b) or relate to "the conservation of exhaustible natural resources" (Article XX g), provided that such measure do not arbitrarily or unjustifiably discriminate between countries or amount to disguised restriction on international trade.

Biofuels

A renewable source of energy that is to a significant degree composed of organisms that were recently alive or their byproducts. Such biomass is a form of stored solar energy and can be obtained from plant matter such as corn and soybeans and can be converted into fuels such as ethanol or biodiesel.

Blue Box

In the context of the WTO Agreement on Agriculture, any domestic support measures (subsidies) that would normally be in the Amber Box (i.e., subsidies that are considered to distort production and trade) if the support also requires

farmers to limit production. At present, there are no limits on spending on Blue Box subsidies.

Border tax adjustments In order to address the potentially reduced competitiveness of products from countries which require costly environmental standards to be met to be purchased, border tax adjustments rebate additional costs incurred to meet these standards as products leave the country. Alternatively, they can involve taxation of products being imported from a country where such environmental standards are not required into a country where they are so that the final price of the product reflects the importing countries' incorporation of environmental protection into market prices. For instance, border tax adjustments have been proposed for industrial products from countries that are not parties to the Kyoto Protocol and therefore do not face the additional cost of implementing measures to reduce greenhouse gas emissions.

Carbon fertilization The stimulation of plant growth by increasing atmospheric carbon dioxide which is widely thought to be the main mechanism with which carbon is absorbed by ecosystems. Although it was hoped that such accelerated plant growth might be a positive aspect of increasing concentrations of carbon in the atmosphere, more recent studies have shown that the initial increase in absorption and growth in reaction to heightened levels of carbon quickly tapers off, limiting fertilization's capacity for increased vegetation growth and carbon absorption.

Carbon sequestration The process by which carbon is removed from the atmosphere and stored in so-called "carbon sinks," such as forests, oceans, or soils, which store carbon for long periods.

Carbon tax A fee charged on sources of energy which emit carbon dioxide into the atmosphere and thereby encourage global warming.

Centre of origin The geographic location where a particular domesticated plant or animal species originated. These areas are the likeliest source of natural genetic variation.

Chain of custody A system that traces the movement of certified products from harvesting to the final consumer at every step of transportation, processing and exchange.

Clean Development Mechanism An instrument established by Article 12 of the Kyoto Protocol that enables industrialized countries to satisfy their obligations to reduce greenhouse gas emissions by investing in emission-reducing projects in developing countries. In order to receive credits towards their emissions reductions commitments, the projects must be approved by the host government as being supportive of sustainable development and by the Executive

	Board and a third party as providing additionality of emissions reductions that compliment domestic efforts of the industrialized country to reduce emissions.
Cleaner technologies	Technologies whose use generate less pollution than alternative mechanisms of production.
Codex Alimentarius Commission	The international body charged with the development of standards for food safety which are presumed to be consistent with the WTO's Agreement on the Application of Sanitary and Phytosanitary Standards (SPS Agreement). The Commission, which was established in 1961, includes several committees that bring together SPS specialists, food-related scientific and technological research through negotiations aimed at creating internationally-supported standards that can guide national laws and regulations regarding food and consumer protection.
Command and control	A regulatory approach which uses laws and penalties to achieve public policy objectives, such as using legislated maximum pollution levels, monitoring and fines to reduce environmental impacts of industrial activity. Command and control approaches can be contrasted with incentive-based or voluntary approaches to inducing change in environmental practices, such as rewards for good corporate citizenship—the latter acts as a "carrot," while the former uses a "stick" to induce compliance.
Conformity assessment	A process undertaken by a business whereby it asks a third party or government to evaluate the business's management practices, environmental performance, social record or final products against a national or international standard. The third party can then issue a certificate confirming conformity with the standard, which is used by the business to assure customers in different markets that it is a reliable and responsible company.
Customary law	Legal norms that have developed as a result of established patterns of behaviour amongst actors that can be objectively verified in a particular setting. At an international level, it involves the legal obligation for states to act in a way that is consistent with customary exchanges between states in the past. It is considered to exist if a particular legal practice is repeatedly observed over time, and if relevant actors consider it to be law.
Customs union	A type of free trade area in which member countries have a common external tariff, external trade policy and competition policy. It is an intermediary step between a free trade agreement and full economic integration.
Decoupled payments	Financial contributions from a central government body to farmers that are independent of the quantity and type of products that the farmer grows. Such subsidies are considered to cause less distortions to incentives and production deci-

sions, and thus trade flows, than subsidies which provide incentives that encourage farmers to produce more and thereby encourage over-production that distorts world commodity prices and trade. As trade-distorting subsidies are disciplined by WTO rules, many countries, including the U.S., EU, Mexico and others, have tried to transform their agricultural domestic support programs into decoupled payments.

Distant water fishing — A foreign country's boats and staff that travel to the waters of another country to fish in its national waters. Often, the foreign country's government will sign a bilateral access agreement with the host country government which authorizes the ships to fish in the host country's exclusive economic zone in return for a payment by the foreign country government and per-ship payments made by individual boats.

Doha Development Agenda — see Doha Round

Doha Round — The Doha Round of multilateral trade negotiations (sometimes referred to as the "Doha Development Agenda") was launched in 2001 at the Fourth Ministerial Conference of the World Trade Organization in Doha, Qatar. As set out in the Doha Ministerial Declaration, the negotiations cover a range of issues, including agriculture, services, non-agricultural market access, WTO rules, trade and environment, trade facilitation, trade-related aspects of intellectual property rights and the dispute settlement understanding. The Round was scheduled to end by 1 January 2005, but has been extended with no new date set for its conclusion (as of May 2007).

Dumping — The exportation of products at a price below the exporting country's cost of production where the exports cause damage to producers in the importing country.

Eco-labelling — A voluntary label that identifies overall environmental preference of a product or service within a specific product/service category based on lifecycle considerations (i.e., environmental impacts during production, use and /or disposal).

Ecosystem services — Amenities provided by the environment that are useful to people. Examples of ecosystem services include conversion of carbon dioxide to oxygen, provision of clean water, prevention of erosion, provide nutrients and decompose wastes.

Endangered species — A population of organisms which is at risk of becoming extinct. Species become endangered as the result of changes in their habitat, predator/prey relationships, pollution, hunting and other factors. Many countries have laws that provide special protection for these species, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora governs trade in related products.

End-of-pipe technologies
Technologies that remove pollutants and otherwise treat the waste that result from manufacturing processes.

Environmental impact assessment
An evaluation of the impacts of a given policy change, project or set of rules on the natural environment, including natural resources, biodiversity and often related livelihoods and traditional knowledge. The assessment can be conducted at a local, regional, national or global level and can focus on impacts on particular aspects of the environment, or on particular policy changes such as trade rules.

Environmental Kuznets' curve
The theory that the well-being of the environment worsens as economic development increases, in line with rapid industrialization and resulting pollution, but that at a certain point in time when incomes are sufficiently high and basic needs met there is more income and willingness to invest in a healthy environment that results in decreases in environmental degradation. The inverted U shaped curve is named after Simon Kuznets, who developed the original theory to represent the change in inequality over time.

Environmentally preferable products
Products that cause significantly less environmental harm at some stage of their lifecycle (production/processing, consumption, waste disposal) than alternative products that serve the same purpose, or products the production and sale of which contribute significantly to the preservation of the environment (as defined by the United Nations Conference on Trade and Development).

Eutrophication
The alteration of an ecosystem through the addition of substantial amounts of chemical nutrients, often including nitrogen or phosphorus, that impacts particularly marine ecosystems by favouring certain plant species and changing the normal balance and functions of the system. Eutrophication can result in the spreading of algae that can amount to the pollution of waterways to the extent that human water consumption is adversely affected.

Exclusive economic zone
The 200 nautical miles of sea that extent from a country's coast over which, under the UN Convention on the Law of the Sea, the country exercises sovereignty.

Expropriation
In the context of foreign direct investment, expropriation refers to a government measure that either directly nationalizes a company and invalidates the owner's claims over its investment or indirectly makes it so difficult for the investment to be operated by its owner that it is tantamount to direct expropriation.

Extensification
In the context of agricultural subsidies, extensification payments are subsidies to producers that have reduced their agricultural production that attempts to compensate them for

the reduced revenues from lower sales. They have gained in popularity, including in the EU, as a mechanism to encourage producers to reduce their production, and in this context "extensification" thereby represents the opposite of "intensification" of production.

Externalities

A cost or benefit from an economic activity that affects somebody other than the people engaged in the activity and that are not reflected fully in prices. Externalities can be both positive (such as bees kept to produce honey which also pollinate farmers' crops in the neighbourhood) and negative (for instance pollution that imposes clean-up costs on nearby residents).

Fish stock

A subpopulation of a marine species which shares characteristics, breeding and migration patterns and is limited to a defined geographical area. Fish stocks can be defined as underexploited, moderately exploited, fully exploited, overexploited, depleted or recovering from depletion based upon analyses of the stock's availability, growth rates, historical population numbers and related data. FAO in 2003 estimated that three quarters of the planet's fish stocks were fully exploited, overexploited or worse, largely as the result of overfishing.

Forest Stewardship Council

An international not-for-profit organization that provides independent audits of forests, certification and labelling against its standards of sustainable forest management. FSC was created in the early 1990s, largely as the result of leadership from consumers' and environmental organizations, and currently enjoys the support of several key environmental organizations. Along with the Programme for the Endorsement of Forest Certification (PEFC), FSC is one of the major global forest certification bodies.

Free trade agreement

A group of countries which have agreed to eliminate tariffs, quotas and other barriers to trade on most products traded amongst themselves. While other issues, including trade in services, intellectual property rights and environmental issues may be touched on in the agreement, FTAs in general do not involve the same treatment of non-FTA countries.

Free trade zone

A region within a country which has been defined by the central government as particularly oriented towards production for export and which is subject to different regulatory and tax treatment as a result, including potentially distinct environment or labour rules.

Free-rider

Actors who benefit from a resource or policy change without paying their fair share of the costs of providing and managing it. In the environmental context, it involves the problem of actors who would benefit from investments in environmental

	improvements—for example, investments in air pollution control that would improve air quality and thus health—but who, owing to the large overall cost for such investments, would not by themselves have the incentive to pay the cost, but would rather wait until someone else took care of it.
Generalized system of preferences	A formal system of exemption from the WTO's most favoured nation principle, under which developed countries offer non-reciprocal preferential treatment (such as zero or low duties on imports) to products originating in developing countries. Preference-giving countries unilaterally determine which countries and which products are included in their schemes.
Genetically modified organism	An organism (plant, animal or human) whose deoxyribonucleic acid (DNA) structure has been changed through processes of modern biotechnology by adding, altering or deleting one or more of the thousands of genes that control the characteristics of the organism.
Genetic resources	Plant, animal, microbial or other material that comes from organisms that can reproduce themselves and that are of actual or potential value.
Genetic use restriction technologies	Dubbed "terminator technologies" by their critics, GURTs are a tool of modern biotechnology that can be used to genetically alter organisms to be sterile, i.e., unable to replicate themselves, or to require the crops to be treated with a chemical for the genetic enhancement engineered into the crop to function. The biotechnology industry has advocated the technologies as a means to prevent the unwanted gene flow. Critics, however, fear that the technologies could have adverse effects on rural livelihoods by preventing reuse of the seeds by farmers and on biodiversity by risking a transfer of the trait to wild varieties. As a result, a de facto moratorium on field trials of GURTs was instituted by the parties to the CBD in 2000.
Geographical indication	A form of intellectual property protection that identifies a good as originating from a particular region or locality (e.g., Bordeaux wine, Parmigiano Reggiano, Darjeeling tea) where the good's quality, reputation or other characteristics can be attributed to its geographical origin (as defined in the WTO Agreement on Trade-related Aspects of Intellectual Property Rights).
Good governance	A process of policy formation, decision-making and implementation by authorities that is characterized by the rule of law, absence of corruption and existence of predictability and order. The term has become particularly popular since the late 1990s in international institutions such as the World

Bank and the International Monetary Fund (IMF), who identify good governance reforms as essential to development, growth and the ability to pay back loans.

Green Box

In the context of the WTO Agreement on Agriculture, any domestic support measures (subsidies) that do not (or only minimally) distort trade. They have to be government-funded (not by charging consumers higher prices) and must not involve price support. Green Box subsidies include payments for environmental programs (provided that they do not distort production and trade).

Greenhouse gases

Gases whose release into the atmosphere contributes to global warming (the greenhouse effect) because they absorb infrared light. Examples include carbon dioxide, water vapour and ozone.

Green procurement

Purchasing of products or services by public or private sector institutions that have a lesser impact on the environment than competingproducts or services that serve the same purpose (e.g., during manufacturing, packaging, distribution, operation and/or disposal).

Green protectionism

The use of environmental policies that are primarily aimed at protecting the domestic industry rather than the environment. This issue is of particular concern to developing countries who fear that such policies with hinder market access for their goods.

Group of Eight (G8)

A group which was created in the 1970s to include eight of the most powerful states at the time, namely the U.S., Canada, Italy, France, Germany, Russia, U.K. and the EU, which still meets regularly every year to discuss global issues.

Group of Ninety (G90)

In the context of the WTO negotiations, an alliance of the smallest and poorest developing countries which put forward common positions to advance the special interests of landlocked and island economies, less developed countries, and commodity-dependent nations. The group functions as an umbrella group for the African, Caribbean and Pacific (ACP) countries, the African Union, and least-developed countries.

Group of Ten (G10)

A group of net food importers who have formed an alliance at the WTO agriculture negotiations to defend themselves against trade liberalization efforts that could hamper their ability to protect their domestic agricultural production through subsidies, high tariffs and other measures. Members include Switzerland, Norway, Japan, Bulgaria, Taiwan, Korea, Iceland, Israel, Liechtenstein and Mauritius.

Group of Thirty-Three (G33)

A group of 42 developing countries that have formed in support of the concepts of the "Special Products and the Special Safeguard Mechanism" in the WTO agriculture negotia-

	tions, and in particular for SP and SSM rules that enable them to protect small farmers in their countries from imports or import surges that could adversely affect their livelihood security, rural development or food security.
Group of Twenty (G20)	An alliance of developing countries established ahead of the 2003 WTO Cancun Ministerial Conference to advance common positions in the agriculture negotiations. Led by Brazil, China, India and South Africa, the group has pushed for an end to agricultural subsidies in industrialized countries
Habitat	The physical environment which surrounds, influences and is used by a particular species.
Human development	A process which expands people's choices and their capability to lead long and healthy lives, to be knowledgeable, to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. This understanding of development is supported by the UN Development Programme's Human Development Index, a composite index including figures relating to life expectancy, literacy and GDP per capita.
Import substitution	A process by which a country attempts to replace finished and manufactured products which were imported in the past with locally produced goods, with the aim of reducing imports, and increasing local technological capacities.
International environmental crime	Deliberate evasion of environmental laws and regulations by individuals and companies in the pursuit of personal financial benefit, where the impacts are transboundary or global.
Invasive alien species	Species that are introduced deliberately or unintentionally outside their natural habitats where they have the ability to establish themselves, invade, out-compete natives and take over the new environments.
International Plant Protection Convention	The IPPC is an international treaty that aims to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. It is charged with the development of standards for plant health which are recognised by the World Trade Organization as presumed to be consistent with the WTO's Agreement on the Application of Sanitary and Phytosanitary Standards (SPS Agreement).
ISO 14000	A standard of the International Organization for Standardization concerning the environmental management practices used in the production process that certifies companies that have minimized the negative environmental impact of their operations, that are compliant with relevant laws, and are making ongoing environmental improvements.

Kimberley Process An international scheme, agreed to by major diamond exporters and importers with the support of civil society and the United Nations, according to which cross-boundary shipments of diamonds must be accompanied by a certificate testifying that the diamonds were not used to finance war nor human rights abuses. Although most relevant countries are signatories to the scheme, and it is thus claimed that consumers can be assured that they are not purchasing "blood diamonds," the lack of mandatory, impartial third party monitoring limits the efficiency and rigor of the system.

Livelihood security The durability, stability and predictability of income from work that enables people to expect that they will in the future be able to generate income and use it to purchase the amenities they and their families need.

Living modified organisms (LMOs) Term used in the Cartagena Protocol on Biosafety instead of the more commonly used "genetically modified organism" (GMO) to refer to "any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology." The distinction between LMOs and GMOs remains somewhat unclear and open to differing interpretations among the Protocol parties.

Local content rules In investment, these rules require that the investor purchase a certain amount of local materials for incorporation in the investor's product.

Marker genes A gene that is inserted into an organism, along with a modified gene, whose presence in the host organism can be tested in order to verify if the organism has in fact received both the marker gene and the modified gene, that is, to verify that it has been genetically modified.

Maximum sustainable yield In the fisheries context, the highest average yield over time that does not result in a continuing reduction in stock abundance, taking into account fluctuations in abundance and environmental variability.

Miami Group A group of countries with significant domestic biotechnology activities, including investments in the biotech industry and use of agricultural biotechnology, which during the negotiations of the Cartagena Protocol on Biosafety argued for a limited scope of the new pact in order to reduce impacts on cross-boundary trade in GMOs. Includes the U.S., Canada, Australia, Argentina, Chile and Uruguay.

Millennium Development Goals Eight development goals drawn from the actions and targets contained in the Millennium Declaration adopted in 2000 by the world's governments at the UN Millennium Summit, which set out specific targets and indicators for reducing poverty by 2015.

Millennium Task Force(s)	Groups of experts coordinated by the Millennium Project that are tasked with identifying the operational priorities, organizational means of implementation, and financing structures necessary to achieve each of the Millennium Development Goals.
Mitigation (climate)	Actions taken to reduce the extent and scope of climate change, the risks it poses for human activities, and to build long-term capacity to reduce vulnerability to climate change.
Mode 1	In the context of the WTO Agreement on Trade in Services, one of four modes of trading in services by which services are supplied from one country to another (e.g., international telephone calls). Officially referred to as "cross-border supply."
Mode 3	In the context of the WTO Agreement on Trade in Services, one of four modes of trading in services by which a foreign company sets up subsidiaries or branches to provide services in another country (e.g., foreign banks setting up operations in a country). Officially referred to as "commercial presence."
Mode 4	In the context of the WTO Agreement on Trade in Services, one of four modes of trading in services by which individuals travel from their own country to supply services in another (e.g., fashion models or consultants). Officially referred to "movement of natural persons."
Monterrey Consensus	A declaration adopted by heads of state at the 2002 UN International Conference on Financing for Development which affirms the importance of finance for international development, including through official development assistance, foreign direct investment, international trade, technical cooperation and reduction of debt.
Most favoured nation	One of the two core principles of the WTO system (along with national treatment). Under the WTO agreements, countries cannot normally discriminate between their trading partners. Thus, if a country grants another country a special favour (such as a lower customs duty rate for one of their products), it has to do the same for all other WTO Members (subject to specified exceptions, such as generalized systems of preferences).
Multilateral environmental agreement	An agreement among states which may take the form of "soft law," setting out non-legally binding principles that parties will respect when considering actions that affect a particular environmental issue; or "hard law" which specifies legally-binding actions to be taken to work toward an environmental objective.
Mutual recognition agreement	An agreement between two parties to recognize the other party's tests, certificates and approvals of regulated products

as conforming to one's own safety standards prior to export. Such an agreement allows products to be exported and placed on the other party's market without having to undergo additional assessments.

National treatment

One of the two core principles of the WTO system (along with most favoured nation). A country is required to accord other countries the same treatment as its own nationals. Thus, imported and locally-produced goods should be treated equally-at least after the foreign goods have entered the market. The same should apply to foreign and domestic services, and to foreign and local trademarks, copyrights and patents.

Non-point source of pollution

In contrast to "point" pollution that is generated by factories, sewage treatment plants and other operations, non-point pollution comes from several sources, largely through water from rain or snow moving over land, picking up pollutants like fertilizers and pesticides, and depositing them in lakes, rivers and aquifers.

Non-tariff barriers/measures

NTBs are laws, regulations or measures that are created or supported by government, often with environmental, social, political or economic goals, that can act to restrict trade. While they might not be intended to adversely impact on exports or imports in the way that tariffs do, measures such as standards or requirements may be too difficult or costly for foreign companies to meet, thereby effectively preventing imports from taking place.

Obligation de résultat

A legal concept under French law that can be translated as "the obligation to achieve a particular result." In the context of the environment negotiations at the WTO, some countries have argued that trade measures that are implemented to achieve a multilateral environmental agreement's objectives (i.e., as part of their *obligation de résultat*) should be included in the definition of "specific trade obligations."

Overcapacity

In the context of fisheries, this refers to the ability of a fishing fleet to harvest fish at greater quantities and more rapidly than the fisheries is capable of supporting through its reproduction rates. As a result of the size of the fleet, the technology and the number of employees, supported by indicators on size of vessels, engines, gear and equipment, can be said to generate capacity that leads to fishing beyond sustainable catch levels.

Overfishing

A rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.

Policy space The flexibility that a country has to make policy to meet its social, political, environmental and economic objectives within the limits of the multilateral, regional and bilateral agreements which it has ratified.

Precautionary principle While no universally agreed definition exists, observers generally refer to Principle 15 of the Rio Declaration adopted at the 1992 United Nations Conference on Environment and Development which states that "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

Prior informed consent A requirement, often used before international trade in products of environmental concern, that demands that an exporter of a potentially harmful product obtain the informed approval of the importing government, according to internationally agreed forms, timelines and criteria, prior to the arrival of the product in the importing country's territory. Alternatively, as regards access to, extraction of and patenting of genetic resources that belong to one country by a foreign citizen, prior informed consent requires the government or a government-supported body to approve the movement of the country's genetic resources outside its borders and to the subsequent use, treatment and claim to those resources.

Process and production methods The way in which a product is made. In the trade context, a distinction is often made between PPMs depending on the extent to which they affect the final product, namely *non-product-related* PPMs which have a negligible impact on the performance or characteristics of the final product, and *product-related* PPMs which affect the nature, properties or qualities of the product itself and its ability to have direct impact on, for example, the environment or human health in the country of use and/or disposal.

Public goods Things whose consumption by one person does not reduce the amount available for others to consume, and whose consumption cannot be controlled or restricted to certain people. These criteria, known as "non-rivalry" and "non-excludability," are often fulfilled by ecosystem services such as clean air or water.

Quantitative restrictions A form of trade restriction applied at the border that is based upon the quantity of goods that can be imported or exported, for example an import quota, as opposed to restrictions based upon price like tariffs. Quantitative restrictions are for the most part prohibited by the WTO in favour of price-based restrictions, which are more predictable and tend to distort trade less.

Rules of origin Criteria for establishing the country of origin of a product which are used to determine the eligibility of a product for

preferential treatment under free trade agreements and Generalized System of Preferences (GSP) schemes. Often based on whether production or processing leads to a change in tariff classification or in the level of value added in the country where the good was last processed.

Sanitary and Phytosanitary Measures

For the purpose of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), an SPS measure is defined as any measure, procedure, requirement or regulation taken by governments to protect human, animal, or plant life or health from the risks arising from the spread of pests, diseases, disease-causing organisms, or from additives, toxins or contaminants found in food, beverages or feedstuffs.

Sensitive Products

All WTO Members will be allowed to designate certain "Sensitive Products" in the agriculture negotiations which will be subject to smaller tariff cuts.

Singapore issues

Four topics that were proposed for inclusion on the WTO negotiating agenda at the Singapore Ministerial Conference in 1996, which were subsequently included in the Doha Round mandate. However, owing to the strong resistance of many developing countries to WTO negotiations on investment protection, competition policy and transparency in government procurement, all three were eliminated from the current round of negotiations in July 2004, and only trade facilitation remained on the negotiating agenda.

Single undertaking

In the context of the Doha Round of trade negotiations, an agreement among WTO Members that all negotiating areas will have to be concluded at the same time unless an area has been excluded specifically from the single undertaking. ("nothing is agreed until everything is agreed").

Special and differential treatment

WTO or FTA rules which allow developing countries to follow different rules than other Members, including through implementing the normal rules over a longer period of time, undertaking lower tariff reductions, providing for technical assistance, or enabling them to take measures to support the most poor and vulnerable parts of their population or overall development objectives.

Special Products

In the Doha Round of trade negotiations, developing countries will be allowed to designate a certain number of agricultural products as "Special Products" that are of particular importance to vulnerable farming communities for reasons of food security, livelihood security and rural development. These products will be subject to "more flexible treatment" in the tariff reduction negotiations, which many see as entailing lower reductions over longer time periods than would be the case for other products.

Special Safeguard Mechanism — The SSM under negotiation in the Doha Round will be available to developing countries to protect their agricultural sectors against price fluctuations and sudden import surges by raising tariffs beyond bound levels.

Specific trade obligation — Requirements set out in multilateral environmental agreements that specify that parties have to take particular measures in relation to cross-boundary movements of certain types of products, for example solicit prior informed consent before the export of GMOs. Under the environment mandate of the Doha Round, governments have been instructed to clarify the relationship between WTO rules and STOs.

Structural adjustment — A process undergone in a country as a result of a policy package that aims to reduce government expenditures, expand the reach of markets and restructure the economy such that it fits the prescriptions of the Washington Consensus, the IMF and World Bank for good economic health. Countries often undertake structural adjustment processes after severe financial crises and subsequent loans from the IMF in order to satisfy the latter's conditionalities for the loan.

Subsidies — Government payments to support activities which they believe are important for the country's culture, history, values, economy or political structure, but that would otherwise either not take place or be severely compromised.

Sui generis — Literally, "of its own kind," this term refers to systems of intellectual protection of plant varieties that can be created by national authorities to promote food security and protection of plant breeders, without necessarily having as strict protection as required by patents. The WTO Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) allows in Article 27.3b for the adoption of *sui generis* models of protection.

Sustainability Impact Assessment — A process undertaken before and during a trade negotiation which seeks to identify economic, social and environmental impacts of a trade agreement in an effort to help integrate sustainability into trade policy. SIAs are most commonly conducted by the European Union to assess the impacts of bilateral and multilateral trade negotiations, both on the EU and its negotiating partners.

Tariff — Customs duties on merchandise imports. Levied either on an *ad valorem* basis (percentage of value) or on a specific basis (e.g., US$5 per 100 kilograms).

Tariff escalation — Higher tariffs on processed goods than on the raw materials from which they are produced. This practice has been criticized for protecting domestic processing industries while discouraging the development of processing activity in the countries where raw materials originate.

Tariff peak — Particularly high tariffs on selected and often sensitive products. For industrialized countries, tariffs of 15 per cent and above are generally recognized as tariff peaks.

Technical Barriers to Trade — Technical regulations and voluntary standards that set out specific characteristics of a product, such as its size, shape, design, functions and performance, or the way a product is labelled or packaged before it enters the marketplace. In the WTO, these measures are regulated by the Agreement on Technical Barriers to Trade (TBT Agreement).

Terminator technologies — See Genetic use restriction technologies.

Timber concessions — A forested region which a company has purchased limited ownership rights to from the government authority responsible for forests. As in many countries forests are the original property of the state as steward of the resource, the concession payment grants the company certain rights—for example, to cut down a certain amount of wood using certain practices—but does not necessarily give the forest to them indefinitely and with the right to evict local peoples who live off the land.

Traditional knowledge — The knowledge, innovations and practices of indigenous and local communities which has been developed based on experience over time and adapted to the local culture and environment.

Tragedy of the commons — The concept that individual interest in the consumption of publicly-available resources leads each individual to consume more than is supportive of the common good, with the cumulative effect being a depletion of the resource and its capacity to provide goods and services to all individuals in the future.

Transgenic plants — See Living modified organisms.

Vector-borne disease — A disease in which the pathogenic microorganism is transmitted from an infected individual to another individual by another agent (the "vector"), sometimes with other animals serving as intermediary hosts. For example, the mosquito is a vector that transmits malaria.

Watershed management — Strategies aimed at preserving and enhancing the water-retention capacity of a region of land whose water drains into a specified body of water.

World Organisation for Animal Health — Officially known by its French name Organisation Mondiale de la Santé Animale (OIE), the World Organisation for Animal Health is the international body charged with the development of standards for animal health which are recognized by the World Trade Organization as presumed to be consistent with the WTO's Agreement on the Application of Sanitary and Phytosanitary Standards (SPS Agreement).

Online and In-print Resources[1]

Compiled by Sarah Mohan, Heike Baumüller and Ruth Fend

Section I: Setting the context

Brack, D. (2005) *The World Trade Organization and sustainable development: A guide to the debate*. Energy, Environment and Development Programme EEDP BP 05/03. Chatham House. London, U.K.

Charnovitz, S. (1991) "Exploring the Environmental Exceptions in GATT Article XX." In *Journal of World Trade* 25(5): 38-55.

Copeland, B. R. and Taylor, M.S. (2003) *Trade and the Environment: Theory and Evidence*. Princeton University Press. Princeton, USA.

Cosbey, A. (2004) *Lessons Learned On Trade And Sustainable Development. Distilling Six Years of Research from the Trade Knowledge Network*. IISD-ICTSD Trade Knowledge Network. Geneva, Switzerland.

Cosbey, A. (2000) *Institutional Challenges and Opportunities in Environmentally Sound Trade Expansion: A Review of the Global State of Affairs*. North-South Agenda Paper No. 41. University of Miami North-South Center.

Eickhout, B., van Meijl, H., Tabeau, A. and van Zeijts, H. (2004) *Between Liberalization and Protection: Four Long-term Scenarios for Trade, Poverty and the Environment*. Paper prepared for the 7th Annual Conference on Global Economic Analysis: Trade, Poverty, and the Environment, 16–19 June 2004. Washington D.C., USA.

Gallagher, K. P. and Werksman, J. (2002). *Earthscan Reader on International Trade and Sustainable Development*. Earthscan Publications. London, U.K.

GETS (2003) *Achieving Harmony in Trade and Environment*. Global Environment and Trade Study. Minnesota, USA.

IISD and UNEP (2005) *Environment and Trade – A Handbook (2nd edition)*. International Institute for Sustainable Development and United Nations Environment Programme. Winnipeg, Canada.

Neumayer, E. (2001) *Greening Trade and Investment: Environmental Protection without Protectionism*. Earthscan Publications. London, U.K.

South Centre (1998) *The WTO Multilateral Trade Agenda and the South*. The South Centre. Geneva, Switzerland.

1 The list of resources was compiled from suggestions by the contributors to this book. It also draws on resources featured in the IISD-UNEP *Environment and Trade Handbook* and ICTSD's Web portal *Trade-environment.org*.

Trade-environment.org is a web portal of the International Centre for Trade and Sustainable Development featuring resources, events, news and links on trade and environment. http://www.trade-environment.org.

UNEP (1992) *Agenda 21: Programme of Action for Sustainable Development*. United Nations Environment Programme. Chapter 2 (pp. 20–22).

UNEP (2002) *World Summit on Sustainable Development Plan of Implementation*. United Nations Environment Programme. Para. 91.

WWF MPO (2005) *Trade Liberalization, Rural Poverty and the Environment: A Wide-Ranging Review of the Debates*. WWF Macroeconomic Policy Office. Washington D.C., USA.

Section II

1. Agriculture

Blandford, D. and Josling, T (2007) *Should the Green Box be modified?*. International Food and Agricultural Trade Policy Council. Washington D.C., USA.

CBD (2005) *The Impact of Trade Liberalization on Agricultural Biological Diversity.* CBD Technical Series No. 16. Secretariat of the Convention on Biological Diversity. Montreal, Canada.

ICTSD and IISD (2003–2005) *Agriculture*. Doha Round Briefing Series No. 2. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

ICTSD and GM (2007) *Promoting Sustainable Land Management Through Trade: Examining the Linkages Between Trade, Livelihoods and Sustainable Land Management in Degraded Areas*. International Centre for Trade and Sustainable Development and the Global Mechanism for the United Nations Convention to Combat Desertification. Geneva, Switzerland.

Lime, T. (2005) *Agricultural Commodities, Trade and Sustainable Development*. International Institute for Economic Development and International Centre for Trade and Sustainable Development. Nottingham, U.K.

OECD (2003) *Agriculture and Biodiversity: Developing Indicators for Policy Analysis*. Organisation for Economic Co-operation and Development. Paris, France.

UNEP (2005) *Handbook on Integrated Assessment of Trade Related Measures: The Agriculture Sector*. United Nations Environment Programme – Economics and Trade Branch. Geneva, Switzerland.

Unisfera (2005) *From Boom to Dust ? Agricultural Trade Liberalization, Poverty and Desertification in Rural Drylands*. Unisfera International Centre. Montreal, Canada.

Werth, A. (2003) *Agri-Environment and Rural Development in the Doha Round*. IISD-ICTSD Trade Knowledge Network. Geneva, Switzerland.

Vitalis, V. (2004) *Trade, Agriculture, the Environment and Development: Reaping the Benefits of Win-Win-Win?*. Paper presented at the IIED-ICTSD Dialogue "Agriculture, Trade Negotiations, Poverty and Sustainability," 14–16 July 2004, Windsor, U.K.

2. Biotechnology

Anderson, K., Damania, R., Jackson, L.A. (2004) *Trade, standards and the political economy of genetically modified food*. World Bank Policy Research Working Paper 3395. World Bank. Washington D.C., USA.

Bail, C., Falkner, R. and Marquard, H. (2002) *Reconciling Trade in Biotechnology with Environment & Development? The Cartagena Protocol on Biosafety*. Earthscan Publications and the Royal Institute of International Affairs. London, U.K.

Baumüller, H. and Oliva, M.J. (2006) "WTO/EC Biotech Panel Report: Key Issues and Implications." *Environmental Policy and Law Journal* 36(6):257–264.

Baumüller, H. (2003) *Domestic Import Regulations for Genetically Modified Organisms and their Compatibility with WTO Rules*. IISD-ICTSD Trade Knowledge Network. Geneva, Switzerland.

Bernauer, T. (2005) "Causes and Consequences of International Trade Conflict over Agricultural Biotechnology." *International Journal of Biotechnology 7(1/2/3).*

ICTSD (2007) Biotechnology: Addressing Key Trade and Sustainability Issues. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

FAO (2004) *The State of Food and Agriculture 2003–2004*. UN Food and Agriculture Organization. Rome, Italy.

GM Science Review Panel (2003) *An Open review of the science relevant to GM crops and food based on interests and concerns of the public*. GM Science Review Panel. London, U.K.

James, C. (annual) *Global Status of Commercialized Transgenic Crops*. ISAAA Briefs. International Service for the Acquisition of Agri-biotech Applications. Ithaca, USA.

Meléndez-Ortiz, R. and Sánchez, V. (2005) *Trading in Genes: Development Perspectives on Biotechnology, Trade and Sustainability*. Earthscan Publications and International Centre for Trade and Sustainable Development. London, U.K.

Musselli, I. & Zarrilli, S. (2002) "Non-trade concerns and the WTO jurisprudence in the Asbestos Case – Possible relevance for international trade in genetically modified organisms." *The Journal of World Intellectual Property* 5(3): 373–393.

Nuffield Council (2003) *The Use of Genetically Modified Crops in Developing Countries*. Nuffield Council on Bioethics. London, U.K.

Serageldin, I. and Persley, G. J. (2003) *Biotechnology and Sustainable Development: Voices of the South and North*. CABI Publishing. Glasgow, U.K.

Zarilli, S. (2005) *International trade in GMOs: Legal frameworks and developing country concerns*. Policy Issues in International Trade and Commodities Study Series No. 29. United Nations Conference on Trade and Development. Geneva, Switzerland.

3. Capacity Building

European Commission (2003) *Guidelines for European Commission Trade Related Assistance*. European Commission. Brussels, Belgium.

Friis Jensen, M. (2002) *Reviewing the SPS Agreement: A Developing Country Perspective*. CDR Working Paper. Centre for Development Research. Copenhagen, Denmark.

ICTSD and IISD (2003-2005) *Technical Assistance and Capacity-building*. Doha Round Briefing Series No. 12. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

JITAP (2005) *Toolkit For Module 1 – Institutional Capacity Building: Trade Negotiations, Implementation and Policies*. UNCTAD/DITC/TNCD/2004/2. Joint Integrated Technical Assistance Programme. Geneva, Switzerland.

Kostecki, M. (2001) *Technical Assistance Services in Trade Policy: A Contribution to the Discussion on Capacity Building in the WTO*. ICTSD Resource Paper No. 2. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

Pengelly, T. (2005) *Technical Assistance for the Formulation and Implementation of IP policy in Developing Countries and Transition Economies*. ICTSD Intellectual Property Rights & Sustainable Development Series Issue Paper No 11. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

Solignac Lecomte, H.-B. (2001) *Building capacity to trade: A road map for development partners*. ECDPM Discussion Paper No. 33. European Centre for Development Policy Management. Brussels, Belgium.

UNCTAD (2005) *Trade Capacity Development For Africa: Compendium Of Papers*. Trade Negotiations and Africa Series No. 2. United Nations Conference for Trade and Development. Geneva, Switzerland.

UNEP (2002) *Capacity Building on Environment, Trade and Development: Trends, Needs and Future Directions*. United Nations Environment Programme – Economics and Trade Branch. Geneva, Switzerland.

Vivas-Eugui, D, and Bellmann, C. (2004) "Supporting Policymaking, Legal Reform and Participation in International Standard Setting." In SAANA Consulting (ed.) *Reflecting on IPR Technical Assistance for Developing Countries and Transition Economies*. Helsinki, Finland.

4. Climate Change and Energy

Aldy, J.E. *et al*. (2003) *Beyond Kyoto: Advancing the International Effort against Climate Change*. Pew Center on Global Climate Change. Washington D.C., USA.

Green, A. (2005) "Climate Change, Regulatory Policy And The WTO: How Constraining Are Trade Rules?" *Journal of International Economic Law* 8(1):143–189.

Hazell, P. and Pachauri, R.K. (2006) *Bioenergy and Agriculture: Promises and Challenges*. International Food Policy Research Institute. Washington D.C., USA.

Howse, R. (2006) *WTO Disciplines and Biofuels: Opportunities and Constraints in the Creation of a Global Marketplace*. International Food and Agricultural Trade Policy Council. Washington D.C., USA.

ICTSD (2006) *Linking Trade, Climate Change and Energy: Selected Issue Briefs*. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

IEA (2006) *World Energy Outlook 2006*. International Energy Agency. Paris, France.

Johansson, T. and Goldemberg, J. (2002) *Energy for Sustainable Development: A Policy Agenda*. United Nations Development Programme. New York, USA.

Kommerskollegium/Swedish National Board of Trade (2004) *Climate and Trade Rules – Harmony or Conflict?* Kommerskollegium. Stockholm, Sweden.

Koplow, D. (2006) *Biofuels: At What Cost? Government Support for Ethanol and Biodiesel in the United States*. Global Subsidies Initiative. International Institute for Sustainable Development. Winnipeg, Canada.

Martinot, E. (2005) *Renewables 2005: Global Status Report*. WorldWatch Institute. Washington D.C., USA.

Selivanova, J. (2004) "World Trade Organisation Rules and Energy Pricing: Russia's Case." *Journal of World Trade* 38(4): 559-602.

Sugiyama, T. (2005) *Governing Climate: The Struggle for a Global Framework Beyond Kyoto*. International Institute for Sustainable Development. Winnipeg, Canada.

UNCTAD (2000) *Trade Agreements, Petroleum and Energy Policies*. United Nations Conference on Trade and Development. Geneva, Switzerland.

UNEP (2003) *Energy Subsidies: Lessons Learned in Assessing their Impact and Designing Policy Reforms*. United Nations Environment Programme – Economics and Trade Branch. Geneva, Switzerland.

5. Dispute Resolution

Bernasconi-Osterwalder, N., Magraw, D., Oliva, M.J., Orellana, M. and Tuerk, E. (2005) *A Guide to WTO Jurisprudence*. Earthscan Publications. London, U.K.

Howse, R. (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(2): 489-519.

Hunter, D., Salzman, J. and Zaelke, D. (2002) *International Environmental Law and Policy* (2nd ed.). University Casebook Series. Foundation Press. New York, USA.

ICTSD and IISD (2003-2005) *Dispute Settlement Review*. Doha Round Briefing Series No. 8. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

Mann, H. and Porter, S. (2003) *The State of Trade and Environment Law 2003: Implications for Doha and Beyond*. International Institute for Sustainable Development and Center for International Environmental Law. Winnipeg, Canada.

Marceau, G. and Trachtmann, J.P. (2002) "TBT, SPS, and GATT: A Map of the WTO law of domestic regulation." *Journal of World Trade* 36(5).

Read, R. (2004) "Like Products, Health & Environmental Exceptions: The Interpretation of PPMs in Recent WTO Trade Dispute Cases." *The Estey Centre Journal of International Law and Trade Policy* 5(2): 123-146.

Sands, P. (2003) *Principles of International Environmental Law*. Cambridge University Press. Cambridge, U.K.

Tarasofsky, R. (2005) *Trade, Environment and the WTO Dispute Settlement Mechanism*. Chatham House. London, U.K.

WTO Dispute Settlement Gateway: http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm.

6. Environmental Goods and Non-agricultural Market Access

Alavi, R. (2007) *An Overview of Key Markets, Tariffs and Non-Tariff Measures on Asian Export of Select Environmental Goods*. ICTSD Series on Trade and Environment No. 4. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

Carpentier, C.L., Gallagher, K. and Vaughan, S. (2005) "Environmental Goods and Services in the World Trade Organization." *Journal of Environment and Development* 14(2): 225–252.

Hamwey, R. M. (2005) *Environmental Goods: Where Do the Dynamic Trade Opportunities for Developing Countries Lie?.* Centre for Economic and Ecological Studies. Geneva, Switzerland.

Howse, R. and van Bork, P. (2006) *Options for Liberalising Trade in Environmental Goods in the Doha Round*. ICTSD Trade and Environment Series No.2. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

ICTSD and IISD (2003-2005) *Trade and Environment*. Doha Round Briefing Series No. 9. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

Kim, J.A. (2007) *Issues of Dual Use and Reviewing Product Coverage of Environmental Goods*. OECD Trade and Environment Working Paper No. 2007-01. Organisation for Economic Co-operation and Development. Paris, France.

OECD (2005) *Environmental Requirements and Market Access*. Organisation for Economic Co-operation and Development. Paris, France.

OECD (2005) *Trade that Benefits the Environment and Development: Opening Markets for Environmental Goods and Services*. Organisation for Economic Co-operation and Development. Paris, France.

Steenblik, R., Drouet, D. and Stubbs, G. (2005) *Synergies Between Trade in Environmental Services and Trade in Environmental Goods*. OECD Trade and Environment Working Paper No. 2005-01. Organisation for Economic Co-operation and Development. Paris, France.

Sustainability Impact Assessment of Proposed WTO Multilateral Trade Negotiations of the Institute for Development Policy and Management (University of Manchester, U.K.) features SIAs of trade liberalisation on the agriculture, fisheries and forestry sectors. http://www.sia-trade.org/wto/index.htm.

Tothova, M. (2005) *Liberalisation of Trade in Environmentally Preferable Products.* November 2005. OECD Trade and Environment Working Paper No. 2005-06. Organisation for Economic Co-operation and Development. Paris, France.

Vikhlyaev, A. (2004) *Environmental goods and services: Defining negotiations or negotiating definitions?*. Trade and Environment Review 2003. United Nations Conference on Trade and Development. Geneva, Switzerland.

7. Environmental Services

ICTSD and IISD (2003–2005) *Trade in Services*. Doha Round Briefing Series No. 3. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

Kirkpatrick, C. (2006) *Trade in Environmental Services: Assessing the Implications for Developing Countries in the GATS*. ICTSD Series on Trade and Environment No. 3. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

Krajewski, M. (2004) "Environmental Services of General Interest in the WTO: no love at first sight." *Journal of European Environmental and Planning Law* 95(3): 489-534.

Landell-Mills, N. and Porras, I.T. (2002) *Silver bullet or fools' gold? A global review of markets for forest environmental services and their impact on the poor*. Institute for Economic Development. London, U.K.

Sawhney, A. (2007) *Building Supply Capacity for Environmental Services in Asia*. ICTSD Series on Trade and Environment No. 5. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

UNCTAD (2003) *Energy and Environmental Services: Negotiating Objectives and Development Priorities*. UNCTAD/DITC/TNCD/2003/3. United Nations Conference on Trade and Development. Geneva, Switzerland.

Sawhney, S. and Chanda, R. (2003) *Trade in environmental services: opportunities and constraints*. Indian Council for Research on International Economic Relations. New Delhi, India.

8. Environmental Technologies

Barton, H. (2007) *New Trends in Technology Transfer: Implications for National and International Policy*. Intellectual Property Rights & Sustainable Development Series No. 18. International Centre for Trade and Sustainable Development and United Nations Conference on Trade and Development. Geneva, Switzerland.

Correa, C.M. (1994) "Trends in technology transfer: implications for developing countries." *Science and Public Policy* 21(6): 369–380.

Lall, S. (2001) *The economics of technology transfer*. Edward Elgar Publishing. Cheltenham, U.K.

Maskus, K.E. (2004) *Encouraging International Technology Transfer*. Intellectual Property Rights & Sustainable Development Series No. 9. International Centre for Trade and Sustainable Development and United Nations Conference on Trade and Development. Geneva, Switzerland.

Tébar Less, C. and McMillan, S. (2005) *Achieving the successful transfer of environmentally sound technologies: trade-related aspects*. OECD Trade and Environment Working Paper No. 2005-02. Organisation for Economic Co-operation and Development. Paris, France

UNCTAD (1990) *Transfer and development of technology in the least developed countries: an assessment of major policy issues*. UNCTAD/ITP/TEC/12. United Nations Conference on Trade and Development. Geneva, Switzerland.

UNIDO (1996) *Manual on technology transfer negotiation*. United Nations Industrial Development Organization. Vienna, Austria.

Veena, J. and Teixeiram, A.P. (1994) *Are environmentally sound technologies the emperor's new clothes?* Discussion Paper No.89. United Nations Conference on Trade and Development. Geneva, Switzerland.

9. Fisheries subsidies

Bostock, T., Greenhalgh, P. and Kleih, U. (2004) *Implications of Liberalization of Fish Trade for Developing Countries*. Natural Resources Institute. Greenwich, U.K.

FAO (2004) *The State of the World Fisheries and Aquaculture*. United Nations Food and Agriculture Organization. Rome, Italy.

ICTSD (2006) *Fisheries, International Trade and Sustainable Development: Policy Discussion Paper*. ICTSD Natural Resources, International Trade and Sustainable Development Series. International Centre for Trade and Sustainable Development. Geneva, Switzerland.

ICTSD and IISD (2003-2005) *Negotiations on WTO Rules*. Doha Round Briefing Series No. 7. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

Milazzo, M. (1998) *Subsidies in World Fisheries: A Reexamination*. World Bank Technical Paper No. 406. World Bank. Washington D.C., USA.

OECD (2003) *Liberalising Fisheries Markets: Scope and Effects*. Organisation for Economic Co-operation and Development. Paris, France.

Schorr, D. (2005) *Artisanal Fishing: Promoting Poverty Reduction and Community Development Through New WTO Rules on Fisheries Subsidies*. United Nations Environment Programme – Economics and Trade Branch. Geneva, Switzerland.

Schorr, D. (2004) *Healthy Fisheries, Sustainable Trade: Crafting New Rules On Fishing Subsidies in the World Trade Organization*. WWF. Washington D.C., USA.

Schrank W (2003). *Introducing Fisheries Subsidies*. Fisheries Technical Paper 437. United Nations Food and Agriculture Organization. Rome, Italy.

Sumaila, U.R. and Pauly, D. (2006) *Catching more bait: A bottom-up re-estimation of global fisheries subsidies*. Fisheries Centre. University of British Columbia. Vancouver, Canada.

UNEP (2004) *Analyzing the Resource Impact of Fisheries Subsidies: A Matrix Approach*. United Nations Environment Program – Economics and Trade Branch. Geneva, Switzerland.

Westlund L. (2004) *Guide for Identifying, Assessing and Reporting on Subsidies in the Fisheries Sector*. Fisheries Technical Paper No. 438. United Nations Food and Agriculture Organization. Rome, Italy.

10. Illegal Trade in Natural Resources

Agnew, D. and Barnes, C. (2004) *Economic Aspects and Drivers of IUU Fishing: Building a Framework*. Paper prepared for the OECD Workshop on IUU Fishing Activities, 19–20 April 2004. Paris, France.

Brack, D. (2007) *Action against illegal logging: interaction with international trade agreements*. Paper prepared for the Chatham House workshop on "Forest Governance and Trade: Exploring Options," 24 January 2007. London, U.K.

Brack, D. and Hayman, G. (2002) *International Environmental Crime: The Nature and Control of Environmental Black Markets*. Chatham House (formerly Royal Institute for International Affairs). London, U.K.

Cook, D., Roberts, M. and Lowther, J. (2003) *The international wildlife trade and organised crime*. WWF and TRAFFIC. London, U.K.

HSTF (2006) *Closing the Net – Stopping Illegal Fishing on the High Seas*. High Seas Task Force on Illegal, Unreported and Unregulated Fishing. Paris, France.

Illegal-logging.info and Illegal-fishing.info are maintained by the U.K. think-tank Chatham House as a central point of information (briefings, documents, links and news stories) on every aspect of the illegal logging debate. http://www.illegal-logging.info and http://www.illegal-fishing.info.

Roe, D., Mulliken, T., Milledge, S., Mremi, J., Mosha, S. and Grieg-Gran, M. (2002) *Making a Killing or Making a Living: Wildlife trade, trade controls and rural livelihoods*. Biodiversity and Livelihoods Issues No. 6. International Institute for Economic Development and TRAFFIC. London, U.K.

11. Intellectual Property Rights

Apte, T. (2007) *A Simple Guide to Intellectual Property Rights, Biodiversity and Traditional Knowledge*. Kalpavriksh, GRAIN and International Institute for Economic Development. Dehli, India.

Dutfield, G. (2006) *Protecting Traditional Knowledge: Pathways to the Future*. Intellectual Property Rights & Sustainable Development Series No. 16. International Centre for Trade and Sustainable Development and United Nations Conference on Trade and Development. Geneva, Switzerland.

Dutfield. G. (2004) *Intellectual Property, Biogenetic Resources and Traditional Knowledge*. Earthscan Publications. London, U.K.

Finger, J.M. and Schuler, P. (2005) *Poor People's Knowledge: Promoting Intellectual Property in Developing Countries*. World Bank. Washington D.C., USA.

Gupta, A.K. (2006) *The Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge*. World Intellectual Property Organisation and United Nations Environment Programme. Geneva, Switzerland.

ICTSD and UNCTAD (2005) *Resource Book on TRIPS and Development: An authoritative and practical guide to the TRIPS Agreement*. UNCTAD-ICTSD Capacity Building Project. Geneva, Switzerland.

ICTSD and UNCTAD (2003) *Intellectual Property Rights: Implications for Development: Policy Discussion Paper*. UNCTAD-ICTSD Capacity Building Project. Geneva, Switzerland

ICTSD and IISD (2003–2005) *Intellectual Property Rights*. Doha Round Briefing Series No. 5. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

IPRsonline.org is a web portal of the International Centre for Trade and Sustainable Development featuring resources, events, news and links on intellectual property rights, trade and sustainable development. http://www.iprsonline.org/.

IUCN, ICTSD, CIEL, IDDI and QUNO (2005) *Disclosure Requirements: Ensuring mutual supportiveness between the WTO TRIPS Agreement and the CBD*. Geneva, Switzerland.

Khor, K.P. and Khor, M. (2004) *Intellectual Property, Biodiversity and Sustainable Development: Resolving the Difficult Issues*. Zed Books. London, U.K.

Smolders, W. (2005) *Disclosure of Origin and Access and Benefit Sharing: The Special Case of Seeds for Food and Agriculture*. Quaker United Nations Office Occasional Paper. Geneva, Switzerland.

Ullrich, H. (2005) *Traditional Knowledge, Biodiversity, Benefit-Sharing and the Patent System: Romantics v. Economics?* European University Institute. Florence, Italy.

12. Investment

Cosbey, A., Mann, H., Peterson, L.E. and von Moltke, K. (2004) *Investment and Sustainable Development: A Guide to the Use and Potential of International Investment Agreements*. International Institute for Sustainable Development. Winnipeg, Canada.

Cosbey, A. (2003) *NAFTA's Chapter 11 and the Environment*. Discussion Paper prepared for the CEC's Public Workshop on NAFTA's Chapter 11. Commission for Environmental Cooperation. Montreal, Canada.

IISD (2005) *International Investment Agreement for Sustainable Development*. International Institute for Sustainable Development. Winnipeg, Canada.

IISD (2001) *Private Rights, Public Problem: A Guide to NAFTA's Controversial Chapter on Investor Rights*. International Institute for Sustainable Development. Winnipeg, Canada.

Mann, H. and von Moltke, K. (2005) *A Southern Agenda on Investment? Promoting Development with Balanced Rights and Obligations for Investors, Host States and Home States*. International Institute for Sustainable Development. Winnipeg, Canada.

Perezcano, H. (2003) "Investment Protection Agreements: Should a Multilateral Approach be Reconsidered?" *Journal of World Investment* 4(6):929–940.

Peterson, L.E. (2004) *Bilateral Investment Treaties and Development Policy-making*. International Institute for Sustainable Development and Swiss Agency for Development and Cooperation. Winnipeg, Canada.

Sampliner, G.H. (2003) "Arbitration of Expropriation Cases Under U.S. Investment Treaties – A Threat to Democracy or the Dog That Didn't Bark?" *ICSID Review: Foreign Investment Law Journal* 18(1): 1-43.

UNCTAD (1998) *Bilateral Investment Treaties in the Mid-1990s*. United Nations Conference on Trade and Development. Geneva, Switzerland.

UNCTAD (2003) *Foreign Direct Investment and Performance Requirements: New Evidence From Selected Developing Countries*. United Nations Conference on Trade and Development. Geneva, Switzerland.

UNCTAD (2004) *International Investment Disputes on the Rise*. Occasional Note UNCTAD/WEB/ITE/IIT/2004/2. United Nations Conference on Trade and Development. Geneva, Switzerland.

13. Multilateral Environmental Agreements

Brack, D. and Gray, K. (2003) *Multilateral Environmental Agreements and the WTO*. International Institute for Sustainable Development and Royal Institute for International Affairs. Winnipeg, Canada, and London, U.K.

Eckersley, Robin, 2004. "The Big Chill: The WTO and Multilateral Environmental Agreements." *Global Environmental Politics* 2(2): 24–50.

Hoffmann, U. (2004) *Specific trade obligations in multilateral environmental agreements and their relationship with the rules of multilateral trading system – A developing country perspective*. Trade and Environment Review 2003. United Nations Conference on Trade and Development. Geneva, Switzerland.

ICTSD and IISD (2003-2005) *Trade and Environment*. Doha Round Briefing Series No. 9. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

Linkages provides current coverage and archived reports of all key environment and development related meetings and negotiations. http://www.iisd.ca/.

Palmer, A. and Tarasofsky, R. (2007) *The Doha Round and Beyond: Towards a lasting relationship between the WTO and the international environmental regime*. Chatham House and Foundation for International Environmental Law. London, U.K.

UNEP (2004) *Economic Instruments in Biodiversity-related Multilateral Environmental Agreements*. United Nations Environment Programme – Economics and Trade Branch. Geneva, Switzerland.

WTO Secretariat (2005) *Matrix on Trade Measures Pursuant to Selected Multilateral Environmental Agreements*. TN/TE/S/5/Rev.1. World Trade Organization. Geneva, Switzerland.

WTO Secretariat (2003) *Compilation of Submissions Under Paragraph 31(i) of the Doha Declaration*. TN/TE/S/3/Rev.1. World Trade Organization. Geneva, Switzerland.

WWF (2002) *Multilateral Environmental Agreements in the WTO: Negotiations Under Para 31(1) of the Doha Ministerial Declaration*. WWF International Analytical Paper. Gland, Switzerland.

14. Policy Coherence

European Commission (2005) *Policy Coherence for Development – Accelerating progress towards attaining the Millennium Development Goals*. COM(2005) 134. European Commission. Brussels, Belgium.

Kumar Duraiappah, A. and Bhardwaj, A. (2005) *Measuring Policy Coherence among the MEAs*. International Institute for Sustainable Development. Winnipeg, Canada.

Matthews, A. and Giblin, T. (2006) *Policy Coherence, Agriculture and Development*. IIIS Discussion Paper No. 112. Institute for International Integration Studies. Dublin, Ireland.

Millennium Development Goals set out global targets and indicators for reducing poverty by 2015. http://www.millenniumcampaign.org/.

OECD (2003) *Policy coherence: Vital for global development*. OECD Observer. Organisation for Economic Co-operation and Development. Paris, France.

UNCTAD (2004) *Trade and Development Report 2004: Policy coherence, development strategies and integration into the world economy*. UNCTAD/TDR/2004. United Nations Conference on Trade and Development. Geneva, Switzerland.

15. Regional Arrangements

Audley, J. (2003) *The Art of the Possible: Environment in the Free Trade Area of the Americas*. Trade, Equity and Development Paper Series. Carnegie Endowment for International Peace. Washington D.C., USA.

Bilaterals.org. Civil society Web site providing recent news and analysis concerning regional and bilateral trade and investment agreements. http://www.bilaterals.org/

Cosbey, A., Tay, S., Lim, H. and Walls, M. (2005) *The Rush to Regionalism: Sustainable Development and Regional/Bilateral Approaches to Trade and Investment Liberalization.* International Development Research Centre. Ottawa, Canada.

Colyer, D. (2003) "Agriculture and Environmental Issues in Free Trade Agreements." *The Estey Centre Journal of International Law and Trade Policy* 4(2): 123–143.

Gallagher, K.P. (2004) *Free Trade and the Environment: Mexico, NAFTA, and Beyond*. Stanford University Press. Palo Alto, USA.

ICTSD (1999) *Trade Policy and Sustainability: The Regional Approaches*. Proceedings of an International Centre for Trade and Sustainable Development conference, 1–2 February 1999, Geneva, Switzerland.

Imai, K. and Gueye, M. K. (2003) "The Relationship Between the WTO and Regional Trade Agreements and Institutions on Trade and Environment in Asia." In *Achieving Harmony in Trade and Environment*. Global Environment and Trade Study. Minnesota, USA.

OECD (2007) *Regional Trade Agreements and Environment*. Organisation for Economic Co-operation and Development. Paris, France.

RegionsWatch is a civil society Web site on regional integration with news, analysis and email updates. http://regionswatch.tripod.com/.

Schiff, M. and Winters, L. A. (2003) *Regional Integration and Development*. World Bank and Oxford University Press, Washington D.C., USA.

Steenblik, R. and Tébar Less, S. (2003) *Regionalism and the Multilateral Trading System: Environment*. Organisation for Economic Cooperation and Development. Paris, France.

16. Standards and Labelling

Charnovitz, S. (2000) *Solving the Production and Processing Methods Puzzle*. WTO Series No. 5. Occasional paper of the Program for the Study of International Organizations. Graduate Institute of International Studies. Geneva, Switzerland.

CI (2005) *Decision Making in the Global Market: Trade, Standards and the Consumer*. Consumers International. London, U.K.

Gandhi, S.R. (2005) "Regulating the Use of Voluntary Environmental Standards within the World Trade Organization Legal Regime: Making a Case for Developing Countries." *Journal of World Trade* 39(5): 855–880.

Howse, R. and Regan, D. (2000) "The Product/Process Distinction – An Illusory Basis for Disciplining "Unilateralism" in Trade Policy." *European Journal of International Law* 11(2): 249–291.

Khwaja, M.A., Rafi Khan, Shaheen, Rafi Khan, Shahrukh and Saeed Qureshi, M. (2003) *The Costs and Benefits of Compliance with International Environmental Standards*. IISD-ICTSD Trade Knowledge Network. Geneva, Switzerland.

Mayeda, G. (2004) "Developing Disharmony? The SPS and TBT Agreements and the Impact of Harmonization on Developing Countries." *Journal of International Economic Law* 7(4):737–764.

OECD (2004) *Addressing Market-Access Concerns of Developing Countries Arising from Environmental and Health Requirements: Lessons from National Experiences*. OECD Trade Policy Working Paper No. 5. Organisation for Economic Co-operation and Development. Paris, France.

Rotherham, T. (2005) *The Trade and Environmental Effects Of Ecolabels: Assessment and Response*. United Nations Environmental Programme – Economics and Trade Branch. Geneva, Switzerland.

Rotherham, T. (2003) *Implementing Environmental, Health and Safety (EH&S) Standards, and Technical Regulations: The Developing Country Experience*. IISD-ICTSD Trade Knowledge Network. Geneva, Switzerland.

Hoffmann, U. and Rotherham, T. (2006) *Environmental requirements and market access for developing countries: promoting environmental – not trade – protection*. United Nations Conference on Trade and Development. Geneva, Switzerland.

17. Trade Facilitation

Duval, Y. (2006) *Cost and Benefits of Implementing Trade Facilitation Measures under Negotiations at the WTO: an Exploratory Survey*. ARTNeT Working Paper Series No. 3. Asia-Pacific Research and Training Network on Trade. Bangkok, Thailand.

ICTSD and IISD (2003-2005) *Trade Facilitation*. Doha Round Briefing Series No. 6. International Centre for Trade and Sustainable Development and International Institute for Sustainable Development. Geneva, Switzerland.

ILEAP (2005) *A Positive Agenda for Africa in Trade Facilitation Negotiations*. Negotiation Brief No. 8. International Lawyers and Economists Against Poverty. Toronto, Canada.

ITC (2005) *Business and the WTO Negotiations on Trade Facilitation*. Technical Paper No. ITC/BAS-05-34.E. International Trade Centre. Geneva, Switzerland.

Messerlin, P.A. and Zarouk, J. (1999) *Trade Facilitation: Technical Regulations and Customs Procedures*. Paper prepared for the WTO/World Bank Conference on Developing Countries' in a Millennium Round. 13 September 1999. Geneva, Switzerland.

South Center (2004) *Detailed Analysis of Annex D to the General Council Decision July 2004*. "Modalities for Negotiations on Trade Facilitation." Analytical Note SC/TADP/AN/CC/2.4. South Center. Geneva, Switzerland.

Trade and Environment

A Resource Book

Trade and environment policy is increasingly intertwined and the stakes are nearly always high in both trade and environmental terms. These issues are often complex and discussions tend to become very specialized, challenging policy practitioners to understand and follow all the various sub-strands of trade and environment debates. This Resource Book seeks to demystify these issues without losing the critical nuances.

This collaborative effort of some 61 authors from 34 countries provides relevant information as well as pertinent analysis on a broad set of trade and environment discussions while explaining, as clearly as possible, what are the key issues from a trade and environment perspective; what are the most important policy debates around them; and what are the different policy positions that define these debates.

The volume is structured and organized to be a reference document that is useful and easy to use. Our hope is that those actively involved in trade and environment discussions—as practitioners, as scholars and as activists—will be able to draw on the analysis and opinions in this book to help them advance a closer synergy between trade and environmental policy for the common goal of achieving sustainable development.

ICTSD
International Centre for Trade and Sustainable Development

iisd International Institute for Sustainable Development / Institut international du développement durable

The RING