Environmentally Sound Trade Expansion in the Americas: A Hemispheric Dialogue

edited by Robin L. Rosenberg

The Dante B. Fascell North-South Center
UNIVERSITY OF MIAMI

ORGANIZATION OF AMERICAN STATES

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INTERNATIONAL CENTRE FOR TRADE AND SUSTAINABLE DEVELOPMENT

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Robin L. Rosenberg

INTRODUCTION

Robin L. Rosenberg and Michael J. Miller

International trade clearly emerged as the primary engine of global economic growth in the 1990s. According to the World Trade Organization (WTO), throughout the past decade, the growth in international trade, registering significant increases even during periods of world recession, has outpaced the growth of world gross domestic product. It is no wonder, then, that a broad sector of civil society groups representing the environmental, labor, social, and other development communities should see this engine of growth for the 21st century as a legitimate vehicle through which to advance their concerns on the global stage. The burgeoning debate in which trade is linked to deterioration in environmental quality, abuses of labor rights, and skewed income distribution, among other ills, has fueled a public backlash in many developed markets, especially the United States, against the expansion of free trade agreements, even as international trade accounts for more and more domestic economic growth. In the developing countries, there is growing fear that the concerns of environmental groups and organized labor will emerge as a "new protectionism" that will seriously threaten the global trading system and their chances of real economic growth through trade. All of these developmental, environmental, and social concerns were the combustive components of the street violence and the failure of the WTO Ministerial Conference to launch its proposed Millennium Round negotiations in Seattle in December 1999.1

In modern democracies, broad-based public support is crucial for trade expansion, especially as economies undergo significant structural transformations, whether those transformations are into the so-called "new economy" of the developed countries or into the neo-liberal economic model followed by so many of the developing countries. A decade of economic restructuring, public sector and business enterprise downsizing, and economic dislocation has created a climate in which powerful, socially conscious voices are able to promote a prevailing perception that the economic insecurity felt by a broad spectrum of citizens is caused principally by the expansion of free trade agreements. Political reality suggests that trade policy and economic policy cannot be perceived to have emerged from a consensus of business, government elites, and supranational authorities: Such public perceptions clearly will not help sell the gains from trade to the citizens of the Americas. For the politically powerful social actors on the streets and in well-located offices in national and world capitals, only a process that includes meaningful opportunities for participation by concerned representatives of civil society can ensure that the promise of an integrated, prosperous Western Hemisphere, embodied in the commitment made by 34 democratically elected leaders of the Americas to create a Free Trade Area of the Americas (FTAA) by 2005, will be fulfilled.

The Trade and Environment Conundrum

A fundamental asymmetry in the debate over trade and the environment resides in the fact that the international trading system enjoys a well-established, rule-based, outcome-oriented regime, embodied in the General Agreement on Tariffs and Trade (GATT) and its successor, the WTO, yet there is no such regime for environmental protection and conservation. International environmental agreements, such as the 1992 Agenda 21 from the UN Conference on Environment and Development (Earth Summit), while growing in number and stature, do not operate under the auspices of a supranational authority such as the WTO to enforce agreements and resolve disputes. Multilateral Environmental Agreements (MEAs), many of which have been negotiated under the aegis of the United Nations system, may be legally binding under international law but are compelled by soft mechanisms and political will, not by coercion.

Adding fuel to the concerns over this structural inequality is the environmentally blind way in which the GATT/WTO seemingly has functioned. Although the GATT has provisions that permit trade prohibitions or restrictions to enforce domestic policies concerning human health and safety, animal and plant conservation, conservation of exhaustible natural resources, and the

export of critical foodstuffs or other products (Articles XX(b), XX(g) and XI(2)), the need to enforce these provisions on a nondiscriminatory and "necessary" basis has bolstered the perception that the GATT, as the centerpiece of the global multilateral trading system, is biased in favor of free trade as an end in itself, as opposed to trade as a tool for development — an engine for sustainable development, as stated in the preamble to the WTO agreements. The GATT/WTO has seemed more willing in practice to protect against a feared "new protectionism" or "green protectionism"; that is, protectionist measures disguised by concerns for the environment. The famous U.S.-Mexico tuna/dolphin dispute did much to raise the criticism of the GATT to an uproar: A GATT panel ruled against U.S. prohibitions on imports of Mexican and Venezuelan tuna, concerning itself not with the process by which the tuna was caught (which at the time resulted in major dolphin kills) but with the final product itself, which was deemed safe for human health and consumption. The extraterritorial application of domestic U.S. law was also an issue, drawing more attention to the need for multilateral environmental agreements with enforceable trade provisions.

In short, the GATT's performance in this area — and in the area of labor rights — has not broadened the coalition for free trade beyond private business sector, governmental and intergovernmental elites. The belated establishment of a Committee on Trade and Environment (CTE) at the WTO in 1994 was a significant institutional development in the multilateral trading system, but the work of the committee has proceeded slowly thus far — suggesting that the "greening of the GATT" (Esty 1994) will be a glacial process at best. There is reason to believe, moreover, that the debacle of Seattle will set back the WTO even further in this area, as developing countries resist even more energetically what they feel to be a primarily developed country agenda. As a result, environmentalists and other concerned members of civil society have begun to focus their attention on regional trade agreements, such as the North American Free Trade Agreement (NAFTA), where the chances for policy action do not seem as remote as in the WTO's global multilateral forum. The FTAA, therefore, may present an unparalleled opportunity to integrate trade expansion with environmental sustainability and to pursue positive synergies on a hemisphere-wide basis.

Most of the debate on the issue of trade and environment has taken place at relatively high policy levels, where powerful economic arguments and political forces compete to give priority to either trade or environmental protection. The debate has often been two dimensional, pitting free traders and developing countries fearful of protectionism on one side and environmentalists with the weapon of trade sanctions on the other. Within this limited framework, the "politics of economic growth" tended to prevail over the emerging global environmental agenda (Rosenberg 1994). To be sure, there were always efforts to bridge the gap to find common, ground and win-win scenarios, but the extremes on each side tended to prevent sufficient trust among the actors from developing. After the Seattle WTO meeting, however, that dynamic has been further complicated by the de facto addition of a development dimension to the debate, giving greater credibility to those organizations, largely from developing countries, that have always considered the debate not to be about the relationship between *trade and the environment* but between *trade and sustainable development.*

For some environmentalists, the development dimension adds too many social and economic variables into the relationship, complicating the exploration of specific empirical linkages between trade expansion and environmental effects. For others, however, the addition of the developmental dimension offers a powerful political vehicle for advancing environmental priorities, for it harnesses the major concerns of the developing countries, including most of the Latin American nations, that see economic development as their highest priority.2 Moreover, the focus on development responds at the strategic level of international relations, where the "politics of economic growth" of the past half-century has evolved into an even harsher politics of market survival. Thus emerges the "triple-win" scenario, a compelling series of opportunities in which the priorities of trade expansion, economic development, and environmental protection are pursued simultaneously.

The Evolution of the Trade and Environment Debate in the Americas

To understand the evolution of the debate, however, it is necessary to begin with the fundamental political, economic, and philosophical

differences among the various stakeholders. An overarching philosophical dilemma is presumed. Free traders and their proponents in governments tend to see societal benefits deriving from free trade that go beyond the economic gains from trade to include such areas as democratization and environmental protection. In a reflection of this view, the December 1994 Summit of the Americas *Declaration of Principles* states, "Free Trade and increased economic integration are key factors for raising standards of living, improving the working conditions of people in the Americas, and better protecting the environment" (Feinberg and Rosenberg 1999). Environmentalists and labor activists dispute this view; while a growing mainstream might agree that free trade and economic integration may be beneficial, they reject outright the suggestion that environmental and labor benefits will, by some magic and automatic formula, "trickle down" from free trade. They argue that environmental and labor goals and principles must be worked into free trade agreements to ensure the benefits to the environment and society.

Environmental groups, governments, and international organizations have taken wide-ranging positions in the current debate over the potential effects of free trade on the environment. At one pole are the more radical environmentalists, who see any increase in modern agricultural and industrial activity as prejudicial to the environment. More moderate environmental groups and some government sectors are concerned that, without environmental safeguards, increases in economic activity within and across borders will bring with it tremendous negative impacts on the global commons; that the increased specialization that would result from free trade would reinforce the trend toward natural resource depletion in the developing countries; that "dirty" economic activity will seek to lower production costs by locating in countries with lower environmental standards ("pollution havens"); that social, political, and economic differences are so great between the North and South that harmonization of environmental regulations to meet the highest standards could only be realized over the very long term and perhaps after tremendous ecological devastation; and that pressure to lower standards to the least common denominator will prevail.

At the other pole are some influential free traders who go beyond asserting the existence of a mere compatibility between free trade and the environment to arguing that free trade is essential for adequate protection of the environment. Free traders insist that "pollution havens" will not be found in free trade areas, rather, that they only exist in protectionist economies. Free trade hardliners are joined by GATT/WTO, the World Bank (WB) and other organizations concerned with trade, many governments in both developed and developing countries, and most economists in taking the following positions: that higher incomes from trading allow expenditures to mitigate the effects of past harmful practices and the implementation of environmentally sound practices through the transfer of needed technology; that the goal of "eco-efficiency" is more difficult to attain in protected markets; that the competitive dynamic of free trade would result in advantages and incentives for clean firms that employ cleaner processes and make clean products; that higher standards will be harmonized through the integration process and eventually enforced through multilateral dispute settlement mechanisms; that a high degree of economic and political integration enables regions ultimately to go beyond the threat of trade sanctions as an enforcement mechanism, as the European Union (EU) experience suggests; that a "level playing field" for trade would remove the incentive to use environmental issues as an excuse for protectionist measures against another country's exports; and that the market forces that trade liberalization unleashes are, in the final analysis, the most efficient in allocating appropriate environmental and other resources.

Especially troubling to developing countries are trade barriers based on concerns about the environmental effects of the process of creating or obtaining a product. Many analysts in GATT/WTO, the WB, and other multilateral organizations echo these fears. Developing countries seek to divorce trade constraints based on the type of product from constraints based on the type of process used. They argue that as long as the product being traded is not itself unlawful, trade restrictions cannot be imposed based solely on the process used to obtain or produce that product. This "product vs. process" conflict concerns the use of trade sanctions to impose one nation's environmental standards on another's manufacturing or resource extraction processes as a disguise for trade protectionism and/or a violation of national sovereignty. Behind this argument is an ongoing debate on the nature of developing countries' competitiveness in the global market, and, not least, the issue of sovereignty, the fundamental principle underlying the nation-state system:

Nations must be able to exercise their sovereign rights, as embodied in the UN Charter, to use — or abuse — their natural endowment and resources in accordance with their own standards. No binding principle exists in the international system that would oblige a country to assume responsibility for the "global commons."

Behind the position of developing countries is a particular economic logic, reinforced by some multilateral institution analysts and other economists, which is a powerful free market argument that uses the principle of sovereignty as its basis. The argument proceeds from the notion that capacities to "absorb" pollution differ among countries, with greater capacities mostly in the underdeveloped regions of the Third World. It is argued that if the marginal costs of pollution for industry (including pollution avoidance, abatement, and mitigation costs) are lower in the Third World for whatever reason, then it is uneconomical to apply universal environmental standards to industries within sovereign countries whose capacities to "absorb" pollution are higher.3

The WB has identified unilateral and punitive trade measures, such as restrictions on imports, as hardly ever being the best means of addressing the existence of environmental externalities in other countries. Not only have these measures most often been unsuccessful in compelling countries to raise environmental standards, but they have also been an impediment to trade and its income-generating potential (Low 1992, 13). While the WB has consistently recommended against the use of trade measures to compel better environmental management in countries outside the United States, some important actors in the trade and environment debate, such as the World Resources Institute, disagree and contend that improvements can be successfully encouraged if they are made a condition for expanded access to foreign trade markets, as long as the improvements being solicited are not beyond financial reach of a country or for disguised protectionist purposes (Runge 1997, 42).

Toward Reconciliation

While the debate over free trade and its effects on the environment often takes on a harsh tone, there seems to be an increasingly solid middle ground emerging from these two poles and the various positions between them. Two basic goals must be reconciled: 1) the value and desirability of free trade as a force for economic growth, higher living standards, and the consolidation of democracy and 2) the need for multilateral trade agreements that address the environmental consequences of increased trade among nations and that incorporate the principles of sustainable development.

In the Americas, NAFTA and its supplemental or side agreement, the North American Agreement on Environmental Cooperation (NAAEC), are examples of significant progress toward reconciling these two goals, but there are already serious questions about the political will behind the Commission for Environmental Cooperation (CEC), the institution created by the NAFTA parties (the United States, Mexico, and Canada) to implement the NAAEC. After NAFTA, the second largest integration process in the hemisphere, the Southern Common Market (Mercado Común del Sur – MERCOSUR), has been intensifying its efforts to integrate sustainable development principles into its deepening economic integration, but to environmentalists the pace of progress there is slow. (MERCOSUR's members are Argentina, Brazil, Paraguay, and Uruguay; Bolivia and Chile are associate members.) A 1997 Organization of American States (OAS) inventory of all major trade agreements in the Western Hemisphere (at the time there were some 24 such arrangements), reveals either weak or nonexistent environmental provisions written into their texts (OAS 1997, 21). In the substantive follow-up to the Summit of the Americas agreements, the FTAA process is proceeding separately and on a relatively much faster track than the sustainable development initiatives.

Eco-Efficiency and Clean Production

Nevertheless, there is cause for optimism that the difficult liaison between trade and the environment can be achieved. The great majority of the larger environmental non-governmental organizations (NGOs) and non-governmental actors, at first encouraged by the NAFTA environmental provisions, have come to see free trade agreements as a primary vehicle through which the goals of environmental protection and sustainable development can be achieved. And slowly but surely, more and more private business enterprises have begun to embrace the goals of sustainable development and have seen the practical benefits of eco-efficiency in the marketplace, as

well as the advantages of participatory decision-making and consensus building in policymaking.

The concept of eco-efficiency first gained international attention around the organizing and negotiations for the 1992 United Nations Conference on Environment and Development (the Rio Earth Summit), through the Summit organizing team's business advisor, Swiss industrialist and financier, Stephan Schmidheiny. The business response to the Rio Earth Summit was led by two private sector associations, the Business Council for Sustainable Development (BCSD), created by Schmidheiny in Geneva to provide a business perspective to the Earth Summit, and the World Industry Council for the Environment in Paris. In 1995, these two organizations merged to create the World Business Council for Sustainable Development (WBCSD) in Geneva. The WBCSD's membership includes some 140 international companies from more than 20 major industrial sectors in 30 countries. Its Latin American chapter, the Business Council for Sustainable Development-Latin America (BCSD-LA), is perhaps its most active chapter, having formed strategic partnerships with businesses, foundations, think tanks, and civil society organizations.4 The INNOVA Center for Sustainable Development was established in 2000 as the product of a strategic alliance between the Monterrey Institute of Technology (Instituto Tecnológico y de Estudios Superiores de Monterrey — ITESM) and the BCSD-LA. This new Center, headquartered at the ITESM, was created to address fundamental development issues in the developing world, particularly in Latin America. The Center has as its mission to promote joint work among the education, business, and social sectors to achieve sustainable development. In addition to coordinating the work of the BCSD-LA, the INNOVA Center also coordinates the INNOVA Education Network, made up of institutions committed to education on sustainable development and the INNOVA Social Network, composed of organizations and foundations that support the social development of communities.

The term "eco-efficiency" was coined by the BCSD "to describe a [production] process of adding ever more value while steadily decreasing resource use, waste and pollution" (Schmidheiny 1992). Eco-efficiency, while applicable to business enterprises and to each entity within society, is not synonymous with sustainable development, which is a goal for society as a whole (Schmidheiny 1996). However, the concept of eco-efficiency lies at the core of the sustainable development debate, inasmuch as it describes an ongoing process by which "the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs" (World Commission on Environment and Development 1987).

The work of the United States Agency for International Development (USAID) in the area of clean production proceeds from the same conceptual framework. Working largely with small- and medium-sized enterprises (SMEs) located primarily in South America, USAID and its partners have promoted the idea of "environmental competitiveness" through clean production practices. Developing countries ultimately will be rewarded in the international marketplace when their productive enterprises, particularly those involved in the growing export sectors, integrate environmental sustainability into production and marketing strategies through clean production processes. As markets, especially in the developed world, increase their sensitivity to environmental issues, there will be long-term benefits for trade and the international competitiveness of developing countries.

The concepts underlining eco-efficiency or clean production are integral to the triple-win scenario in the trade and environment context. All stakeholders and actors, from environmentalists to private sector and government leaders, must embrace the optimistic proposition that productive enterprises directly related to developing country competitiveness in international markets can indeed integrate environmental sustainability into their production and marketing strategies. Only a synergistic combination of market incentives, combined with other instruments such as government regulation, multilateral cooperation, and ongoing trade liberalization, can overcome the difficulties in integrating environmental sustainability into the trading system.

In essence, there is a compelling need for the debate on trade and environment to become more practical, and paradoxically, more visionary, as a practical, technical focus on the issue will transcend the often sterile high policy debates.

Hemispheric Dialogue of Technical Specialists and Policy Experts on Environmentally Sound Trade Expansion in the Americas

In 1999, The Dante B. Fascell North-South Center, the Unit for Sustainable Development and the Environment (USDE) at the OAS, and the International Centre for Trade and Sustainable Development (ICTSD) cosponsored, with the support of USAID, a unique activity designed to promote research and dialogue among government, the private sector, and other civil society representatives on environmentally sound trade expansion in the Western Hemisphere. The project consisted of three major components. First, a series of policy-relevant white papers by recognized experts was commissioned on the elements of a positive approach to the trade and environment question in the Americas. Second, in October 1999, a multisectoral Hemispheric Dialogue in Miami was convoked, and, on the basis of the findings in the white papers, participants developed a series of recommendations later published as the *Brickell Report.* And third, this volume brings together the white papers, revised based upon the basis of discussion and comments from the October dialogue and the *Brickell Report* in a policy-relevant format that will inform the major trade and sustainable development policy forums in the Americas.

Themes for this project have been chosen from wide-ranging discussions on the relationship between trade and the environment. This thematic set has been selected in such a way as to focus on those areas most promising for the triple-win scenario, in which policy actions would simultaneously support the goals of trade liberalization, protection of the environment, and economic and social development — that is, a coherent approach that represents the principal framework of sustainable development, a goal to which the Western Hemisphere democracies committed themselves at the highest levels through the Summit of the Americas process and membership in the WTO.

At the Summit of the Americas in Miami in 1994, the 34 democratically elected heads of government committed their nations to the creation of an FTAA by 2005 within the wider framework of sustainable development. According to the Miami *Plan of Action,* "free trade and increased economic integration are key factors for sustainable development…," and sustainable development "will be furthered as we strive to make our trade liberalization and environmental policies mutually supportive." The *Declaration of Principles* from the 1996 Santa Cruz Summit of the Americas on Sustainable Development reiterated this commitment, promising to "reinforce the mutually supportive relationship between trade and the environment." The 1998 Summit of the Americas II in Santiago asked ministers to move forward on trade integration by formally launching negotiations for the FTAA. At the broader policy level, however, environmental issues have generally been treated on a separate track from the trade integration process, and environmentalists continue to decry the extremely slow pace of progress realized in the FTAA through the Committee of Government Representatives on the Participation of Civil Society and through the WTO's Committee on Trade and the Environment.

Yet, at a practical level, many decisionmakers, both in the public and private sectors, have recognized and begun to exploit the advantages of integrating environmental sustainability into production and marketing strategies that will have long-term benefits for trade and international competitiveness. The October 28-29, 1999, meeting of technical specialists and policy experts in Miami explored these positive strategies and analyzed how market-based environmental innovations can be facilitated and enhanced in the broader policy arena.

At the 1999 Miami meeting, to the extent possible, emphasis was placed on potentially positive linkages, suggesting policies that promote "environmental competitiveness" principles, which emphasize economic savings through practices such as clean production as well as growing market demands and consumer preferences over tariff and non-tariff barriers. A framework for action to promote triple-win scenarios includes the following elements: the role of specific actors, such as regional organizations; a balanced approach toward regulations and the use of market-based instruments; the greening of investment; and facilitation of technology transfer, among others.

The October 1999 *Hemispheric Dialogue* explored specific policy options for pursuing the goal of sustainable development in the Western Hemisphere, focusing on the opportunity provided by the FTAA negotiations. In order to make this conference's debate and findings as relevant as possible, organizers invited policy and technical experts from around the world, most with exper-

tise in the region of Latin America and the Caribbean (LAC), representing government, the private sector, and other civil society groups. Participants took on the challenging and timely task of proposing ways of achieving triple-win scenarios through trade liberalization, which require a synergistic relationship among trade expansion, economic growth, and environmental management.

The challenge involved in guiding research and discussion toward such positive outcomes becomes apparent when one takes into consideration the significant political attention that has been given to the debate over the environmental effects from increased trade and the literature that has developed around the subject in the Western Hemisphere context. The first major multisectoral gathering at the inter-American level was sponsored by the OAS and the University of Miami's North-South Center in Santiago in 1992. The "Seminario sobre Comercio Internacional, Medio Ambiente, y Desarrollo Sustentable" revealed a fundamental disagreement among the major stakeholders on whether there were negative environmental effects from trade expansion; many government and multilateral spokespersons denied empirical linkages in the absence of credible research on the subject (Muñoz and Rosenberg 1993). In an effort to address this gap in knowledge, the North-South Center produced *Free Trade and the Environment: A Prospective Analysis and Case Study of Venezuela*, one of the first systematic, multidisciplinary, and comprehensive analyses of the likely negative environmental consequences of a prospective trade liberalization agreement. In this case, a generally applicable methodology was utilized in identifying specific kinds of environmental damage that would likely take place in Venezuela as a result of a hypothetical trade liberalization agreement between Venezuela and the United States (Harwell, Hanes, Acevedo, Harwell, Serbin, and Rosenberg 1994, 23).

The World Resources Institute (WRI) completed a similar study for the LAC region as a whole in August 1997. A comparable methodology was used that estimated trends in trade liberalization, the effects that these trends would have upon particular sectors within specific countries, the impacts that these sectoral changes would have upon the environment, and opportunities available for mitigating negative environmental consequences while promoting positive ones. This study was unprecedented in the way it yielded an extensive and detailed body of data related to the effects of trade expansion on the environment for the entire LAC region, providing information on 16 countries, 8 exporting sectors and 14 pollution categories (Runge 1997). More specifically, the WRI predicted that increased trade in LAC will lead to more environmental problems generated by growth in pollution-intensive industries such as basic metals, industrial chemicals, and nonmetal products, and by expansion in the extractive sectors of forestry, agricultural land and input use, marine and fisheries resources, and mining (Runge 1997, 42).

The NAFTA CEC also saw such analyses as central to its mandate. Although much delayed by the Mexican government's reluctance to explore any potentially negative linkages that would threaten its privileged market access to the United States and Canada through NAFTA, the CEC published in 1999 a largely qualitative methodology for evaluating the environmental effects of expanded trade among the United States, Canada, and Mexico. The CEC document also included case studies in three important economic sectors that provided solid evidence of the linkages between specific environmental effects and increased trade (CEC 1999). In 1999, the CEC commissioned a series of papers that would build upon this methodology and further explore the linkages between environment and trade in the NAFTA context. These papers will be presented at an international conference in Washington, D.C., in October 2000.

In response to this and other credible research addressing the potential negative relationships between trade and environment, there is substantial interest, as well as growing confidence, in identifying and applying triple-win scenarios. In fact, the WB almost 10 years ago was promoting these synergistic possibilities between trade and environment, though it focused more on the positive effects of trade and economic growth on the environment. The WB contended that environmental management is improved as trade liberalization 1) reduces market distortions (as in agricultural subsidies) that lead to inefficient use of natural resources; 2) produces economic growth, allowing for the application of more expensive, environmentally friendly technology, some of which will be transferred through foreign direct investment from developed countries regardless of the economic growth level in the host country; and 3) generates income that can be used to

improve government environmental management (Low 1992, 13-4).

One particular triple-win scenario takes place when private firms incorporate better environmental management techniques, allowing for trade expansion to continue unhindered while negative environmental impacts are decreased. Many businesses are already reaping the economic benefits of becoming more "environmentally competitive," lowering costs through "clean production" techniques and increasing sales by taking advantage of a growing consumer demand for eco-friendly products. The *Hemispheric Dialogue* provided a forum for discussing ways of promoting environmental competitiveness, especially through the WTO and the FTAA processes.

The discussion at the *Hemispheric Dialogue* was organized around five white papers that address some of the major issues on trade and environment over the last decade. Each paper provided data and commentary relevant to the central theme of the conference — exploring the utility of environmental competitiveness for making trade liberalization more sustainable. Two of the papers focus on how regional and international trade regimes can currently be utilized and perhaps evolve to better accommodate efforts at making trade liberalization more sustainable. In one of these papers, Aaron Cosbey, of the International Institute for Sustainable Development (IISD), discusses strategies for making the WTO and trade-related environmental measures (TREMs) more compatible, while in the other, Carlos Murillo, of the Universidad Nacional, Costa Rica, documents the low level of attention to environmental concerns displayed thus far in the FTAA negotiating groups despite abundant opportunities and proposes ways of developing a permanent voice for the sustainable development community in these negotiations as well as in the eventual free trade regime.

Highly controversial and publicized disputes that pit trade law against environmental law, as in the tuna/dolphin and shrimp/turtle cases, make Cosbey's and Murillo's discussions of reconciling trade regimes and environmental protection particularly salient. Because of the growing tension surrounding these legal issues, it is no surprise that they have been central concerns in many recent publications on trade and environment. In February 2000, the United Nations Development Programme (UNDP) and the Asociación Latinoamericana de Derecho Ambiental, A.C. (ALDA) co-authored a document that, like Cosbey's and Murillo's papers, takes on the question of how to reconcile TREMs with international trade law, though it steps beyond Cosbey's and Murillo's focuses on the WTO and the FTAA (respectively) to address other regional trade regimes like NAFTA, MERCOSUR, the Andean Group, and the Central American Integration System (Sistema de la Integración Centroamericana — SICA) (ALDA 2000).

Shifting focus from the regional and international levels to the private sector, the paper by Germán Cárdenas, of the Corporación de Gestión Tecnológica y Científica sobre el Ambiente (Corporación OIKOS), describes examples of businesses evolving technologically toward clean production and methods for fostering development of environmental competitiveness, especially in SMEs in LAC. The other two papers provide a logical follow-up to the discussion of clean production. Tom Rotherham discusses the usefulness of labeling and certification systems in promoting this technological change, and Gil Nolet addresses the crucial yet often overlooked question of how to finance the development of clean production. Rotherham, of the International Institute for Susatinable Development (IISD), discusses the demonstrated utility of labeling and certification systems in provoking an increasing number of businesses to become more environmentally friendly in the nature of their products and in their production. He then recommends the harmonization of labeling and certification systems on the regional and eventually the international levels to avoid discrepancies among national systems that could inhibit free trade. Nolet, of the Inter-American Development Bank (IDB), addresses the costs of adjusting businesses in LAC to demands for greater environmental performance by citing examples and recommending ways in which SMEs can cooperate with multilateral banks, NGOs, international development agencies, and national governments.

In the recent past, proponents of environmentally sound trade liberalization were proposing a different set of incentives for reaching this goal. In fact, the focus was less on exploring ways of encouraging the private sector to become more environmentally competitive, as was the central concern of the *Hemispheric Dialogue*, and more on formulating incentives for national governments to raise the level of their environmental standards and enforcement. In order to encourage

the governments of developing countries to improve their management of the environment while trade liberalization continued to take place, it was proposed that they be offered incentives such as concessions, tariff rebates, quota increases, and side payments (Harwell and Rosenberg 1993, 123-4). In focusing on ways of encouraging SMEs in LAC to adopt cleaner technologies and become more environmentally competitive, the *Hemispheric Dialogue* pursued triple-win scenarios from an entirely different approach, which is increasingly winning supporters from both the trade and environmental communities.

The white papers were presented as a part of panel discussions that included expert commentators from the trade sector and the environmental community. Subsequent roundtable discussions fostered the multidisciplinary dialogue on the main topics addressed by each of the five papers. The two simultaneous working group sessions following the panels and roundtable discussions provided a means for the participants to spotlight the most important findings from the papers and the conference discussions. These triple-win findings, listed in the *Brickell Report* included at the end of this volume, are sometimes technical and at all times policy relevant, as they provide clear and substantive ways for promoting more environmentally sound trade expansion.

Evolution of the *Brickell Report*

Opportunities and Challenges Within the WTO

In his paper, "Institutional Challenges and Opportunities in Environmentally Sound Trade Expansion," Cosbey examines from an international institutional perspective the issue of making trade expansion more sustainable. More specifically, he focuses upon the tense relations between the WTO and trade-impacting multilateral environmental agreements (MEAs) and unilateral environmental measures. He follows a discussion of the current state of affairs with suggested changes that could be made in the structure of the WTO and TREMs to make them more compatible and mutually reinforcing. One of his primary recommendations is to develop an "ex ante" or "environmental window" within WTO law that would allow the organization's dispute resolution panel to deal more easily and fairly with conflicts arising from existing and future environmental standards. Furthermore, he argues that incorporating an "environmental window" into WTO law would give negotiators of future TREMs a clearer idea of which measures are legally feasible and worth pursuing.

Cosbey identifies three major areas of challenge on the multilateral level: dealing with the specific issue of standards for production and process methods (PPMs), trade measures based upon the precautionary principle, and rules for regulating investment. Regarding the issue of integrating PPMs into the trade regime, he takes a position of guarded support, though such measures are an integral part of any comprehensive environmental protection program together with regulation of product use and disposal, as PPMs can be used for protectionist reasons. A gradual and careful acceptance of PPMs is recommended for developing countries, in view of their potential costs and benefits and with an eye on the apparent trend in the WTO dispute settlement panel of taking a more flexible position in relation to this type of TREM. For example, the panel made a recent decision regarding the U.S. Marine Mammal Protection Act's (MMPA) PPM requirement that turtle excluder devices (TEDs) be used in the harvesting of shrimp to be imported into the United States, which identified certain applications of this law as legal but decided that in this case it was applied in a discriminatory manner, according to WTO law.

In reference to application of the precautionary principle, Cosbey recommends an even more guarded stance, as this principle is based less on empirical evidence than on PPMs, and, therefore, can be used more easily as a veiled form of protectionism. The precautionary principle is the idea that the production and/or use of a particular good or service should be avoided despite a lack of conclusive empirical evidence, based simply upon the possibility that its production and/or use will engender significant negative environmental effects. Therefore, further research should be conducted to produce an international agreement on criteria for when the precautionary principle could be used in a way that would impede trade. These criteria will no doubt require that any use of the precautionary principle be provoked by strong environmental concerns but also be as harmonious as possible with trade expansion and economic growth goals. In other words, the precautionary principle will essentially have to be an "efficiency principle" (Harwell and Rosenberg 1993, 125). To counter the problem of foreign

direct investment being channeled into unsustainable technologies, Cosbey also recommends the development of an international investment regime that would promote environmentally sound investment practices. For both the precautionary principle and investment, though, Cosbey recommends that any international agreements should be negotiated outside the WTO to incorporate experts in the field of sustainable development more effectively and so as to not detract from the WTO's primary responsibility of promoting trade expansion.

The main points of Cosbey's paper were echoed in several of the findings of the *Brickell Report*. Cosbey's suggestions for avoiding conflict between WTO rules and TREMs were reflected in a recommendation stating that fears of "green protectionism" and unilateralism should be addressed by "using … MEAs … as a first recourse [in disputes] and making efforts to better reconcile existing as well as future MEAs and international trade law[,] … creating dispute resolution mechanisms that integrate environmental expertise" and "…eliminating sanctions as a threat." Cosbey's proposal of proceeding cautiously in support of PPMs was also supported in the *Brickell Report*, as the conference participants agreed that it is important to "promote development and use of international standards dealing with … PPMs" (See page 107 in this volume).

The trade and environment literature over the last 10 years reveals growing support for the kind of reconciliation between MEAs and the WTO that Cosbey is advocating here. Many analysts have gone even further, suggesting that harmonization among national environmental law systems is the best strategy for reconciling trade and environment. They contend that harmonization should take place for both economic and environmental reasons. On the economic side, the presence of differing environmental standards may give the private sectors in countries with weaker environmental laws a comparative economic advantage within the context of more open trade, limiting support in other countries with stronger environmental laws for the trade liberalization agreement in question. With respect to the environment, these differences in standards may lead "dirty industries" to migrate to countries with less stringent environmental standards, turning those countries into "pollution havens" (Harwell and Rosenberg 1993, 122-3). Although the existence of pollution havens has not been borne out by empirical evidence except in small, isolated industrial sectors, there is a perception among concerned citizens and environmental advocacy groups, especially in the United States, that such migration of dirty industries to pollution havens is an inevitable consequence of the large disparities between the developed and developing countries in environmental law and enforcement. Beyond eliminating this real or perceived comparative advantage and countering the development of pollution havens, the harmonization of national environmental law systems would also make disputes over TREMs less common and easier for trade authorities such as the WTO to adjudicate. The WRI contends that the upward harmonization of environmental standards should be a priority among the Western Hemisphere's developed and developing countries so that environmentally sound trade expansion can be more effectively fostered (Runge 1997, 42).

Two other *Brickell Report* recommendations appear to have been influenced by points in Cosbey's paper. One supports the provision of "technical assistance for government negotiators in trade and those who will implement governmental trade policies aimed at increasing their awareness of environmental sustainability issues." The other recommendation contends that awareness of the positive and negative links between trade and environment should be promoted through existing institutions in LAC countries within the trade and environment communities and through consumer associations to "provide LAC countries with the information needed to formulate national policies and to negotiate in multilateral and bilateral agreements." Although these two general recommendations for increased research, dialogue, and awareness were less central components of Cosbey's paper, they were given high priority by *Hemispheric Dialogue* participants.

Opportunities and Challenges Within the FTAA

Cosbey's discussion of institutional obstacles and opportunities for better integrating trade and environment is paralleled in Murillo's paper, "Environmental Opportunities in the FTAA Negotiating Groups," with a stronger focus on the Western Hemisphere. Murillo examines the current level of inclusion of environmental concerns in the FTAA negotiating processes. He then proposes ways of raising the level of concern for promoting environmentally sustainable trade expansion in the Americas that will bring more lasting and exten-

sive economic and social development to the region. Murillo documents how participation in each negotiating group is currently limited to trade representatives from the national governments involved, leaving the environmental community and other interest groups such as labor to participate through the limited forum provided by the Committee of Government Representatives on the Participation Civil Society but mostly to hold unofficial meetings among themselves apart from the FTAA negotiating process.

Despite this lack of inclusion of environmental concerns in the FTAA processes thus far, Murillo contends that LAC countries should better prepare themselves for likely future negotiations with the United States on sustainable trade initiatives. As illustrated by the turmoil at the 1999 WTO Ministerial Conference in Seattle, the environmental movement is exerting increasing pressure on the U.S. government to address the potential negative environmental consequences of trade expansion. In fact, analysts of the trade and environment nexus were already documenting the increasing political power of the environmental community in the United States and LAC almost 10 years ago, warning that if these groups were not given more access to trade liberalization negotiations for this hemisphere, they could be effective in working to impede them (Harwell and Rosenberg 1993, 121). This means that LAC countries can expect the United States to push for environmental measures as a part of any FTAA agreement; therefore, these countries need to prepare to negotiate on the issues so they can pursue a resolution that is in their best interests. As mentioned earlier, Cosbey also emphasizes this point, making reference to the need for developing countries to pursue tradeoffs that are beneficial to themselves in exchange for their acceptance of PPMs. The WRI has recommended that the LAC countries most likely to lead the way into future trade liberalization agreements, namely, Mexico, Chile, and the MERCOSUR countries, should make a concerted effort to plan the environmental commitments that they are willing to exchange for market access opportunities (Runge 1997, 42). The *Brickell Report* recommends this regional approach, "…so that LAC states can take advantage of settings more conducive to the formulation of a trade and environment agenda appropriate to their regional interests." Implicit in this recommendation is the recognition that regional settings where the United States, and to a lesser extent Canada, are present are not as productive or conducive to the formulation of a LAC negotiating agenda as subregional forums.

Within the FTAA negotiating groups, the trade experts representing LAC countries in the groups have little knowledge of the positive and negative links between trade and environment, so they are not sufficiently prepared to negotiate with the United States on these matters, opening up two possible negative outcomes. First, LAC countries might gain fewer concessions from the United States to increase their economic and social development in exchange for any concessions they might give to the United States related to better environmental management, had they entered the negotiations better informed. Second, without sufficient understanding of the concessions they might be able to get from the United States and without a clear understanding of the longer-term economic and social benefits of making trade expansion more environmentally sound, LAC countries may generally refuse U.S. propositions on this topic. Thus, trade negotiations as a whole could be stalled by public opposition such as that expressed during the Clinton administration's failed attempts after 1994 to secure fast-track negotiating authority from Congress.

In order to make better preparations for such negotiations with the United States, Murillo recommends that LAC countries begin to negotiate trade and environment issues among themselves at the bilateral and sub-regional levels. The countries can conduct research, share findings, and formulate a clearer, more unified position that takes account of their developing country status in relation to the United States. In reference to the question of how to include environmental concerns within the current official FTAA processes rather than on the current parallel but largely unofficial track, Murillo suggests discussing these issues within the existing Tripartite Committee that is made up of the Inter-American Development Bank (IDB), the OAS, and the Economic Commission for Latin America and the Caribbean (ECLAC). Within this subforum for trade and environment issues, LAC representatives should push for environmental measures that will bring them economic benefits through triple-win scenarios, such as charging for environmental services (for example, biodiversity, carbon sinks, and eco-tourist destinations) that they supply to the rest of the world.

Murillo's commentary on the current and prospective state of affairs of the FTAA processes helped to provoke some specific, generally sup-

ported recommendations for the *Brickell Report* A very high level of support was shown for the idea of integrating an Environmental Cooperation Mechanism into the FTAA process. This consensus extended to more specific proposals such as having the environmental commission work on an ad hoc basis during the current negotiating phase within the Tripartite Committee, where it could be inserted smoothly, considering that this body already includes some experts from ECLAC, the OAS, and the IDB with experience and interest in sustainability issues. Once the FTAA is formally established, the environmental commission would take on a permanent advisory role, taking into account the ongoing work and experiences of the Commission on Environmental Cooperation (CEC) within the NAFTA, MERCOSUR, and the Central American Commission on Environment and Development (CCAD).

Broad support was also shown within the working groups for Murillo's proposals of directly including environmental issues and other Summit of the Americas initiatives in the current work of the FTAA negotiating groups, using the above-mentioned environmental cooperation mechanism for proposing these topics and "promoting transparency and information access in the FTAA negotiations and in national policy formulation." There was consensus in the *Brickell Report* that LAC countries could best benefit from the integration of sustainability concerns into the present negotiations as well as into the eventual formal structure by formulating a clearer, more coherent position among themselves through negotiations in subregional forums like MERCOSUR, the Andean Group, and the Caribbean Common Market (CARICOM). It was also emphasized that, as a result of this subregional research and dialogue, LAC countries would be better prepared to pursue such triple-win policies as "projecting themselves as suppliers of environmental services."

The Growing Salience of Eco-Efficiency, Clean Production, and Environmental Competitiveness

In "Environmental Competitiveness and Clean Production," Cárdenas steps down from the international and regional institutional levels to provide suggestions for specific policies aimed at achieving triple-win situations by provoking changes in the behavior of the private sector. The guiding premise of his paper is that businesses can contribute to the synergistic relationship among continued trade expansion, more extensive economic and social improvement, and environmental sustainability by incorporating clean production techniques or becoming more "eco-efficient."

The work by Cárdenas in the *Hemispheric Dialogue* focused on the importance of increasing environmental competitiveness among SMEs in LAC as well as other pragmatic issues in the trade and environment debate in the region. This Dialogue expanded upon the efforts of other forums that explore the utility of environmental competitiveness for positively linking trade expansion and environmental sustainability. One example is the "Seminario Internacional sobre Comercio y Medio Ambiente: Competitividad Ambiental y Expansión de Mercados para Paraguay," which took place in Asunción, Paraguay, in November 1996. Although this meeting focused on the situation of one country, Paraguay, it gave substantial attention to many of the most salient issues involved in the pursuit of environmental competitiveness. This forum's exploration of how Paraguay can pursue environmentally sound trade initiatives through MERCOSUR, how Paraguay can give civil society a stronger voice in trade and environmental policymaking, and how the private sector in this country can utilize clean production techniques and the International Organization for Standardization(ISO) 14000 Series labeling and certification systems were all echoed and expanded upon thematically and geographically as a part of the *Hemispheric Dialogue* (CEPPRO 1998, 9-14).

Another forum that provided a conceptual foundation for the *Hemispheric Dialogue* was the "Seminario Comercio Sostenible: Una Agenda para el Ecuador," which was convened in Quito, Ecuador, in October 1997. Like the 1996 meeting in Paraguay, this seminar focused on the options for environmentally sound trade expansion in one country, Ecuador, but it provided a more focused stepping stone for the agenda at the *Hemispheric Dialogue* in the sense that primary attention was given to suggesting ways of promoting clean production within the private sector, providing examples of successful implementation in Ecuador's floriculture, shrimp, oil, and banana industries (Corporación OIKOS 1998).

Cárdenas contends that technological evolution, instead of the more elusive efforts of addressing population and consumption increases, is the answer for making trade liberalization more sustainable. When one considers that the compar-

ative advantage in many LAC countries is often in natural resource-intensive sectors such as agriculture, forestry, and fisheries, the sectors that will grow the most through increased trade, the need for clean production becomes even more apparent. Cárdenas argues that a shift toward clean production and the increased environmental competitiveness that the technological evolution imparts not only will bring greater savings and sales to businesses in LAC but also will help in managing the increased pressure that trade expansion will have on the natural resource base in these countries. The negative environmental impacts of trade expansion in countries that are heavily dependent upon natural resources for growth are being increasingly documented. For example, the North-South Center's methodology and prospective case study made predictions regarding likely negative environmental consequences in Venezuela, a country largely dependent upon natural resources for production, that would arise as a result of increased trade with the United States (Harwell et al. 1994).

Cárdenas makes some specific recommendations of public policies and voluntary civil society and business activities that would facilitate the incorporation of eco-efficiency measures into the SMEs that make up the large majority of the private sector in LAC. These recommendations built upon the findings for the case of Ecuador generated through the 1997 forum, "Seminario Comercio Sostenible: Una Agenda para el Ecuador," cosponsored by the Corporación OIKOS (Corporación OIKOS 1998). Cárdenas recommends utilizing a mix of domestic public policies that are regulatory, market-based, aimed toward strengthening implementing institutions, designed to promote information disclosure, and that pursue more extensive and less expensive technology transfer in the course of trade expansion. In Colombia, for example, a market-based regulation taxing industrial pollution was enacted in 1997, and recent research by the Corporación Promoción de la Pequeña Empresa Ecoeficiente Latinoamericana (PROPEL) indicates that SMEs in Colombia which have incorporated cleaner technologies have enjoyed significant savings under this new regulation. PROPEL estimated that the period of payback for eco-efficient SMEs from savings through non-applicable avoided pollution taxes was less than one year (Howald and Barragán 1997, 60-5).

Regarding voluntary activities on the part of civil society and the private sector as well as initiatives by the public sector in pursuit of clean production and environmental competitiveness, Cárdenas advises that the ISO 14000 Series and regional and national labeling and certification programs be utilized more in LAC and that international financial institutions and developed countries provide more financial and technical assistance to interested SMEs. He cites USAID's Environmental Pollution Prevention Program (EP3) as a model of successful implementation by SMEs in LAC countries of clean production measures. The integration of cleaner, more efficient technologies following technical assistance from USAID has brought these enterprises increased profits while protecting local environments more effectively.

Hemispheric Dialogue participants agreed that Cárdenas' suggestion of using market-based incentives to promote clean technology mechanisms for SMEs should be a priority in LAC. Some of his suggested market-based incentives, such as labeling and certification balanced by government regulations, addressed in greater detail in the white papers and discussed below, were assigned high priority in the *Brickell Report* There was also general consensus that the EP3 program has been successful in encouraging smaller enterprises to invest in eco-efficiency measures; therefore, this program should be regarded as a model to be implemented elsewhere in the region.

The Potential of Labeling and Certification Systems for Promoting Environmental Competitiveness

An in-depth discussion of labeling and certification strategies, their potential for promoting environmental competitiveness among businesses, and their role in fostering triple-win situations is provided by Rotherham in his paper, "Buying Sustainable Development: Environmental Labeling and Certification Programs." Organizations that label products and certify companies encourage businesses to reduce negative effects on the environment by better informing consumers and other interested parties about how well these businesses manage their environmental externalities. Companies become more environmentally competitive to increase sales, lower credit costs, reduce insurance premiums, increase stock investments, simplify licensing agreements, and limit monitoring and auditing spot checks. Indeed, Schmidheiny and the WBCSD have documented how members of the financial community, includ-

ing creditors, insurers, and equity investors, are increasingly taking into account environmental opportunities and risks before investing in businesses (Schmidheiny and Zorraquín 1996).

While the presence of labeling and certification programs encourages many businesses in developed countries to improve environmental management, these market-based strategies are less common and less progressive in developing countries. High costs and high levels of technical expertise required for the administration of labeling and certification programs and for businesses to meet resulting standards make compliance difficult. The disparity in the degree of progression and use of these programs among countries at different levels of economic and technological development has led to trade distortions. Trade distortion takes place when products from developing countries have less success in the markets of developed countries because they have no label or one that is considered to be too lenient. Trade-restricting circumstances become harsher when developed countries integrate voluntary standards into national regulations.

In order to enjoy the environmental and economic benefits of labeling and certification while avoiding their trade distorting side effects, Rotherham proposes that an effort be made to harmonize different national and regional programs. More specifically, he contends that a gradual movement of various programs toward a common, progressive point will allow these market-based methods to encourage higher levels of environmental stewardship around the world and allow them to become more accessible and economically beneficial for firms from developing countries.

The WTO limits the use of labeling and certification strategies in its TBT Agreement because of their potential for becoming non-tariff or technical barriers to trade (TBTs). This provision prohibits the inclusion in labeling and certification programs of PPMs that have no basis in the way production methods will affect product characteristics. The restriction of "non-product-related PPMs" aims to protect developing countries from being pressured into adopting developed country environmental standards for production. This addresses the sovereignty of developing countries over their own environmental laws and their weaker financial and technical capacities for mirroring the environmental management techniques of developed countries. Despite the trade distortion that can come as a result of nations differing in their progress toward meeting standards for non-product-related PPMs, Rotherham emphasizes that these measures have some rationale on the international level when they genuinely aim to protect environmental resources of global significance, such as biodiversity and clean air, from harmful production methods. In order to allow the pursuit of this positive goal without restricting trade, he concurs with some of the positions advanced within the proceedings of the WTO's CTE and CTBT that say harmonization is the answer.

Rotherham proposes some specific methods for pursuing harmonization, dividing them into two main categories of bottom-up, which aim to harmonize first between countries or regions, and top-down, which begin with a set of standards on the international level that companies and national programs can adhere to. Bottom-up harmonization of labeling schemes between national systems is taking place along a scale of intensiveness. Technical equivalency of monitoring and assessment processes is the least integrated approach. The most integrated methods are mutual recognition, involving a high level of similarity among processes, and foreign licensing, characterized by the use of common criteria. For speeding up bottom-up harmonization, Rotherham recommends that national labeling programs join international organizations like the Global Ecolabeling Network that facilitate information exchange among these programs, and he also proposes that regional ecolabeling networks (RENs) be created to initiate this dialogue on an even lower level, where integration can proceed faster.

With respect to top-down standardization of labeling and certification programs, Rotherham contends that the ISO 14000 Series provides a starting point. As with bottom-up methods, this international standards system provides a means by which national and regional programs can begin working toward commonality on processes of monitoring and assessment and eventually reach greater agreement on the more nationally specific, and therefore contentious, issue of criteria. In fact, the TBT Agreement, in addition to its prohibition of non-product-related PPMs, obliges that all labeling and certification programs be based upon existing international standards. Rotherham supports the manner in which this WTO provision promotes a top-down harmonization of these programs for the purpose of alleviating their trade distorting potential while it pre-

serves their value for promoting sustainability. It is Rotherham's hope that the provision will also provide the eventual solution to the non-product-related PPM dilemma.

Rotherham's discussion of cutting-edge technical solutions for reconciling trade expansion and sustainability goals translated into the most widely supported triple-win recommendation in the *Brickell Report* There was broad agreement within the working groups that labeling, certification, and laboratory accreditation programs should be pursued on the national level in LAC countries and that the standardization of these programs should be promoted through bottom-up as well as top-down processes. In terms of bottom-up strategies, Rotherham's recommendation was echoed regarding the need for LAC countries to increase their negotiation through regional and subregional forums. His specific suggestions for ways of harmonizing downward from the international level were also re-emphasized during the working groups as conference participants recommended that LAC countries "participate in the formulation of ISO 14000 and promote international lab accreditation (e.g., through the International Accreditation Forum)." Furthermore, there was also strong support for promoting "development and use of international standards dealing with production and process methods (PPMs)." This clearly follows from Rotherham's recommendation that efforts be made to follow the advice of the CTE and CTBT to harmonize non-product-related PPMs on the international level.

Financing Clean Production and Environmental Competitiveness

Rotherham argues that harmonizing labeling and certification programs will provoke more businesses around the world to incorporate the clean production measures discussed by Cárdenas. Furthermore, Rotherham contends that standardizing these market-based programs will facilitate trade expansion, allowing for greater economic growth and social development. Nevertheless, some analysts have questioned the feasibility of harmonizing different labeling and certification systems. Patrick Low and Raed Safadi argued almost a decade ago that differing pollution absorption capacities and levels of social concern for the environment among countries make efforts at harmonizing environmental law problematic. More specifically, they argued that developing countries have a greater capacity to absorb environmental damage and less social interest in protecting the environment because they receive fewer real and perceived environmental benefits from the economic costs they incur by raising standards to a harmonized level (Low and Safadi 1992, 34).

However, unlike harmonization among national systems of environmental law, as discussed by Low and Safadi, the harmonization of different labeling and certification systems, as advocated by Rotherham, would bring more immediate economic benefits to businesses in developing countries. This economic incentive, despite countries' differences regarding pollution absorption capacities and social attitudes, is what can provoke developing countries to work toward standardization in the areas of labeling and certification. Nevertheless, in order for SMEs in LAC to develop cleaner production methods that increase economic efficiency and allow them to reap the marketing benefits of labeling and certification, these firms must overcome financial and technical barriers. Nolet contends in his paper, "Institutional Cooperation on Trade and the Environment," that this issue should be addressed through collaboration between SMEs, NGOs, international development agencies, national governments, and multilateral banks.

Nolet begins by echoing Cárdenas' concern for mediating the potential negative environmental outcomes of trade liberalization in LAC countries whose economies are highly dependent upon natural resource use. More specifically, Nolet and Cárdenas agree that export-led growth in natural resource-intensive sectors such as forestry, agriculture, and fisheries should be made sustainable rather than exhaustive. Nolet emphasizes that sustainability should be pursued by businesses not only to sustain their profitability into the future but also to take advantage of growing consumer demands for eco-friendly goods and services. Again, this progression toward increased environmental competitiveness is often hindered by the fact that SMEs, which make up the majority of firms in LAC, often lack the required technical and financial resources to make the necessary technological changes. To address this issue, Nolet recommends financial and technical cooperation between SMEs and other institutions and gives several examples of existing programs.

Nolet describes several programs that utilize "green credit," which promote as well as provide

loans and equity for SMEs willing to develop more sustainable and environmentally competitive business practices. The Terra Capital Fund and the EcoEnterprises Fund both provide environmental venture capital to SMEs in LAC through financial assistance from the IDB's Multilateral Investment Fund (MIF). While the Terra Capital Fund is made up of a consortium of banks, investment firms, the Global Environment Facility (GEF), and the government of Switzerland, the EcoEnterprises Fund is distinctive because of the important non-governmental and technical role played by the Nature Conservancy (TNC). Other green credit programs are unilaterally administered and just as effective. For example, the government of the Netherlands provides tax exemptions for loans made for projects that meet environmental criteria, and several major Dutch banks are taking part. The GEF Small and Medium Enterprises Program has also been effective in promoting more environmentally sound business practices on the part of SMEs through the provision of loans for technological improvements that address the GEF's biodiversity and climate change objectives.

According to Nolet, promotion of increased sustainability and environmental competitiveness among SMEs in LAC through financial and technical assistance is a large piece of the puzzle for making trade expansion in the Western Hemisphere more environmentally sound as well as broad-reaching in its economic and social benefits. Also important is the need to use similar institutional cooperation for facilitating the evolution of public environmental management systems in LAC countries. In general, Nolet recommends that these public institutions be decentralized, yet well integrated horizontally as well as vertically. More specifically, he advises that public institutions incorporate greater use of market-based regulations such as trade schemes for discharge permits and information disclosure regarding the sustainability of business practices and that greater NGO involvement be promoted for government and business activities.

Recognizing the importance to trade, economic growth, social well-being, and environmental stewardship of capacity-building among government environmental authorities in LAC countries, many other experts in the trade and environment field have recently provided recommendations for achieving this goal. For example, the WRI suggests that better environmental monitoring and enforcement, especially to protect workers from environmental hazards like pesticides and mining wastes, should among the highest priorities in LAC countries. Furthermore, the WRI recommends that this institutional capacity-building, which works toward the ultimate goal of harmonization of environmental standards among countries, should be pursued most intensively by the economic and political leaders of the LAC region — namely, Chile, Brazil, Argentina, and Mexico (Runge 1997, 43).

The *Brickell Report* reflects a high level of support for Nolet's suggested mechanisms for providing financial and technical support to SMEs and to public environmental institutions in LAC countries. In order to meet business needs for technological evolution that will make labeling, certification, other market-based incentives — and ultimately sustainability and environmental competitiveness — more feasible in LAC countries, the *Brickell Report* reiterates several of Nolet's specific suggestions. Regarding the possible roles of banks and multilateral organizations in assisting developing businesses, the conference participants were largely supportive of facilitating "the dissemination of 'green credit' and equity." In terms of how the public sector can help these SMEs in meeting financial needs, there was similarly wide support for providing "green tax exemptions to increase environmental sustainability of businesses in [LAC.]" The *Brickell Report* also recommends using regional dialogue and civil society input in implementing national sustainability reviews. This suggestion builds upon Nolet's proposals for improving public environmental institutions in LAC countries; the proposals emphasize the importance of increasing civil society participation in policymaking and increasing the application of regulatory methods such as environmental impact statements (EIS) or assessments (EIA) that are useful in promoting sustainability.

Exploring Other Triple-Win Scenarios

Because the *Hemispheric Dialogue* participants included a broad array of experts from both the trade and environment communities, some of the triple-win suggestions made during the meetings naturally stepped beyond the recommendations made in the five white papers. Two such recommendations contribute more specific assertions in relation to how dialogue and increased awareness should proceed among the public trade sector, the private sector, and environmental

groups. In one of these proposals, participants showed strong support for NGOs, governments, and private industry needing to "promote success stories (showing both positive environmental impacts of free trade and positive trade impacts of environmental sustainability)." Examples identified by conference participants of these synergistic relationships are the Forest Stewardship Council and the well-documented benefits of removing subsidies from the agriculture, fishing, and forestry sectors.

This suggestion was expanded upon through another working group recommendation that gives a more specific description of how to promote these "success stories" of trade and environment synergism. Along these lines, it was recommended that efforts be made to encourage "moderate, 'responsible' NGOs to make an effort to voice a pro-sustainable trade opinion, particularly at the national level." Advancing this more conciliatory stance will allow for trust building between the trade and environment communities, which will facilitate more cooperative and concerted efforts between them toward sustainable trade expansion. A final recommendation put forward in the *Brickell Report* highlighted the importance of "addressing the special needs and concerns of small economies with respect to trade expansion." This recommendation, which applies mostly to the geographically and economically smaller Caribbean states, was addressed to some degree by one of the main themes of the conference. Promoting increased environmental competitiveness among SMEs, is quite applicable to the needs of these smaller economies, as they are primarily composed of these types of enterprises.

Opportunities and Challenges for the Future

As businesses in LAC evolve technologically toward more sustainable practices, not only will they become more economically efficient, increasing sales in response to greater demand for eco-friendly products, but the application of TREMs will also become a less contentious issue between the developing countries of this region and developed countries such as the United States This somewhat dramatic change cannot be achieved in the short term, as technological evolution of SMEs toward cleaner production will take time, financial assistance, and technical input, and also because during this period of evolution the developed countries that are more responsible for applying environmental standards to trade will probably keep doing so as they continue to be under pressure from the environmental community. The goal is to explore ways of limiting TREMs used for protectionist purposes, while making legitimate TREMs more economically attainable for LAC countries by increasing the sustainability of more businesses. In other words, the long-term goal of the *Hemispheric Dialogue* recommendations, which may indeed help to bring substantial and comprehensive trade, economic, and environmental benefits on their own in the short to medium terms, is to make legitimate TREMs compatible with trade expansion by promoting the attainment of these environmental standards by a larger portion of the private sector in developing countries.

The white papers, the debate they provoked, and ultimately the *Brickell Report* suggest the elements of a strategy that, taken together as a whole, will move trade expansion and TREMs toward reconciliation. As the triple-win phrase implies, there will be benefits for trade, the environment, and economic and social development. In reference to the goal of upholding TREMs that are pro-environment while restricting those that are veiled protectionist instruments, the papers by Cosbey and Murillo provide substantial direction. They discuss how the WTO can evolve and the FTAA can be constructed to be compatible with MEAs, whether they are based upon PPMs, the precautionary principle, or regulations for investment. In other words, Cosbey and Murillo are suggesting ways that these trade regimes can better accommodate TREMs intended for sustainability purposes, allowing for trade expansion to continue while maintaining legitimate means of managing liberalization when there are legitimate environmental concerns. A good example, described in Rotherham's paper, of how the WTO is already progressing in this direction is its continued acceptance of MEAs such as the Basle Convention, the Convention on Illegal Trade in Endangered Species (CITES), and the Montreal Protocol that mandate the use of trade restrictions based upon non-product-related PPMs, which are prohibited in the TBT Agreement. Rotherham focuses less on how the WTO and the FTAA can be made more compatible with environmental protection efforts, though, and more on ways for environmental labeling and certification programs to be made more compatible with trade expansion. The standardization that he recommends for labeling and certification programs, for the purpose of making

these mostly voluntary TREMs more harmonious with trade, parallels Cosbey's recommendation that mandated TREMs be harmonized between countries by being developed into MEAs.

In the meantime, while this reconciliation is being pursued between existing WTO law and prospective FTAA law on one hand and TREMs on the other, environmental competitiveness needs to be developed among the SMEs that make up the majority of the private sector in the developing countries of LAC. Increased environmental competitiveness will allow for LAC countries to overcome any trade barriers produced by TREMs gradually. The papers by Cárdenas and Nolet provide some specific suggestions for ways of promoting and financing increased environmental competitiveness of SMEs in LAC. Besides emphasizing the viability of projects in which SMEs receive financial and technical assistance from NGOs, multilateral organizations, foreign governments, and banks, Nolet also accentuates the importance of improving the effectiveness of the public environmental sector in LAC countries. He discusses many institutional, legal, and enforcement improvements that would further push the private sectors in these countries to become more sustainable in their operations.

Neither Nolet's paper, because of its in-depth attention to financing environmental competitiveness in the private sector, nor the rest of the conference papers and proceedings devoted adequate attention to the question of how to finance improvements in the public environmental institutions of LAC countries. Financing these much needed improvements is complicated by the current trend in LAC countries of shrinking the public sector in order to increase its efficiency, establish fiscal stability, and generate funds to pay off foreign debt. Within this context of fiscal austerity, improvements in government environmental protection efforts in LAC countries will probably have to come through institutional cooperation similar to the examples involving the private sector documented by Nolet. The issue of financing improvements of government environmental protection efforts in LAC countries should be a central topic of future research and conference activities on promoting environmentally sound trade expansion in the Western Hemisphere because of the value of effective government environmental management to provoke the private sectors in LAC to become more environmentally competitive. Improved management is necessary for eventual harmonization of environmental law with developed countries to eliminate the potential for trade distortions (for instance, migration to pollution havens).

Further attention also should be given to the question of how to finance the upgrading of national labeling systems in LAC countries to a regionally or internationally harmonized level. As is the case with SMEs in LAC, financial and technical barriers obstruct the progression of national labeling systems in this region. While the question of how to finance the efforts of SMEs in LAC to meet higher labeling and certification standards was thoroughly addressed during the *Hemispheric Dialogue*, little attention was given to this related financing question. Nevertheless, this question is of crucial importance; without increases in the stringency of national labeling systems in LAC, financing cleaner production in SMEs might not be enough to make these businesses more environmentally competitive in the markets of developed countries such as the United States, where clean production improvements will be most clearly demonstrated to consumers by labels of acceptable similarity or even equivalency.

And finally, a practical area of inquiry — the pressing need to integrate the technical knowledge extant in the trade and environment nexus with the ongoing intergovernmental negotiations in the FTAA — was opened by the *Hemispheric Dialogue*. The focus on "environmental opportunities" and challenges within the FTAA helped forge a consensus among participants on the value of more research into the specific environmental issues that may arise within the official FTAA negotiating groups. Such inquiry would help express environmental concerns in terms that can be better utilized by trade negotiators and in contexts that are relatively free of the polemics that are part of the larger trade and environment policy debate. Integration of technical knowledge into the work of government trade negotiators will help identify areas where environmental standards and trade liberalization are compatible.5 Moreover, research and analysis along these lines may eventually provide the foundation for a process within which trade negotiators would gradually open their discussions to a reasoned consideration of scenarios that respond to the growing public demand for trade agreements that simultaneously promote expansion of trade, economic and social development, and environmental protection.

NOTES

1. Though street protesters, led by labor and environmental groups, claimed victory, the collapse of the talks in Seattle was due to internal dynamics within the WTO, wherein the development issue became the cause for a unbridgeable split between and among the developed and developing countries (See Rosenberg 1999a and Rosenberg 1999b).

2. The International Centre for Trade and Sustainable Development (ICTSD), created in Geneva in 1996, came out of the trade and environment ferment of the early 1990s, as NGOs saw the need for a clearinghouse and process organization that could help create a positive forum for multisectoral debate. Its choice of "sustainable development" in its name was a conscious decision to embrace the approach of the broadest spectrum of civil society actors. Its serial newsletter publication, *Bridges* (available in English, French, German, and Spanish), and its on-line resources and library represent the most far-reaching and ecumenical effort to bring the development, environmental, and trade communities together. See the ICTSD's expansive web page at http://www.ictsd.org.

3. During his tenure at the World Bank before becoming U.S. Secretary of the Treasury, Lawrence Summers voiced this logic in a controversial internal memorandum leaked to the public. The memorandum caused great consternation among the environmental community and some backlash within developing countries. See the copy of the memorandum available on *Whirled Bank*, one of the post-Seattle Internet sites that emerged to organize protest against multilateral institutions dealing with trade and development: http://www.whirledbank.org/ourwords/summers.html.

4. See the BCSD-LA's on-line newsletter, *INNOVA*, on eco-efficiency and sustainable development activities in Latin America at http://www.bcsdla.org.

5. Some preliminary and more general work has been done in this area by the International Institute for Sustainable Development's Americas Project (Segger et al. 1999).

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The White Papers

INSTITUTIONAL CHALLENGES AND OPPORTUNITIES IN ENVIRONMENTALLY SOUND TRADE EXPANSION: A REVIEW OF THE GLOBAL STATE OF AFFAIRS

Aaron Cosbey

Introduction

In June 1999, the Group of Eight (G-8) industrialized countries met in Cologne, Germany, and produced the following statement:

> To underscore our commitment to sustainable development we will step up our efforts to build a coherent global environmentally responsive framework of multilateral agreements and institutions.… We agree that environmental considerations should be taken fully into account in the upcoming round of WTO negotiations.[1]

This is a striking statement, particularly given the lack of similar resolve in the World Trade Organization (WTO) itself in the five years since its creation, even among the G-8 countries (Canada, France, Germany, Italy, Japan, the Russian Federation, the United Kingdom, and the United States) and the European Union (EU) Commission. The statement indicates an understanding that a powerful portion of the citizens of many of those countries will not countenance a new round of negotiations in the WTO that does not include some safeguards to help ensure sustainable development. However, the G-8 countries badly want a new round of negotiations, despite the setback of Seattle. This political reality presents several opportunities. For the environmental community, the opportunity is clear, and the challenge is to offer solutions that will help trade lead to environmental improvement. At the same time, developing countries have an opportunity to advance their development objectives. Thus, they are in a position to agree to something that may benefit them as well but at a price.

In the Western Hemispheric context, there has already been broad agreement at a number of levels on the need to include social and environmental concerns in trade agreements and policies. To varying degrees, this need is recognized in the North American Free Trade Agreement (NAFTA); the Andean Community (Comunidad Andina — CAN); the Central American Common Market (CACM); the Caribbean Common Market (CARICOM); and the Southern Common Market (MERCOSUR). The Fourth Western Hemisphere Trade Ministerial meeting in San José, in March 1998, produced a Ministerial Declaration that contained the following significant statement:

> The negotiation of the FTAA shall take into account the broad social and economic agenda contained in the Miami *Declaration of Principles* and *Plan of Action* with a view to contributing to raising living standards, to improving the working conditions of all people in the Americas and to better protecting the environment.

This paper surveys some of the key trade-sustainable development issues likely to be addressed in the coming years at the multilateral level that may have implications for the Americas. The study looks further to opportunities and threats at the domestic level and recommends a number of ways in which sustainable development might be advanced, striving to achieve environmental improvement and improved development prospects North and South. Whether in the WTO, the Free Trade Area of the Americas (FTAA) or other similar forums, these are the only types of solutions that will pass the acid test of political acceptability, even of the grudging sort.

Trade and Environment: Key Issues

There are a number of trade-environment issues at the multilateral level reflected in the hotchpotch nature of the original work plan of the WTO's Committee on Trade and Environment (CTE). This first section of the paper will focus on a few key issues that may shape the debates in the years to come and have particular relevance to the Western Hemispheric context: 1) the relationship between the multilateral trading system and multilateral environmental agreements (MEAs); 2) the issue of discrimination based on process and production methods (PPMs); and 3) the precautionary principle in the trading system and investment rules.

Multilateral Environmental Agreements

How does the system of law embodied in the WTO relate to the system of law embodied in over 200 MEAs, a number of which incorporate trade measures? This question has been central since the first high-profile trade and environment clash — the U.S.-Mexico Tuna/Dolphin case — and the discussion continues to evolve today. MEAs were the subject of two of the CTE's 10 original agenda items and have occupied a disproportionate amount of the Committee's time. Potential conflict with WTO rules also was one of the key foundering points in the Cartagena negotiations on a Biosafety Protocol to the Convention on Biological Diversity (CBD).

Trade measures included in the MEAs can include outright bans, product standards, notification requirements, or labeling requirements attached to the import or export of goods. In some cases, the agreement itself specifies the measure to be taken — the Montreal Protocol and the Convention on Trade in Endangered Species of Wild Flora and Fauna (CITES) of July 1975 specify trade restrictions in ozone-depleting substances and endangered species, respectively. In other cases, the agreement obliges signatories to fulfill certain objectives, and the signatories may do so at the domestic level by enacting trade restrictive regulations. Some analysts argued that the U.S. ban on shrimp caught in ways harmful to sea turtles was such a measure, aimed at fulfilling CITES and other commitments.[2] Others have warned that signatories to the Kyoto Protocol of 1997 will likely fulfill their obligations in ways that are trade restrictive but not specifically mandated by the agreement.[3] However, the distinction between the two types of measures is important. The first type ("specific" trade measures) can claim to be based on some degree of international consensus, whereas the second ("non-specific" trade measures) has no such prima facie claim to legitimacy.

The other important distinction from a trade law perspective is whether the measures are applied against parties to the agreement or to non-parties who have not voluntarily agreed to be restricted by the terms of the MEA. The most problematic case would be the application of trade measures against a non-party to the MEA, where both parties are members of a trade agreement that prohibits such measures. This has not happened to date, but the potential exists. The following table lists the number of WTO members who are not party to some of the major trade-related MEAs and their protocols.

Table 1. WTO Members Non-Party to MEAs

Agreement	WTO Member Non-Parties
Basel Convention	30
CITES	15
Convention on Biological Diversity	7
Montreal Protocol (Vienna Convention)	8
Kyoto Protocol* (FCCC)	128

*Not yet in force. Figures as of June 1999.

Source: Risa Schwartz, forthcoming, "Trade Measures Pursuant to MEAs: Developments from Singapore to Seattle," *Review of European Community and International Environmental Law* (RECIEL).

The fundamental problem, for both parties and non-parties to an MEA, is whether MEAs give rise to measures that might be illegal under WTO rules. WTO members have proposed a number of solutions for addressing this potential problem. These can be grouped into three categories: *status quo* proposals, *waiver* proposals, and *ex ante* or *environmental window* proposals.

The proponents of the status quo proposals believe that there are already adequate provisions in the WTO rules for addressing trade measures in MEAs. Note that these countries include those who believe that the WTO rules are clear in sanctioning many such measures (for example, the United States) and those who believe the rules are clear in prohibiting them (for example, India). Most of these proposals suggest ways in which coordination between the MEA Secretariats and the WTO could be increased, including regular briefings and cooperation agreements.

The proponents of the waiver proposals suggest that the WTO might grant waivers to its rules for trade measures in MEAs that meet certain criteria, either on a case-by-case basis or automatically. Such waivers normally require a three-quarters majority to be approved[4] and are time-limited but renewable. The criteria proposed for trade measures to support environmental objectives include such things as necessity, proportionality, least-trade restrictiveness, effectiveness, broad multilateral support, and adequate scientific evidence.

The proponents of the ex ante or environmental window approach argue that greater certainty is needed before the fact for negotiators of MEAs and that the waiver approach fails to provide this

certainty. The supporters of these alternatives propose a modification of WTO rules (such as an expansion of the General Exceptions) or the drafting of an Understanding or a nonbinding set of interpretive guidelines that would spell out under what conditions the WTO would accept the use of trade measures taken pursuant to MEAs.

This paper makes specific recommendations for addressing the MEAs issue in the larger context of trade and sustainable development in the WTO, but some of those arguments can be summarized here. The status quo approach is inadequate because it assumes that there is enough certainty in the existing rules on the subject of trade measures in MEAs. However, the number and diversity of proposals for creating greater certainty put the lie to this assumption. Similarly, the waiver approach — particularly the case-by-case type — is too arbitrary to provide MEA negotiators the guidance they need. It makes WTO members sit in judgement of a concluded agreement or nonspecific measure and risks injecting a political element into acceptance or rejection. Some sort of ex ante approach is needed, involving WTO collaboration with other bodies; the WTO cannot independently set criteria for acceptable trade measures in MEAs, being inexpert in the drafting of such agreements, ignorant of their subject matter, and having no greater legal force than those agreements in any case. This is not a criticism of the WTO, which is not an environmental organization. Rather, it is an exhortation to the complex and heterogeneous environmental community to articulate its interests with respect to the multilateral trading system more effectively.

Process and Production Methods

The PPMs issue is at the heart of the trade-environment debates. The first high profile trade-environment dispute — U.S.-Mexico Tuna/Dolphin[5] dispute of 1991 — brought this issue to the fore. Is it GATT/WTO legal for a country to enact trade restrictions based on how a product is produced? The unadopted GATT Panel in Tuna/Dolphin ruled that the United States could not distinguish at the border between tuna that was caught in ways that killed dolphins and tuna that was "dolphin safe." Both types of tuna were "like" under this panel's interpretation and thus could not be accorded separate treatment.

The trade community applauded this interpretation, which since has been repeated in a number of subsequent Panel and Appellate Body judgments.[6] The objective of the complex system of trade rules is fundamentally to allow comparative advantage to rule; those goods that are produced most efficiently should prevail in international markets. However, efficiency of production is a matter of how a good is produced. If governments are allowed to distinguish among goods on this basis, they will be able to dictate terms that unfairly disadvantage foreign, more efficient, producers. This is a legitimate concern, to which not enough environmentalists are sensitive.

For its part, the environmental community was aghast when the GATT Panel issued the ruling. How a good is produced is one of the three central questions of environmental regulation: how is it produced, how is it used, and how is it disposed of? In the Tuna/Dolphin instance, trade rules seem to be in direct conflict with environmental priorities. According to Konrad von Moltke, "It is impossible to conceive of an open global trading system that contributes to sustainability unless we can distinguish between sustainably produced timber and timber that does not meet basic criteria of environmental stewardship, or fish taken from stocks that are being depleted can be tagged, or consumers paying for expensive electronic equipment can be assured that all of its components, beginning with the raw materials, were manufactured in an environmentally responsible manner."[7]

In a number of the developed countries, the political sentiment is such that if there is no visible movement to address this issue in proposed new trade negotiations in the WTO, there will be no support for negotiations from the environmental community. This was one of the clear messages of the WTO's failed efforts to launch a Millennium Round of negotiations at its third Ministerial Conference in Seattle in 1999. Seattle was only the latest in a string of visible demonstrations of force by environmental non-government organizations (NGOs) and their partners, including helping scuttle the efforts of the OECD (Organisation for Economic Co-operation and Development) at a Multilateral Agreement on Investment, helping defeat fast-track authority in the United States and forcing environmental changes to the substance of the NAFTA and the Uruguay Round Agreements (1986-1994). In the United States alone, it is hard to paint a scenario wherein the administration is granted fast-track authority to negotiate in any new WTO round without addressing the issue of environment-relat-

ed PPMs.[8] In such a case, as in various other contexts, the problems of the United States become everyone's problems.

Many developing countries, hostile to the idea of addressing environment-related PPMs in the WTO system, will perceive this dynamic as a threat. This paper argues that this discussion should be seen as an opportunity. The developed countries badly want a new round, and anything one wants in a negotiation has its price. Rather than opposing the incorporation of PPMs in the trading system, developing countries should be calculating what they can get for incorporating them and thinking about how they would like to see the issue addressed to reflect their priorities and concerns most beneficially. Such a strategic, proactive approach is more likely to serve their interests than a reactive, defensive position.[9]

This argument is given greater force by the 1998 Appellate Body decision in the WTO Shrimp/Turtle case.[10] In this case, the United States had enacted a ban on the importation of shrimp caught in ways that killed endangered sea turtles. The ban was preceded by long negotiations leading to an international agreement in the Western Hemispheric context: the Inter-American Convention for the Protection and Conservation of Sea Turtles. But the U.S. government also was forced by its courts to apply the ban to countries that had not been part of the negotiations and agreement, and these countries complained that, among other things, the United States had no right to restrict their exports on the basis of PPMs.[11] The WTO Appellate Body ruled that the U.S. law was inconsistent with WTO obligations, but the ruling was based on a finding that the United States had applied its PPM-based discrimination in a GATT-illegal way, seeming to leave the door open to such discrimination if done properly.[12] In the words of one analyst, "The Appellate Body tried to clarify how 'unilateral' environmental measures having trade effects could be implemented in compliance with WTO rules."[13] Thus, one argument for addressing the PPMs issue in any future negotiations is that it will continue to be addressed in one way or the other. Even without the Shrimp/Turtle decision, it would be easy to predict that unilateral, environmentally based trade measures would continue to be used, based simply on history. But the decision seems to signal an evolution of the WTO toward dealing with the issues of PPMs — an evolution propelled not by negotiation but by judicial interpretation.

Many countries are unhappy with this development. The report of a recent CTE meeting notes, "With respect to the Shrimp/Turtle case, developing countries were deeply concerned with the evolutionary theory of interpretation applied by the Appellate Body; it was for WTO members to interpret such cases."[14] This is quite right — it should not be left to the dispute settlement bodies to deal with issues that are rightly the subject of negotiated interpretation. Members should waste no time in squarely addressing the issue of PPM-based trade restrictions and in deciding what types of circumstances, lead-up efforts, and accompanying measures should be required before such measures can legally be invoked. Only in this way will it be possible for the WTO to distinguish green protectionism from legitimate environmental protection. One of the issues that should be clearly spelled out in such an exercise is the distinction between PPMs that have domestic effects only (such as localized pollution and labor practices) and those whose effects are global. The former are clearly the concern of the domestic governments and should not be the subject of trade measures by importers. The latter, given their global reach, cease being purely domestic issues.

Some analysts argue that addressing PPMs within WTO law is without precedent and would erode the basic principles of national treatment and most-favored nation. However, the Agreement on Trade-Related Intellectual Property Rights (TRIPs) is an agreement on PPMs; it allows countries to discriminate at the border between goods that are identical in every way but that have been produced using different processes, one legal and the other illegal.[15] By redefining "like" goods in its particular context (for example, otherwise identical goods produced with or without intellectual property rights are not "like"), the TRIPs Agreement manages to function without eroding either of these fundamental principles.

Recommendation: The WTO should address environmental concerns as it has addressed a number of other areas of specialized application of trade law: by creating an agreement on trade-related environmental measures (TREMs).[16] The agreement would spell out how the basic principles of WTO law would be specifically applied in relation to such measures. One article should address MEAs, discussed above, and should spell out the following points: what constitutes an MEA under the agreement, what constitutes a trade measure, how different types of trade measures

should be treated, and what types of complementary measures must be applied under what circumstances. The article should also set up a mechanism for dispute settlement. Another article should address PPMs and similarly set out the manner in which PPM-based discrimination may and may not be used, according to the types of instruments, the circumstances, and the prerequisite and supplementary measures that accompany them. In essence, this would curb unilateral measures by bringing them under multilateral discipline.

The Precautionary Principle

The precautionary principle and its accommodation in the trading system is shaping up to be one of the thorniest trade-environment issues of the new millennium. It lies at the heart of international efforts to protect the environment through MEAs, and future negotiations on persistent organic pollutants and climate change will be haunted by concerns about their WTO implications. The precautionary principle was one of the key issues stalling consensus at the Cartagena negotiations on biosafety (a protocol to the Convention on Biological Diversity) in February 1999 and is at the heart of the final agreement concluded in Montreal one year later.[17]

The precautionary principle is woven through a number of current and future possible disputes in the WTO, including the U.S.-EU Beef Hormone dispute, the Canada-France Asbestos dispute, and possible disputes over the EU's ban of certain antibiotics for animal feed. A possible EU Directive on computer equipment and toxic materials and the labeling of genetically modified organisms and their products also involves the principle, which is a large part of the simmering division between Brazil and Argentina over the issue of genetically modified organisms and agriculture.

The precautionary principle is deceptively simple to define. A standard formulation, given in the Rio Principles, runs as follows, "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."[18] The precautionary principle calls on nations to apply it widely, "according to their capabilities," adding a too often missed development dimension to the approach. One analysis lays out six basic concepts now "enshrined" in the precautionary principle, as follow:

> (i) *preventative anticipation:* a willingness to take action in advance of scientific proof.…
>
> (ii) *safeguarding of ecological space:* or environmental room for manoeuvre as a recognition that margins of tolerance should not even be approached, let alone breached.…
>
> (iii) *proportionality of response or cost-effective ness of margins of error*to show that the selected degree of restraint is not unduly costly.…
>
> (iv) *duty of care, or onus of proof on those who propose change…*
>
> (v) *promoting the cause of intrinsic natural rights:* …The application of ecological buffers … gives a practical emphasis to the thorny ethical concept of intrinsic natural rights.…
>
> (vi) *paying for past ecological debt:*…Those who have created a large ecological burden already should be more 'precautious' than those whose ecological footprints to date have been lighter.…[19]

The precautionary principle is solidly founded in the theory of social welfare economics, where it is used to deal with the problem that future costs — even catastrophically large ones — become insignificant to the calculations of the present generation when they are subjected to normal rules of discounting and risk.[20] And some have argued that it is now an accepted principle of international law, being enshrined in agreements such as the Maastricht Treaty, the Rio Declaration, and the Cartagena Protocol, among others.[21] But the problem lies in putting the principle into practice. It involves balancing the risks of inaction (calculated from the costs of possible damage and the probability of that damage occurring) against the costs of action, striving continually to improve scientific certainty in the knowledge that such certainty is impossible, and making policy that reflects all of the above.

Applying the precautionary principle is, in the end, a political exercise. All the costs, benefits, and probabilities that feed it are highly uncertain estimates. Moreover, the final policy that results involves implicit judgments about distribution between present and future generations, among interest groups in the present, and between national economies. It is, in short, a nightmare for the multilateral system of trade rules — a policy-making process that may seem impossible to bring to rule, containing an unmanageable number of entry points for protectionist influence. However, the principle that guides it is undeniably valid and necessary.

For the sake of the trading system and the environment, it will be important to come to some agreement at the international level on the application of the precautionary principle.[22] And it will be important to create institutions that can decide whether that agreement has been followed in practice: whether technical standards or trade measures in MEAs are based on enough scientific evidence, whether they allow for ongoing reassessment of evidence, whether the estimated costs of action are balanced with the estimated costs of inaction, and so on. It will also be important that the WTO not be this institution.[23] The WTO has wisely mandated the setting of international standards to independent expert bodies and merely administers its procedural rules with respect to the decisions of those bodies; it should exercise the same instinct for self-preservation by offloading the work to apply the precautionary principle. The existing international standard-setting bodies are probably not good models for such an institution, which might be better fashioned after some of the scientific and policy advisory bodies that feed into the MEAs.

Recommendations : The WTO should, in concert with other interested intergovernmental organizations (IGOs) and civil society, help to establish an international body to address issues of risk and precaution in the same way that other WTO-recognized bodies address issues of health and safety standards. The first step is to bring the interested actors together to define what such a body would look like, drawing in part on the lessons of the scientific and technical advisory bodies that currently inform negotiations in several MEAs. In preparation for this multilateral process, the FTAA tri-partite secretariat members, in partnership with other actors, could contribute to this effort by defining the issues most appropriate to be addressed at the hemispheric level.

Investment[24]

The failure of the OECD effort to negotiate a multilateral agreement on investment has led to calls to negotiate a similar agreement in the WTO.[25] Investment has been the subject of discussions in the WTO since the organization's first ministerial meeting in 1996, but these talks have been exploratory in nature, and there is no consensus in the WTO on the move to a negotiating stage. Indeed, strong developing country opposition to a comprehensive investment agreement in the WTO is responsible for the narrow scope of the Uruguay Round's Agreement on Trade-Related Investment Measures (TRIMs).

There is a need for a multilateral agreement on investment. Current patterns of foreign direct investment (FDI) concentrate too heavily in a few countries and underfund the type of innovation, infrastructure, and productive facilities that sustainable development demands. The risks associated with investment in many developing countries exact severe financial penalties and deprive those countries of the benefits of new technologies. Indeed, the benefit of having a stamp of approval for investors was one of the key motivations for Mexico in negotiating NAFTA, with its Chapter 11 provisions for investment rules. It is also the reason Argentina, Chile, and others stood ready to consider signing the OECD treaty had it been completed. A properly structured investment regime is needed to ensure that investor risks become more predictable, that investment fosters sustainable development in a broader range of countries, and that it does not lead to undue environmental degradation. The requirements of an investment regime are, however, structurally different from those for the liberalization of trade in goods or services. Productive investment has a long-term time horizon and can involve numerous changes over the lifetime of an investment, responding to new technologies, changing market opportunities, and the evolving understanding of the consequences of an investment. A foreign investor acquires continuing rights in the host country, a kind of economic citizenship, and with these rights come obligations.

The trade principles of most-favored nation and national treatment, the basis of much of the OECD draft text, become fraught with difficulties in the investment context, particularly regarding environmental regulation. The trend in environmental regulation is toward ever more site-specific regulatory decisions and toward market-based instruments that have differential impacts on different economic actors. Where these happen to work against a foreign investor, it may appear that the principles of nondiscrimination have been violated. Recent research on the investment provisions in the NAFTA shows that an attempt to govern investment as if it were trade in goods creates a number of serious problems for environmental regulators.[26] All five of NAFTA's prohibitions on performance requirements either have been used

or have the potential to be used to attack environmental regulations in the NAFTA countries in unintended ways.

Furthermore, FDI, which is arguably trade related, is only a small part of a vast and complex system of marginally trade-related international capital flows and practices. Any attempt to bring institutional arrangements to bear on international investment would also have to deal with portfolio and speculative investment, inter-bank practices, hedge funds, derivatives, offshore investment havens, possible clearing houses, the lender of last resort question, and so on. The GATT/WTO structure is unsuitable for the development of the needed international investment regime, and its current strengths will be put at risk by attempts to extend it into this dynamic and conflictual area.

Recommendation : The international community should find a forum other than the WTO in which to negotiate a multilateral framework of rules governing international investment. The environmental community, when faced with such a need, has traditionally responded by creating a new treaty. Indeed, the structure of a framework agreement with various protocols is not a bad fit with the nature of the investment problem. By extension, the FTAA Working Group on Investment should seriously examine its mandate in the light of recent NAFTA Chapter 11 and other multilateral experiences with proposed investment agreements.

Trade and Sustainable Development

Until now, for the most part, this paper treated the issues in terms of trade and environment. This is an incomplete treatment; the proper subject of study is trade and sustainable development. Trade is a means to an end — increased human well-being. Therefore, it is easy to argue that trade policies and trade rules should serve the goal of sustainable development, which is nothing more than an environmentally sustainable improvement in human well-being.[27] It is more difficult to argue that trade should serve environmental objectives narrowly cast, since it is conceivable that environmental protection can work against economic development if the linkages between the two are ignored.

In many ways, the WTO system does not work well for the developing countries. This is unfortunate; trade's primary potential contribution to sustainable development comes from the positive linkages between trade and development in these countries.[28] Increased export flows and increased flows of trade-related investments are key contributors to increased wealth in those countries, and in the right circumstances this added flow can translate to increased human well-being and to increased environmental protection. However, as the Group of 77 (G-77) put it recently:

> [T]he benefits of the existing multilateral trading system continue to elude developing countries. Progress towards full liberalisation in sectors of particular interest to them is lagging behind, and significant imbalances between rights and obligations exist in multilateral trade agreements (MTAs), as well as in conditions of market access….[29]

This situation is contrary to the spirit of a body of WTO provisions that have collectively come to be known as "special and differential treatment," based on the acknowledgment that developing countries face special difficulties in exploiting the opportunities offered by trade liberalization. Special and Differential Treatment (SDT) in the Uruguay Round Agreements consists of a number of types of mechanisms:

- Limited time derogations and exceptions to disciplines,
- Preferential disciplines,
- Flexibility in WTO disciplines and procedures,
- Nonbinding best-effort pledges by developed countries, and
- Technical assistance commitments.

A number of recent analyses, however, have argued convincingly that SDT has failed to achieve its objectives.[30] Limited time derogations are too blunt an instrument. Small developing economies, in particular, may be hamstrung by geographical, sectoral, or institutional inflexibilities that cause liberalization to produce painful and protracted periods of transition. Caribbean states with Lomé banana export preferences from the EU are now facing an extremely painful economic transition as a result of a successful U.S. challenge of the EU regime in the WTO. In such economies, experience has shown that economic openness must be properly staged and accompanied by deliberate domestic policies to facilitate restructuring. Without such staging and accompanying measures, liberalization may, at least in the short and medium term, actually work against growth, employment, poverty alleviation, and other components of sustainable development.

In addition, developed countries have not honored their nonbinding best-effort pledges, while the difficult, developing country obligations for which they compensated are still enforced. In its submission to the General Council on implementation issues pre-Seattle, for example, Egypt charged, backed by a number of specific examples, that, "in many areas of the WTO provisions, special and differential provisions are phrased only as best endeavour clauses, the implementation of which has remained ineffectual."[31] And technical assistance efforts by the WTO have been entirely insufficient in scope and effect. Further, the implementation of agreements beneficial to developing countries (mainly agriculture and textiles) has been poor. Several agreements resulting from the Uruguay Round also may have high economic costs for developing countries: TRIMs, TRIPs Customs Valuation, and Sanitary and Phytosanitary Measures. In addition, the issues of interest to developing countries look to be tough to get on the agenda of any future negotiations. For example, many developing countries want, as a high-priority item, a review of the WTO's antidumping provisions to bring them more in line with developing country interests.[32] However, in Seattle, the United States — a heavy user of such provisions against developing countries — exercised a de facto veto right on discussing antidumping.

It is imperative that the experience of the developing countries in any future negotiations not repeat that of the Uruguay Round. If trade liberalization is to serve, rather than frustrate, sustainable development in the developing world, new negotiations need to find more effective new forms of SDT. They also need to also find a way to "harden" nonbinding pledges and promises of action in other forums before accepting them in exchange for hard obligations in the negotiated agreements. Many developing countries also need to be better prepared; they need to have a better idea of where their national interests lie with respect to the issues being negotiated. In particular, they need to understand better the linkages between trade and sustainable development, both globally and in their domestic contexts.

Recommendations : The WTO should collaborate with development organizations such as the United Nations Development Programme and the World Bank to design effective mechanisms of special and differential treatment, based on the clear lessons of five decades of development efforts. Such mechanisms, to be embedded in future negotiated commitments, should be flexible enough to take into account levels of institutional and economic development, industrial structure and geography, and the resulting need for staging of trade obligations. These steps should, where appropriate, involve interagency collaboration and the participation of major private actors.

WTO members should explore ways to negotiate development commitments as they negotiate trade law. It should be possible, for example, to trade action on debt relief for commitments on market access, but the former is beyond the scope of trade negotiations. The recently convened High-Level Forum on Trade and Environment[33] discussed the prospect of a parallel set of negotiations whose successful conclusion would be a prerequisite for final agreement in the trade talks. As countries in the Americas draw closer together, mechanisms should be set in place to address these issues on a regional level, in particular in the contemplation of a new free trade area that involves only two "developed countries" and a majority of "developing countries."

Institutions: The Right Tools for the Job

To this point, this paper has examined issues of substance on the international agenda. There are also institutional issues that will be key in determining whether the WTO or other trade agreements can contribute their full potential share to sustainable development. Two such issues are examined below: openness and the architecture of trade and sustainable development.

Openness

Openness has been defined as consisting of two basic elements: "first, timely, easy, and full access to information for all those affected; and second, public participation in the decision-making process...."[34] Since its establishment, and particularly in 1998 and 1999, the WTO has taken significant and welcome steps to promote transparency in its work, especially when compared with GATT, its predecessor. The WTO's web site is a good example of this new spirit. Public participation has been less comprehensively addressed and has come about chiefly through a series of irregular NGO symposiums organized by the Secretariat. Many WTO members are nervous

about the prospect of openness to civil society at the multilateral level, something that would, in fact, give foreigners greater rights than those enjoyed by their own citizens. They argue that the proper place for civil society input is at the national level. However, while the situation of document "derestriction" in the WTO improved in 1996, the release of documents is not systematic or timely enough to allow an informed input at any level. Agendas for committee meetings are restricted until well after the events, background notes that members request from the Secretariat can be considered for release only six months after release to the members, and most submitted documents will similarly only be considered for release six months after submission.

Access to dispute resolution procedures is also poor, the bright spot in the gloom being the decision by the Appellate Body in the recent Shrimp/Turtle case that panels should accept amicus briefs from non-WTO members. The arguments submitted by the parties are restricted, however, hampering informed interventions. Again, proceedings are closed. Panel reports are available to the public 10 days after they have been released to the members.

The traditional argument against openness in trade policymaking is the need to keep interested parties out of the room when tariff reductions are being negotiated, allowing governments to act more freely in the interests of the wider public. However, the WTO long ago stopped being just a forum for tariff rate negotiations; thus, the standard argument loses much of its force.

> …[N]ot all aspects of the obligations assumed by governments under international trade agreements fall neatly into this category [tariffs and other instruments of protection]. In particular, the agenda of trade negotiations increasingly concerns domestic policies that either indirectly affect trade (subsidies, technical standards, sanitary and phytosanitary measures), or do not affect trade at all (e.g., intellectual property, migration, investment, competition, environmental and labour standards, etc.).[35] The negotiations on these issues have in common the promotion of an 'international' minimum standard of conduct for policies previously considered to be purely domestic, and do not involve the tidy categories of 'protection' and 'anti-protection.'[36]

The arguments for openness are basic: civil society will contribute elements that governments alone will not, either because society knows more about some issues or because it is unencumbered by the politics that often force governments to avoid or downplay certain issues. The result is better policy, particularly if civil society is speaking for interests not usually well represented, such as environment and social justice.

The WTO should look for appropriate ways to open its proceedings further. There is scope for professional input from civil society and other stakeholders, especially to the dispute-settlement process. Additionally, issues such as the 1999 review of Article 27.3 (b) of the TRIPs Agreement would benefit from input from organizations working on biodiversity, community knowledge, and indigenous peoples' priorities. Establishing better access to WTO documents, making the Committee on Trade and Environment somewhat more accessible, and creating events and forums where civil society and trade policy may interact are all welcome but insufficient steps.

It is wrong, however, for all the attention to be directed at the WTO when the principal problem lies at the national level, in the opaque processes that too often characterize trade policy development. In too many countries, national trade policy effectively reflects the interests of the commercial sector but fails to take into account the interests of other groups in society. Now that the trade regime has extended its reach far beyond trade in goods and now that trade has become so essential as a motor for economic growth, the formulation of trade policy should be correspondingly extended. National trade policy and national positions taken at the WTO should represent a careful balance among the legitimate interests of stakeholders in society. This is rarely the case.

The arguments made for openness in the WTO can just as easily be transferred to the Western Hemispheric context. While some excellent examples exist (the Caribbean Community's Civil Society Charter and the North American Commission on Environmental Cooperation's Joint Public Advisory Committee), there is still significant room for progress. In the FTAA process, for example, the governments of the Americas agreed only to establish a Committee of Government Representatives on the Participation of Civil Society (CGRPCS), to receive and analyze civil society views on the trade agreement, and to present the range of views for the consideration of Trade Ministers. Access was extremely limited — submissions were made under what has become known as the "mailbox" process, whereby only

written inputs were received, and no response was given — and the civil society response was correspondingly sparse.

Recommendations : Trade agreements and negotiations should take further steps to improve transparency in their work. Further, the WTO should develop simple criteria and guidelines for domestic-level openness in developing national trade policy and positions.

Architecture for Trade and Sustainable Development

If the WTO has been less open than it could have been with respect to the environmental community, it should be accorded sympathy on at least one count: the environmental community is not an easy beast to approach. It includes the secretariats of MEAs and the many thousands of international or regional agreements, the relevant IGOs including UNEP, national and sub-national level ministries of environment, and national and international environmental NGOs. These actors cover a broad range of views on how the environment should be protected, what the priority issues are, and how to manage the issues at the interface of trade and environment. This presents two problems. First, it leaves the WTO — a single structure responsible for overseeing global trade rules — without an equivalent structure with which to conduct a dialogue on how those rules relate to the environmental law or on how those rules might impact fundamental environmental objectives. Second, it leaves the environmental community without a single voice with which to speak to the WTO, let alone a forum within which to develop consensus on what to say.

These problems have led some to call for a new architecture of collaboration between the WTO and the various environmental regimes and actors.[37] As a first step from the trade side, the WTO has convened a number of trade and environment symposia to bring together WTO members and NGOs (it has yet to convene one on trade and sustainable development).[38] Moreover, the CTE has invited representatives from the key MEAs to its meetings on a regular basis.

A number of people have called for a single environmental body as a counterweight to the WTO, housing under its umbrella all the various international environmental agreements.[39] Such a structure has intuitive appeal but might not match well with the heterogeneous structure of international environmental problems, which range in character from toxic waste trade to migratory species and shared marine resources. Konrad von Moltke argues the following:

> It is important to recognize that the structure of international environmental governance is not fortuitous. It reflects the problem structure of the material it addresses at least as accurately as the GATT/WTO in its area. The environment is in fact many areas of policy, reflecting the extreme difficulty in replicating natural systems in political, social and economic systems. International environmental governance addresses issues as diverse as biodiversity and hazardous substances, or as climate change and watershed management, or as long-range air pollution and migratory species. It is conceptually and practically impossible to address these issues in a unitary structure, as has sometimes been proposed.[40]

In some manner, the environmental community needs to articulate its interests with respect to the trading system on a number of issues. Some of those surveyed in this paper are good examples. In what ways should the WTO handle trade measures in MEAs? If criteria for such measures are developed, what should they be? How should the WTO handle the precautionary principle? How should it deal with the issue of PPMs without compromising environmental management objectives? The WTO cannot answer these questions without assistance from the practitioners, scientists, public interest groups, and other stakeholders in the environmental community.

Recommendation : A Standing Committee on Trade and Environment (SCTE) should be established as a forum in which the environmental interests in international trade might be articulated clearly and some initial priorities for action set.[41] The SCTE is conceived as a light institutional structure — perhaps modeled on the Antarctic Treaty or the Group of Seven (G-7) — not as a new international organization. Such a body would gather the key environmental actors from government, convention secretariats, civil society, and the private sector with an interest in trade policy. They would review policy objectives and proposals and seek to formulate practical recommendations to be introduced to the WTO, to the FTAA, to regimes for environmental management, and to other policy forums.

In relation to the WTO, for example, the SCTE would advise on matters where the Organization itself is incapable of unilaterally making trade-environment policy. The input of a body such as

the SCTE would be an essential prerequisite to the drafting of a WTO Agreement on TREMs, suggesting ways in which to define an MEA and criteria by which to judge whether an MEA's trade measures were acceptable. It has been strongly argued above that the WTO needs the input of the environmental community on such issues.

Beyond Trade Rules: Looking for Win-Win Scenarios

To this point in the paper, we have looked mainly at issues of concern to the WTO and, by extension, other international trade regimes such as the FTAA. There is an important class of linkages between trade and sustainable development that is not much affected by trade rules or the institutions that govern them. These are the linkages that play out at the domestic level.

On the positive side, openness to goods and investment may bring a number of domestic environmental and development benefits. Foreign investors may bring with them new, more environmentally and economically efficient technologies or management systems. The exposure to foreign competition may also spur domestic firms to develop such efficiencies of their own. If a country's export markets are relatively "green," domestic firms may adapt to maintain or increase their market share, with both environmental and economic benefits.

The International Institute for Sustainable Development (IISD)'s Trade Knowledge Network (TKN), a collaboration of six developing country research institutions, has produced research in a number of countries that illustrates these linkages and their potential.[42] In South Africa, large elements of the citrus industry responded to export market demands by reducing pesticide use and opening up markets previously inaccessible. In Pakistan, research identified the clear potential for low-cost environmental improvements to the textiles industry, the country's biggest single exporter. Other recent research describes the same dynamics.[43]

On the negative side, openness may be detrimental for the environment and for development. It may lead to increased exports of goods based on natural resources or environmental services.[44] If proper environmental regulations are not in place, the result is environmental degradation. There may also be a reverse of the linkage posited above; firms that do not "green" production in response to customer demands will lose market share. The first linkage is illustrated in research for the Trade Knowledge Network from Argentina, where unilateral liberalization has led to environmental degradation in the Pampas agricultural region. Increased agricultural exports, a response to the improved incentives brought by liberalization, have meant increased use of inputs such as fertilizers and pesticides, as well as increased water demands from underground aquifers.[45] The negative scale effect is confirmed by other research as well.[46]

The linkages discussed in this section are mostly matters of competitiveness and are not driven by trade measures but by consumer demand. Those exporters that manage to adapt to green demands will prosper, and those that do not will suffer. Such competitiveness issues are normally front and center on the agendas of government, but many governments refuse to see trade-environment issues in this light. Too often, we are prisoners of the history of the debates, which began with the fractious Tuna/Dolphin case, and we think of trade and environment only in terms of trade rules and North-South conflict.

Recommendations : More research is needed at the domestic level to help countries assess where there may be opportunities and threats in the links between trade and sustainable development. Where opportunities are identified, governments should act to help firms exploit "win-win" opportunities. Such opportunities, which aim to increase exports while fostering sustainable development, should be accorded high priority by bilateral and multilateral agencies for official development assistance. Similarly, where greening markets threaten to shut out developing country exports because exporters lack technical capacity, testing facilities or short-term credit for technological transformation, Northern funders should be ready to assist. The International Trade Centre, a collaboration of the United Nations Conference on Trade and Development (UNCTAD) and the WTO, might be given expanded resources to fill such needs.

Conclusions and Summary of Recommendations

This paper has argued that a number of actions need to be taken, at various levels, to ensure that trade policies and practice can achieve their full potential to contribute to sustainable develop-

ment in the Western Hemisphere and globally. Those recommendations are summarized below.

1. The WTO should address environmental concerns as it has addressed a number of other areas of specialized application of trade law: by creating an agreement on trade-related environmental measures (TREMs). The agreement would spell out how the basic principles of WTO law would be specifically applied in relation to such measures. One article should address MEAs and should spell out what constitutes an MEA under the agreement, what constitutes a trade measure, how different types of trade measures should be treated, what types of complementary measures must be applied in what circumstances, and set up a mechanism for dispute settlement. Another article should address PPMs and similarly set out the manner in which PPM-based discrimination may and may not be used, according to the types of instruments, the circumstances, and the prerequisite and supplementary measures that accompany them. In essence, this would curb unilateral measures by bringing them under multilateral discipline.

2. The WTO should, in concert with other interested IGOs and civil society, help to establish an international body to address issues of risk and precaution in the same way that other WTO-recognized bodies address issues of health and safety standards. The first step is to bring the interested actors together to define what such a body would look like, drawing in part on the lessons of the scientific and technical advisory bodies that currently inform negotiations in several MEAs.

3. The international community should find a forum other than the WTO in which to negotiate a multilateral framework of rules governing international investment. The environmental community, when faced with such a need, has traditionally responded by creating a new treaty. Indeed, the structure of a framework agreement with various protocols is not a bad fit with the nature of the investment problem.

4. The WTO should collaborate with development organizations such as the United Nations Development Programme and the World Bank to design effective mechanisms of special and differential treatment, based on the clear lessons of five decades of development efforts. Such mechanisms, to be embedded in future negotiated commitments, should be flexible enough to take into account levels of institutional and economic development, industrial structure and geography, and the resulting need for staging of trade obligations. They should also, where appropriate, involve interagency collaboration and the participation of major private actors.

WTO members should explore ways to negotiate development commitments as they negotiate trade law. It should be possible, for example, to trade action on debt relief for commitments on market access, but the former is beyond the scope of trade negotiations. One way to do so might be to conduct a parallel set of negotiations whose successful conclusion would be a prerequisite for final agreement in the trade talks.

5. Trade agreements and negotiations should take further steps to improve transparency in their work. Further, the WTO should develop simple criteria and guidelines for domestic-level openness in developing national trade policy and positions.

6. A Standing Committee on Trade and Environment should be established as a forum in which the environmental interests in international trade might be articulated clearly and some initial priorities for action set. The SCTE is conceived as a light institutional structure, perhaps modeled on the Antarctic Treaty or the G-7, not as a new international organization. It would gather the key environmental actors with an interest in trade policy from government, convention secretariats, civil society, and the private sector. They would review policy objectives and proposals and seek to formulate practical recommendations to be introduced to the WTO, to the FTAA, to regimes for environmental management, and to other policy forums. In relation to the WTO, for example, the SCTE would advise on matters where the organization itself is incapable of unilaterally making trade-environment policy. The input of a body such as the SCTE would be an essential prerequisite to the drafting of a WTO Agreement on TREMs, suggesting ways in which to define an MEA and criteria by which to judge whether an MEA's trade measures were acceptable.

7. There is a need for more research at the domestic level to help countries assess where there may be opportunities and threats in the links between trade and sustainable development. Where opportunities are identified, governments should act to help firms exploit "win-win" opportunities. Such opportunities, which aim to increase exports while fostering sustainable development, should be accorded high priority by bilateral and

multilateral agencies for official development assistance. Similarly, where greening markets threaten to shut out developing country exports because exporters lack technical capacity, testing facilities, or short-term credit for technological transformation, Northern funders should be ready to assist. The International Trade Centre (a collaboration of UNCTAD and the WTO) might be given expanded resources to fill such needs.

NOTES

1. G-8 Communiqué, 1999, (Köln).

2. See Centre for International Environmental Law et al. 1999, *Amicus Brief to the Appellate Body on United States — Import Prohibition of Certain Shrimp and Shrimp Products* (Washington, D.C.: CIEL).

3. See Aaron Cosbey and James Cameron, 1999, "Trade Implications of the Kyoto Protocol," *Policy Matters,* Gland: IUCN Commission for Environmental, Economic and Social Policy (CEESP), Issue 4, Spring. See also Duncan Brack, with Michael Grubb and Craig Windram, 1999, *International Trade and Climate Change Policies* (London: Royal Institute of International Affairs/Earthscan).

4. The majority provisions are argued to be a good proxy for broad multilateral support for the measures in question.

5. For an overview of this dispute, see D.M. Goldberg, 1994, "GATT Tuna/Dolphin II: Environmental Protection Continues To Clash With Free Trade - Part I & II" (Washington, D.C.: Centre for International Environmental Law). Also see WTO, 1998, "Beyond the Agreements: The Tuna/Dolphin Dispute," http://www.WTO.org/about/beyond5.htm.

6. For the most recent interpretation of "like" products in the WTO, see the Japan - Taxes on Alcoholic Beverages case, 1995. The reports of the dispute panel and appellate body can be found at http://www.org/wto/dispute/alcoh.wp5 and http://www.wto.org/wto/dispute/alcohpr.wp5, respectively.

7. Konrad von Moltke, 1999, "Commodities Trade and the Environment: What Products Are 'Like,'" unpublished paper.

8. It deserves mention, however, that the environmental community in the United States has demonstrated an alarming degree of weakness in influencing the U.S. government to ratify major multilateral environmental agreements such as the Biodiversity Convention, the Basel Convention, the Framework Convention on Climate Change, and its Kyoto Protocol.

9. This point is argued convincingly by Adil Najam, 1999, "Comments for the Ministry of ELG&RD on 'Forthcoming Trade Negotiations: Identifying Pakistan's Interests,' a paper prepared by the Pakistan Mission in Geneva," March (Islamabad: Sustainable Development Policy Institute).

10. Formally known as "United States — Import Prohibition of Certain Shrimp and Shrimp Products." The three-part WTO panel report (April 1998. WT/DS58/R) can be found at http://www.wto.org/wto/dispute/58r00.pdf, http://www.wto.org/wto/dispute/58r01.pdf, and http://www.wto.org/wto/dispute/58r02.pdf. The Appellate Body report (October 1998. WT/DS58/AB/R) can be found at http://www.wto.org/wto/dispute/58abr.pdf.

11. The complaining countries were India, Malaysia, Pakistan, and Thailand.

12. The Panel ruled that the regulation in question was illegal because it violated the GATT's Article XX by constituting an arbitrary or unjustifiable discrimination between countries where the same conditions prevail. In particular, the Panel criticized the United States for, *inter alia,* failing to give the complainants enough transition time or technical assistance and failing to seek a multilateral solution, as compared with the Western Hemispheric context. Moreover the U.S. measure was found to be too coercive in forcing members to adopt specific policies prevailing in the United States and did not take into account the possible different circumstances prevailing in different countries.

13. Gregory Schafer, 1998, "The U.S. Shrimp/Turtle Appellate Body Report: Setting Guidelines Towards Moderating the Trade-Environment Conflict," BRIDGES, 2 (7) (August): 9-12. This is a good, concise layman's analysis of the findings of the Appellate Body. See also http://www.ictsd.org/English/BRIDGES2-7.pdf.

14. WTO, 1999, "Trade and Environment Bulletin,"PRESS/TE/029, (July 30): 4.

15. See Konrad von Moltke, 2000, "Re-assessing 'Like Products,'" in *Trade, Investment and the Environment,* eds. Duncan Brack and Halina Ward (London: Royal Institute of International Affairs/Earthscan), 176-182. It is instructive to note that the GATT was forced by its ignorance of specialized intellectual property rights issues to collaborate with other institutions and actors expert on those issues in drafting the TRIPs Agreement.

16. This argument was first made in the International Institute for Sustainable Development (IISD), 1996, *The World Trade Organization and Sustainable Development: An Independent Assessment* (Winnipeg: IISD) http://iisd.ca/trade/WTO/wtoreport.htm.

17. Article 1 (Objective) of the Cartagena Protocol reads, "In accordance with the precautionary approach contained in Principle 15 of the Rio Declaration on

Environment and Development, the objective of this Protocol is.…" For an assessment of the results of the negotiations and how they impact on the trade and environment debates, see Aaron Cosbey and Stas Burgiel, 2000, "The Cartagena Protocol on Biosafety: An Assessment of Results," an IISD briefing note (Winnipeg: IISD), http://iisd.ca/trade/pubs.htm.

18. Rio Declaration on Environment and Development. Principle 15. The Rio Declaration was one of the products of the 1992 United Nations Conference on Environment and Development.

19. Tim O'Riordon and James Cameron, 1994, "The History and Contemporary Significance of the Precautionary Principle," in *Interpreting the Precautionary Principle,* eds. Tim O'Riordon and James Cameron (London: Earthscan), 17-18.

20. See Charles Perrings, 1997, "Reserved Rationality and the Precautionary Principle: Technological Change, Time and Uncertainty in Environmental Decisionmaking," in *Economics of Ecological Resources,* ed. Charles Perrings (Cheltenham, UK: Edward Elgar Publishing).

21. See James Cameron, 1994, "The Status of the Precautionary Principle in International Law," in *Interpreting the Precautionary Principle,* eds. Timothy O'Riordon and James Cameron, (London: Earthscan). Also see the submission of the European Union in the Appellate Body Report, WTO Beef-Hormone case, AB-1997-4, para. 16. Note that there is not international consensus on this argument.

22. One of the key problems in the Beef Hormone Dispute is the significant difference in interpretation and application of precaution between the Europeans and the North Americans. See Konrad von Moltke, 1999, "The Dilemma of the Precautionary Principle in International Trade," BRIDGES, 3(6) July-August, http://iisd.ca/pdf/precaution.pdf.

23. It has been argued that the Cartagena Protocol in fact constitutes a non-WTO law framework for interpreting the precautionary principle in the WTO Agreement on Sanitary and Phytosanitary Standards. See Cosbey and Burgiel in note 17.

24. This section is based on a similar section found in IISD, 1999, "Six Easy Pieces: Five Things the WTO Should Do and One It Should Not," contribution of the IISD to the WTO High-Level Symposia on Trade and Environment, Trade and Development, March (Winnipeg: IISD) http://iisd.ca/trade/WTO/sepmain.htm.

25. Canada, the EU, Japan, and South Korea are all strong supporters of negotiations on investment in the WTO.

26. See Howard Mann and Konrad von Moltke, 1999, "NAFTA's Chapter 11 and the Environment: Learning the Lessons," June (Winnipeg: IISD) http://iisd.ca/trade/chapter11.htm.

27. For a full argument of this position and a framework for integrating trade and sustainable development principles in policymaking, see IISD, 1994, *Trade and Sustainable Development Principles* (IISD: Winnipeg) http://iisd.ca/trade/princip2.htm.

28. Recall that the World Commission on Environment and Development (The Brundtland Commission) defined sustainable development as containing two key concepts, the first of which was "the concept of 'needs,' in particular, the essential needs of the world's poor, to which overriding priority should be given." (WCED, 1987, *Our Common Future,* Oxford: Oxford University Press, 42.) For a full treatment of the linkages, both positive and negative, see IISD/UNEP, forthcoming, *Environment and Trade: A Handbook,* (Winnipeg: IISD) especially chapter 5.

29. "Message of the G-77 Ministers to the Third WTO Ministerial in Seattle," Final Declaration, IX Ministerial Conference of the G-77, Marrakech, Morocco, September 13-16, 1999. See at http://www.ictsd.org/English/G-15.rtf.

30. See Ricardo Meléndez-Ortiz and Ali Dehlavi, 2000, "Trade, Environment and Sustainable Development, The Case for Updating Special and Differential Treatment in the WTO," in *Trade, Environment and Sustainable Development, Views From Sub-Saharan Africa and Latin America: A Reader,* eds. Peider Könz et al. (Tokyo/Geneva: The United Nations University/International Centre for Trade and Sustainable Development). Also see UNCTAD, 1999, "Special and Differential Treatment: Search for a New Strategy," discussion paper.

31. WTO. WT/GC/W/354, October 11, 1999.

32. International Centre for Trade and Sustainable Development, "Ministerial Preparations Continue," 1999, *BRIDGES Weekly Trade News Digest* 3:38, September 27 (Geneva: ICTSD). http://www.newsbulletin.org/bulletins/getbulletin.cfm?bulletin_ID=14&issue_ID=1580&browse=1&SID=.

33. "High Level Forum on Trade and Environment: Summary of Discussions," September 18-19, 1999, unpublished paper.

34. IISD. See endnote 25.

35. For a discussion of the basic distinction between "domestic policies" and "trade policies" and of its implications on the interpretation of GATT obligations, see Frieder Roessler, 1996, "Diverging Domestic Policies and Multilateral Trade Integration," in *Fair*

Trade and Harmonization: Prerequisites for Free Trade? eds. J. Bhagwati and R. Hudec (Cambridge, Mass.: The MIT Press) Vol. 2, 21-56.

36. Alice Enders, *Openness and the WTO,*IISD Working Paper (Winnipeg: IISD) http://iisd.ca/trade/WTO/open.rtf.

37. Then Director General of the WTO Renato Ruggiero made this case to the WTO Symposium on Strengthening Complementarities between Trade, Environment and Sustainable Development (March 21, 1998), saying, "MEAs and the WTO represent different bodies of law, and a new framework is needed to define the relationship between the two," (as paraphrased in *Sustainable Developments,* 12:1, 1998, http://www.iisd.ca/sd/wtongo.html.

38. For full coverage of these events, see IISD's Linkages site at http://www.iisd.ca/linkages/trade/.

39. See Daniel Esty, 1994, *Greening the GATT: Trade, Environment and the Future* (Washington, D.C.: Institute for International Economics), 230-231.

40. See Konrad von Moltke, 1999, "Trade and Environment: The Linkages and the Politics," Paper presented to the roundtable on Trade and the Environment organized by the Australian Government, August 25, 1999, http://iisd.ca/trade/canberra.htm.

41. A more detailed description of this proposed institution is available at http://iisd.ca/trade/scte03.htm.

42. See the project results and background information at http://iisd.ca/tkn/default.htm.

43. See Nick Robins and Sarah Roberts, 1998, *Trading Opportunities*. London: IIED. Also see C. Ford Runge et al., 1997, *Sustainable Trade Expansion in Latin America and the Caribbean: Analysis and Assessment*(Washington, D.C.: World Resources Institute).

44. The increase may be due to either the scale or composition effects. Both can be thought of as bigger pieces of the economic pie — the first due to a growth of the pie itself and the resulting growth of all pieces, the second because the piece in question grows at the expense of other pieces.

45. See Daniel Chudnovsky et al., 1999, *Environmental Improvement without Environmental Policies: Argentine Agriculture and Manufacturing Exports in the 1990s* (Winnipeg: IISD). It is interesting to note, however, that while chemical input use has increased significantly, it is still only about a third of the levels in North America and Europe. At a global level, then, as opposed to a domestic one, an increased share of the market for the Argentine producers may have been environmentally beneficial.

46. For an excellent recent analysis, see Marianne Schaper, 1999, *Impactos ambientales de los cambios en las estructuras exportadoras en nueve países de América Latina y el Caribe: 1980-1995* (Santiago de Chile: CEPAL/ECLAC).

Environmental Competitiveness and Clean Production

Germán Cárdenas García

Introduction

The relationship between international trade and the environment in the Latin American and Caribbean (LAC) region is difficult to establish since it concerns the rules of the General Agreement on Tariffs and Trade (GATT), the World Trade Organization (WTO), regional and subregional agreements on trade, sustainable economic growth worldwide, and economic and social development in the emerging economies of the region.

The difficulty in defining this relationship comes from the fact that the benefits of international trade are calculated based on how relative prices in different countries reflect differences in the endowment of factors of production, productivity, and so on. This law of comparative advantage, as applied to international trade, is simply an application of the principle of maximizing the value of production by shifting each input to the production in which it has the highest marginal-value productivity.

Thus, market forces should lead to production that utilizes every country's full comparative advantage and thereby results in maximum welfare for each country and for the world. However, in international trade, if one firm is polluting freely while another bears the cost of cleaning up its own pollution, relative costs will not reflect these differences between countries; and trade that appears desirable may not be so, due to its lower-than-optimal impact on economic growth, lack of sustainability at the country-specific and world levels, lessened world welfare, and substantially lower beneficial impact on economic and social development, and on the poorest of society.

Within this context, economists distinguish three criteria for assessing economic performance: 1) aggregate or macro-efficiency, measured principally in terms of total output, employment, and price stability; 2) micro-efficiency, or the degree to which the economic system meets the manifold and constantly changing demands of individuals for public and private goods; and 3) the distribution of income and wealth, which determines how these goods are apportioned among families and individuals. Most economic and social policies of government are interventions in the workings of the private market in an attempt to improve one or more of these three aspects of performance. In respect to international trade, it is therefore of utmost importance to establish when and how members of the WTO should intervene in private markets for the purpose of improving economic efficiency.

The term *efficiency* carries far more freight in the economist's vocabulary than in normal parlance. It does not simply mean producing and distributing goods cheaply. Rather it is a measure of how well society meets, in quality and quantity, the material wants of its members — in this case, at the world level. An economic system that produced large quantities of unwanted goods would not be efficient. With trade liberalization in mind and to induce protection of the environment, economic growth, and economic and social development, the need appears to be growing for collective influence over the behavior of individual countries and businesses, formerly the domain of purely private decisions.

First, however, it should be noted that a satisfactory method of sorting out the frivolous from the important occasions for intervention has not been developed. Second, we have a propensity to intervene in resource-allocation decisions in order to achieve equity and income-distribution goals that might better be handled by some sort of tax or monetary-transfer arrangement. Finally, and perhaps most important, we usually see only one way of intervening, namely, by removing a set of decisions from the decentralized and incentive-oriented private market and transferring them to the command-and-control techniques of international government bureaucracies such as the GATT and the WTO.

With some exceptions, modifying the incentives of the private market is not considered a relevant alternative. For a world that traditionally has boasted about the economic and social advantages of Adam Smith's invisible hand, ours has been strangely loath to employ those techniques for collective intervention. Instead of creating incen-

tives so that public goals become private interests, private interests are left unchanged in the absence of market-like incentives, and obedience to public international goals is commanded. The very use of the term *social or collective intervention* assumes a good deal. It implies the refutable presumption that the desirable mode of carrying out economic and social activities is through a network of private and voluntary arrangements called, for short, the *private market.*

The WTO's rules do in fact allow countries to impose trade restrictions for environmental and health reasons. Article XX of the GATT allows trade measures "necessary to protect human, animal or plant life or health. . . [or] relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption." However, an indiscriminate application of this rule, through quotas or increased tariff protection, would reduce trade flows to the detriment of economic welfare in the region's emerging economies.

What is needed, instead, is the development, both at the regional level and worldwide, of sustainable consumption and production patterns that emphasize optimization of resource use and minimization of wastes by developing environmental competitiveness through the application of clean production technologies. This must be negotiated as a requirement in all regional, subregional and bilateral trading agreements.

In the context of this non-protectionist spirit, therefore, and to maximize world trade flows efficiently, all countries should embark instead on systems of economic incentives. These incentives can be pursued through consumer education via advertising and marketing, through certification processes with the implementation of environmental management systems (such as ISO 14000), and through eco-labeling, all the while leaving aside any tariff or nontariff government interventions that would reduce trade flows, through the GATT or the WTO, or unilaterally. The outcome of this would be the development of competitiveness and the achievement of eco-efficiency through cleaner production technologies.

The World's Three Related Economies

Within the context of present trading agreements and ongoing negotiations at the regional level, the challenge, then, is to foster and develop a sustainable global economy or one that the region and the planet are capable of supporting indefinitely. The roots of the problem are political and social issues that exceed the mandate and the capabilities of the WTO, GATT rules, any corporation, emerging or developed country governments, and bilateral or multilateral development institutions. However, these institutions *together* are the only organizations with the resources, the technology, the global reach, and, ultimately, the motivation to achieve sustainability *— through the development of clean production technologies for environmental competitiveness—* within the context of three different, overlapping economies of the world and the region.

The *market economy,* or the world of commerce, comprises both developed nations and emerging economies, including Latin American and Caribbean societies. These countries account for a large share of the world's energy and resource consumption. They also leave large ecological footprints. The *traditional village-based way of life economy,* found in the rural areas of Latin America and the Caribbean, is made up of subsistence-oriented people who meet their basic needs directly from nature. Land-hungry farmers resort to the cultivation of unsuitable areas: steeply sloped, erosion-prone hillsides; semiarid land where soil degradation is rapid; and tropical forests where crop yields on cleared fields frequently drop sharply after just a few years. These farmers have short time horizons and high implicit discount rates, leading to faster environmental degradation. The third economy, or *nature's economy,* consists of the natural systems and resources that support the market and traditional economies. Renewable resources such as soils and forests will replenish themselves, as long as their use does not exceed critical thresholds. However, forests, soils, water, and fisheries all are being pushed beyond their limits by human population growth and rapid industrial development in rural areas of Latin America and the Caribbean.

In general, in the Latin American and Caribbean region, land degradation, deforestation, and biodiversity problems are the result of the following causes:

1. Market and policy failures, such as underpricing of resources, input subsidies, and lack of information about viable technologies on marginal lands, which lead to resource-degrading externalities.

2. Rapid population growth that exerts pressure on land resources for subsistence and commercial needs.

3. Resource tenure structures that encourage short-term exploitation rather than longer-term conservation.

4. Institutional weaknesses that encourage mismanagement of resources.

The Clash of the World's Three Economies

At the outset of the 21st century, the three economies have become worlds in collision, creating the major social and environmental challenges facing the planet and the region: climate change, pollution, resource depletion, mounting poverty, and inequality. Consider, for example, that the average North American today consumes 17 times more than his or her Mexican counterpart in an emerging economy, and hundreds of times more than the average Bolivian in a traditional village economy. The level of material and energy consumption in the United States requires large quantities of raw materials and commodities, sourced increasingly from the traditional economy and produced in emerging economies.

In the traditional economy, massive infrastructure development — dams, irrigation projects, highways, mining operations, and power generation projects, often aided by bilateral and multilateral development agencies, private banks, and corporations in the developed countries — has provided access to raw materials with devastating consequences for nature's economy. This has tended to strengthen political and economic élites, with little benefit to those in the traditional economy. At the same time, infrastructure development projects have contributed to a global oversupply of raw materials and hence to a long-term fall in commodity prices. Also, as commodity prices have fallen relative to the prices of manufactured goods, the currencies of the region's countries have weakened and their terms of trade have become less favorable. Subsequently, the countries' purchasing power has declined, while their already substantial public and private external debt has become larger. The net effect has been the transfer of vast amounts of wealth from the region's economies to the developed countries, producing a vicious cycle of resource exploitation and pollution to service mounting debt burdens. This explosive issue should be taken into account when negotiating regional trade agreements.

Sustainable Development, Clean Production Technologies, and Environmental Competitiveness

What, then, can be done about sustainable development in the context of clean production for environmental competitiveness? The concept still holds that current generations should meet their needs without compromising the ability of future generations to meet their own needs. In other words, if total environmental burden (EB) created by human activity is a function of three factors — population (P); affluence (A), a proxy for consumption; and technology (T), which is how wealth is created – achieving sustainability will require stabilizing or reducing EB. This can be done by decreasing human population, by lowering the level of affluence (consumption), or by changing fundamentally the technology used to create wealth. The first option, decreasing human population, is not feasible in the short term. Stabilizing the human population would require improving the education and economic standing of the region's poor, particularly women of childbearing age — a difficult task indeed, even in the medium term. Reducing consumption would only make the problem worse, because poverty and population growth go hand in hand.

Three Strategies for Changing the Technology

Changing the technology is the third option, in order to create the goods and services that constitute the world's wealth. Product cycle technology will have to improve substantially to keep the region and the planet at the current levels of environmental burden. Over the next decade or so, sustainable development, achieved through use of cleaner production technologies for environmental competitiveness, will constitute one of the biggest opportunities in the history of international trade. Therefore, companies and governments must incorporate sustainability into their strategic thinking, through pollution prevention, product management, and clean technology development. Sustainable production and consumption practices involve energy and natural resource flows and uses, cleaner production processes, distribution logistics, and waste management. In other words,

technological development and efficiency in economic and social policymaking is a must.

From pollution control to pollution prevention: Pollution prevention focuses on eliminating waste before its creation. As with total quality management, pollution prevention strategies depend on continuous efforts to reduce waste and energy use. This transformation is driven by a compelling logic: Pollution prevention pays! Emerging global standards for environmental management systems have created strong incentives for companies to develop such capabilities. As governments, consumers, and companies in emerging economies realize the competitive benefits for international trade of using raw materials and resources more efficiently, the ranks of those developing the technology and know-how for cleaner production methods and of those applying them will continue to grow.

Product management: This strategy focuses on minimizing not only pollution from manufacturing but also all environmental impacts associated with the full cycle of a product through design for environment (DFE). With DFE, cradle-to-grave analysis begins and ends outside the boundaries of a company's operations. This approach includes a full assessment of all inputs to the product, examination of how customers use and dispose of it, and evaluation of the impact on the environment. Thus, product cycle management is one way to reduce consumption in developed economies and the region's emerging economies. In addition, consumers are making increasing demands on business that go well beyond environmental aspects to include a critical view of social corporate responsibility.

Clean technologies and eco-efficiency: The existing technology base in many industries is not environmentally sustainable. Clean technologies are needed in the emerging economies of Latin America and the Caribbean; current product and process technologies should be replaced with new, cleaner ones.

Thus, pollution prevention, product cycle management, clean technologies and eco-efficiency all move enterprises and governments toward sustainability and a triple-win scenario. A vision of sustainability for a government, an industrial sector, or a company must show how products and services must evolve and what new competencies, including systems of incentives through proper economic management in the face of much-needed structural adjustment, will be needed in the region's economies. The region's governments and enterprises can begin by taking stock of the demonstrated positive impact of clean technology, pollution prevention, product cycle management, eco-efficiency, economic incentives through international trade, sustainability levels, and economic and social development — as well as the further progress that can be made by following these approaches.

Multinational companies and governments, in general, can and must change the way customers think by creating preferences for products and services that are consistent with the concept of sustainability worldwide. Such a change is more beneficial to the world economy in the long term than tariff and nontariff barriers to international trade. Consequently, proper economic incentives should be given to lower material and energy consumption, develop clean products and technology, reduce pollution burdens, build the skills of the poor and the dispossessed, foster village-based business relationships, and ensure the sustainable use of nature's economy by replenishing depleted resources and by giving the right signal to the marketplace as to the value of those resources through an appropriate pricing mechanism. With more liberalized trade on the rise, the challenges presented by emerging markets in the region demand a new way of viewing business opportunities that takes into account the concept of sustainable economic growth and development.

The Development Strategy of Latin America and the Caribbean, Environmental Competitiveness, and the Potential for Clean Production Technologies

Fundamental aspects of the new economic strategies in the Latin American and Caribbean region are openness to international flows of goods, services, capital and technology; economic liberalization; the deregulation of domestic markets; and the application of clean technologies to promote and achieve eco-efficiency, in response to the more industrialized world's increasing interest in preservation of the environment and natural resource base and changing patterns of consumption toward greener products. Governments of all countries are promoting economic growth by strengthening the private sector and the market system as well as by minimizing state interventions.

These new trends imply a new specialization of Latin American economies according to their natural comparative advantages. This approach means a further specialization in those products that use intensively the region's most abundant resources, its natural resources — an enormous amount of land, water, and forests as well as great biological diversity.

Even if the prospects for rapid economic growth in Latin America and the Caribbean in the years ahead seem unclear, a rapid increase in exports is certain. An export boom already has taken place in some countries, such as Chile, Mexico, and Argentina, and this boom is based on the sale of commodities that depend on natural resources.

The export boom will extend to most countries in the region by 2005, generating a massive outflow to world markets of goods based on natural resources and produced using clean technologies with eco-efficiency in mind. The most important sectors contributing to the export drive will be agriculture, forestry, fisheries, and mining. In these sectors, the new export orientation implies modernization efforts, including cleaner production technologies and eco-efficiency standards, and this modernization process will take on new dimensions within the context of openness in an ever more interdependent world.

The projected export boom and modernization will have environmental impacts for two reasons. First, the processes involved imply a more intensive use of natural resources, industrial inputs, and capital stock than that of traditional activities (the price effect). Second, they also are associated with a greater scale of production and new investment projects, which have additional effects on the environment and on natural resources previously not used (the income effect).

Due to price and income effects, there is, therefore, a clear danger for resource deterioration and ecological damage. This danger is aggravated by the fragility of the region's tropical ecosystem, the high deforestation rates, the high level of soil erosion affecting watershed basins, the weak institutional base for dealing with these issues, and the lack of financial resources. Increasing world demand for exotic commodities such as hardwoods and seafood may continue to be a force driving deforestation and resource degradation, and these will be hard to reverse unless the pattern of demand changes. Thus, more ecological damage, at a faster pace and at in larger dimensions, may be expected from the massive effort to support export-oriented agriculture and to satisfy future worldwide demand.

The danger of overexploitation of natural resources explains why the issues of sustainability, clean production technologies, and eco-efficiency have become centers of attention in the region, due to increasing trade flows. However, there is a clear contradiction of policies and objectives. On one hand, incentives are being given for expansion of exports at any cost, while at the same time, a new natural resource conservation policy is being advanced. This situation reinforces the contradiction between short-run needs and long-run sustainability. The contradiction of policies also is present in structural adjustment lending presently being carried out by the International Bank for Reconstruction and Development (IBRD) and the Inter-American Development Bank (IDB) to foster economic liberalization and exports (See the section on macroeconomic adjustment in this study).

Cleaner Production Technologies for Environmental Competitiveness in Latin America and the Caribbean

With respect to cleaner production, the initiative taken by USAID through its Environmental Pollution Prevention Project (EP3) is notable, and similar efforts by other governments deserve wide support. USAID's five-year EP3 program addressed urban and industrial pollution and environmental quality in developing countries. The program offered technical, policy, and training/information support to facilitate the adoption of pollution-prevention approaches and technologies. Country programs were established in Bolivia, Chile, Ecuador, Jamaica, Mexico, and Paraguay, and targeted technical assistance was provided in Peru and El Salvador. EP3 conducted over 200 pollution prevention assessments focused on a dozen industrial sectors in the LAC region — chemicals, fishmeal, food processing, hospitals and hotels, metal finishing, mining, paper and wood, tanning, and textiles. The assessments recommended management and operational improvements that brought substantial cost savings and environmental benefits.

An extensive network of local experts was developed to provide pollution prevention, environmental cost accounting, and facility assessment services throughout Latin America. Training work-

shops and seminars were conducted to educate key local stakeholders about the concept of cleaner production, to transfer the results of facility assessments to wider industrial audiences, and to promote a systematic approach to industrial environmental management. The program — through its network of clearinghouses — provided access to pollution prevention and cleaner technology information. Cleaner technology development was advocated, while an emphasis was also placed upon transferring these technologies through innovative approaches, identifying business opportunities, and providing assistance to mobilize investment capital in many industrial sectors of Latin America and the Caribbean.

Policy dialogues on cleaner production issues were established in Mexico, Ecuador, Bolivia, and Peru among government, industry, and other important players. This was an important first step in creating a favorable policy environment for the widespread adoption of cleaner production practices.

As a result, in Ecuador, for example, the benefits by industrial sector were considerable: An estimated total annual savings of US$5.2 million was generated after implementation of approximately 40 percent of EP3's recommendations; the average payback period was 15 months. The industrial sector distribution was as follows:

- *Car assembly:* One-time implementation costs of $390,000 versus annual savings of $405,000.
- *Ceramics:* One-time implementation costs of $1.2 million versus annual savings of $1.8 million.
- *Palm oil extraction:* One-time implementation costs of $450,000 versus annual savings of $1 million.
- *Paper production:* One-time implementation costs of $1.1 million versus Annual savings of $1.7 million.
- *Tanning:* One-time implementation costs of $250,000 versus annual savings of $250,000.
- *Textiles:* One-time implementation costs of $80,000 versus annual savings of $200,000.

In Peru, EP3 designed a unique combination of technologies for pump-water recycling in the fishmeal industry. Thus, a plant processing 100,000 tons of fish per year can achieve the following benefits:

- *Fish oil recovery:* 2,000 tons per year.
- *Fishmeal recovery:* 3,300 tons per year.
- *Total annual savings:* $2.8 million.
- *Payback period:* 4-12 months.

In Jamaica, EP3 collaborated with the Jamaican Hotel and Tourist Association to help small and medium-size businesses develop environmental management systems that incorporate pollution prevention approaches. The total annual savings for six hotels was $220,000, requiring capital investment of $105,000. The payback period was less than 6 months.

In Bolivia, recommended pollution prevention measures at a brewery in La Paz resulted in reduced consumption of water, electricity, natural gas, and chemicals, as well as reduced wastewater discharges of organic pollution and suspended solids. The total annual savings was $150,000, achieved with capital investment of $5,000.

Other USAID initiatives in this respect include the following entities: 1) the Latin American Initiative for Environmental Technology, which seeks to increase the role of the private sector in environmentally sustainable development by educating the private sector and encouraging investment in cleaner technologies and processes; 2) the Environmental Law Program (ELP), which sponsors activities that strengthen legal and institutional environmental management frameworks in LAC (ELP's legal policy work); and 3) the Hemispheric Free Trade Expansion program, which seeks to advance environmentally sound trade in the hemisphere. More specifically, while the ELP's legal policy focuses on cleaner production through trade expansion and environmental competitiveness; sustainable urban development, including reduction of urban pollution; improvement of urban environmental services; and strengthening of local environmental management, the Hemispheric Free Trade Expansion program emphasizes cleaner production as a way to help industry improve its efficiency and competitiveness and respond to international market forces such as ISO 14000 environmental management systems.

The Nature of the Production Function with Clean Production Technologies

From a theoretical microeconomic point of view, using cleaner production technologies to achieve eco-efficiency and, therefore, environmental competitiveness is paramount for achieving a

production function that is no longer just given and unchanging over a period of analysis. The triple-win scenario — including trade liberalization, protection of the environment, and economic and social development in the region — assumes that technological progress will occur, and it is of interest to classify the nature of this technological change in production.

Technological progress can be defined as capital-using, neutral, or labor-using as the marginal rate of technical substitution of capital for labor diminishes, remains unchanged, or increases at the economy's prevailing capital-labor ratio. In other words, if technological change increases the marginal productivity of capital more than the marginal productivity of labor, at a given capital-labor ratio, progress is capital-using because a producer now has an incentive to use more capital relative to labor since the marginal product of capital has increased relative to that of labor. The analysis holds, mutatis mutandis, for neutral and for labor-using technological progress.

Basically, technological progress — such as a shift in the production function toward the use of the more efficient cleaner technologies — consists of any change of the production function that results in eco-efficiency, that is, which either permits the same level of output to be produced with less input or enables the former level of inputs to produce a greater output. Of course, this is closely related to whether the production function in question is a constant, increasing, or decreasing-returns-to-scale production function.

Capital-using technological progress occurs when, at a constant capital-labor ratio, the marginal product of capital increases relative to the marginal product of labor. In other words, since the marginal rate of technical substitution of capital for labor is the ratio of the marginal product of labor divided by the marginal product of capital, capital-using technological progress occurs when the marginal rate of technical substitution declines along a constant capital-labor ratio. The same analysis holds for labor-using technological progress.

Observed changes in the relative shares of the factors of production depend upon changes in relative input prices and in the responsiveness of input proportions to these changes. Over time, changes in relative shares depend upon the nature of technological progress as well. This is evident from the definition of biased technological progress.

Let us first consider neutral technological progress. By definition, the capital-labor ratio and the marginal rate of technical substitution of capital for labor remain unchanged. In equilibrium, the marginal rate of technical substitution of capital for labor must equal the input-price ratio. Therefore, the wage-rent ratio also remains unchanged. In other words, both the capital-labor ratio and the wage-rent ratio are unchanged by neutral technological progress. Consequently, relative shares are not affected by technological progress when the latter is neutral.

In a capitalist economy, to maximize our triple-win scenario, we need a technological change — through cleaner technologies and eco-efficiency — that lowers the wage-rent ratio so that private-sector enterprises will become more interested in new technologies that maximize profits, and less interested in the depredation of environmental resources.

Suppose now, therefore, that technological progress is capital-using. This implies that at a constant capital-labor ratio, the marginal rate of technical substitution, and, hence, the wage-rent ratio, declines. This is tantamount to saying that profits increase relative to wages while the capital-labor ratio is constant. The relative share of capital accordingly increases, and that of labor declines. By a similar line of reasoning, one may show that labor-using technological progress causes a decrease in the relative share of capital with a corresponding increase in the relative share of labor. This, I believe, occurs in the case of cleaner production technologies.Regardless of the production function in question, more liberalized international trade — and cleaner production technologies for environmental competitiveness — will cause countries to specialize in trade patterns according to each country's comparative advantage and factor endowments, causing economic growth to take place and thus allowing economic and social development to materialize.

In this context, government policies cannot be divorced from the promotion of conservation of natural resources through the promotion of cleaner production and eco-efficiency. These policies should encourage private firms to internalize their externalities. The basic instruments of policy most appropriate for inducing sustainable development, as well as the expected favorable impact on resource conservation and the environment, within the context of trade liberalization, protection of the environment, and economic and social devel-

opment, are 1) sound macroeconomic, sectoral, and social policies; and 2) concrete government action to address ecosystems management, pollution, human health, soil resources, and the resolution of social conflicts.

Macroeconomic Adjustment, Trade Liberalization, and Environmental Competitiveness

Along these lines, the view that macroeconomic adjustment and trade liberalization disproportionately hurt the environment and the poor in the Latin American and Caribbean region has become commonplace. The media and the NGO (non-governmental organizations) community frequently express this view in critiques of economic reform programs. Yet the evidence on which this claim is based is weak. More convincing data from explicit studies indicate that the critical factors are economic growth and sound development of institutions. Thus, the economy grows more rapidly and poverty declines faster in countries that improve macroeconomic balances, depreciating the real exchange rate. Changes in the real exchange rate also immediately and favorably affect rural incomes, benefiting the poor both directly and indirectly. However, there are three causes for policy concern at the regional level: First, many governments have yet to display a real commitment to more advanced macroeconomic reform; second, the poorest of the poor have not benefited from recent growth in some countries; and third, the prospects for the poor and the environment are not good without more investment in human capital and better targeting of social spending.[1]

With the growing realization, therefore, that the environment cannot be divorced from economic stabilization and development, the design and implementation of future structural adjustment policies, including trade liberalization measures, should be explicit about environmental implications and also should treat the natural resource base and the environment as economic assets, just as physical capital is treated.

Three major themes have emerged concerning the negative impact of economic policies on natural resources:

1. Stabilization measures usually have exacerbated economic conditions for the poorest segments of society, forcing them to overexploit natural resources and to move onto marginal lands.
2. The trade liberalization aspects of structural adjustment with a bias toward the export of primary commodities have increased soil erosion, deforestation, desertification, and water pollution.
3. Reductions in public expenditure have shrunk environmental protection institutions and enforcement capacity.

These trends seem to imply a weak public sector as well as environmental deterioration within and outside formal markets.

However, there is evidence that shows the positive environmental impacts from structural reform, such as the removal of perverse subsidies that encourage waste or intensive resource exploitation; the introduction of stability , which promotes sound resource management and lower marginal time preferences; higher living standards, which increase demand for environmental quality; and general efficiency and technology gains. Also, the following three additional points should be noted:

1. Market reforms increase efficiency of resource use and promote efficient allocation of both productive assets and consumption goods, but this holds only for traded market goods and factors operating within efficient markets. Otherwise, net economic losses and serious resource degradation can occur.
2. In order for market reform to serve nonmarket needs, the reform must internalize the environmental and social externalities of economic activity. Where market internalization is possible — for example, by securing property rights, shadow pricing, subsidization of positive and taxation of negative externalities, or emissions trading — such internalization is preferable, as a means of correcting market failure to the coordination of nonmarket command-and-control policies with reforms to achieve the desired economic, social, and environmental outcome.
3. A reformed institutional framework is a must for communicating incentives, information, control, and enforcement.

Guidelines for Structural Adjustment While Maintaining Environmental Competitiveness

The implications for trade liberalization/structural adjustment are as follows:

1. The question is not whether to undertake structural adjustment and trade liberalization, but what kind of structural adjustment, including trade policies and the pace and the reform sequence, to undertake so as not to overburden the environment.
2. Structural adjustment must pay as much attention to market and institutional failures as to policy failures. Structural adjustment must provide for a carefully designed sequence of consistent and mutually reinforcing reforms that can bring the economy closer to the optimum on all fronts, not just within a narrow set of objectives such as openness of the economy, more competition, and privatization — which are not social goals, but only the means to improved social welfare.
3. In the context of a sustainable development strategy, the use of environmental and social policies as supplementary and compensatory, to mitigate the environmental and social impacts of structural adjustment, is less desirable that the full integration of these policies with the whole package of economic reforms.
4. Structural adjustment can ensure sustainability by providing for reinvestment of rents from the depletion of natural resources in natural, environmental, physical, and human capital to maintain and expand the productive capacity of the economy and the quality of life. Without safe property rights to natural resources and a lack of internalization of externalities, structural adjustment policies — currency devaluation, trade liberalization and privatization — may lead to net disinvestment of natural and environmental capital without the commensurate generation of other forms of capital which is a necessary condition for ensuring sustainability.
5. Partial reforms or incomplete implementation may do more harm than good if these are targeted to benefit special interest groups without regard to social and environmental impacts.

Major Recommendations and Conclusions

Cleaner Production

Evidently, we must support cleaner production technologies. Cleaner production, or pollution prevention, is a comprehensive approach to preventing the negative environmental impacts of a production process. The use of cleaner production technologies is aimed at reducing or eliminating the creation of pollutants through good housekeeping, increased process efficiency, resource conservation, recycling and reuse, and cleaner technology. Cleaner production addresses four important issues.[2]

Environmental Protection. The purpose of cleaner production is to improve and protect environmental quality, particularly in areas that are becoming increasingly polluted as a result of rapid industrialization and urban growth, such as the LAC region.

Efficiency and Quality. The implementation of cleaner production measures almost always leads to increased operating efficiency and improved product quality through the recovery and reuse of valuable resources and materials; reduced consumption of natural resources such as raw materials, energy, and water; and greater process control from beginning to end.

Cost Savings. Cleaner production results in significant benefits, such as reduced raw materials, energy, and water consumption; lower waste handling, treatment, and disposal costs; and decreased liability.

Other Benefits of cleaner production include worker safety, good customer and public relations, enhanced competitiveness and market share, and improved industry-government relations.

The behavior of modern private enterprises regarding the environment may vary according to the type and size of the investment project and the country. The ideal private enterprise is an institution that coordinates the transformation of inputs — natural resources — into outputs using the best available technology. This type of firm is motivated by an explicit objective of profit maximization. Unless the enterprise is convinced that the failure to conserve natural resources affects its medium-term or long-run profits, environmental protection plans through cleaner production to achieve eco-efficiency will have low priority and a

low probability of success. Entrepreneurs will direct efforts to implement natural resource conservation only if they are convinced that the additional investment is really needed and that their own benefit is at stake. An environmentally friendly behavior may be induced, however, through appropriate tax and credit incentives and other public policies. Furthermore, concern with natural resources and the environment should be seen, on the part of most entrepreneurs, as a strategy of market participation and of creating a good public image for their enterprises, especially in the light of trade liberalization and consumer preferences for products that are friendly to the environment.

Policy Instruments

The basic instruments of policy that are the most appropriate for inducing a favorable impact on resource conservation and the environment, within the context of trade liberalization, protection of the environment and economic and social development, are 1) sound macroeconomic, sectoral, and social policies; and 2) concrete government action regarding ecosystems management, pollution, human health, soil resources, and the resolution of social conflicts.

Macroeconomic Policies. A consistent policy of exchange rate devaluation in real terms will make sustainable agricultural investment projects more profitable and the use of imported inputs (for example, primary agrochemicals) less profitable. Also, a policy conducive to low real interest rates will make long-run investments more profitable, thus promoting sustainable projects. A tariff policy of low and uniform duties — flat tariffs — unbiased against primary activities, will make sustainable agriculture investment more profitable. Finally, application of environmental taxes will provide the resources needed to implement cleaner technologies and eco-efficiency in the context of more sustainable programs.

Sectoral Policies. Total liberalization of food prices will make agriculture more profitable, creating incentives for not "mining" rural resources and for promoting conservationist practices. A high price for irrigation water will induce a more efficient use of water, and the elimination of subsidies on fertilizers and pesticides will induce a more rational use of agrochemicals. The granting of land titles to medium and small farmers will go a long way toward making long-run investments more secure and profitable and toward inducing producers to conduct more environmentally friendly business.

Social Policies. Public/private education will raise environmental awareness and consciousness of all population groups. A public policy oriented toward generation of job opportunities and employment will help to reduce anti-environmental activities in rural areas.

In addition to fostering sound economic policies, governments should take actions to deal with environmental problems caused by market distortions in economic activities. In the case of pollution, for example, the most important impacts — surface and underground water pollution, discharges of residual water, and solid wastes — may be faced through cleaner production technologies, pesticide regulation, norms and controls for fluid residuals, recycling of solid wastes, rational water use, and monitoring of water quality.

All these recommendations should enter into any debate on the scope of triple-win strategies that would produce efficient economic growth through trade, while minimizing the social cost of natural resource depletion and environmental degradation in the LAC region. The key question is how much depletion and degradation may be justified to achieve poverty alleviation and growth. In fact, some arguments hold that outward orientation and liberalization may achieve economic growth and also resolve environmental degradation, as outlined below.

First, inward-oriented policies imply undervaluation of natural resource assets, which is conducive to their overexploitation.

Second, outward-oriented policies increase the profitability of agricultural firms and their willingness to accept policies — including cleaner production technologies — that save on natural resources and achieve eco-efficiency.

Third, policy reform tends to open an economy to information and new technologies — cleaner ones — that can reduce the inefficient use of environmental resources.

Fourth, reducing fiscal deficits is good for the environment because resources can be liberated for monitoring environmental degradation and for investment in pro-environment education programs.

The Basis of Economic Reform Decisions

Autonomous economic reform decisions, including trade liberalization, should be based on knowledge of the dynamics of an economy's formal economic sectors and informal sectors, including subsistence agriculture, barter economies, indigenous peoples' social and resource practices, and household non-market production. Elements of informal sectors that are destructive, such as open access exploitation or inefficient energy use, may be targeted for reform; whereas neutral or beneficial elements, such as plant and animal communities or ecological services, should be shielded from adverse adjustment effects. Normative decisions must be made in advance of macro-policy changes that impact resources to avoid expensive pollution cleanup or irreversible damage such as the loss of species. Major recommendations are as follows:

1. Economic policies and institutions that favor efficient markets should be reformed to take into account environmental and social goals and ensure that institutional capacity is adequate in the presence of free market forces. Favorable policies include secure land tenure for smallholders or poor families; effective monitoring, taxation, and reinvestment of resource rents; and enforcement of effluent limits.
2. Energy and resource prices should reflect market costs.

Business Logic

The business logic for sustainability has included pollution-prevention programs and cleaner production methods that have saved companies hundreds of millions of dollars. However, environmental opportunities might actually become a major source of revenue growth for multinational corporations and governments. Greening has been framed in terms of risk reduction, reengineering, or cost cutting. Rarely is sustainability linked to strategy or technology development. In the future, sustainability will mean billions of dollars in products, services, and new product cycle technologies.

Liberalized Trade

Trade policies should not be amended in fear that trade liberalization could have negative effects on the environment. Indeed, liberalized trade fosters greater efficiency and higher productivity and reduces pollution by encouraging the growth of less-polluting industries, the adoption and diffusion of cleaner technologies, and the implementation of emerging global standards for environmental management systems such as ISO 14000 and ecolabeling. In the region, however, less than 1 percent of enterprises have adopted any type of ISO norm, a far cry from the industrialized world, where the figure is some 45 percent of all enterprises. The adoption of ISO 14000 should be encouraged in trade negotiations.

International Trade Policies

Because some variation in environmental standards across regions and countries is justified by differences in priorities and in capacities to assimilate pollutants or cope with resource degradation, international trade policies should not be used to influence environmental standards in other countries by amending GATT rules to allow countries to neutralize international differences in pollution control expenditures and environmental standards by imposing countervailing duties. The region's emerging economies do not compete for investment in dirty industries by lowering their environmental standards, because environmental costs are a small share of output value. Thus, given that it is cheaper for multinational corporations to use the same technologies as they do in industrial countries, these firms can be potent sources of environmental improvement.

Improving Environmental Management

In the face of more liberalized trade, the range of actions required to improve environmental management in the region includes the following:

Setting Priorities. Governments must decide both the level of environmental quality that is politically and economically feasible as well as the instruments to be used in achieving environmental goals. Priorities for environmental prevention or cleanup should be set on the basis of available data, cost-benefit analysis by type of intervention, assessment of the administrative burden of alternatives, participatory decisionmaking, and the realization that international trade flows are greening.

Reforming Policies. Environmentally sound economic and social policies should be implemented in order to correct the bias of market and policy failures that lead to overexploitation of

nonpriced and underpriced environmental resources; these policies should not be inconsistent with fostering economic growth and international trade. The causes of environmental degradation can be traced both to market failures — lack of information, price externalities, public goods, and free riders and inadequate property rights – and to policy failures concerning pricing or trade policies. Policy reforms needed in this respect include

1. Market-based policies: pricing, taxes, or marketable permits to modify behavior.
2. Regulatory/administrative policies: strengthened land tenure through programs in land registration and titling, quantitative restrictions, and screening of private and public investments.
3. Extraregulatory approaches to pollution control: public disclosure of point-source pollution data and use of court systems to pursue environmental liability suits.

Strengthening Public Institutions. The policy mix to accomplish priority setting and policy reform must also be weighed against a country's institutional capacity to implement. Weak institutions lack the technical skills, the political authority, the information, and the consistent and fair enforcement capabilities to implement policy. Lax legal and administrative procedures undermine a government's ability to enforce resource tenure, particularly in agriculture and forestry. The technical areas in which the LAC region's institutions need strengthening range from the ability to set standards and analyze policy nationally to the ability to perform monitoring and enforcement at the local level. Most environmental institutions would benefit from inviting broader participation by specialized NGOs, local community groups, and multilateral development institutions in environmental assessment and other related activities. The decentralization of monitoring and enforcement authority for urban environments and industrial pollution is important, but only if outlying governments and municipalities have adequate resources, central support, and local accountability to achieve their mandates.

Increasing Public and Private Sector Investment. It is important to mobilize private sector investment in line with more sustainable pricing policies, and public sector investment in line with environmental priorities. The costs of sustainable policies are large. LAC countries need to invest 2 to 3 percent of gross domestic product (GDP) annually to achieve sustainability. The most financially viable environment-related investments are in energy conservation, waste minimization in industry, recycling in the urban sector, fuel efficiency in the transport sector, soil conservation, sustainable forestry, and the implementation of clean production technologies and environmental management systems. Private sector investment should be promoted through pricing and policy reform and through improved access to commercial loans, suppliers' credits and government incentives. Public sector investment should incorporate shadow prices reflecting the social cost of resource use. In the case of public infrastructure, multilateral development support should be sought together with project cost recovery. When public investments address global warming, ozone depletion, sea pollution, and biodiversity, international cost-sharing is recommended.

Improving Technologies and Technology Transfer. Large productivity gains and efficiency are essential to make continued economic growth possible at a time when population, urbanization, and industrialization are growing and the region's resource base is increasingly degraded. International trade openness is fundamental to technology transfer, and policymakers in the region should strive to achieve it. In the most serious polluting sectors — urban, transport, industry, and energy — clean technologies will be available to countries with open trade regimes and business climates that foster foreign investment. In agriculture, forestry and natural resources, support in technical issues is needed. Locally relevant technical innovations that promote sustainable resource management through better-targeted research, extension services, and expanded roles for farmer and community groups should be encouraged. Public involvement in decisionmaking through the promotion of education, mass-media coverage, NGOs, and consultation with community-based farmer and land management groups should be sought, as well as social programs and research in education, health, and population planning to help settle rural populations and develop their longer-term perspective in managing their families and land resources, thus avoiding environmental damage and extreme degradation.

Considerations of Debt Burden, Commodity Prices, and Environment in Trade Agreements. Governments should consider the issues of the region's debt burden, following commodity prices and environmental degradation, when negotiating trade agreements.

Valuation of Natural Capital

All governments of the Latin American and the Caribbean region should include the approximate value of natural capital in its various forms, in addition to man-made capital, in their national accounting systems. This would improve their data base of natural resources and the environment and, thus, would make it possible to achieve more sustainable management of all their resources.[3]

NOTES

1. These findings are general, but they are based on country studies in Cameroon, Chile, China, Costa Rica, Ivory Coast, El Salvador, Ghana, India, Indonesia, Jamaica, Malawi, Mali, Madagascar, Mexico, Morocco, Pakistan, Philippines, Poland, Sri Lanka, Tanzania, Thailand, Tunisia, Venezuela, Vietnam, Zambia, and Zimbabwe. See J. Warford, M. Munasinghe, and W. Cruz, eds., 1997 and M. Munasinghe, ed., 1996, cited in the reference list of this analysis.

2. See USAID 1999.

3. Editor's Note: An author's Annex on Macroeconomic Policy Changes: Economic and Environmental Impact is available upon request.

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SELLING SUSTAINABLE DEVELOPMENT: ENVIRONMENTAL LABELING AND CERTIFICATION PROGRAMS

Tom Rotherham

Introduction

For sustainable development to occur, industrial activity must become progressively less harmful to the environment. This can be achieved if a company's profits become more dependent on its environmental performance. Sustainable development policies must make caring for the environment a basic competitive force and, therefore, a corporate priority.

Environmental labeling programs and environmental certification schemes are two tools that have been used to promote environmental responsibility within industry. They are largely voluntary programs that provide consumers with environmental information. By enabling environmental criteria to be considered during purchasing decisions, labeling and certification programs help consumers to "vote through the marketplace" for more environmentally responsible products. Some proponents suggest that these voluntary systems may obviate the need for some environmental regulations. Indeed, many governments are considering restructuring their environmental regulation regimes around these voluntary programs (Roht-Arriaza 1995; ICTSD 1998; OECD 1998). However, the context in which environmental labeling and certification systems are being implemented has changed since the first system, Germany's Blue Angel, was introduced in 1979 (EPA 1998).

With globalization and the attraction of the dogma of trade liberalization, there is an increasing focus on policies that support the "triple win" scenario: environmental protection, economic development and promotion of international trade. Increasingly, criticism of labeling and certification programs focuses on possible negative trade effects (UNCTAD 1993; UNCTAD 1997; Dowdell 1992). Indeed, the World Trade Organization's Technical Barriers to Trade Agreement (TBT Agreement) includes several restrictions that apply to the development and use of labeling and certification programs. For these tools to continue to be of use, it is important that the design of environmental labeling and certification programs be reconsidered. This paper will discuss how environmental labeling and certification programs can be improved, not only with respect to the influence they exert on corporate environmental responsibility but also with respect to trade liberalization.

The first part of this paper identifies how environmental labeling and certification programs can best be used to give companies incentives to improve their environmental management and performance. This section looks at the tools available to national policymakers and assesses appropriate uses of those tools. It also tells why the design of national labeling and certification systems needs to reflect new audiences for environmental information. The section argues that policymakers need to look at environmental labeling programs and certification systems as different components of the same environmental information-delivery mechanism. It also suggests that the success of these voluntary systems will be undermined unless they are integrated into the activities of governments and especially into those of the financial community.

The second section of this paper suggests how the negative trade effects of environmental labeling and certification programs can be mitigated. This part considers generally how trade-related issues arise and lists some of the constraints that World Trade Organization (WTO) rules impose on labeling and certification programs. The study acknowledges that these voluntary programs can create technical barriers to trade and also can be used to disguise trade restrictions behind the green cloak of environmental protection. It argues that there is a need to harmonize labeling and certification programs in order to reduce such negative trade impacts. This part of the paper also argues strongly that this harmonization need not result in either the subjugation of national sovereignty or the use of lowest-common denominator programs.

With good design, environmental labeling and certification schemes can facilitate trade and

strengthen the link between profitability and corporate environmental responsibility. Labeling and certification may also provide a mechanism for countries to limit the environmental impacts of international trade without resorting to protectionist measures. A framework of environmental labeling and certification schemes truly can help policymakers sell sustainable development.

Providing Relevant Environmental Information

The goal of all environmental labeling and certification schemes is to provide relevant environmental information to interested groups. There are five basic tools that policymakers can use to provide this information. These fall under two general headings: environmental labels and environmental certification systems. Because of their different designs, these tools have slightly different characteristics and fulfil slightly different roles. Differences in the type and amount of information provided, the credibility and consistency of the information, and the manner in which it is distributed, all influence the appropriateness of each tool for different uses.

Environmental Labels

Environmental labels give information about the environmental impacts associated with the production or use of a product. They usually are voluntary, but may be mandatory in certain instances, for example, requiring certain toxic ingredients to be indicated on product packaging. However, even voluntary environmental labels are becoming an important competitive factor in some sectors (UNCTAD 1997; Robins 1998; Bouma 1998). The many different environmental labeling programs run throughout the world by governments, private companies, and non-governmental organizations use three basic types of environmental label. The Geneva-based International Organization for Standardization (ISO) is establishing standards for each, and has defined them as follows:

Type I. Type I labels are voluntary labels that give consumers an indication of the overall environmental preferability of a specific product compared with others within the same product category. They are designed to make it as easy as possible for consumers to judge between similar products. A Type I label is generally a registered logo awarded by a managing authority to companies that satisfy the criteria. The criteria are set by independent organizations and verified by third parties through a testing or auditing process (WTO 1999).

In order to provide incentives for companies to innovate, some Type I labels — such as the U.S. Green Seal and Canada's Terra Choice — are "elite" and ensure that only a certain percentage of producers in a market qualify. In these cases, their criteria are reviewed periodically and revised in response to changing circumstances, technology, and other factors (Roht-Arriaza 1995; Ottman 1998, GENews 1997). Others — such as the label granted by the Forest Stewardship Council (FSC) — are not exclusive, but promote innovation by requiring companies continually to improve their environmental performance (FSC 1998).

Type I labels can address single criteria, but are more usually based on some kind of Life Cycle Analysis (LCA). LCA addresses a comprehensive set of environmental impacts throughout the production, distribution, use, and disposal of a product (Caldwell 1996; Vigon 1998). Because of the lack of adequate scientific knowledge, the high cost of some testing procedures, and the perception that some environmental issues deserve priority, the criteria set for Type I labels frequently involves weighted judgements. Critics claim that this makes the development of the criteria susceptible to strategic manipulation by special interests, unfairly benefiting some at the expense of others (Kangun and Polonsky 1995; Wildavsky 1996; Paulos 1998). Biased criteria that do not consider the context in the exporting nation also can be used as disguised barriers to trade.

Type II. Type II labels include any kind of environmental declaration made by manufacturers, importers, distributors, and anyone who is likely to benefit from the product's environmental claims. Type II labels need not be independently verified, nor need they use predetermined or accepted criteria as reference points. They generally address single issues without considering the environmental impacts throughout a product's entire life cycle. This ensures that the message is easy to comprehend but limits the usefulness of the information. Particularly in mature markets where consumers have a high level of environmental awareness and are skeptical of manufacturer's claims, Type II labels are not likely to provide useful information. A manufacturer's declaration

that a product is "biodegradable" is an example of a Type II label.

The credibility of Type II labels can be increased by establishing set definitions for ambiguous or potentially misleading terms. The U.S. Federal Trade Commission's (FTC) *Guides for the Use of Environmental Marketing Claims* is a good example of this kind of improvement. In this case, companies that are unable to back up their environmental claims may be fined and required to remove offending labels (IAC 1995; Caldwell 1996; Wildavsky 1996).

Type III. Similar to nutrition labels on food, Type III labels are comprehensive data lists that give environmental information on a product throughout its life cycle. Independent bodies set the categories of information and verify the data given, but, unlike Type I labels, Type III labels do not indicate which products in a category are better or worse. Type III labels require information disclosure, and therefore no specific criteria have to be satisfied in order to qualify for Type III labels — all producers may use them. Because these labels are not selective, consumers must identify and weigh the different environmental risks themselves.

Commentary. Critics of Type III labels claim that their effective use often may require a level of environmental awareness and knowledge that most consumers do not possess (Kangun and Polonsky 1995). Arthur B. Weissman, President of Green Seal, Inc., says that a Type III information label "doesn't say the product is more or less harmful for the environment" and therefore is of little use to consumers (quoted in Wildavsky 1996, 535). Because they are neutral and nonselective, Type III labels do not use the available scientific knowledge that could help clarify issues not fully understood by many consumers. They do not in themselves help to raise consumer awareness.

However, because Type III labels do not require potentially value-based judgements, their proponents herald them as a solution to the bias-related problems associated with Type I labeling programs (Roht-Arriaza 1995). Cultural, economic, and physical environments bias environmental preferences. National programs for Type I labels that require prejudgments are necessarily weighted by a panel's particular cultural, economic, and environmental context. The information on a Type I label cannot be isolated from the unique preferences on which the decision to award the label was made. Type III labels, on the other hand, provide the raw information needed for a consumer to make a decision without the implicit biases (Sophos 1998).

These three types of environmental labels (and declarations) can be adapted to create a variety of environmental labeling programs. Their design characteristics can vary to support various program objectives, such as increasing environmental awareness, identifying dangerous ingredients, assessing the overall environmental impacts associated with a specific product, or judging the adequacy of a company's environmental policy. The strengths and weaknesses of various design options will be discussed later.

Certification Schemes

Whereas environmental labels deal mainly with product-related characteristics, environmental certification schemes assess the overall environmental policy and management of a company. Like ISO Type I labels, certification schemes are voluntary and give information on process and production methods (PPMs), that is, on the environmental impacts of the company's resource use, production techniques, emissions, and so on. However, unlike environmental labels, they give information on the impacts of a company's entire activity, and not only those associated with a particular product. In a sense, environmental certification is a kind of life-cycle analysis for a company, whereas Type I labels do the same for individual products.

The benefit of certification programs is that they obviate the need for expensive and time-consuming product categorization and criteria-setting. If a company manufactures 400 different products, information on its environmental impacts can be provided either through 400 different environmental labels or through one environmental certification program. Even though these 400 labels can all be developed under a single program, they will require, among other things, 400 panels to develop criteria and 400 stakeholder review processes. Of the 30 or so main Type I environmental labeling programs worldwide, no program covers more than 100 product categories (EPA 1998). A single environmental certification program has the potential to cover all products in a sector.

Of course, this efficiency has a cost. The price paid relates to the degree of assurance that can be given by certification schemes and to the precision of the information that is provided. Although companies must submit to a fixed audit schedule, the

scope of the characteristics that must be considered is so large as to make auditing an imprecise exercise at best. There are two types of environmental certification scheme: generic and sector specific.

Generic Environmental Certification Schemes. A generic certification scheme can be applied to any industrial sector. There is only one international generic environmental certification scheme: the International Organization for Standardization's (ISO) 14001 Environmental Management System (EMS) standard (ISO 14001). The generic ISO 14001 standard is a management tool that helps companies to track, understand, and reduce their environmental impacts. ISO 14001 is also a useful tool for ensuring compliance with regulations, laws, and other guidelines such as the Coalition for Environmentally Responsible Economics (CERES) Principles. Participating companies must use general environmental management techniques, but they do not commit themselves to specific environmental performance requirements, nor must they adopt special production techniques, approaches, or policies. Companies do not have to use an independent auditor and can "self-certify" compliance with the standard. However, they are not permitted to market their certification on product labels. (ISO 14001 1996)

Companies that voluntarily certify to the standard must demonstrate that they are aware of their environmental impacts, are taking steps to control them, are monitoring progress towards their targets, and are making continual improvement in their management system. However, due to its general nature, ISO 14001 does not require specific performance requirements. Instead, it presents general environmental management principles or guidelines that must be followed but can be flexibly interpreted by the company seeking certification (Krut and Gleckman 1998; Rotherham 1999). The companies set their own environmental targets, and certification does not require an independent assessment of the sufficiency of these self-set targets. For these reasons, ISO 14001 has been criticized for providing companies with no useful environmental guidance and for giving consumers a poor indication of a company's environmental performance (Hauselmann 1997; Krut and Gleckman 1998).

Sector-specific Environmental Certification Schemes. A more refined industry focus can provide more specific and detailed guidance to companies and therefore give greater assurance to consumers that a certified company is managing its environmental impacts responsibly. Although many sector-specific programs are based on or are compatible with ISO 14001, sector-specific certification programs address not only the efficiency of a company's environmental management system but also the effectiveness of the environmental policies and targets that are pursued. For example, both the FSC program and the European Union's Environmental Audit and Management Scheme (EMAS) have been designed to be compatible with ISO 14001, but they include additional and more stringent requirements than ISO 14001 (Burdett 1997; EMAS Helpdesk 1998; FSC Web Site 1998). For example, EMAS requires initial environmental impact assessments, and the FSC requires companies to address specific environmental principles such as biodiversity loss.

Like ISO 14001, sector-specific guidelines are flexibly interpreted. However, whereas ISO 14001 allows a company itself to interpret the guidelines, most sector-specific standards include national committees of stakeholders, which develop interpretations at the national level. In this way, country-specific requirements can be designed to accommodate unique economic, cultural, and environmental characteristics while constraining the freedom of companies to design weak, self-defined criteria.

As the name implies, these schemes apply only to companies within a specific industry. A certificate is awarded if an independent auditor finds that the company has satisfied the spirit of the guidelines and principles. Some sector-specific certification schemes have been developed by industry associations — for example, the chemical industry's Responsible Care Program (Nash and Erhenfeld 1996) — while others have been developed by non-governmental organizations, for instance, the FSC, the Marine Stewardship Council (MSC), and the Green Globe Tourism Certification Program (Henderson, personal communication). Some sector-specific certification programs also grant environmental labels to indicate that a certified company's products have been produced in an environmentally responsible manner. In this respect, sector-specific certification programs are really hybrids of Type I environmental labels and the generic certification approach described above.

Commentary. In recent months, the ISO has begun to change its previous anti-sectoral focus

(see the IAF Web Site). The development of a sector-specific Technical Specification document for the application of the ISO 9000 standard to the automotive industry is a clear indication of this shift. Technical Specification documents are eligible to become full international standards after two revisions in a six-year period (ISO News 1999). Because of ongoing efforts to harmonize the ISO 9000 and ISO 14001 standards (personal communication, Ashok Ganesh), it is likely that this new pro-sectoral approach will also be applicable to the ISO 14001 standard. Indeed, the publication in 1998 of the ISO 14061 Technical Report on the application of ISO 14001 within the forest sector is an indication of how close ISO 14001 is to being used for sector-specific applications (ISO TR 14061:1998). As well, the Canadian Automotive industry is in the process of developing sector-specific ISO 14001 guidance (personal communication, Ahmad Husseini).

This change has far-reaching implications. On the positive side, sector-specific ISO 14001 Technical Specifications and, eventually, standards will give policymakers a stronger tool with which to promote voluntary corporate environmental responsibility. More useful and specific guidance and requirements can be included in a sector-specific approach. On the other hand, the preferential status given ISO standards under WTO rules may undermine existing sector-specific certification systems, such as the FSC, MSC, and Green Globe programs. It is unclear what the ultimate result of this policy shift within the ISO is likely to be.

Summary

The three basic types of environmental labels and two approaches to environmental certification are the basic tools that policymakers can use to design effective environmental information delivery systems. Environmental labels can be used to communicate clear and credible information about both specific issues and comprehensive product- and process-related information; they also can include specific performance requirements. Environmental certification systems provide information on the general environmental management of a company and require companies to accept general environmental policies that can be customized to reflect unique local circumstances. Some sector-specific certification systems also can award credible and comprehensive product labels.

Each approach offers benefits. Certification schemes incorporate flexible requirements that can be interpreted at the company or country level and therefore, unlike some environmental labels, do not require weighted judgements that may be biased by special interests or specific cultural, economic, or environmental characteristics. However, due to the high cost of certification, the lack of necessary infrastructure in some countries, and the fact that companies in developed countries have relatively more experience using management systems, critics claim that certification schemes benefit large Western companies at the expense of companies in developing countries (UNCTAD 1997; Krut and Gleckman 1998). In addition, some environmental labels can provide more specific and relevant information than do certification schemes, but only on specific ingredients or environmental impacts.

These basic tools can be adapted in a variety of ways to take advantage of their strengths and to limit their weaknesses. Depending on their design, each is capable of filling different information needs and is therefore capable of empowering different stakeholders to influence corporate environmental policies in a variety of ways. The next section will look at what information different stakeholders need, and how they can influence companies.

Information Needs and Empowerment

The goal of environmental labeling and certification is to promote sustainable development by giving stakeholders the information they need to influence companies to incorporate environmental concerns into their corporate policies. One tends to think first of the influence of consumer demand on producers. However, other entities also play a role in this process. The action of other companies, regulators, banks, and insurance companies all influence corporate policies. The full value of voluntary approaches will not be achieved unless the needs of these groups also are accommodated. In order to be of maximum use, labeling and certification programs must be credible, comparable, and comprehensive.

As discussed, various environmental labeling and certification program designs fill different information needs, and therefore it is unlikely that any one approach will be able to empower all stakeholders. It is important to treat environmental labeling and certification not as alternatives, but as

components of a larger environmental information delivery mechanism. The most effective environmental information delivery systems will provide not only for the information needs of consumers but also for the needs of as many of the other actors as possible. It is important to understand the information needs of each stakeholder, and to understand the influence that each can have.

Retail Consumers

Consumers need information that will help them make purchasing decisions according to their own environmental preferences. Ultimately, they must be able compare between products and between companies. This information needs to be clearly presented (well-defined terms, consistent format across a product category, logo or "eco-mark" to summarize LCA-based approaches, simple figures for single attributes) and credible (criteria developed by credible authorities, third-party verification or government monitoring), and it must address the particular environmental aspects of most interest to the consumer (comprehensive information or single attributes developed and defined in an open and inclusive process).

It is also very important that labels be developed for close substitutes, so as not to perversely divert demand away from unlabeled goods. For example, the environmental label developed in Germany for oil-based paints with low emissions of "volatile organic compounds," or VOCs, cannot be awarded to non-oil-based paints. Therefore, even if a latex paint has extremely low VOCs, it will not qualify for the label, and therefore consumers may mistakenly presume that it is more harmful than a labeled oil-based paint (Wildavsky 1996).

If information with these characteristics (credible, comparable, and comprehensive) is made available to consumers, they will be able to make rational purchasing decisions based on their environmental preferences. This will enable consumers to "vote through the marketplace" for companies that fulfill their particular environmental requirements.

Companies

Many of the corporate environmental responsibility guidelines being produced require companies to include environmental criteria in their procurement policies and to ensure that their suppliers and contractors have environmental policies consistent with their own. For example, some Nordic retailers will not purchase detergents that are not labeled with the Nordic Swan (EPA 1998). The CERES' Global Reporting Initiative (GRI), the Environment Chapter of the OECD's *Guidelines for Multinational Enterprises,* and the ISO 14001 Environmental Management System standard[1] require companies to consider the environmental policies of their suppliers and contractors (Environment News Service 1999, OECD 1999, ISO 14001:1996). Because of this, companies need comparable information that will help them to assess the preferability of one product over another, and the environmental policies of other companies.

Comprehensive environmental labeling programs that satisfy the product-related concerns of consumers will also satisfy a company's needs. Most secondary-resources and factor inputs with associated environmental impacts can be identified and addressed through an LCA approach. These issues are of concern to consumers and are likely to be addressed in the criteria for LCA-based environmental labels. Companies are unlikely to choose to address environmental issues that are not of concern to the general public unless there are associated costs that must be borne by them. Companies do not need additional incentives to address cost-related issues with their suppliers.

The globalization of trade and the spread of multinationals have created a situation in which companies have links with suppliers in many different countries and corporate cultures. Companies need a common international platform on which to develop, enact, and demonstrate environmental policies (Bennett and James 1998). Without common reporting platforms, it may be hard to determine the compatibility of different environmental policies and product characteristics. This has put pressure on industry groups to harmonize requirements and to standardize reporting. National, regional, and international industry associations can play a strong role by initiating sector-specific guidelines, codes of practice, and standards that provide a common method of environmental reporting for all companies within an industry (for example, The Chemical Manufacturers Association's Responsible Care Program©).

The information that companies need does not have to be any more credible than that required by consumers. Indeed, companies are less likely

to call into question "self-certified" claims. An indication of this is the fact that ISO 9000 Quality Management System standard, which over 200,000 companies worldwide have adopted, does not require third-party certification. Programs designed to fill corporate information needs may not necessarily require third-party verification, but can be satisfied by those that do require it. The main issue for companies is the comparability of the information. Harmonization and access to the right information will enable companies to encourage suppliers to take part in product labeling and certification programs and to strengthen their environmental policies. Companies voluntarily adopting strong environmental policies that comply with the supplier requirements of a majority of companies may strengthen their competitive position. Companies without environmental policies, or whose reporting programs are not easily comparable with those of others, may suffer a competitive disadvantage.

Regulators

Government regulators need information to help them assess whether companies are complying with the laws and regulations of the jurisdiction. The auditing and verification components of independently verified environmental labeling and certification systems may help to make some government monitoring activities redundant. Product tests and audits done for a credible environmental labeling program do not need to be repeated by government inspectors. Regulators should be involved in the selection of product categories and the development of criteria and testing methodologies or audits.

The privatization of this monitoring will reduce the financial burden of comprehensive and complex environmental regulatory regimes and will let government regulators concentrate on the worst offenders (Roht-Arriaza 1995; UNCTAD 1997). In addition, some environmental managers claim that it is impossible for most companies to keep up with all of their legal and regulatory environmental obligations unless they have an effective EMS in place (US-AEP 1997).

A credible EMS certificate can inform regulators that a company is capable of addressing its environmental obligations efficiently. The more specific the guidance and requirements in the certification system, the more useful the information it offers will be. For this reason, sector-specific certification systems are more useful than the generic ISO 14001 approach. Regulatory authorities should be involved in the development of criteria and guidelines, and the verification should be done by a third party; self-certified claims are not particularly useful in this context.

In return for absorbing some of the costs of monitoring compliance with regulations, government regulators can offer significant advantages to companies that participate in environmental labeling and certification programs. For example, in late June 1997, the New Hampshire legislature passed a bill that will allow state organizations to use registration to ISO 14001 in lieu of some permits, licenses, or inspection cycles (GlobeNet 1997). As part of its decision in a case of noncompliance, the Alberta Court recently required a mining reagent manufacturer that exceeded air pollution standards to become certified to the ISO 14001 standard (Roht-Arriaza 1997).

There are also environmental clauses in some government procurement policies. Executive Order 12873 requires agencies of the U.S. federal government, the largest purchaser of office equipment in the world, to purchase Energy Star computers, monitors, and printers (EPA 1998). In much the same way that environmental labeling or certification programs are needed to help companies comply with environmental procurement policies, so, too, are they required by governments.

Financial Community

All companies have learned from Exxon's experience that a serious environmental incident can permanently affect a company's image and subject it to enormous clean-up fees and fines. As environmental regulations and fines have increased and environmental liability cases have multiplied, environmental performance has become an increasingly important factor in corporate predictions of long-term profit (Bennett and James 1998). The recently negotiated Bamako Convention, which calls for strict and unlimited liability for hazardous waste damages, is a good indication of the international trend toward increasing corporate liability for environmental damages (EPA Web Site).

If environmental performance can affect a company's profitability, then it will also affect the attitudes of investors, banks, and insurance companies toward that company. A study conducted

by IFC Kaiser suggests that a company can raise its stock price by as much as 5 percent simply by adopting an effective environmental management system (Feldman et al. 1998). Investors, banks, and insurance companies are seeking information on present environmental impacts and are looking for ways to predict future environmental performance (Skillius and Wennberg 1998). In the United States, the Securities and Exchange Commission (SEC) requires companies to list their Environmental Superfund liabilities in their annual accounts (Sutherland 1997).

If environmental labeling and certification programs can provide credible, comparable, and comprehensive information, then a company's environmental performance can be incorporated into calculations for its insurance premiums, financing conditions, and stock valuation. Environmental labeling programs that warn consumers about harmful ingredients and describe proper handling and disposal procedures can lower a company's product liability (EPA 1998; Bennett and James 1998). By adopting environmental management systems that help them assess, control, and monitor their environmental impacts, companies can indicate that they have effective control over its environmental impacts, and are limiting their exposure to litigation, fines, or negative public opinion (McCallum and Fredericks 1996; Goodman 1998; Bisgang 1997). In order to be effective in these cases, environmental labeling and certification schemes will have to reflect a company's legal and regulatory requirements (Bouma 1998). Claims will also have to be independently verified and monitored regularly.

Summary

As described above, each group defines "good information" in a slightly different way. Consumers need assistance comparing goods in the same product category. Other companies are primarily interested in the consistency and compatibility of each other's environmental policies. Regulators look at monitoring and assessment methodologies. Investors, banks, and insurance companies might focus more on the effectiveness of a company's environmental management.

Provided that an integrated system of environmental labels and certification schemes can be designed to supply the required information needs, corporate environmental policies can be influenced by consumers, other companies, governments, and the financial community. Companies that are able to satisfy the appropriate environmental criteria will be able to take advantage of a variety of benefits:

- lower costs of credit,
- reduced insurance premiums,
- simplified licensing agreements,
- limited monitoring and auditing spot checks,
- ensured access to more consumer and interfirm markets.

The next section will identify some constraints that have to be taken into consideration.

Constraints on Labeling and Certification Programs

The previous sections have identified each stakeholder's information needs and described the different tools that are available to provide this information. Many other factors need to be considered when designing effective environmental labeling and certification systems at the national level. Important factors include public environmental policy goals, the degree of consumer awareness of environmental issues, technological capacity, the proportion of domestic producers in a market, the degree of market segmentation, the degree of saturation of the "green" market, the existing regulatory and liability framework, and the principal sources of pollution. An in-depth analysis of these issues is beyond the scope of this paper.

This paper is concerned primarily with constraints that arise from the use of environmental labeling and certification systems in regional and international trade agreements. In this context, environmental labels and certification schemes not only must promote corporate environmental responsibility, but also must facilitate trade by opening markets and limiting technical barriers to trade. This section identifies two main issues that need to be addressed: first, eco-imperialism, or the disguised use of environmental regulations and standards for protectionist intent; and second, the reduction of technical barriers to trade.

Eco-Imperialism

The term "eco-imperialism" refers to protectionist trade policies that use environmental justifi-

cations to limit market access. Eco-imperialist trade policies force the environmental policy goals of the importing country onto companies operating in exporting nations. As mentioned, some critics claim that environmental labels enable special interests strategically to manipulate principles, criteria, and implementation in order to protect domestic producers. It is true that environmental labeling and certification schemes often give rise to technical barriers to trade that distort normal trade flows (in favor of "green" production). Eco-imperialism, however, implies a malicious disregard for the conditions and characteristics in foreign markets with the intent of limiting access to domestic markets. There is an associated infringement on sovereignty. The WTO rules on "like products" seek to restrain this type of protectionism.

Market Access. As consumers have become more knowledgeable about environmental issues, the demand for "green" goods and responsible companies has risen proportionally (Salzman 1991). In many large Western markets, environmental responsibility has become a major part of corporate marketing and competition policy. Environmental labels and certification programs enable companies to publicize credibly the environmental characteristics or superiority of their products, and their corporate environmental responsibility.

Environmental Labeling. Most environmental labeling programs are national and therefore address national preferences for environmental quality (EPA 1998). Even in those cases where regional programs exist, as with the European Union's EMAS and the Scandinavian Nordic Swan, mainly regional characteristics and policies are considered. Some environmental labeling programs welcome comments from foreign companies and stakeholders, but, of those that do, few respond formally to the issues raised (EPA 1998).

National environmental labeling programs generally are developed in the context of a nation's economic, cultural, and environmental characteristics and consider the environmental preferences of its citizens. As a result, the criteria that must be fulfilled in order to qualify may not be relevant to the environmental, cultural, or economic characteristics of other nations.

However, in order to compete successfully in foreign markets, exporters increasingly have to satisfy the environmental requirements of consumers. If the only means for exporters to provide this information is through national environmental labeling or certification programs, they may be forced to satisfy environmental requirements or adopt policies that are not relevant to them and have not been developed with their participation. This can disadvantage foreign producers.

For example, Germany's Green Dot labeling program sets conditions for product packaging. The criterion was developed in response to the shortage of solid-waste landfill space in Germany. Packaging for any product, whether imported or domestically manufactured, that does not qualify for the Green Dot must be returned at the producers' expense (EPA 1998). For exporters shipping goods to Germany, the costs associated with collecting their packaging is much higher than for domestic producers. Not only may it be more difficult for foreign producers who may lack the necessary technical ability or infrastructure to obtain the label (a technical barrier to trade), but access to German markets will be more expensive for foreign unlabeled products than for domestic unlabeled products (eco-imperialism) (EPA 1998). This policy clearly benefits domestic products without the Green Dot at the expense of foreign ones.

Environmental Certification. Although eco-imperialism is more frequently associated with national environmental labels, international environmental certification systems also may be subject to such concerns. Sector-specific certification systems have received more attention in this regard than the generic ISO 14001 standard. Perhaps because it does not specify particular environmental performance or policy requirements, leaving this up to the organization seeking certification, very few eco-imperialism concerns have been raised in relation to the ISO 14001 standard. In fact, most criticism of the ISO 14001 certification program refers to its lack of policy and performance requirements (Krut and Gleckman 1998). However, as will be discussed in the next section, ISO 14001 is under close scrutiny regarding the creation of technical barriers to trade (UNCTAD 1997).

Sector-specific certification systems, on the other hand, do specify broad environmental policy requirements that must be addressed. Even though

the definition of goals and methods is left largely to national committees and organizations, some critics protest at the imposition of fixed principles and criteria that must be addressed. Given that many of the policy requirements reflect principles that have been formally agreed in international forums such as the Convention on Biological Diversity and other MEAs, this criticism is perhaps unfounded, and certainly is exaggerated.

The WTO and "Like Products." The most-favored nation clause (GATT Article I) and the national treatment clause (GATT Article III) each integrate the concept of "like products" into the WTO's general principle of nondiscrimination (Abdel Motaal 1998). This principle respects a country's right to control what enters its territory, while limiting capricious product requirements that may unfairly restrict market access. The principle prohibits product differentiation based on the location and method of production (referred to as process or production methods, or PPMs), allowing such differentiation only if it is based on product-related PPMs, that is, those that affect the physical composition of the product (OECD 1997). However, as concern has grown for the transboundary and global environmental impacts of production, it has become clear that the WTO restriction on the use of non-product-related PPMs is constraining governments' ability to act to reduce these impacts on behalf of their citizens (OECD 1997; Abdel Motaal 1998).

For example, many paper manufacturers use chlorine, a water pollutant, in their production process. In some cases, water pollution will affect only the domestic environment. However, if two countries share a common water source, they have a shared interest in keeping it clean. If the production of a product causes environmental impacts on shared resources, then consumers in all affected nations should have the right to obtain this information through environmental labels or certification schemes. This issue is particularly relevant for PPMs that affect the global commons: air pollution, global warming, and biodiversity reduction. By restricting the use of non-product-related PPMs in standards and technical regulations, the WTO makes it very difficult for countries to use trade measures to protect the global commons and shared resources. Some sort of compromise clearly is needed.

It is worth mentioning that the context in which the non-product-related PPM restriction was originally adopted has since changed. One reason for this distinction mentioned during the negotiations of the WTO's Agreement on Technical Barriers to Trade (TBT Agreement) referred to the difficulties in identifying non-product-related PPMs at customs offices. It was deemed impractical to implement a rule that could not be monitored effectively (WTO 1995b). However, with the spread of mutual recognition agreements and the development of international certification systems offering credible verification mechanisms, it might be argued that the logistical difficulties in monitoring non-product-related PPMs no longer present an obstacle. Labeling programs can confer labels on products that are certified independently as complying with specific non-product-related PPMs. National governments already are considering how certification systems can be used to obviate the need for some regulatory compliance monitoring (Roht-Arriaza 1997; OECD 1998); extending this function to the verification of non-product-related PPMs for market access is not unthinkable.

Summary. National environmental labeling and international certification programs raise concerns about their use for eco-imperialism, or the protection of domestic producers behind the green cloak of environmental protection. There are two reasons for this. First, the criteria and principles upon which national labels are granted primarily reflect domestic issues. Exporters relying on foreign domestic labels to demonstrate their environmental quality can be subjected to requirements that have little relevance to their cultural, economic, and environmental context. Second, the development of national programs often lacks effective participation from foreign stakeholders. This makes it easy for interest groups to influence the development of biased criteria and methodologies that favor domestic producers.

The WTO's principle of "like product" addresses these issues. In order to permit countries to control the domestic impacts of imported goods, while restraining them from using capricious environmental requirements to protect domestic manufacturers, the WTO distinguishes between product-related and non-product-related PPMs. Although this effectively restricts some eco-imperialist actions, it also makes it difficult for governments to act on behalf of their citizens to protect shared or global resources. A compromise is needed.

The WTO's Committees on Trade and Environment (CTE) and on Technical Barriers to

Trade (CTBT) have been struggling with the apparent conflict between environmental labeling and international trade rules. Their main recommendation is that countries anticipate the problems that may arise and try to avoid them through multilateral negotiations that harmonize these programs at the regional and international level, and that achieve mutual recognition or equivalence (Dowdell 1992; WTO 1996). The use of international standards (developed within ISO and other international standardization bodies) and mutual recognition agreements has been acknowledged as offering potential solutions to this dilemma (Abdel Motaal 1998). However, some developing countries fear that these international standardization bodies do not represent their interests and are just other forums where Western countries can act strategically to protect dominant market positions (Vossenaar 1999; Krut and Gleckman 1998).

Technical Barriers to Trade

Although environmental labeling and certification programs can be used strategically by countries to protect domestic industry, such programs also can create technical barriers to trade. If these programs are to be effective environmental policy tools, it is important to ensure that they do not conflict with international trade rules. For this reason, it is important to consider the WTO's Agreement on Technical Barriers to Trade (TBT Agreement) when designing environmental labeling and certification programs.

National variations in technical regulations and standards — including packaging, marking, and labeling requirements, and procedures for assessment of conformity with technical regulations and standards — that impose restrictions on the trade of goods between countries are considered by the WTO to constitute technical barriers to trade (WTO 1995a). Their capacity to divert normal trade flows has led proponents of trade liberalization to look down on environmental labeling and certification programs (North-South Center 1996; Wildavsky 1996; Paulos 1998).

It is suggested that it may be more expensive for companies in developing countries to obtain labels and certifications "due to factors such as the lack of existing management structures, the novelty of EMS, insufficient infrastructure, and high auditing costs if companies have to rely on international consultants and certification companies" (Vossenaar 1999, 7). In addition to capital costs, the absence of necessary knowledge and skills and a lack of mutual recognition between different national programs can further disadvantage some countries (UNCTAD 1993; UNCTAD 1997).

It is also worth mentioning that the absence of standardized approaches to environmental labeling and certification schemes can lead to confusion in the marketplace. Inconsistent performance requirements, claims that lack credibility, misleading information, and noncomparable reporting frameworks make it impossible for consumers and other stakeholders to act on their environmental preferences. This may also make it difficult for companies to identify stakeholder preferences and for justified environmental claims to be considered credible (Caldwell 1996; Abdel Motaal 1998; EPA 1998). To be effective, these programs must be credible, comparable, and comprehensive. The design of effective environmental labeling and certification programs and the removal of technical barriers to trade can both be served by harmonization efforts. As will be discussed in more detail later, mutual recognition, technical equivalency, and foreign licensing agreements can help to avoid technical difficulties by promoting credibility, comparability, and comprehensiveness.

International Trade Rules

The TBT Agreement was developed to help countries avoid creating non-tariff barriers to trade. The TBT Agreement sets rules for WTO members on the use of (voluntary) standards and (mandatory) technical regulations. Due to their voluntary nature, environmental labeling and certification programs are most likely to be considered as standards under the TBT Agreement (Abdel Motaal 1998). There are five basic provisions that relate to standards in the TBT Agreement:

- Standards must be prepared, adopted, and applied in a nondiscriminatory fashion (reflecting the Code of Good Practice);
- Standards must not constitute unnecessary obstacles to international trade;
- If international standards exist, standardizing bodies must use them, or the relevant parts of them, unless they are considered ineffective or inappropriate;
- WTO members are encouraged to enter into mutual recognition agreements for the conformity assessment procedures that they apply to their standards;

- Standards must be prepared in a transparent fashion, including notification of drafts in preparation (Tietje 1995; Abdel Motaal 1998).

Three provisions are worth particular consideration in this paper: the Code of Good Practice, the use of relevant international standards, and mutual recognition agreements for conformity assessment procedures.

The Code of Good Practice. The Code of Good Practice for the Preparation, Adoption, and Application of Standards (Standards Code) is contained in Annex 3 of the TBT Agreement. Its provisions must be followed in order for national standards to be recognized within the TBT Agreement. There are at present no specific provisions for international standard-setting, although it is often presumed that international standards must comply with the same provisions. The Standards Code requires WTO members to

- respect the most-favored nation principle, with respect to nondiscrimination,
- use and participate in the development of international standards,
- specify product standards in terms of performance rather than design or descriptive characteristics,
- publish a work program every six months and notify standards in progress,
- prior to publishing a draft standard, allow a period of at least 60 days for interested parties in other WTO member countries to comment (TBT Agreement, Annex 3).

International Standards. Recognizing the problems created by unharmonized standards and in order to avoid creating multiple layers of technical requirements, the TBT Agreement states that

> (a)"Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be ineffective or inappropriate...." (Art. 2.4)
>
> (b)"Whenever a technical regulation is prepared, adopted, or applied ... and is in accordance with relevant international standards, it shall be rebuttably presumed not to create an unnecessary obstacle to international trade." (Art. 2.5)

By promoting the use of international standards, WTO trade law encourages the harmonization of national standards and ensures that trade facilitation, and not trade restriction, is the guiding intent behind national standardization and technical regulation. However, it also restricts the freedom of countries to develop whatever kinds of standards and technical regulations they want by placing the burden of proof on the country that diverges from the international standard. To satisfy the obligations of WTO membership, countries may be required to base environmental labeling and certification programs on the international standards developed within the ISO 14000 Series.

Mutual Recognition of Conformity Assessment Procedures. As previously mentioned, the effectiveness of environmental labels and certification programs as a policy tool depends on the credibility of the information provided. Credibility in this instance depends on two components: first, the credibility of the criteria on which a label is based, or the credibility of the principles incorporated in the certification system; and second, the credibility of the verifier, or certification agency. At the national level, these issues are relatively easy to accommodate. At the international level, however, problems often arise in relation to the relevance of criteria and the participation of foreign stakeholders. As will be discussed in the next section, harmonization and mutual recognition of criteria can address the first component. The second component — the credibility of the verifier — can be addressed at the international level through mutual recognition of conformity assessment procedures. The TBT Agreement recommends that WTO members develop these agreements.

The problem of credibility in environmental claims is most often between developed and developing countries. In many instances, suspicion in developed countries regarding the effectiveness of audits and the qualifications of auditors in developing countries can reduce the value of certifications (Henderson, personal communication; Vossenaar 1999). Unless formal agreements are developed to allay these concerns, developing countries' exports may not benefit as much as is hoped from harmonized labeling and certification systems. The International Accreditation Forum (IAF) can help to resolve these issues.

The IAF is the world association of conformity assessment bodies. Its primary function is to develop a worldwide program of conformity

assessment that will promote the elimination of nontariff barriers to trade. IAF has developed a Multilateral Mutual Recognition Agreement (IAF Mutual Recognition Agreement) based on the equivalence of accreditation programs operated by accredited body members, verified through peer review. Each signatory to the IAF Mutual Recognition Agreement must accept the conformity assessment of other signatories, and each has the right to question and inspect the operations of the others (IAF Web Site). This helps to minimize the proliferation of differing conformity assessment procedures and can increase the value and credibility of developing country certifications and environmental claims.

Summary

It is widely acknowledged that poorly designed environmental labeling and certification programs can create technical barriers to trade. In the context of the WTO, these voluntary programs are subject to the provisions that apply to national standards. In order to limit the trade-distorting effect of standards, the WTO's TBT Agreement contains several provisions. These provisions also constrain the design of national labeling and certification systems.

In particular, it is important for policymakers to consider three provisions: the Standards Code, the use of international standards, and the development of mutual recognition of conformity assessment procedures. Through these measures, the negative impacts on trade of environmental labeling and certification programs can be minimized.

This analysis must be qualified with the acknowledgement that, up to now, no firm decision on the consistency of environmental labeling and certification programs with international trade rules has been made within the WTO. The fact that WTO provisions apply only to member states, and not to private companies, means that environmental label and certification programs developed without government involvement and not incorporated into government procurement policies or legislation may be outside the WTO's jurisdiction. In the case of standards developed under the auspices of ISO, this situation is complicated by the fact that some of the National Standard Body members of ISO are either government agencies or other bodies acting on behalf of national governments. Once again, the extent to which this would influence the consideration of a WTO dispute involving labeling or certification is unclear.

What may be most interesting in the context of the present discussion is that, as discussed, the TBT Agreement's prescriptions promote the development of credible and comparable labeling and certification programs. However, WTO jurisprudence and the comments made by several WTO members suggest that discrimination based on non-product-related PPMs runs against the WTO principles of most-favored nation and national treatment (Abdel Motaal 1998). This, of course, limits the development of truly comprehensive labeling and certification programs.

However, a framework laid out by UNCTAD has been identified as being of potential use in resolving the debate (Abdel Motaal 1998). This framework proposes that when non-product-related PPMs are used, importing countries could accept as equivalent those PPMs that offer relatively equal protection to the domestic environment of the exporting nation. This could help take into consideration the exporting country's environmental context and development characteristics. Indeed, the development of international sector-specific certification systems such as the FSC and MSC, which work through national committees to define appropriate performance requirements in relation to general principles, seems to offer such a framework. Especially if these international sector-specific certification systems can be based on existing international standards, it may be possible to arrive at a suitable compromise.

Regardless of the developments within the WTO, environmental labels and certification programs will continue to be of increasing importance to a broad stakeholder group. The WTO rules only restrict the actions of governments; private companies, banks, insurers, and consumers are free to put to any use the labeling and certification tools being developed. As the development of new national and sectoral initiatives suggests, the importance of environmental labels and certification programs does not necessarily depend on their consistency with international trade law. In addition, it is possible that the recognition of labeling and certification programs within the international environmental regime may inherit the discussion from the WTO. In fact, because multilateral environmental agreements (MEAs) provide a useful framework in which countries can develop multilateral solutions to global issues, it has been suggested that certain labeling and certifica-

tion issues should be addressed within the context of MEAs (Abdel Motaal 1998).

Multilateral Environmental Agreements (MEAs)

Although the TBT Agreement requires WTO members to avoid using non-product-related PPMs in the design of their standards and technical regulations, some multilateral environmental agreements recommend their use. The Basel Convention, the Convention on Illegal Trade in Endangered Species of Flora and Fauna (CITES), the Montreal Protocol, and the Rotterdam Convention on Prior Informed Consent (PIC) all deal with labeling issues. The Convention on Biological Diversity (CBD) has also been recommended by the Global Biodiversity Forum and IUCN (World Conservation Union) to take advantage of certification systems (IUCN 1998). In the case of CITES, the Basle Convention and PIC, labeling programs are specifically mentioned in reference to control regimes (WWF 1997).

Although this contradiction has not been formally resolved in either the international trade community or the environment community, it is expected that the WTO will not presume to take unrebuttable precedence over the recommendations of MEAs (Brack 1997).

In addition, it has been argued that the policy recommendations that emerge from MEAs should be considered equivalent to international environmental standards. In this case, provided that they follow the relevant provisions, the WTO should grant MEA policies the same consideration and status as standards developed within ISO or other international standard-setting bodies (Rotherham 1999).

If this is the case, then the inclusion of non-product-related PPM requirements in environmental labeling and certification programs may be justified by the environmental policies and goals agreed upon under MEAs. For example, it may be possible to justify PPM requirements that address principles of water conservation if they have been recommended by the CBD, or those that address endangered species conservation if recommended by CITES.

Whereas the international rules of the WTO tend to restrict the design of environmental labels and certification schemes, international environmental rules within MEAs may present additional possibilities. Of course, due diligence still will have to be shown to ensure that the programs do not unfairly distort trade.

Summary

Environmental labeling and certification schemes that may effectively promote corporate environmental responsibility at the national level may have harmful effects on international trade. At the international level, a new set of constraints is encountered at the intersection of the trade liberalization and environmental conservation regimes. These constraints are both fundamental (respecting the sovereignty of nations) and practical (ensuring that testing methods do not require unaffordable technologies). To a certain extent, these conflicts exist because no formal resolution has been found for the impasse between the competing WTO and MEA regimes. For the time being, if environmental labels and certification programs are to fulfill the twin goals of trade facilitation and environmental conservation, they must, wherever possible,

- be based on international standards,
- protect the global commons,
- cater to the environmental preferences of individual consumers, and
- respect the sovereignty of nations.

The next section will explain how this can be done.

Policy Recommendations

It is beyond the scope of this paper to propose which mix of environmental labeling and certification programs should be used in any particular country. As mentioned earlier, environmental labels and certification systems should be seen as different components of the same environmental information distribution mechanism. Fine-tuning each to create a comprehensive national approach requires, among other things, an in-depth analysis of government structures, industrial organization, environmental priorities, and consumer awareness. In addition, it is important to address the information needs of all stakeholder groups, and not just those of retail consumers.

The previous sections of this paper have identified some of the issues that need to be consid-

ered: the environmental labeling and certification program options available; the information needs that need to be addressed; and the constraints that must be addressed in order to avoid disrupting trade flows, unfairly limiting market access, and conflicting with the requirements of the WTO. Suffice it to say that no one approach is enough.

The final section of this paper will focus on four characteristics that all environmental labeling and certification programs should reflect. As will be seen, the same design characteristics needed to make these programs useful to all stakeholders will, in many cases, overlap substantially with the requirements of international trade law and the recommendations of the WTO committees on Trade and the Environment and Technical Barriers to Trade. These characteristics are:

- credibility,
- comparability,
- comprehensiveness, and
- obvious relation to environmental performance.

Credibility

As mentioned, the credibility of environmental labeling and certification programs depends on two components: first, the credibility of the criteria on which the label is based or the credibility of the principles incorporated in the certification system; and second, the credibility of the verifier or certification agency. At the national level, policymakers can increase the credibility of programs by ensuring that:

- the development process is transparent,
- the interests of a wide stakeholder group are considered,
- the criteria are regularly reviewed to reflect changing conditions,
- the verification of claims is done by independent third-parties, where required, and
- the information expressed is clear and consistent.

At the international level, it is important that the environmental labels and certificates granted in one country are recognized in others. Countries that rely on trade with major export markets have a strong incentive to ensure that their products compete on an even playing field. Exporting nations, and especially small developing countries, can help companies by harmonizing certification and labeling programs with those operating in their main markets. In Colombia, for example, companies have emphasized that the domestic environmental label would be of little use in export markets if it were not recognized by foreign labeling schemes (Gaviria 1995).

Especially if the exporter is in a developing country, the credibility of its claims may be called into question. The credibility of the criteria on which the label or certificate is based can be strengthened through harmonization. Foreign licenses, technical equivalency, and mutual recognition agreements provide three ways to do this (these are discussed in more detail later). Credibility also can be increased through the IAF's mutual recognition of conformity assessment agreement (see the section, Recognition of Conformity Assessment, above). By signing on to this agreement, accreditation agencies can ensure that labels and certificates granted domestically are recognized in other countries.

Comparability

Comparability helps to avoid situations in which stakeholders are required to infer similarities or differences between companies' environmental policies and performance. It is an important element of effective environmental labeling and certification programs. Without information that is easily compared, consumers cannot easily judge between companies or products. The financial community also needs easily comparable environmental information (Bennett 1998). As international trade has become globalized, so, too, have the financial and insurance sectors. It is not enough that investors, banks, and insurers be able to compare national companies; an international framework is needed that will provide easily compared environmental information. Just as harmonization can help build international credibility, so, too, can it help to establish international comparability.

Harmonization

The harmonization of environmental labeling and certification takes place at two different levels. From the ground up, national organizations are establishing agreements with their foreign counterparts on mutual recognition, technical equivalency, and foreign licensing arrangements. A coalition of environmental labeling organiza-

tions — the Global Ecolabeling Network (GEN) — has formed and is actively trying to coordinate the development of criteria, methodologies, and labeling requirements (GENews 1997). From the top down, the International Organization for Standardization (ISO) is developing standards for environmental labels and declarations, and environmental management systems within its ISO 14000 Series.[2] In addition, sector-specific certification schemes such as the Rainforest Alliance's Eco O.K. label, the Forest Stewardship Council (FSC), and the Marine Stewardship Council (MSC) are being initiated by internationally active non-governmental organizations (NGOs). The latter are not international standards, but common international frameworks that are consistently managed by a single body and may be customized to fit the unique context of any nation.

Bottom-up Harmonization

Because there are no exclusively national environmental certification systems, bottom-up harmonization relates mainly to environmental labeling programs. Bottom-up harmonization is relatively easy to establish and can be either bilateral or multi-lateral. Many national environmental labeling programs exchange information, review criteria set by others for new product categories, and cooperate in testing procedures (EPA 1998). These relationships help programs incorporate the interests of other countries into the criteria they develop, and may cut down on the costs of developing labeling programs. Countries developing labels for products intended for export markets should consult with the domestic agencies that award labels for those products in the export market. This is an easy and straightforward step towards harmonization. There are also three formal approaches to bottom-up harmonization: foreign licensing agreements, technical equivalency, and mutual recognition.

Foreign Licensing. Foreign licensing agreements give the managing authority for a labeling program in one country the right to award the labels developed by another authority. The organization granted the licensing rights adopts the criteria developed by the other, but carries out the monitoring and analysis itself. In effect, such an agreement establishes a foreign subsidiary of the parent labeling program for specific product categories.

Technical Equivalency. Technical equivalency agreements are negotiated between two or more existing labeling programs on a product-by-product basis. These differ from foreign licenses in that the degree of concurrence in methodologies and even criteria need not be as great. Different performance criteria are deemed technically equivalent if other differences justify the discrepancy. For example, differences in a country's resource endowments, environmental priorities, or technological capacities all are legitimate reasons for different criteria. Technical equivalency agreements often are formally developed upon successful informal information-sharing relationships.

Mutual Recognition. A mutual recognition agreement is the strongest relationship that two different environmental labeling programs can develop. In these instances, the two labeling programs treat each other's labels as their own. This requires an in-depth review of each program's process and methodologies, plus occasional reviews. Like technical equivalency, mutual recognition agreements are often worked out on a product-by-product basis.

Common methodologies and frameworks reduce much of the burden of developing all of these agreements. For this reason, harmonization agreements can be facilitated by the adoption of international standards.

Top-down Harmonization. The harmonization of environmental labeling and certification programs is inextricably linked to the development of relevant international standards. Environmental labels and certification systems have strong trade-related implications. As discussed, these programs may constitute technical barriers to trade if they require the use of advanced technologies or infrastructure that does not exist in all countries. Harmonized standards have long been recognized as lowering trade barriers and opening markets (UNIDO 1991). In recognition of this, the TBT Agreement states that international standards are rebuttably presumed to be least trade-restrictive, and it requires member countries to use existing international standards wherever possible as the basis for technical regulations and standards. It also recommends that its members take an active part in international standard setting.

International standards facilitate harmonization by providing common tools for the development of environmental labeling and certification programs. As indicated above, harmonization of different national programs requires each one to have similar methodologies, processes, and criteria. In certain cases, unique national contexts may

require differences in criteria, and differences in technological capacity may limit the testing methods used by some countries.

However, it is less likely that the practical process components of environmental labeling schemes need to be significantly different. Environmental labeling standards enable different programs to benefit from as many similarities with other programs as possible. For example, Canada's Terra Choice and the administrators of Taiwan's Green Mark Program are using ISO standards as the basis for the development of a mutual recognition agreement (GENews 1997). In fact, participation in ISO's TC 207 is itself an effective form of initial collaboration that can help lead to mutual recognition agreements (EPA 1998).

International standards are unlikely to fully replace bottom-up harmonization strategies. Even if the process and methodologies are the same, the degree to which different national programs can agree on environmental criteria, and, conversely, their willingness to sacrifice environmental requirements for the sake of trade harmonization, will remain obstacles to be overcome.

The process of bottom-up harmonization can be accelerated by a number of things. One approach is for national environmental labeling programs to join organizations such as the Global Ecolabeling Network. In this way, information exchanges among programs from all over the world can help push harmonization. The development of Regional Ecolabeling Networks (RENs) might be a useful addition to this initiative. Countries within a single region are likely to have fewer differences, and it is therefore likely that they will be able to agree to more comprehensive harmonization agreements. This sort of approach is being discussed in South and Central America. The Secretariat for Central American Economic Integration (Secretaría Permanente del Tratado General de Integración Económica Centroamericana — SIECA); the Central American Council on Environment and Development (Comisión Centroamericana de Ambiente y Desarrollo — CCAD); and the United Nations Development Programme (UNDP) Capacity 21 have proposed to design a Meso-American system for accreditation and environmental certification and to build capacity in the region (CCAD, SIECA, UNDP 1998).

Environmental Performance

For environmental labeling and certification programs actually to promote improvements in environmental performance, the criteria must be performance based. If performance improvements are not linked to the granting of a label or certificate, then there is little incentive to improve. Indeed, environmentalists and the financial community have criticized ISO 14001 because of the apparent lack of correlation between certification and definite environmental performance improvements.

The TBT Agreement also recommends that product standards be based on performance requirements. It discourages the use of design or descriptive characteristics in labeling and certification criteria. The TBT Agreement does, however, restrict the scope of these performance-based criteria to product-related characteristics. In order to enable countries to control the consumption-effects of imported products, differentiation is permitted on PPMs that affect the physical characteristics of the product. However, it does not allow differentiation based on non-product-related PPMs. This is the main area where the requirements of national labeling and certification programs conflicts with international trade rules.

The Use of Non-product-related PPMs

Consumers have an interest in the environmental impacts associated with industrial production. Although they may have a particular interest in impacts on their own environment, consumers are increasingly aware of the global effects of environmental degradation and are increasingly concerned with all environmental effects. Policymakers have a limited number of tools to link environmental preferences with consumer demand. Two of the most effective tools are environmental labeling and certification programs. If the environmental impacts associated with production methods cannot be addressed within these voluntary market-based instruments, then policymakers will be deprived of a valuable tool, and a solution to the Trade and Environment debate will be more difficult to find.

A major component of the problem is the WTO's restriction — under the "like products" principle — on the differentiation of products using non-product-related PPM criteria. It must also be acknowledged, however, that this restric-

tion is certainly justified: Non-product-related PPMs can be used by countries to develop trade-restrictive labeling and certification programs that ignore national sovereignty rights and do little to reduce the environmental impacts that they are designed to address.

It is possible, however, that a solution can be found within the TBT Agreement. The development of international standards is facilitating the harmonization of environmental labeling programs and has created a platform on which useful environmental management certification schemes can be designed.

Non-product-related PPMs in Environmental Labeling Programs

The importance of international environmental labeling standards frequently is misunderstood. They should be viewed not as replacements for national standards, but as tools to help countries harmonize national standards. ISO's work on environmental labeling has not produced standardized programs, but rather has standardized components for environmental labeling programs. As mentioned above, the more similar national programs, the easier it is to harmonize them. It is not inconceivable that environmental labeling programs may one day be based on many of the same methodological and process requirements while incorporating justifiably different criteria. This is, in fact, a main hope for the ISO labeling standards.

It is of utmost importance that trade negotiators acknowledge and understand that the criteria used in national labeling and certification programs must be open to variability. "Responsible" environmental performance criteria are defined by infinitely variable characteristics, including environmental carrying capacity, global significance, environmental preferences, cultural and economic characteristics, and sources of pollution, to name only a few. These characteristics are manifest at a variety of levels: site-specific, local, sub-national, national, regional, and international. The development of environmental criteria is reflective of the theory of subsidiarity: Authority must be assigned at the level at which action will be the most effective (Trachtman 1992). If criteria are not negotiated at the appropriate level, they will fail to respect important differences. This will result in the application of criteria that have no relevance to the reality of the regional, national, sub-national, local, or site-specific characteristics. Indeed, such a system is needed if Principle 11 of the Rio Declaration is to be respected:

> Environmental standards, management objectives, and priorities should reflect the environmental and development context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries. (Quoted in OECD 1997, 17)

This principle is understood and accepted by the administrators of many labeling programs worldwide. Indeed, GEN is a coalition of some 30 programs that subscribe to this point of view (GENews 1997). By helping to develop mutual recognition agreements, the GEN promotes subsidiarity and respects the fact that variable criteria are needed if national differences are to be accommodated within an international environmental labeling framework.

Viewed in this light, it may be argued that the use of non-product-related PPMs is not the real problem. The real issue is the use of non-product-related PPMs that are applied extraterritorially. It is obvious that non-product-related PPM criteria developed by national authorities or governments should not be applied to other countries. However, it is not obvious why countries could not be required to develop their own non-product-related PPM criteria. In fact, much of the required framework for such a system is already in place.

Mutual recognition agreements between programs and for conformity assessment procedures can enable national environmental labeling programs to use criteria developed nationally, but still accepted worldwide. Whether PPM-based or not, production externalities that do not affect foreign, shared, or global resources must be defined at the national level. The standardization of environmental labeling programs will facilitate the development of technical equivalency and mutual recognition agreements, and, in turn, will create a situation where nationally developed non-product-related PPM criteria can be integrated into environmental labeling programs.

Non-product-related PPMs in Environmental Certification Programs

As mentioned earlier in this paper, sector-specific certification programs incorporate more useful guidance and more specific criteria than does the generic ISO 14001 standard. Programs such as

the FSC and MSC are extremely well designed both to respect the differences between countries and to establish fixed policy requirements. What distinguishes certification from labeling programs is the use of specific performance requirements. Although certification programs do incorporate performance, they leave the specification of performance requirements up to national committees, in the case of many sector-specific approaches, or to the individual company, in the case of ISO 14001.

In effect, a sector-specific certification program such as the FSC is a completely harmonized international framework that conveys environmental policy information, recognizes countries' rights and needs to define their own criteria, and incorporates environmental performance in its assessment of interested companies. Such a framework necessarily incorporates non-product-related PPMs, but like mutually recognized environmental labels, the PPM-related criteria are developed nationally. In the case of the FSC, the fact that the entire process is surveyed by an international environmental organization may be a source of added credibility and assurance. Especially if these types of programs are compatible with the ISO 14001 EMS standard, or, better yet, if they are built upon it, sector-specific certification programs may help to resolve the non-product-related PPM debate.

The only weakness of the FSC and MSC approach is that they are not international standards. As mentioned earlier in this paper, the TBT Agreement requires the use international standards wherever possible. For this reason, a WTO member country can reasonably argue that the existing standard, ISO 14001, is the only environmental certification system that can be required. The existence of the generic ISO 14001 standard limits the use of sector-specific certification schemes.

However, as explained, sector-specific applications of the ISO 14001 standard are likely to be permitted soon. If they can be designed to incorporate the environmental policy guidance of MEAs, and if certification can be more closely linked with environmental performance, these international environmental certification standards may be an important tool to promote sustainable development while respecting WTO rules and promoting international trade.

Conclusions

Sustainable development policies must, among other things, make caring for the environment a corporate priority. This can be achieved if profitability becomes more obviously linked to a company's environmental performance. Environmental labeling and certification programs are tools that can influence companies to make environmental protection a corporate priority.

Environmental labels and certification schemes are most often thought of as market-based tools that link consumer demand for environmental quality with a firm's decision-making process. This is an incomplete definition that ignores the role of other interested parties. The information that labels and certificates can provide also is of interest to environmental regulators, insurance companies, investors, and banks. To maximize their influence on corporate behavior, environmental labeling and certification programs must be designed to fulfil these information needs as well as those of consumers. To fulfil these various needs, the information provided must be

- credible (incorporating third-party verification, where needed),
- comprehensive (providing specific product-related information and life-cycle analysis), and
- comparable (enabling easy comparison across product categories, between companies, and even between different countries).

A variety of tools are available. Type I labels are independently verified voluntary labels that give consumers an indication of the overall environmental preferability of a specific product compared with others within the same product category. Type II labels are self-declarations that generally address single issues, without considering the environmental impacts throughout a product's entire life-cycle. This ensures that the message is easy to comprehend, but limits the usefulness of the information; the credibility of Type II labels can be increased by establishing set definitions for potentially misleading terms. Type III labels provide independently verified information on which consumers can make purchasing decisions. Although they do not use available scientific knowledge, they do avoid the implicit biases often related with Type I labels.

Whereas labels provide information on products, certification systems provide information on companies. Although some question the credibility

of the information they provide, they have the benefit of a broad scope. Although none of the main labeling programs covers more than 100 product categories, a single environmental certification system can cover all of the products produced by a company, or by an industrial sector. The ISO 14001 Environmental Management System (EMS) standard is a generic approach to certification. However, recent developments suggest that it may soon be possible to develop sector-specific ISO 14001 applications. ISO 14001 has been criticized for weak performance requirements and is thought to constitute a technical barrier to trade. Especially for developing countries, a lack of the required infrastructure and corporate culture can lead to higher implementation costs. Sector-specific standards, such as those of the Forest Stewardship Council, include more specific requirements and can therefore provide more useful information. However, the special status granted ISO standards under the WTO rules may weaken these sector-specific approaches.

Environmental labels and certification systems are complementary tools that can be used to provide appropriate environmental information to all interested stakeholders. The right information can influence the behavior of suppliers, banks, investors, insurance companies and government regulators. An appropriate demonstration of environmental claims can provide benefits for environmentally concerned companies, including

- increased market access,
- easier access to credit,
- lower insurance premiums,
- higher stock valuations, and
- streamlined permitting, and reduced fines and penalties.

Using a variety of tools to satisfy the needs of all these stakeholders will maximize the effectiveness of environmental labeling and certification programs.

At the national level, environmental labeling and certification programs can be very effective. Even at the international level, there are certain benefits. In particular, labels and certificates help companies to identify consumer preferences and provide a mechanism through which they can credibly demonstrate their environmental responsibility. This can help open developed-country markets to companies in developing countries. Countries that rely on trade with major export markets have an interest in ensuring that their products can compete with domestic ones. Recognition in foreign markets increases the value of these programs to domestic industry. For this reason, countries should consult the labeling and certification authorities in export markets when developing their own programs.

However, environmental labeling and certification programs have two other important effects: They can be used for eco-imperialism; and they may constitute technical barriers to trade.

Eco-imperialism describes the application of environmental product requirements to foreign producers in such a way that it benefits domestic producers. Labeling requirements are one way that countries can implement eco-imperialistic trade policies. A 1992 CTE report accused some producer groups of having succeeded in the past "in manipulating domestic environmental policy to benefit themselves at the expense of both the rest of the economy and ultimately even the environment" (quoted in Dowdell 1992). Environmental labeling and certification schemes that do not consider conditions in the exporting country may unfairly restrict market access. The "like product" provision in the WTO rules helps to reduce the application of unfair environmental requirements on exporters. It differentiates between product-related process and production methods (PPMs) (which are permitted) and non-product-related PPMs (which are not). However, by restricting the use of non-product-related PPMs in standards and technical regulations, the WTO makes it difficult for countries to use trade measures to protect global and shared resources. Arguably, consumers should have the right to obtain information on products that are made in a manner that endangers species, contributes to global warming, or affects shared and common resources.

Environmental labeling and certification programs can create obstacles to market access, or technical barriers to trade. The proliferation of different environmental criteria, the lack of mutual recognition between national programs, and the technological requirements of certain testing methodologies may create technical barriers to trade. It is also suggested that it may be more expensive for companies in developing countries to obtain labels and certifications due to lack of existing management structures, the novelty of EMS, insufficient infrastructure, and high auditing costs (Vossenaar 1999, 7). In addition to capital costs, the absence of necessary knowledge and skills and a lack of mutual recognition between

different national programs can further disadvantage some countries.

The WTO has addressed these issues in the TBT Agreement, and within the CTBT and the CTE. In order to help countries to avoid policies that may constitute technical barriers to trade, the TBT Agreement sets the following requirements:

- Standards must be prepared, adopted and applied in a nondiscriminatory fashion (reflecting the Code of Good Practice);
- Standards must not constitute unnecessary obstacles to international trade;
- If international standards exist, standardizing bodies must use them, or the relevant parts of them, unless they are considered ineffective or inappropriate; and
- WTO members are encouraged to enter into mutual recognition agreements for the conformity assessment procedures that they apply to their standards.

The CTE has supported these principles and recommends that countries work towards the harmonization of standards and of conformity assessment procedures. Labeling authorities and national accreditation agencies can work to these ends through organizations such as GEN and the International Accreditation Forum (IAF). Along with avoiding technical barriers to trade, harmonization can help to limit

- inconsistencies in performance requirements,
- claims that lack credibility, and
- misleading information.

These conditions can create confusion in the marketplace, making it difficult for companies to identify environmental preferences and for consumers to distinguish between environmental claims.

The WTO requirements regarding environmental labeling and certification programs are quite similar to those needed to ensure that all stakeholder needs are fulfilled by them. The WTO promotes

- standard harmonization (which increases the comparability of labels and certificates), and
- conformity assessment harmonization (which helps national labels and certificates gain international credibility).

The only real conflict is the restriction of non-product-related PPM-based criteria. However, a solution to this conflict may lie in the use of the international standards for environmental labeling and certification that are being developed through ISO. The main problem lies not with non-product-related PPM-based criteria, but with the extra-territorial application of such criteria. Mutual recognition agreements between environmental labeling programs and for conformity assessment procedures can enable national programs to be recognized worldwide. As long as non-product-related PPM-based criteria are developed at the appropriate level — reflecting the theory of subsidiarity — it may be possible to incorporate domestic criteria into an international framework.

Additional Considerations in the FTAA Context [3]

The subtext of this paper is the role of environmental labeling and certification programs in the ongoing deliberations to create a Free Trade Area of the Americas (FTAA). In this respect, it is worthwhile to identify some issues that should be considered when applying the policy advice contained in the earlier sections of the paper to Latin America and the Caribbean.

A market-based tool to promote environmental responsibility will influence companies only if a sufficiently large segment of the market is environmentally concerned. Companies that target Western export markets may certainly benefit from and be subject to the influence of labels and certification systems. However, those that target primarily domestic markets or markets in other Latin American and Caribbean countries are unlikely to be as concerned with "green" competitiveness. The reason for this is that consumers in Southern markets are less aware of environmental issues and are generally more sensitive to price differences. As a result, there is less demand for corporate environmental responsibility, and less likelihood that concerned consumers are able to pay a meaningful premium for green goods.

This paper suggests that for these "market-based" tools to be as effective as possible, the scope of labeling and certification programs must be broadened to target the financial sector. This recommendation has limited appeal in cases where a large proportion of an economy is "informal" and exists apart from traditional linkages with banks, insurers, investors, and regulatory agencies. Indeed, many countries of Latin America and the Caribbean have large informal sectors. Companies in the informal sector are clearly less

likely to be responsive to signals and incentives from the financial sector, so this will reduce the usefulness of this recommendation.

This duality — some companies responding to foreign preferences and others to domestic ones — promotes a polarized situation in which exporters to developed country markets (especially for some sectors) or foreign multinationals become "green" islands surrounded by inward-looking companies with less environmentally sound production processes. These "brown" producers should not be criticized: They respond to different market pressures, and their actions may be justified by the domestic environmental, developmental and political context. Indeed, the benefits of economic stability may make it better to focus on Southern markets that may be secure in the long term rather than to seek capricious Northern markets, even if this means sacrificing higher environmental standards in the short to medium term. Sustainable development is not a destination; it is a journey.

This, then, is the main benefit to developing countries of the harmonized framework of environmental labeling and certification programs that can be developed, ideally through ISO, but also independently: It would remove some of the pressure to conform with unrealistic Western environmental policies and performance standards from developing countries and the companies in them. Principle 11 of the Rio Declaration (see the section on non-product-related PPMs, above) acknowledges that economic growth and social development can be stifled by attempts to leap too far ahead of one's capabilities.

The Importance of International Standardization

As the line between national sovereignty and corporate governance continues to fade, voluntary industry-based environmental initiatives will become increasingly important. Evidence of this trend is found in the fact that national governments are increasingly considering "self-regulation" regimes that transfer basic regulatory-compliance monitoring to private companies. Countries must acknowledge the significance of international environmental standardization activities, especially within ISO. The harmonization of environmental labeling and certification programs is inextricably linked to the development of international standards. Similarly, the liberalization of trade is strongly linked with the development and promotion of international standards.

The ISO environmental labeling and certification standards address issues of public policy. Of course, it is nothing new for countries to forfeit their right to establish entirely independent environmental policy. Multilateral Environmental Agreements (MEAs) have been setting common national environmental policy since the ratification of the Ramsar Convention on the Protection of Wetlands, in 1971. However, the development of the ISO 14000 series of standards — and their integration into WTO trade rules — mark the first time that countries have had their environmental policy so strongly influenced by a private non-governmental organization. Although ISO has over 130 National Standards Bodies (NSB) members, its members do not necessarily represent competent government authorities. The credibility of ISO's environmental standard-setting depends on the involvement of a much broader stakeholder group, especially from the international environmental community. Considering the important role that international standards play in the context of the WTO, and in the interest of developing effective environmental labeling and certification programs, it is in the best interests of all countries to represent their constituents actively and accurately in the ISO process.

NOTES

1. Although the existing ISO 14001 EMS standard does not include a specific requirement regarding the environmental policies of suppliers, it does require companies to "address those environmental aspects that are reasonably under their control" (ISO 14001 1996; also see the section entitled International Trade Rules in this paper). The definition of "reasonably under their control" is subject to interpretation. However, some members of ISO TC 207/SC1 have proposed introducing a specific requirement when the ISO 14001 standard is reviewed beginning this year (personal communication, Ashok Ganesh).

2. ISO 14001, ISO 14004, ISO 14020, ISO 14021, and ISO 14024.

3. This section is based on the excellent comments graciously provided by Luis Alberto Trama, on file with the author.

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INSTITUTIONAL COOPERATION ON TRADE AND THE ENVIRONMENT

Gil Nolet

Introduction

This short paper describes how the public and private sectors, through institutional cooperation on environmental policies, can address the costs of adjusting businesses and communities to demands for greater environmental performance and how this cooperation can take advantage of synergies between trade liberalization and environmental protection. First, the paper reviews the export base of the countries in Latin America likely to remain dependent on natural resources. This situation offers a multitude of challenges, especially in the "green" environment (natural resources). However, it also offers opportunities for making use of some of the externalities arising from the opening up and consolidation of new markets. Small and medium sized enterprises (SMEs) may be well suited to capitalize on these new opportunities if they can overcome technical and financial barriers.

In general, it is necessary to correct environmental externalities in order to address market and policy failures. As regional integration deepens, countries will confront the need for policy coordination and cooperation to help overcome environmental problems that are difficult to manage at the national level or for which collective programs are more cost effective. For instance, it is both logical and efficient to deal with transboundary pollution through regional cooperation (Andrew 1995). Accordingly, global environmental externalities should be addressed through global coordination and cooperation. To address local externalities, however, the national environmental management system will need to be strengthened. This calls for continued institutional cooperation in the area of strengthening strategic environmental management.

Regional Integration in Latin America and the Caribbean: The Need for an Environmental Agenda?

The scope of debate on the trade-environment nexus is wide indeed and already the subject of several books and dozens of articles. Reconciling trade and environmental policies in order to make them mutually reinforcing is a growing international concern. Environment-related standards are growing in number and are increasingly significant factors that exporters must be aware of and adapt to. A few themes of particular relevance for the discussion on the trade–environment nexus are briefly highlighted in this study (Andrew 1995).

From the perspective of free traders, many environmental measures are disguised forms of "ecoprotectionism." Calls for "harmonization upwards" of environmental standards ignore and might lead to losses in comparative advantage due to legitimate differences in physical endowments, assimilative capacity, social preferences, and levels of development. Moreover, the possible "voluntary" alternative of "ecolabelling" schemes are often developed by private industrialists' associations in consuming countries, without maximum transparency and opportunity for comment by foreign, exporting countries.

From an international environmentalist perspective, it is often argued that free trade, unlike sustainable development, is not a goal in itself. So, when free trade, due to increased pressure on natural resources and environmental degradation, is in conflict with sustainable development, it should give way to the latter. Furthermore, free trade areas and lowering of investment controls could encourage dirty industries to migrate to countries with lower environmental standards and create pollution havens. Moreover, harmonization of standards are not always upwards but might result in a "race to the bottom."

All these themes are also relevant when discussing regional integration in Latin America and the Caribbean. Yet, regional integration has various other dimensions: from free trade areas (in goods and/or services) to a customs union with a common external tariff (and ultimately the adoption of a single currency). These different dimensions are currently all reflected in the various schemes of Latin American and Caribbean integration (there is even growing discussion about the merits of a single currency). When analyzing the

environmental effects of integration, these differences are important to keep in mind. Also, regional integration is not new to the Latin America and Caribbean region. Before the crisis of the 1980s, the topic of integration was hard to avoid in the discussion of regional development (Devlin and Ffrench-Davis 1998).

In the region, trade reform has focused on a relatively indiscriminate and rapid liberalization of imports. The aim is to expose producers of importables, which had often been receiving a high level of protection, to outside competition, while also encouraging the output of exportables. It is expected that this will result in higher productivity, with the absorption of new technologies and increased specialization (Devlin and Ffrench-Davis 1998). Such increased specialization can result in the production of a limited number of goods, and it has been argued that for the region this will result in a dependence on a rather narrow resource base. As a result, agriculture-based economies might be encouraged to specialize in the cultivation of a limited number of crops, threatening the genetic pool of the region and increasing the instability of the ecological system (Johnstone 1996). Theory tells us that, given the region's relative endowment of natural resources, trade liberalization will result in an increase in the share of exports based on natural resources, especially for exports to countries that are relatively less endowed with natural resources, such as the Organisation for Economic Cooperation and Development (OECD) countries (Devlin and Ffrench-Davis 1998).

To see whether this holds true for the region, a close look at its trade performance is needed. Available data indicates that the region, in its exports to the rest of the world, has yet to be able to expand its natural-resource based exports to include other types of goods. The region has, however, been more successful in this area with respect to intraregional trade (IDB 1998e). Trade performance data from the 1990s shows marked differences in intra- and extra-regional exports from Latin America, both in terms of growth and products. First, intra-regional trade (particularly exports) has grown more rapidly (18 percent per year on average) than extra-regional trade (9 percent per year). Second, intra-regional trade knows a different product structure and technological context, with manufactures accounting for a much larger share of intra-regional commerce. Excluding Mexico, manufactures account for approximately 50 percent of intra-regional exchanges, compared to around 23 percent for extra-regional exports (Devlin and Ffrench-Davis 1998).

However, extra-regional trade is still larger than intra-regional trade, including a concentration of exports in a few commodities or manufactured products. The share of the top five exports averaged 45 percent in 1991 and 42 percent in 1996, ranging from a low of 23 percent in Brazil to a high of 86 percent in Venezuela in 1996. In 1996, most of the five leading exports of each country in the region (with the exception of Mexico and Nicaragua) were natural resource-based products such as fish, fruits and nuts, coffee, and petroleum (IDB 1998e). While there has been some diversification of regional exports, the share of the five leading products in total exports, in more than half the countries, still remains over 50 percent and even exceeds 70 percent in a few cases.

From these figures, one could be inclined to conclude that a possible environmental agenda of trade liberalization needs to be twofold: an urban (brown) agenda for intra-regional trade and a natural resources-based (green) agenda for extra-regional trade. Obviously, much more research is needed to truly develop this agenda. The remainder of this paper will focus on the green agenda. In this area, there seem to be not only difficult challenges (partly associated with the concentration of exports) but also important opportunities, especially by tapping into new markets for environmental goods and services (Brugger et al. 1999). Exports based on natural resources should not have to be limited to traditional unprocessed natural resources but could rather include high-value commodities. Obviously, there are not only environmental reasons to encourage increased diversification but economic ones as well. According to a recent study (Gavin and Hausmann 1998), natural resource endowments are associated with slower economic growth and with a more unequal distribution of income. A possible reason for this is that tropical conditions reduce labor productivity and wages. Also, many tropical crops are more efficiently produced on large-scale plantations, which facilitates concentration of land ownership, compounding labor and environmental difficulties.

Environmental Policies in the Private Sector: Promoting a Win-Win Approach [1]

In recent international discussions, more attention has been given to the possibilities for countries to remove trade restrictions and distortions that are harmful to their own environment and for developed countries to improve market access for products of export interest to developing countries. Some sectors seem to have emerged as priorities, in particular fisheries, agriculture, and environmental goods and services (Sampson 1999). This removal of trade restrictions seems to reflect the growing awareness that trade expansion not only presents environmental challenges but can also offer opportunities, especially through the removal of distorting policies (the so-called win-win approach). Moreover, some analysts have argued that if increased market access could be coupled to commitments to raise the level of environmental initiatives, competitive incentives will contribute to "greening" the markets (Runge et al. 1997).

This greening of the markets may be the result of a change in attitude in the private sector toward environmental issues, responding to both consumer and regulatory voices. In the past, the private sector tended to perceive environmental requirements as costs that reduced profitability. According to Brugger et al. (1999), more and more businesses have come to view the environment as an opportunity to add value to investment, gain competitive advantage, achieve higher margins through ecoefficiency, maintain and increase sales through positive image, and make better use of assets. There is more than anecdotal evidence that environment-linked markets for natural products, certified organic agriculture, ecotourism, and certified forest products are growing in OECD countries. According to some industry experts, the world is moving to certified forestry. With some sound improvements in infrastructure and development, the region could be a leading destination for ecotourism.

It should, however, be recognized that large industrial firms are leading the move to ecoefficiency. This is for a variety of reasons, including consumer preference, market access, public image, and increased pressure to produce accurate environmental reporting.[2] Some large companies in the region are also working to instill these practices into their SME suppliers because environmental or quality control standards can apply to the entire supply chain of a product. For example, recently, both Ford and General Motors (GM) stated they would require parts suppliers to become more environmentally friendly in the next few years.[3]

When looking at implications for the business sector in Latin America and the Caribbean, the SME sector is arguably the most important and dynamic sector. According to figures from Brugger et al. (1999), SMEs generate between 40 percent and 80 percent of gross national product (GNP) and 60 percent to 80 percent of employment in the region. SMEs are well suited to capitalize on the most important comparative advantage of Latin America and the Caribbean: the natural resources base. In fact, SMEs are already operating in new markets such as organic agriculture, sustainable forestry, and ecotourism.

For SMEs to be able to play an environmental role, however, certain technical and financial barriers need to be overcome. In the same forthcoming publication for the Inter-American Development Bank, cited previously, authors Wouter Veening, J. Steven Lovink, and Ricardo Bayón (1999) state that access to capital and technology at reasonable cost will often be the most important determining factor for SMEs to become active in the environmental area. To provide SMEs access to capital, the authors review several new areas of support. These include special lines of credit for SMEs in environmentally sound industries. One example of a program designed to use credit as a way of stimulating environmentally-sound businesses is the Global Environment Facility (GEF) Small and Medium Enterprises Program. This program was started using US$4.3 million of GEF money, managed by the International Finance Corporation (IFC), to stimulate greater involvement of SMEs in addressing the GEF's biodiversity and climate change objectives. In 1997, the GEF approved a $16.5 million replenishment and expansion of the SME program (the Global-IFC/GEF Small and Medium Scale Enterprise Program Expansion — SME2). The SME2 program has helped SMEs gain experience in their ability to implement environmental projects in renewable energy, energy efficiency, sustainable forestry, sustainable agriculture, and ecotourism, among others.

Another example of the use of "green credit" to stimulate environmentally sound businesses comes from the Netherlands. As of 1995, the government of the Netherlands agreed to provide tax

I. REGIONAL: THE TERRA CAPITAL FUND

In late 1998, a consortium made up of the Environmental Enterprises Assistance Fund (EEAF), a Brazilian Bank (Banco Axial), and Sustainable Development Inc. (SDI), working with the World Bank's International Finance Corporation (IFC), announced that they had secured the capital necessary to establish a private, for-profit, environmental venture capital fund for Latin America called the "Terra Capital Fund." The fund obtained money from a variety of sources, private and multilateral (including the MIF as well as the Swiss government) in order to invest in small, private businesses that meet a set of environmental criteria. In addition, Terra Capital received grant money from the GEF (US$5 million) to establish the technical and managerial capacity needed to operate such a fund, monitor and evaluate the environmental impact of investments, and cover any additional costs that will be incurred by the fund when screening projects for their biodiversity/environmental value.

The fund initially capitalized at $15 million and will make investments of between $500,000 and approximately $3 million (with an average investment of $2 million) in projects related to sustainable forestry, agriculture, ecotourism, and other biodiversity-based businesses.

Terra Capital fills a much-needed niche in the provision of risk capital to emerging biodiversity-based businesses. Since Terra Capital will be the first environmental venture capital fund of that size in the region, it will be able to be highly selective in its investments. At the same time, the fact that this is the first fund of its kind will likely prove to be a boon for its investors. However, the drive to provide quasi-market returns on investments will probably force the fund to look at more established businesses, rather than at pioneering ventures in the early stages of development. For this reason, a key challenge for the fund will be the design of its environmental investment guidelines. If Terra Capital is to help achieve biodiversity conservation successfully, these guidelines need to meet the dual needs of profitability and sustainability.

Source: IFC 1997.

exemption for money invested through so-called "green funds" that offer loans to environmental projects (that need official approval from the Ministry of Environment to qualify). Following this law, a number of major commercial Dutch banks began offering tax-exempt green funds to their customers. These funds can now also be used for environmental investments overseas.

The special needs of SMEs can also be addressed by means of equity or quasi-equity investments through venture capital funds or "sector investment funds." Two examples of recent initiatives supported by the Inter-American Development Bank (through the Multilateral Investment Fund — MIF) are the Terra Capital Fund and the EcoEnterprises Fund. (See box I.)

Both the EcoEnterprises Fund and the Terra Capital Fund will need to find businesses that combine financial profitability with environmental protection. The EcoEnterprises fund will only

II. THE MIF/TNC E COENTERPRISES FUND

A green venture capital fund for Latin America was created in 1998 by The Nature Conservancy (TNC) and the Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IDB). The fund, known as the EcoEnterprises Fund (or Fondo EcoEmpresas), will be a $10-million operation designed to provide venture capital and technical support to environmentally responsible business projects in the region. According to materials produced by the fund, the EcoEnterprises Fund "will help achieve two crucial goals: spur the growth of small- and medium-sized companies, which is key to the economic future of Latin America and the Caribbean, and promote the conservation of one of Earth's most biologically important regions."

Goals

The EcoEnterprises Fund aims to achieve two crucial goals: 1) to foster the development of socially and environmentally responsible enterprises, and 2) to generate revenue for biodiversity conservation and enhance the long-term sustainability of non-profit environmental organizations in Latin American and the Caribbean.

Sectors

Target sectors include:

- Alternative agriculture, including organic and aquaculture; and
- Sustainable forestry, nontimber forest products, and nature tourism.

Funds

The fund has two components: a $6.5-million-venture fund to invest in enterprises at all stages of development; and a $3.5-million technical assistance fund to provide business advisory services to help them succeed. The TNC serves as Fund Manager. It is expected that, beginning in August of 1999, the EcoEnterprises Fund will provide equity and loans to enterprises undertaken by private businesses in cooperation with local nonprofit institutions. Over a 10-year period, the fund will provide between $50,000 and $800,000 (with an average of $150,000) to as many as 25 ventures in the fields indicated above. Revenues generated by the ventures will contribute to the long-term financial sustainability of the participating environmental organizations, demonstrating ways to integrate economic growth and environmental protection.

The fund will seek to leverage the TNC's network of business and environmental conservation partners to generate sufficient deal flow and strong model projects. The TNC aims to foster working relationships between these players to enhance returns and reduce risks.

Source: MIF 1997.

invest in projects that combine non-governmental organizations (NGOs) and private businesses in some form of partnership. It also has decided to finance capacity-building and business development in its chosen projects. (See box II.)

Besides loans and venture capital, another example of a financial instrument used for supporting environmentally based businesses in the region is guarantees. (See box III.)

Apart from the more specific examples described above, there are a number of general activities that multilaterals, governments, and others can undertake to support the creation and development of environmentally-based SMEs, since it is quite likely that SMEs will face similar challenges. For instance, most environmentally based businesses will need to develop business plans and build their entrepreneurial skills. A growing number of business planning tools, with extensive reference resources, are now readily available on the market, assisting entrepreneurs with standardized approaches to the preparation and submission of business and financing plans; such tools could be further tailored to meet the needs of the natural resource-based business sector.

III. Costa Rica: The Multilateral Investment Guarantee Agency (MIGA) and the Rainforest Tram

"An example of the use of guarantee instruments to encourage environmental activities is the case of two guarantees provided by MIGA. In 1995, MIGA supported the construction and operation of 1.3 km. Aerial tram, a restaurant, and a visitor research center located on a 338-hectare site bordering Braulio Carrillo National Park in Costa Rica (50 km. north of San José). MIGA issued guarantee contracts covering foreign investment in Dosel S.A., a special purpose company set up to run the Rain Forest Aerial Tram (RFAT). One contract guarantees the equity invested by Conservation Tourism, Ltd. of the United States against currency transfer risk; the other guarantee contract covers a Bank of Nova Scotia's (Canada) non-shareholder loan to Dosel against Transfer Restriction, Expropriation, and War and Civil Disturbance.

"The project is structured to make sensitive economic use of Costa Rica's rain forest, preserving and protecting it by utilizing the environment in a non-destructive way. Furthermore, Dosel hopes to work closely with the government to reduce illegal hunting activities in the area. Because of its commitment to the environment, the President of Costa Rica has named the project a 'national resource.'

"In addition to making significant efforts to ensure minimal adverse impact on the environment, the company allocates resources for research and educational purposes. As of 1998, the RFAT plans to construct lodging facilities to accommodate visiting research scientists. High safety and waste-treatment standards are in place. Furthermore, the project sponsors an environmental education program to improve environmental awareness about the importance of protecting the rain forests. Within this program, admission for Costa Rican school children and students is free or reduced; 3,000 children/students participated in 1996 (an estimated 9,000 . . . in 1998)."

Original Source: West et al. 1998.

Environmental Policies in the Public Sector: Toward Strategic Policies

At the Miami Summit of the Americas (1994), the governments agreed to develop compatibility of environmental laws and regulation at high levels of environmental protection. In its recent publication on Sustainable Trade for a Living Planet, the World Wide Fund for Nature (WWF) points to the case of the Mexican corn crisis to illustrate the fact that trade liberalization does not occur in a vacuum. According to WWF, effective environmental policies and social policies need to be in place before rushing into liberalization. Ignoring this basic principle can lead to increased poverty and environmental degradation. WWF recommends that trade liberalization be accompanied by improved environmental rules and other policies needed to create a sustainable market and that priority be given to so-called "win-win" scenarios.[4] This section will look at some of the elements of environmental management that need to be improved in order to achieve these kinds of scenarios.

Increasingly, strong, flexible, and effective state institutions are seen as an essential pillar of successful development and environmental protection. Likewise, it is acknowledged that general principles of good governance, including transparency, access to information, public participation, fiscal decentralization, anticorruption measures, and reinvented public institutions are essential components of environmental management (World Bank 1997). In recent years, much progress has been made in improving the management of natural resources and the environment. However, it is crucial that the environmental management functions and mechanisms keep pace with the changing economic, social, and political circumstances. Environmental institutions that were created in the style of the old paradigm (of a monolithic public sector with centralized planning and corrective interventions in resources

allocation) more often than not find themselves weak and disoriented in the wake of recent public sector reforms (IDB 1998). In other cases, environmental institutions are undergoing a restructuring process to make them more appropriate to the new realities of the country, with government focusing more on regulation and less on undertaking entrepreneurial activities (UNEP/IDB 1998). While recognizing that each country should have the models most suited to its own characteristics, the institutional and legal changes of the last 10 years can be considered a major development in environmental management compared to the 1980s, when several countries had sector agencies with exclusive responsibilities for the environment, often in the planning, health, agriculture, housing, or urban development sector (Barcena 1987).

In light of these considerations, therefore, what needs to be done next? What is the agenda for improving environmental management in light of recent public sector reform with increased globalization, decentralization, and privatization? When defining such an agenda, the end goal must be more or less clear. In this context, the concept of strategic environmental management as described by Muñoz (1993) is very useful. According to Muñoz, the challenge of trade liberalization first results in reactive environmental protection policies responding to both external and internal pressure, generally made within the context of free-trade negotiations with countries having high environmental standards. In a later stage, the opportunities from trade liberalization result in *anticipatory* or pragmatic environmental protection policies. These policies are intended either to facilitate the economic insertion of the country in question into more competitive markets that enforce ecologically sound standards or to facilitate the negotiation of eventual free-trade agreements with countries with strict environmental standards, thus neutralizing foreign pressures regarding the level of environmental protection in the developing country. Finally, the elaboration and execution of *strategic* environmental protection policies respond to a conceptual design that incorporates the environmental protection factor into long-term economic growth policies (Muñoz 1993).

How to reach this stage of strategic environmental policies? To answer this question, we need to analyze where the environmental policies of Latin America and the Caribbean stand today. In very general terms, the three different stages described by Muñoz correspond to the general evolution of the institutional capabilities of a country. The stages in this evolution have been labeled "traditional," "transitional," and "modern," to explain how the institutional setting develops from a highly centralized, primitive management structure to a more decentralized system where the management structure is reasonably integrated both vertically and horizontally (Russell 1996). When looking at some of the typical elements of environmental management, what characteristics determine the different stages of development when it comes to environmental management capacity? The following outline (adapted from M. Jänicke and H. Weidner 1997 and from Clifford S. Russell and Phillip T. Powell 1996) describes the elements involved at each phase.

Stages of Development in Environmental Management Capacity

Environmental Management Public Institutions

- Environmental management responsibilities dispersed over sectoral agencies.
- Environmental institutions at different levels but without sufficient coordination.
- Central institution for integrated environmental planning with environmental units in sectoral agencies and decentralized institutions for implementation in cities and enterprises.

Environmental Pollution Control Instruments

- Focus on technology specification and banning of certain products with only very limited charges (for example, user charges for publicly owned facilities).
- Move from technology specification to technology-based permits (use of "best available technology"); technology-based discharge standards embodied in permits.
- Tradable discharge permits and strategic use of public information.

Environmental Impact Assessments (EIAs)

- EIAs for public projects limited to project mitigation.
- EIAs for public and private projects with an objective of quality enhancement.

- Strategic use of EIAs to fully integrate environment in planning and address cumulative impacts.

Civil Society

- Weak or nonprofessional environmental NGOs.
- Strong and competent NGOs, playing a consultative role in political decisions.
- NGOs playing a consultative role in industry also.

The Business Sector

- Environmental interests scarcely articulated within the economic system.
- Environmental interests limited to particular group interest (for example, clean technology).
- Environmental interests articulated by a broader group of green business organizations.

With respect to the three different stages described in the above outline, the situation in Latin America and the Caribbean seems to correspond mostly to the transitional stage. The challenge now seems to be to move from a transitional to a modern system of environmental management or, in other words, from pragmatic to strategic policies. Such a modern system can achieve the elaboration and execution of strategic environmental protection policies while at the same time providing opportunities to capitalize on the new environmental opportunities that markets create, making use of the externalities arising from the opening up and consolidation of new markets.

What are the main bottlenecks the region needs to overcome to move to the next stage? As a first step, it is essential that the priority environmental issues be recognized by society and that agreement on how to address them be reached before developing the corresponding environmental management functions and mechanisms. In the recent past, legislative frameworks have been developed as a first step in the environmental management process without prior agreement about the main issues. This has resulted in very low levels of compliance, undermining the credibility of the environmental management process (IDB 1997).

Institutional fragility remains a well-recognized and key barrier to strategic environmental management, partly because of the following reasons (see Huber 1996; IDB 1997b):

- Weak national institutions both in terms of human capital and political leverage;
- Poorly articulated priorities;
- The absence of a clearly identifiable domestic constituency;
- Overlapping mandates among related sectoral agencies;
- Public institutions at the local level that lack structures and capacity;
- Lack of opportunity for public participation in environmental reviews;
- Lack of systematic and qualified monitoring;
- Weak or poorly utilized information systems and lack of planning;
- Inadequate and/or inappropriate (overly exigent) environmental standards or procedures;
- Weak environmental enforcement;
- Insufficient qualified human resources in the area of trade management;
- Lack of speedy and timely access to trade information on rules, procedures, existing trade policy, and promotion instruments.

In light of these shortcomings, the five issues described below can be identified as high priorities for reaching a strategic environmental management stage for each of the different elements:

Environmental Management Public Institutions: Achieving Interpolicy and Intrapolicy Integration. In light of past fragmentation and sectorialization, there is a need for policy and management approaches that integrate the different productive sectors of the economy and the different environmental media (land, water, and air) in a way that takes into account the (negative) environmental effects of government programs and subsidies. In theory, environmental issues limited to local externality problems in areas such as natural resource use, air and water pollution, solid waste management, and sanitation and sewerage are more effectively dealt with at the local level in accordance with the subsidiarity principle. This principle states that the lowest level of government that can fully capture the costs and benefits should provide the corresponding public goods and services (World Bank 1997). In practice, however, decentralization is unlikely to work without effective institutional arrangements. Also, local

governments often have been given new responsibilities with corresponding expenditures but without a sufficient transfer of human and financial resources. In short, there is often a mismatch between the devolution of responsibility and the allocation of resources (IDB 1998a).

Environmental Pollution Control Instruments: Mobilizing Financial Resources. It is increasingly recognized that natural resources (for example, water, forest, etc.) provide important national and international environmental services such as biodiversity and climate equilibrium. The challenge is to determine the economic value of the environmental services and to develop cost-effective methods to introduce payments for the conservation of these environmental services.

Environmental Impact Assessments: Enforcement. Only recently has environmental enforcement been given the appropriate attention. For the market to function in a fair and sustainable way, laws and regulations need to be monitored and enforced. The challenge is to increase the effectiveness of the judiciary while also developing new styles and methods of enforcement with an appropriate mix of controls and incentives based on adequate environmental information and data systems and the participation of the private sector.

Civil Society: Participation. Meaningful participation on the part of civil society produces policies and programs more responsive to the local needs, but it also places a greater emphasis on the need for effective communication, for accurate information, and for new mechanisms for negotiation and conflict resolution as part of the routine process of public environmental management.

The Business Sector: Business and the Environment. To improve the functioning of markets and allow the private sector to participate on a level playing field, the environmental rules of the game need to be clear, including those rules related to environmental liabilities. Because the competitiveness of Latin America and the Caribbean is partly based on the region's wealth of natural resources, there is a challenge to achieve long-term sustainable exploitation of (renewable) natural resources. Unsustainable exploitation not only threatens the environment but also competitiveness itself. There is a need to improve the management of natural resources — to become "ecoefficient" — and to improve business development skills in general. Also, and perhaps more important, there is a need to invest in other elements of competitiveness, such as human resources, thereby lessening the region's dependence on natural resources. In addition, environmental issues are increasingly becoming a critical part of an intense debate in the negotiation process of regional and world trade agreements and, hence, these subjects need to be addressed.

Conclusion

In general, increased economic growth tends to induce greater demands for a better quality of environmental consumer goods, particularly in the urban sectors. However, the green environment (natural forests, biodiversity, and water resources) is not subject to the same dynamic as the brown environment (air quality, sewage treatment, and urban water quality). Economic growth and the increasing degree of openness of the economies (environmental factors of production) may result in increased demand for natural resources that may result in serious environmental pressure. This is underscored by the fact that the traditional comparative advantage of most countries in Latin America and the Caribbean lie in natural resource-intensive activities. With current prices, few investments in environmental protection or in the sustainable management of natural resources would be profitable from the individual country perspective. Deforestation to promote forest conversion to agriculture can provide positive net returns to the extent that the loss of trees does not cause serious domestic negative externalities (López 1996). Nature-based tourism and the harvesting of forest products can provide an alternative, although research indicates that it is somewhat unusual for these activities to be economically, socially, and environmentally successful (Southgate 1997). However, there seems to be some evidence that environmental markets are expanding, reflecting the growing awareness that trade expansion not only presents environmental challenges but also offers opportunities, including the removal of distorting policies. In recent international discussions, some sectors seem to have emerged as priorities, in particular, fisheries, agriculture, and environmental goods and services (Sampson 1999).

In Latin America and the Caribbean, SMEs seem well suited to capitalize on these opportunities, and institutional cooperation can focus on helping SMEs overcome certain technical and financial barriers. At the same time, national environmental management needs to be strengthened.

Institutional cooperation can assist Latin America and the Caribbean in moving from a transitional to a modern system of environmental management. A modern system can achieve the elaboration and execution of strategic environmental protection policies while at the same time creating opportunities to capitalize on the new environmental opportunities that markets provide, making use of the externalities arising from the opening up and consolidation of new markets.

NOTES

1. This section draws heavily upon two recent studies commissioned by the IDB's Sustainable Development Department, Environment Division: 1) Ernst Brugger, Michael Rubino, and Richard Wells, 1999, *Environmental Investment Strategy for the MIF,* and 2) Wouter J. Veening, J. Steven Lovink, and Ricardo Bayón, 1999, *Financing Biodiversity Conservation.*

2. See http://www.kpmg.com/library/99/september/story1_m9_ac.asp

3. See http://www.cnn.com/NATURE/9909/22/autos.usa.green.reut/index.html

4. See http://www.panda.org/news/press/news.cfm?id=1693

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ENVIRONMENTAL OPPORTUNITIES IN THE FTAA NEGOTIATING GROUPS

Carlos Murillo Rodríguez

Introduction

A meeting of ministers responsible for trade will take place in November 2000 in Canada for the purpose of assessing progress made in the 18 months since the launching of Free Trade Area of the Americas (FTAA) negotiations in Santiago, Chile. By that time, both the Negotiations Committee and the negotiating groups will have met on several occasions and will be ready to share their progress with the ministers. Everything indicates that the FTAA process is still in its consolidation stage and that the 34 countries continue their commitment and determination to proceed.

The next trade ministerial meeting will respond to, among other things, the mandates of the presidents and heads of state for progress by the year 2000. In addition to the advances of the negotiating groups, the ministers will also address the issue of business facilitation, which consists of recommendations aimed at improving trade relations in the hemisphere without risking the principle of single undertaking.[1]

The FTAA and the Trade and Environment Issue

The trade and environment issue has been practically excluded from the FTAA framework. No study or preparation group was constituted during the preparation phase, nor was the environment included as a topic by any of the 12 groups established during that phase. The ministerial declarations did not go any further than saying that attention will be focused on this issue in the Trade and Environment Committee of the World Trade Organization (WTO).

As a result of the structure for the negotiations that emerged from the IV Ministerial Meeting in San José, Costa Rica, a Governmental Representative Committee was created at the level of the Negotiations Committee with the purpose of receiving recommendations from civil society on issues directly related to the negotiations; among those recommended issues is the environment. The Negotiations Committee and the ministers will determine the treatment given to these recommendations; however, the trade and environment issue clearly is not being considered in any of the negotiating groups.

The relationship between trade and environment is controversial, but its importance in multilateral, regional, and bilateral agendas has been increasing. Some examples are the Trade and Environment Committee of the WTO, the North American Free Trade Agreement (NAFTA), and bilateral agreements like the one made by Canada and Chile.

The United States and, to a much lesser extent, Canada, have encouraged discussion of the trade and environment issue within the FTAA framework but have met with little success. The majority of Latin American and Caribbean countries have opposed its inclusion within the framework of the negotiations. The level of opposition varies among the different countries and sectors of the hemisphere, but the final result is that the only mention of the trade-environment issue in the negotiations agenda is in the preamble of the ministerial documents.

The conservative position of Latin American countries opposing the inclusion of the trade and environment issue within the FTAA framework is based on two things: first, protectionism and market access and, second, cost structure and competitiveness. This does not mean that the environment is not a topic of relevance for Latin America or the Caribbean. The environmental issue has been and still is relevant to the countries of Latin America and the Caribbean. In the Earth Summit held in Rio de Janeiro, Brazil, in 1992, and in the Summit of the Americas on Sustainable Development held in Santa Cruz, Bolivia, in 1996, the countries addressed the issue; and the environment occupied an important role in the 23 initiatives of the 1994 Miami Summit. The governments have developed legislation that covers various environmental topics, seeking a more rational use of natural resources and protection of the environment. With this commitment and effort comes more awareness of these issues in both civil society and private sectors. The Latin American countries have signed most of the multi-

lateral environmental agreements, such as the Montreal Protocol, the Convention for International Trade in Endangered Species (CITES), and the Basel Convention. However, the region has been reluctant to deal with the trade-environment topic because environmental measures could work as a nontariff barrier to market access.

In the case of the United States, interest in promoting the inclusion of this issue within the FTAA framework is based fundamentally on a political aspect and a preoccupation about loss of competitiveness due to unfair competition. The political aspect is that U.S. civil society's high level of organization and concern for the environment make it a strong pressure group to consider when making governmental decisions. The concern over unfair competition is due to the risk of lower prices in competing countries whose structures do not incorporate protective measures into production processes that could cause potential harm to the environment.

The positions of the United States and Latin America are based on experiences that validate their corresponding fears and defensive positions. Independent of these fears and positions, the environmental issue has been increasingly important in international discussions, reducing the options of assuming an indifferent position or of totally excluding the issue from the negotiation processes.

These topics are relevant for important regional trade partners such as the United States and the European Union, and these countries are increasingly raising the topics in negotiations. At the local level in every country, environmental and civil society groups are playing a growing, active role in these issues. At the hemispheric level, the NAFTA precedent makes it possible to expect stronger positions from the United States — which represents more than 80 percent of the gross domestic product (GDP) of the hemisphere — especially after the U.S. government obtained its fast track legislation.

The Negotiating Groups and the Trade and Environment Issue

The ministers of trade of the hemisphere, in a meeting held in San José, Costa Rica, established a structure for negotiations based on nine negotiating groups, and all commercial issues subject to negotiation were distributed among these groups. The groups are Market Access, Investment, Government Procurement, Dispute Settlement, Intellectual Property Rights, Subsidies, Antidumping and Countervailing Duties, Agriculture, and Competition Policy. The number of groups may vary, depending on the dynamics of the negotiations and the dispositions of the trade ministers.

As mentioned above, the trade and environment issue is not mentioned explicitly in the agenda of any of these groups but only arises indirectly through the Governmental Representative Committee and through ministerial agreements based on recommendations sent to the committee.

In the following sections, we will examine the relationship of each negotiating group to the environment, with the aim of establishing a basis for a hemispheric agenda on this issue and finding ways to address it in the near future.

The Trade and Environment Committee of the WTO, experiences with NAFTA, and other regional and subregional efforts constitute a good basis for exploring trade and environment issues and the specific topics being negotiated within the FTAA.

Market Access

This topic is of great relevance in FTAA negotiations since the FTAA aspires ultimately to create a single, 700 million-person hemispheric market that will stimulate all the economies involved.

Within the FTAA negotiations, it was agreed to isolate the agriculture issue and give it special treatment because of the great importance of agriculture among the countries of the hemisphere. Political reasons also were involved in this decision, with the Southern Common Market (MERCOSUR) pressing for the existence of this negotiating group because it would constitute a clear signal of willingness to open agriculture markets, especially in the Unites States. For this reason, our observations concerning this issue will apply to both agriculture and market access issues in general; specific aspects related to agricultural negotiations will be indicated in due time.

The subject issue of market access has been dealt with in WTO's Trade and Environment Committee and is an important theme of the agenda; this issue has been amply discussed. One important element is acknowledging the fact that environmental degradation is rooted not in trade,

but in nonsustainable means of production and consumption. This observation is relevant because it establishes the linkage between national and international levels.

Discussions on market access have focused on the implications of the elimination of distortions and limitations to trade caused by international prices and on how such measures encourage a better use of natural resources since prices will reflect the true costs and the actual availability of these resources. This means not that the market mechanism is sufficient to promote an adequate use of natural resources but that protectionist and intervening policies result in a distortion of prices of goods and inputs, generating, in many cases, an improper economic and environmental use of resources.

Related to the pricing mechanism is the question of how to have prices reflect environmental costs by embodying negative externalities. Also associated with this are valuation issues — policies such as the "polluter pays" principle, environmental legislation, and clean technologies.

Harmonization is closely related to market access and is one of the most controversial issues because there are many harmonization possibilities. Harmonization may be defined as the coordination of policies and instruments to reduce international differences and the creation of better conditions for international competition. This condition can be achieved using the lowest standards of a country, by using the highest standards, or even by using a variety of standards. Each of these viewpoints has different implications and implementations.

Environmental standards may be defined as regulations for the life cycle of a product (a good or a service); such regulations are created for the purpose of controlling the negative effects of life-cycle activities in ecosystems and natural resources.

One issue concerning these environmental standards is the degree of specificity that they should have. Another problem is the relationship that should exist between national and international standards; this also raises the question of the various degrees of development of the countries and whether, due to these differences, standards should be asymmetrical. This question of standards also includes the issue of differentiation in the degree of enforcement by less-developed countries as well issues concerning technical assistance.

Several authors who have addressed harmonization have mentioned that the focus of harmonization should be on the transborder environmental externalities and common goods. Other authors say that harmonization should include all fields that have negative externalities and therefore should be practiced using minimum standards. Still other authors say harmonization is neither desirable nor possible because of differences in the capacity of ecosystems, geographic location, and other aspects. Some writers mention that harmonization should be based on basic principles agreed to by the parties, for example, the principle that whoever pollutes should pay.

We should also mention the existence of the NAFTA parallel agreement on trade and the environment, based on respect for national legislation and covering such areas as sanitary and phytosanitary measures (subchapter 7b), standards-related measures (chapter 9), and environmental agreements (article 104). The agreement allows a country to demand that a disputation be solved only within the NAFTA frame.

It is clear that this is a very complex issue and that it is difficult to devise a short-term approach to the problem without some previous work within the FTAA framework. Efforts in this direction should be seen as only a first step in a long-term process.

Nevertheless, the progress achieved thus far by the WTO in the areas of harmonization and technical barrier obstacles indicates that it is possible to achieve consensus on criteria while avoiding the creation of obstacles to trade.

Investment

Investment is among the most important factors in any of the development schemes, especially for the developing countries (distinguished by their low level of savings), because investment is associated with new technologies and increases in productivity. There has been a change in perspectives on foreign direct investment, especially in developing countries. In the case of Latin America, foreign investment was seen in the past as a threat to national economies because of the enclave economy and the Cold War. At the present time, the countries of the hemisphere are competing against Asian countries to attract direct foreign

investment. Therefore, the FTAA negotiations now provide a means to achieve favorable conditions for the inflow of investment. The incentives are particularly important for countries that do not attract investments due to the small size of their markets.

Investment is included in the new commercial agreements and in each of the 20 free trade agreements signed in Latin America in the 1990s. Likewise, bilateral investment treaties (BITs) have worked as a governmental instrument for creating favorable investment conditions; these agreements total 35, including 32 signed after 1990.

All these agreements are part of an opening of markets and export promotion process that has distinguished the period from the second half of the 1980s until the present. All the agreements seek to guarantee safety for the investor, to promote a high investment flow, and to provide a legal framework for foreign investment. With these objectives in mind, central to this negotiation are the issues of "national treatment," "most-favored-nation treatment," expropriation and indemnification, and dispute settlement.

The relationship between investment and environment can be observed in the discussions that have arisen with respect to the Multilateral Agreement of Investment (MAI) in the Organization for Economic Cooperation and Development (OECD) framework. Along with the labor and civil society issue, this issue has provoked long discussions that somehow have discouraged the signing of the agreement.

The following controversial elements are present in the relationship between investment and environment:

1. *The principle of national treatment, by which foreign direct investment could have all the rights of a local company, but not necessarily the same responsibilities.* Depending on how this principle is applied, it could reduce the degree of a government's freedom to create local government incentives that favor owning of the land and resource management rights, or to offer other types of support that seek to favor local government economic development.
2. *Performance requirements.* Depending on how these conditions are negotiated, a government could be in the position of being unable to demand a certain type of requirement from foreign companies, for example, environmentally friendly measures and clean technology transfer.
3. *Expropriation.* Depending on its definition, expropriation could become a constraint to governmental legislation that includes environmental requirements.
4. *Suits by investors against governments.* Legislation that includes environmental requirements could expose governments to potentially large liabilities, forcing them to defend environmental regulations against charges of unfair discrimination against foreign investment or "indirect" expropriations.

One concern present within the NAFTA framework is the potential for creation of conditions and policies for attracting investment by lowering national environmental standards. In summary, these investment-related topics are controversial, and all have their pros and cons, as can be seen from the arguments that have emerged from discussions and comments on investment negotiations.

The experience of the Asian crisis brings lessons that indirectly can provide feedback for investment discussions in the Americas. Evidently the Asian crisis has many causes, but it is clear that foreign investment cannot exist without legislation guaranteeing that the levels of speculation and expectations stay within a manageable range that can be handled by local and international economies. The speculative nature of financial and investment markets makes them very volatile, with the potential of having a great effect in the economy as a whole. Therefore, it is important to find a balance that ensures protection of foreign investment from the arbitrariness of local authorities but without overpowering them. Likewise, environmental considerations for investing should be taken into account.

Services

The service sector is one of the areas in which trade has developed the most, especially in the developed economies. The sector is of great interest to the United States because of its degree of growth there, but it possesses an unprivileged place in the Latin American and Caribbean discussions due to relatively small progress in those countries, at least as suppliers. Regarding the demand for services, the region has a great poten-

tial, however, and that could be effective as a bargaining tool.

The service industry has an effect on the environment, and, therefore, regulation is necessary to guarantee compatibility between the incentives and favorable conditions for development of this sector and protection of the environment. Sectors like transportation and energy constitute activities that must be analyzed to ensure the aforementioned complementarity.

It seems possible, due to the nature of services, as contained in Article XVII of the General Agreement on Trade in Services (GATS), to have services subject to national jurisdiction of one of the members in accordance with national environmental standards.

It is in this context that the issue of suppliers and production methods acquires relevance. Article XX (1) of the GATS can be seen as a sign of conditionality in market access, taking into account environmental aspects when programming specific commitments. These commitments include the following items:

1. Terms, limitations and conditions to market access,
2. Conditions and exceptions in national treatment, and
3. Obligations relative to additional commitments.

Likewise, the terms of Article XV of the GATS regarding subsidies should be studied for the purpose of reducing impact on the environment. It would also be important to study the monopolies and exclusivity in services provided by the suppliers (Article VIII of the GATS) and the environmental concerns. In general, it is necessary to study the relationship between the liberalization of services and the environmental policies that can affect profits derived from services.

It would be appropriate to analyze whether environmental services should be included within the whole issue of services, due to the great potential that this has in Latin American and Caribbean countries. The provision of "carbon sinks" within the context of the global warming controversy is a good example.

A critical question is how to create a market for environmental services and proper prices that ensure the protection of the ecosystems and natural resources and at the same time establish a source of income to the economy.

Government Procurement

In the Americas, only the United States and Canada have signed the government procurement agreement of the WTO. Even though this issue has been part of most of the trade agreements signed in the continent recently, the development and the experience in this area has been small.

The relationship of this area to the environment seems to be of an indirect character, in the sense that services bought by or offered to the government should comply with environmental standards.

It seems that the agreements of this group can serve as a bargaining tool for negotiations in other areas or sectors of more interest to the smaller countries. Small economies are attractive as buyers of goods and services, but are less capable of providing them.

Dispute Settlement

Dispute settlement has been pointed out as one of the weaker areas in multilateral environmental agreements. Many institutions and procedures are involved in the agreement process, and they sometimes are weak with respect to their enforcement capacity.

Moreover, one of the strongest and more consolidated aspects of the multilateral trade system — in particular, within the WTO – is the dispute settlement system, which has very high credibility because of its recognized technical basis and the ability to achieve compliance from the parties. This credibility and the capacity for implementation of the WTO's dispute settlement body are confirmed by the discussions in the trade-environment area. Recognizing the influence of the WTO and especially that of its dispute settlement system, various environmental groups try to use trade measures as means of ensuring implementation and compliance with environmental agreements.

It is worth noting that legislation within the WTO currently is being reinterpreted according to today's needs, with the environmental issue holding a more important place than in the times of the Marrakech General Agreement on Tariffs and Trade (GATT) Trade Ministerial, when the WTO was established and the agreements of the Uruguay Round were reached.

It is worthwhile to transcribe some paragraphs from an appeal document of the WTO regarding

measures taken by the United States for the protection of turtles. In spite of the fact that the WTO legislated against the United States, we can see how to eventually reinterpret the current rule system.

The appellate body concluded with respect to Article XX (g) that the definition of exhaustible natural resources referred not exclusively to minerals, but also to living and nonliving resources. This conclusion was based on the preamble that originated the WTO, which also covers the GATT agreements.

> 185. In reaching these conclusions, we wish to underscore what we have not decided in this appeal. We have not decided that the protection and preservation of the environment is of no significance to the Members of the WTO. Clearly, it is. We have not decided that the sovereign nations that are Members of the WTO cannot adopt effective measures to protect endangered species, such as sea turtles. Clearly, they can and should. And we have not decided that sovereign states should not act together bilaterally, plurilaterally or multilaterally, either within the WTO or in other international forums, to protect endangered species or to otherwise protect the environment. Clearly, they should and do.
>
> 186.What we have decided in this appeal is simply this: although the measure of the United States in dispute in this appeal serves an environmental objective that is recognized as legitimate under paragraph (g) of Article XX of the GATT 1994, this measure has been applied by the United States in a manner which constitutes arbitrary and unjustifiable discrimination between Members of the WTO, contrary to the requirements of the chapeau of Article XX. For all of the specific reasons outlined in this Report, this measure does not qualify for the exemption that Article XX of the GATT 1994 affords to measures which serve certain recognized, legitimate environmental purposes but which, at the same time, are not applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade. As we emphasized in United States — Gasoline, WTO Members are free to adopt their own policies aimed at protecting the environment as long as, in so doing, they fulfill their obligations and respect the rights of other Members under the WTO Agreement.[2]

This issue, like that of market access, is part of the Trade and Environment Committee Agenda of the WTO (Issue No. 5). The discussions of this forum have centered on the following questions: Which is the adequate forum for settling disputes that arise in relation to trade measures applied in compliance with a multilateral agreement? How much margin of international cooperation can be given in the area of dispute settlement of the WTO, when the issue is trade measures applied in compliance with an environmental multilateral agreement? What are the possibilities that the dispute settlement processes of the WTO, like the dispute settlement procedures in multilateral environmental agreements, might be made public?

A timely experience to consider is that of the NAFTA agreement. In this agreement, in the case of disputes regarding environmental and security measures, health, or multilateral environmental agreements, the accused party has the right to have the case, in all its legal aspects, handled under the NAFTA provisions, thus avoiding the risk of having the issue taken to other forums where NAFTA protections do not exist.

In addition, NAFTA specifies the role of the experts in trade disputes and allows the establishment of panels with more access to those experts. The trade panels, usually made up of experts in international trade, have access to environmental experts.

As in the WTO, there is no public participation or transparency of trade disputes. Within the dispute settlement framework of the NAFTA, the general public and the governmental organizations cannot participate nor have access to hearings and consultations that take place during the dispute.

These experiences in the NAFTA and the WTO provide a good starting point for incorporating into the FTAA and the hemisphere conflict-solving mechanisms that can pave the way to resolution of these kinds of difference in a clear, well-defined manner that leaves no margin for ambiguity. Ambiguity entails very high economic and credibility losses.

Agriculture

The agriculture negotiating group is the result of MERCOSUR's effort to make its viewpoint and political signal heard. For MERCOSUR, the agriculture issue, due to its importance, deserves to be handled separately from market access, and it has

been made very clear, especially to the United States, that progress in other negotiating groups will depend to a great extent on the progress of this negotiating group.

The position of many Latin American countries is that a significant opening of agriculture markets should take place. Countries like Chile, Argentina, Brazil, and Colombia, among others, are part of the Cairns Group, which favors the opening of markets in agriculture.

Progress in agriculture within the WTO framework — as shown by the Uruguay Round — has been significant, though not what was expected. The results responded, on the one hand, to the prevailing role of developed countries in negotiations and their strong defense of their agricultural interests, mainly through protectionist measures, and, on the other hand, to the weak positions of the developing countries, which had difficulties in making stronger cases for their interests.

In the agriculture agreement of the WTO, with respect to market access, it was agreed to transform the nontariff border measures into tariffs and to establish the consolidation of all of them. Deadlines were set for tariff cuts in developed and developing countries. With regard to internal supporting measures, types of assistance were specified, and reductions of trade-distorting support were included. Likewise, percentages and schedules were defined for the developed and developing countries.

The member countries have agreed to cut budget expenses targeted for export subsidies. The developed and developing countries agreed on percentages and schedules. It is probable that the Millennium Round will improve many of these agreements and liberalization processes.

The Latin American countries hope that the agreements reached within the FTAA agriculture negotiations may go beyond what was achieved by the WTO. In this case, the relationship between agriculture negotiations and the environmental issue is very direct because the agriculture sector by nature is based on heavy use of natural resources and ecosystems. Therefore, what is produced has a strong impact on the environment.

Taking into account the high distortions that exist in this sector, it is to be expected that a process for liberalization and elimination of distortion will achieve a better use of natural resources and hence more protection of the environment and ecosystems.

Nevertheless, recognizing the multifunctional nature of agriculture, the search for trade-environment solutions does not end with market mechanisms. Topics such as food security, viability of rural areas, agro-ecological biodiversity conservation, and public health issues will require institutional and normative agreements that ensure a balance among commercial, environmental, and health interests.

The progress made in the agreements on sanitary and phytosanitary measures and on technical barriers to trade is an adequate starting point for legislating in this area, complemented by principles such as “whoever pollutes, pays” and “whoever supplies, charges.”

An important aspect in this field is the consideration of methods of production and processes that may affect the environment and public health even though their negative effects may not be reflected directly in the goods traded. Within the WTO framework, the focus is on the characteristics of the end product; whereas for environmentalists, the way a product is produced and its impact on public health and the environment are relevant issues even if not reflected in the end product. The WTO sanitary and phytosanitary measures agreement concerns environmental as well as health aspects and constitutes a landmark for relating these sanitary aspects with the environmental ones.

Expectations of the agriculture negotiating group are among the highest in the FTAA because of the importance of agriculture to most economies of the hemisphere and the fact that trade barriers still exist in most of them, especially in the larger countries. For this reason, the relation of agriculture and the environment generates major concerns because of the fear that environmental measures will constitute a nontariff barrier to trade and an obstacle for market access.

Intellectual Property Rights

Intellectual property is an area in which important relationships exist between trade and environment. In the last few years, biotechnology, biosecurity, and biodiversity have increasingly gained in relevance due to technological development and new discoveries. This is of special interest to Latin American countries, which possess natural resources and ecosystems with a high level of biodiversity, giving them the possibility of pro-

viding various environmental services and also receiving economic benefits for them.

From a commercial point of view, the issue of intellectual property is of great interest to the United States, which possesses a high level of technological development and innovation. With the promotion of this issue, the United States seeks to realize benefits from this innovation and technological development. The Latin American countries, on the contrary, hold a much more conservative position on this issue since they function more as receptors of technology. In principle, the Latin American and Caribbean countries can be expected to look for agreements not very different from those already made in the WTO.

It is extremely important for the Latin American and Caribbean countries to develop agreements and norms that allow them to take good advantage of their biodiversity and the other services that they possess; they also wish to assure that transnational pharmaceutical companies do not make use of these resources at minimum or no cost.

One of the greatest limitations of the Latin American and Caribbean countries is that they do not have the necessary knowledge or funds to develop biodiversity products or services, at least in the short term; therefore, the central issue for these economies is the regulation of resource access. If developing countries do not have the financial or technological wherewithal to make exploitation of these resources profitable, how can the transnational pharmaceutical companies be prevented from making first use of these resources as if they were free? At the same time, through clear resource access policies, how can local economies receive compensation for such use?

The position of Latin American and Caribbean countries in the negotiations over intellectual property, both in the WTO and the FTAA, will influence their capacity for obtaining adequate use of and profit from the natural resources they possess. The revision of Article 27.3(b) of the WTO agreement regarding intellectual property rights was expected, in 1999, to commit all WTO member countries to the protection of plant life through some sort of intellectual property right. The revision of the whole Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), due in the year 2000, will likewise be a very important validation for the countries of the South to ensure that legislation and approved changes regarding intellectual property will be in harmony with the economic and environmental realities and interests of these countries.

The TRIPS agreement allows all member nations to fulfill their obligation to protect property rights to plant life through some effective sui generis system. However, no description whatsoever of such a system is provided.

The majority of developing countries are fulfilling this norm via the sui generis system instead of through patents. Meanwhile, important organizations are trying to restrict the sui generis option by using the International Union for the Protection of New Varieties of Plants (UPOV) as the sui generis system. The UPOV has introduced legal and economic restrictions upon the agricultural practices of peasants, whose rights are established as privileges or exceptions.

The UPOV privileges industrial agriculture and encourages corporate monopoly over the improvement of selective breeding by suspending royalties on seeds, resulting in fewer seed suppliers in the market. Investigations done in some member countries indicate adverse effects on scientific research and development.

We should also analyze the relationship between the TRIPS agreement and the biological diversity agreement, which may constitute a source of conflict. Because TRIPS hinders national sovereignty over the biodiversity of the country, it does not allow countries to share fairly in the profits from patents and does not impose commitments on the owners of patents that concern access to biodiversity.

Subsidies, Antidumping, and Countervailing Policies

This negotiating group is very closely related to the others, especially to the groups on market access, agriculture, and services. Although some relevant aspects in this area have already been commented upon in the preceding sections, we can make the following general observations.

Latin America and the Caribbean are moving away from the economic pattern of the 1960s and 1970s, which consisted of privileging their local markets and establishing protectionist trade barriers that favored their incipient industries. Nowadays, after more than a decade of promotion of free trade, some sectors of these economies still persist in keeping a high level of protectionist measures. All of these protectionist schemes have

been made more transparent and manageable through involvement with the GATT/WTO.

On the other hand, U.S. sectors such as agriculture, textiles, and metallurgy all have a high degree of protectionism, despite the fact that the United States has one of the world's most open economies. Subsidy elimination and free trade agreements therefore are relevant issues for negotiation in the FTAA.

Another discussion related to the environment is what some call ecological and social dumping, meaning the non-incorporation of environmental negative externalities in the prices of traded products or the nonrecognition of minimum labor standards — all of which is reflected in product pricing that is lower than it should be. This issue is of great concern to the United States and was one of its fundamental preoccupations in the NAFTA. We can assume that the United States' current position toward Latin America will be maintained.

Competition Policy

In contrast to its status in the United States, this issue has almost no tradition in the Latin American and Caribbean countries. This area is important because it encourages the institutional development required to strengthen a balanced market mechanism. Free trade processes will have few consequences for people's quality of life or for consumer benefits if monopolistic or oligopolistic market structures do not allow prices to reflect adequate levels of competitiveness. The processes that propel more consumer and institutional awareness also contribute to the improvement of market efficiency. In addition, competition policies result in improved information about products and production processes, which allows consumers to have better knowledge of what they are buying.

From this point of view, information about products and processes could imply more environment-related information, promoting the differentiation of products and the creation of new market niches resulting from a friendlier relationship with the environment.

The relationship between competition policy and trade and environment may not be perceived directly in the short term, but in the long term it is very important — above all, for establishing a culture that does not exist in the majority of Latin American and Caribbean nations, a culture of healthy competition, access to better information, and fulfillment of consumer and citizen rights.

Business Facilitation

Certain other issues, such as eco-labeling and the ISO 14000 norms, are voluntary or consist of incentives to companies for differentiating products and creating specific market niches that can translate into differences in price or access to a specific market segment.

Two concerns related to eco-labeling are the worry that it may cause market access discrimination and doubts about the procedures and institutions that accredit it. Although these concerns are valid, they do not necessarily represent an obstacle to the existence of policies of this kind in the hemisphere.

Positions of the Actors Involved

The Free Trade Area of the Americas (FTAA) is, without doubt, the hemisphere's most important commercial initiative.

The initiative was launched in 1994; since then, the 34 governments of the hemisphere have shown signs of interest in and commitment to the proposal. Very useful documents have been elaborated on various negotiating issues, and these are assisting the negotiation process as well as establishing the atmosphere of the transparency and trust required for a process of this nature. Commitments have been made and interest shown despite awareness of the many differences among regions and the difficulties that this initiative has encountered — for example, the absence of a fast track in the United States and the consequences of the Asian crisis for MERCOSUR.

The private sector has supported this initiative since the beginning, a fact that has been manifested clearly and explicitly in the business forums that accompany each ministerial meeting and the recommendations issued by these forums to the ministers.

Nevertheless, at the national and sector level, business-sector involvement has been very limited. Reasons for this may include the perception of the FTAA as a long-term process and preoccupation with the demands of short-term negotiating processes in the countries or regions.

Some observers doubt that the United States will obtain its fast track and question the possibili-

ty of overcoming conflicts of interest between blocs like MERCOSUR and the United States, for example, as regards the agriculture sector. Nevertheless, the participation of the various business sectors in regional and bilateral negotiations makes them aware of the opportunities and dangers present in hemispheric talks.

Various business forums have contributed suggestions for dealing explicitly with the situation of small and medium-size entrepreneurs. These sectors, focused toward the local markets, are more vulnerable and could be big losers in a process of commercial integration such as the one proposed by FTAA, unless proper preparations are made. These small and medium-size entrepreneurs have not participated directly in the business forums or in the FTAA preparation and negotiation processes.

With respect to civil society and in particular to pro-environment and labor groups, the latter have held their forums parallel to the ministerial meetings, and their position, in general, has been anti-trade. With very few exceptions, the labor groups have not been taken into account by their governments during the whole process.

The pro-environment organizations, in particular those of the United States, have increased their participation in the negotiation process with the NAFTA experience as background. Similar organizations in Latin America and the Caribbean have started to address the issue; therefore, we may expect an increase in the participation of those organizations.

Both the environmental and labor groups will probably make hemispheric alliances as the negotiations progress and will assume a much more active role by exerting pressure for more participation and for inclusion of environment- and labor-related issues in the negotiations.

Academic sectors and universities have joined the process by doing research and holding workshops and forums that promote discussions and knowledge of these processes. This contribution is important to the extent that it succeeds in establishing connections and sharing viewpoints among the different sectors.

In general terms, the negotiations have remained strictly inside the governmental range; other sectors and the general public have had very limited participation and access to the information.

The environmental organizations have adequate knowledge of environmental matters, but they have insufficient experience and knowledge of the commercial ones. The great majority of business chambers have established environment commissions that approach the subject for the purpose of taking preventive measures, deciding cooperative actions, and improving their public image. Nevertheless, as in the case of governments, they tend to assume a conservative position that is cautious about addressing trade and environment due to the aforementioned concerns about protectionism and structure of costs.

The governments have a dichotomous position, with very proactive environment ministries and, on the other hand, trade ministries that are not interested in discussing the trade-environment issue. The professional ministerial cadres competent in this issue vary from nation to nation, and they are usually few in number.

The result of insufficient knowledge among the various sectors, in addition to antagonism toward and concern over the political and commercial weight of the United States, is that the Latin American and Caribbean countries (either individually or through the subregions) have no agenda. Such an agenda should allow the study of the commercial and environmental advantages that negotiation of the issues might provide. Above all, their agenda should guarantee compatibility between trade policies and the preservation of natural resources and ecosystems. As long as there is no change in attitude and no more willingness to inquire objectively about the trade-environment issue, the countries will find it hard to change their positions and benefit from possible negotiations in this field. Meanwhile, as long as the Latin American countries have no viable agenda, the fact is that at the end of the negotiations, countries like the United States will impose their agenda and conditions upon the agreements, leaving little freedom for good negotiations.

Conclusions and Final Comments

The previously mentioned relationships between the negotiation groups and the environment issue provide just a small sample of the potential for linkages between trade and environment. A large body of literature on the subject validates this potential.

In each link between trade and environment, we find threats and opportunities. In the same way that the continent embraced the benefits of the creation of a free trade area despite the possi-

ble dangers, the Western Hemisphere likewise should give a high priority to discussion of the trade-environment issue in a wise and responsible way, taking into consideration the economic and environmental realities of the countries involved. Failure to do this will mean postponing an unavoidable problem that in the future will give fewer degrees of freedom to look for solutions.

This subject is growing in importance at the multilateral level. If the Americas consider the trade and environment issue in hemispheric negotiations, this will constitute a sign of vision and commitment to a scheme of development that takes into account the quality of life of the people.

However, the most important reason for including this subject in the negotiating agenda is that it provides common ground and a framework for a constructive discussion that aims at a consistent and long-term approach for tackling the trade and environment issue within the necessities and resources of the countries. This will also shift the focus away from the constraints and onto the benefits and opportunities presented by this issue. The following questions should be part of the negotiating agenda:

1. How are countries currently benefiting from their biodiversity? How could an adequate negotiation today result in a beneficial and proper use of the biodiversity in the future?
2. How can we include in negotiations the subject of environmental services, which may bring considerable benefits to Latin American and Caribbean countries in addition to their positive effect on the environment?
3. Based on the Biodiversity Convention, how can the subject of access to resources be explored in a manner that results in financial resources for our countries or in joint ventures promoting technological transfer and the use of clean technologies?
4. How can agreements made in the matter of competition policy result in a better-informed consumer, in a more competitive market structure, and, above all, in producers making their products stand out as environmentally friendly?

The trade and environment subject ultimately is about the adequate use of ecosystems and natural resources, and the absence of clear rules predisposes countries to implement approaches that emphasize short-run and predator relationships.

The challenge presented in the trade and environment issue is how to promote trade based on the principles of transparency and nondiscrimination while making good use of ecosystems and natural resources.

The Americas have taken an approach toward integration that is different from what has been done in Europe. Instead of starting with a few countries and, from there, proceeding to integrate others according to their economic and political performance, the Americas have started with 34 countries of very different sizes and levels of development. They have dealt adequately with this diversity, and it has not inhibited the progress of this process. We should recognize this diversity in the trade and environment issue and set the foundation for joint work among involved countries on this important topic.

Realistically speaking, at the hemispheric level, the pace of agreements on the trade and environment issue cannot be determined by those countries with high environmental standards, nor by the countries with very low standards. Progress will depend on a thorough understanding of the problem and a commitment of the parties to the creation of a scheme to deal with the issue in a realistic way.

The problem of commerce and environment is very complex and must be considered with the caution and seriousness that it deserves. We should avoid at all costs turning it into a subject of dispute. On the contrary, the focus should be on ways to cooperate and on long-term visions.

Any negotiations within the FTAA framework should assume an approach like that of the preparation phase of the FTAA, which started by gathering significant information by country and for the hemisphere, and by creating the necessary conditions for hemispheric dialogue on the subject and for technical assistance and cooperation.

The solutions to the challenges implied by the trade-environment relationship with respect to the different topics under negotiation will encompass market instruments, legislation, institutional strengthening, and cooperation strategies among governments. Each of these will depend on the particular characteristics and nature of the problem. What must be clear is that the solutions should transcend dogmatic positions.

If there is willingness and true interest among the countries — especially the wealthiest countries — in the trade-environment issue, conditions

should be created jointly with the private sector and civil society to allow the emergence of specific policies and practices that will promote trade while protecting the environment and minimizing social and economic costs for the sectors and economies.

It is important to create incentives for trade policies that promote and recognize the efforts of producers to create and use environmentally friendly technologies. For example, the adoption of a preferences system for products produced with consideration for the environment would be an adequate sign from the governments to the producers.

In this negotiation process and in the treatment of this particular subject, we must take into account the costs that are implied. The necessary mechanisms and funding must be created — through the Inter-American Development Bank (IDB), the World Bank (WB), and international cooperation — in order to train negotiators, establish data bases, and finance additional costs that countries face because their delegations require new personnel for these new negotiation subjects.

A greater advancement in the trade-environment issue in the subregions could be made by lifting the standards in each of the economic blocs and by avoiding external pressures and inequalities that can result from policy negotiations with a country such as the United States. Work at a subregional level could be pursued more effectively among countries of similar social and economic status, facilitating transparency and commitment.

At the FTAA level or in the framework of the initiatives of the Summit of the Americas, it would be advisable that the Tripartite Committee or some of its organizations take on the trade and environment issue and start gathering information and statistics that can contribute to a discussion that will ease the road to consensus and common policies.

The low interest in including the trade and environment issue in trade negotiations is essentially due to lack of trust and transparency of the negotiating members and to inadequate knowledge of the topic.

Finally, it is important to know that this issue is not exclusively limited to trade and environment but rather involves credible, consistent, and adequately financed cooperation agreements that can assist in the needed economic changes. Efforts should be undertaken while bearing in mind the following aspects:

- Transparency,
- Better knowledge of the issue, and
- Cooperation and technical assistance programs.

If these initiatives are pursued in the medium-to-long-term range, good results will be seen promptly.

NOTES

1. The author expresses gratitude to Eduardo Gitli for reading and commenting upon this article.

2. Adopted 20 May, 1996, WT/DS2/AB/R, p. 30. See WTO 1998b.

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THE BRICKELL REPORT: RECOMMENDATIONS FROM THE HEMISPHERIC DIALOGUE ON ENVIRONMENTALLY SOUND TRADE EXPANSION

Hemispheric Dialogue of Technical Specialists and Policy Experts on Environmentally Sound Trade Expansion in the Americas

The Brickell Report: Experts Advance Dialogue on Trade and Sustainable Development in the Americas

The Dante B. Fascell North-South Center, the Organization of American States (OAS), and the International Centre for Trade and Sustainable Development (ICTSD) are cosponsoring, with the support of the United States Agency for International Development (USAID), a unique activity designed to promote research and dialogue among government, the private sector, and other civil society representatives on environmentally sound trade expansion in the Western Hemisphere. The project consists of three major components: 1) a series of policy-relevant "White Papers"; 2) a multi-sectoral dialogue held in October 1999 in Miami; and 3) a policy-relevant publication based on the research and dialogue, to be distributed in trade and sustainable development policy forums in the Americas.

Themes for this project have been chosen from the wide-ranging discussions on the relationship between trade and the environment. The thematic set was chosen in such a way as to direct focus on those areas most promising for the so-called "triple-win" scenario, in which policy action would simultaneously support the goals of trade liberalization, protection of the environment, and economic and social development; that is, a coherent approach that represents the principal framework of sustainable development — a goal to which the region's democracies committed themselves at the highest levels through the Summit of the Americas and membership in the World Trade Organization (WTO).

The October 28-29, 1999, meeting of technical specialists and policy experts in Miami explored these issues, analyzed the role of national and multilateral institutions, and discussed how market-based environmental innovations can be facilitated and enhanced in the broader policy arena. Over 70 participants were drawn from government, international organizations, the private business sector, non-governmental organizations, and academe to discuss the White Papers and to focus on the potentially positive linkages between trade and sustainable development. Having considered the presentations, comments, discussion, and rich array of ideas expressed during the meeting, the experts drafted The Brickell Report, identifying a list of areas for recommended action in promoting sustainability and environmentally sound trade expansion in connection with the FTAA process.

The Brickell Report: Recommendations from the Hemispheric Dialogue on Environmentally Sound Trade Expansion *

❑ Strengthen national systems for
- certification,
- standardization,
- accreditation, and
- quality management

particularly through a regional and/or subregional approach. On the international level, Latin American and Caribbean (LAC) states and companies should use market-based incentives to promote clean technology mechanisms, participate in the formulation of ISO 14000, and promote international lab accreditation (for example, through the International Accreditation Forum).

❑ Promote development and use of international standards dealing with production and process methods (PPMs).

❑ Create an Environmental Cooperation Mechanism to inform the FTAA negotiation process and the public on trade-related environmental issues. Such a mechanism should work on an ad hoc basis and in close cooperation with the

**These findings represent the views of particicpating individuals in the dialogue and do not necessarily represent views or positions of USAID, the OAS, the North-South Center, or ICTSD.*

Tripartite Committee (IDB, OAS, and ECLAC). This mechanism would facilitate

- information exchange,
- cooperative action,
- study, and
- dialogue among experts and relevant stakeholders on environmental concerns and sustainability.

This environmental cooperation mechanism should be multilateral, regional, and open to government as well as civil society participants from the trade, environment, and other sectors and should be expert-focused. Participating parties should determine the scope of work of the mechanism, taking into account the ongoing work and experiences of the NAFTA Commission on Environmental Cooperation, MERCOSUR, CCAD, and others, as appropriate. The mechanism could be made permanent after the final FTAA agreement.

This mechanism would help to identify specific trade and environment topics for possible consideration by the FTAA negotiating groups, while promoting transparency and information access in the FTAA negotiations and in national policy formulation.

The FTAA is a key element of a broader Summit of the Americas agenda, which includes environmental protection and sustainable development. This environmental cooperation mechanism in the FTAA should also help identify how other Summit initiatives and the FTAA can be mutually supportive.

❑ Provide technical assistance for government negotiators in trade and those who will implement governmental trade policies aimed at increasing their awareness of environmental sustainability issues.

❑ Promote awareness, through dialogue, research, and education, within the environment and trade communities and consumer associations of the positive as well as negative links between trade and environment. This should be done through existing institutions, especially at the national level, and with a focus on information access. Empirical data on these linkages will provide LAC countries with the information needed to formulate national policies and to negotiate in multilateral and bilateral agreements. NGOs, governments, and private industry need to promote success stories (showing both positive environmental impacts of free trade and positive trade impacts of environmental sustainability) — for example, Forest Stewardship Council and environmental benefits of removing subsidies to agriculture, fishing, and forestry sectors.

❑ Facilitate the dissemination of "green credit" and equity by banks and multilateral organizations. Governments should promote incentives such as green tax exemptions to increase environmental sustainability of business in Latin America and the Caribbean, especially among the small- and medium-sized enterprises (SMEs) that make up a large majority of the business sector in this region. Market-based incentives to promote clean technology mechanisms for SMEs should also be promoted.

❑ Use the subregional forums (for example, MERCOSUR, Andean Group, and CARICOM), so that the LAC states can take advantage of settings more conducive to the formulation of a trade and environment agenda appropriate to their regional interests.

❑ Implement national sustainability reviews of proposed policies. These reviews can be carried out jointly in the region and should involve civil society in the review process.

❑ Create and strengthen mechanisms at the subregional and international levels for transparency of national environmental standards.

❑ Build trust between the trade community and environmental groups by encouraging moderate, "responsible" NGOs to make an effort to voice a pro-sustainable trade opinion, particularly at the national level.

❑ Address the fear of "green protectionism" and unilateralism by

- eliminating sanctions as a threat;
- trust building;
- creating dispute resolution mechanisms that integrate environmental expertise; and
- using Multilateral Environmental Agreements (MEAs) as a first recourse, and making efforts to better reconcile existing as well as future MEAs and international trade law.

❑ Maximize benefits to LAC governments and businesses of projecting themselves as suppliers of environmental services.

❑ Address the special needs and concerns of small economies with respect to trade expansion.

March 2000

EL INFORME BRICKELL: RECOMENDACIONES DEL DIÁLOGO HEMISFÉRICO SOBRE EXPANSIÓN COMERCIAL AMBIENTALMENTE SOSTENIBLE

Diálogo Hemisférico de Especialistas Técnicos y Expertos en Políticas Públicas sobre Expansión Comercial Ambientalmente Sostenible en las Américas

Informe Brickell: Expertos adelantan diálogo sobre comercio y desarrollo sostenible en las Américas

El Centro Norte-Sur Dante B. Fascell, la Organización de los Estados Americanos (OEA) y el Centro Internacional de Comercio y Desarrollo Sostenible (ICTSD) están copatrocinando, con el apoyo de la Agencia para el Desarrollo Internacional de los Estados Unidos (USAID), una actividad singular encaminada a fomentar la investigación y el diálogo entre los gobiernos, el sector privado y otros representantes de la sociedad civil, sobre la expansión comercial favorable al medio ambiente en el Hemisferio Occidental. El proyecto se divide en tres partes principales: 1) una serie de "documentos blancos" sobre políticas públicas, 2) un diálogo multisectorial celebrado en octubre de 1999 en Miami, y 3) un texto sobre políticas públicas basadas en la investigación y el diálogo, que se distribuirá en los foros sobre política de comercio y desarrollo sostenible en las Américas.

La agenda de este proyecto se formuló a partir de una serie de deliberaciones muy diversas sobre la relación entre el comercio y el medio ambiente. Con dicha temática, se propuso enfocar directamente aquellas áreas con más posibilidad de producir lo que se dio en denominar una hipótesis triplemente favorable ("triple-win scenario") conforme a la cual la acción política respaldaría simultáneamente los objetivos de la liberalización del comercio, la protección del medio ambiente y el desarrollo económico y social; es decir, un plan de acción coherente que representara fielmente los principios del desarrollo sostenible. De hecho, las democracias de la región se comprometieron a guiarse por estos mismos principios a los más altos niveles gubernamentales durante las Cumbres de las Américas y a través de su integración en la Organización Mundial del Comercio (OMC).

En la reunión de especialistas técnicos y expertos en políticas públicas celebrada en Miami el 28 y 29 de octubre de 1999, se exploraron estos temas, se analizó la función de las instituciones nacionales y multilaterales y se debatió sobre cómo facilitar las innovaciones ambientales de mercado en el ámbito más amplio de políticas públicas. En esa ocasión se reunieron más de 70 representantes de gobiernos, organizaciones internacionales, el sector privado, organizaciones no gubernamentales y centros universitarios para examinar los antemencionados documentos blancos y analizar los posibles vínculos positivos entre el comercio y el desarrollo sostenible. Tras considerar las exposiciones, los comentarios, las deliberaciones y el rico cúmulo de ideas expresadas durante la reunión, los expertos formularon una lista de medidas para fomentar la expansión comercial ambientalmente sostenible en relación con el proceso del Area de Libre Comercio de las Américas (ALCA). A dicho documento se le llamó El Informe Brickell.

El Informe Brickell: Recomendaciones del diálogo hemisférico sobre expansión comercial ambientalmente sostenible *

- Fortalecimiento de los sistemas nacionales de
  - certificación,
  - normalización,
  - acreditación, y
  - gestión y control de calidad,

particularmente por medio de un enfoque regional y/o subrregional. A nivel internacional, los gobiernos y las empresas de América Latina y el Caribe deberían utilizar incentivos de mercado para fomentar mecanismos para "una producción más limpia", participar en la formulación de la norma internacional ISO 14000, y promover la acreditación a nivel internacional de laboratorios

** Estas recomendaciones representan los puntos de vista de los participantes, pero no representan necesariamente las posiciones o puntos de vista de la USAID, la OEA, el Centro Norte-Sur o el ICTSD.*

ACRONYMS

BCSDLA	Business Council for Sustainable Development – Latin America
BIT	bilateral investment treaty
CACM	Central American Common Market
CAN	Andean Community (Comunidad Andina)
CARICOM	Caribbean Common Market
CBD	Convention on Biological Diversity
CCAD	Central American Commission on Environment and Development (Comisión Centroamericana de Ambiente y Desarrollo)
CEC	Commission for Environmental Cooperation (NAAEC/NAFTA)
CERES	Coalition for Environmentally Responsible Economics
CGRPCS	Committee of Government Representatives on the Participation of Civil Society
CITES	Convention on Illegal Trade in Endangered Species
CTBT	Committee on Technical Barriers to Trade (WTO)
CTE	Committee on Trade and Environment (WTO)
EEAF	Environmental Enterprises Assistance Fund
EIA	environmental impact assessment
ELP	Environmental Law Program (USAID/North-South Center)
EMAS	Eco-Management and Audit Scheme
EMS	environmental management system
EPA	Environmental Protection Agency (United States)
EP3	Environmental Pollution Prevention Project (USAID)
EU	European Union
FDI	foreign direct investment
FSC	Forest Stewardship Council
FTAA	Free Trade Area of the Americas
G-7	Group of Seven (Canada, France, Italy, Germany, Japan, the United Kingdom, and the United States)
G-77	Group of 77 (UN coalition of 130 Third World countries)
G-8	Group of Eight (G-7 countries and Russia)
GATS	General Agreement on Trade in Services (WTO)
GATT	General Agreement on Trade and Tariffs (WTO)
GDP	gross domestic product
GEF	Global Environment Facility
GEN	Global Ecolabeling Network
GNP	gross national product
GRI	Global Reporting Initiative of the CERES
IAF	International Accreditation Forum
IBRD	International Bank for Reconstruction and Development (World Bank)
ICTSD	International Centre for Trade and Sustainable Development
IDB	Inter-American Development Bank
IFC	International Finance Corporation (World Bank)
IGO	inter-governmental organization
IISD	International Institute for Sustainable Development
ISO	International Organization for Standardization
ISO TC	International Organization for Standardization Technical Committee
IUCN	World Conservation Union/ International Union for the Conservation of Nature
LAC	Latin America and the Caribbean
LCA	life cycle analysis
MAI	Multilateral Agreement on Investment
MEA	multilateral environmental agreement
MERCOSUR	Southern Common Market (Argentina, Brazil, Paraguay, Uruguay)
MIF	Multilateral Investment Fund (IDB)
MIGA	Multilateral Investment Guarantee Agency

MSC	Marine Stewardship Council
MTA	multilateral trade agreement
NAAEC	North American Agreement on Environmental Cooperation (NAFTA)
NAFTA	North American Free Trade Agreement
NGO	non-governmental organization
NSBs	national standards bodies
OAS	Organization of American States
OECD	Organisation for Economic Cooperation and Development
PIC	Rotterdam Convention on Prior Informed Consent
PPM	process and production method
REN	Regional Ecolabeling Network
SDT	special and differential treatment (also S & D) (WTO)
SEC	Securities and Exchange Commission (United States)
SICA	Sistema de la Integración Centroamericana/ Central American Integration System
SIECA	Secretaría Permanente del Tratado General de Integración Económica Centroamericana
SMEs	small and medium sized enterprises
SME2	the Global Small and Medium Scale Enterprise Program Expansion (IFC/GEF)
TBT	Technical Barriers to Trade (WTO)
TKN	Trade Knowledge Network (IISD)
TNC	The Nature Conservancy
TREM	trade-related environmental measure
TRIM	trade-related investment measure
TRIPs	Agreements on Trade-Related Aspects of Intellectual Property Rights
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
UNIDO	United Nations Industrial Development Organization
UPOV	International Union for the Protection of New Varieties of Plants
USAID	United States Agency for International Development
USDE	Unit for Sustainable Development and the Environment (OAS)
WB	World Bank
WBCSD	World Business Council for Sustainable Development
WTO	World Trade Organization
WWF	World Wide Fund for Nature

(por ejemplo, mediante la International Accreditation Forum — IAF).

❑ También se recomienda promover la elaboración y el uso de normas internacionales para los métodos y procesos de producción (PPMs).

❑ Crear un mecanismo de cooperación ambiental para informar al proceso de negociación del ALCA y al público sobre aspectos ambientales vinculados con el comercio. Ese mecanismo tendría carácter ad hoc y funcionaría en colaboración con la Comisión Tripartita (BID, OEA y CEPAL). Este mecanismo facilitaría

- el intercambio de información,
- la acción cooperativa,
- el estudio, y
- un diálogo entre expertos y las partes interesadas sobre los asuntos ambientales y la sostenibilidad.

Este mecanismo de cooperación ambiental tendría que ser multilateral, regional y abierto a los gobiernos y a los representantes de la sociedad civil, de los sectores del comercio, del medio ambiente y otros, y debería orientarse también a los expertos que se dedican a estudiar estos temas. Las partes que intervengan determinarían el alcance de la labor del mecanismo, teniendo en cuenta la labor emprendida y las experiencias de la Comisión para la Cooperación Ambiental del Tratado de Libre Comercio de América del Norte (NAFTA), de MERCOSUR y de la Comisión Centroamericana de Ambiente y Desarrollo (CCAD) y de otras entidades, según corresponda. El mecanismo podría adquirir carácter permanente una vez concretado el acuerdo final del ALCA.

Este mecanismo ayudaría a identificar temas específicos de comercio y medio ambiente para la posible cooperación de los grupos negociadores del ALCA, fomentando a la vez la transparencia y el acceso a la información en las negociaciones del ALCA y en la formulación de las políticas nacionales.

El ALCA es un elemento clave dentro del temario más amplio de la Cumbre de las Américas que incluye la protección ambiental y el desarrollo sostenible. Este mecanismo de cooperación ambiental del ALCA también ayudaría a identificar la forma de complementar entre sí otras iniciativas de la Cumbre.

❑ Brindar asistencia técnica a los negociadores gubernamentales en comercio y a las personas que implementarán las políticas de comercio de los gobiernos, con el propósito de crear mayor conciencia acerca de los aspectos de sostenibilidad ambiental.

❑ Crear más conciencia, dentro de las comunidades ambientales y comerciales y de las distintas asociaciones de consumidores, a través del diálogo, la investigación y de la educación, sobre los vínculos positivos y negativos entre el comercio y el medio ambiente. Esta campaña informativa debe llevarse a cabo por medio de las instituciones ya existentes, especialmente a nivel nacional, y procurando facilitar, sobre todo, el acceso a la información. La información empírica sobre estos vínculos brindará a los países de América Latina y el Caribe la base de datos necesaria para formular las políticas públicas y para negociar en los acuerdos multilaterales y bilaterales. Las organizaciones no-gubernamentales (ONGs), los gobiernos y los sectores privados deben ilustrar, por medio de ejemplos concretos y exitosos, los efectos positivos del libre comercio en el medio ambiente y los efectos positivos de la sostenibilidad ambiental en el comercio — por ejemplo, citando el Forest Stewardship Council y los beneficios ambientales de la eliminación de los subsidios a la agricultura, la pesca y la industria maderera.

❑ Facilitar la difusión del "crédito ecológico" y de capital social por parte de los bancos y las organizaciones multilaterales. Los gobiernos deben fomentar incentivos tales como las exenciones tributarias ecológicas para impulsar la sostenibilidad ambiental de las empresas de América Latina y el Caribe, especialmente de las empresas pequeñas y medianas (SMEs) que constituyen la mayor parte del sector empresarial de la región. También deberían promoverse mecanismos tecnológicos para "la producción más limpia" para las empresas pequeñas y medianas.

❑ Utilizar los foros subregionales (por ejemplo, MERCOSUR, el Grupo Andino y el Mercado Común del Caribe, CARICOM), para que los países de América Latina y el Caribe gocen de un entorno más favorable a la formulación de un temario de comercio y medio ambiente adecuado a sus intereses regionales.

❑ Implementar estudios sobre la sostenibilidad nacional de las políticas públicas que se proponen. Estos estudios podrían llevarse a cabo con-

juntamente en la región y deben contar con la participación de la sociedad civil.

❑ Crear y fortalecer mecanismos a nivel subregional e internacional que garanticen la transparencia de las normas nacionales sobre medio ambiente.

❑ Fomentar la confianza entre la comunidad comercial y los grupos ambientalistas, alentando a las ONGs moderadas y "responsables" a esforzarse por defender las políticas públicas sobre la expansión del comercio sostenible, particularmente a nivel nacional.

❑ Combatir el temor al "proteccionismo ecológico" y al unilateralismo mediante

* la eliminación de la amenaza de las sanciones comerciales,

• la fomentación de un espíritu de confianza,

• el uso de mecanismos de resolución de disputas que incorporen pericia ambiental y,

• utilizar los acuerdos ambientales multilaterales como primer recurso, y los esfuerzos por conciliar más los acuerdos ambientales multilaterales MEAs y futuros y el derecho comercial internacional.

❑ Convencer a los gobiernos y empresas de América Latina y el Caribe sobre los beneficios que les traería a ellos su participación como proveedores de servicios ambientales.

❑ Abordar las necesidades y preocupaciones especiales de las economías pequeñas respecto de la expansión del comercio.

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