The Link Between Trade and Environmental Policy

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INTRODUCTION

The link between trade and environmental policy has become an issue of growing public interest and debate recently. Several recent international trade disputes have revolved around environmental issues and environmental issues have become a major factor in trade negotiations. Trade considerations have also become an important factor in decisions on environmental policy.

The heightened interest in the link between trade and environmental policy goes beyond recent and current conflicts, however. There are deeper concerns about the adequacy of existing institutional processes for negotiating international agreements and for settling international disputes. Environmental organizations question whether the procedures followed by trade policy makers in negotiating agreements and settling disputes allow for proper balancing of environmental and trade policy considerations, and whether the procedures result in the maximum achievable complementarity between the two sets of policy goals.[1] Trade policy officials, on the other hand, are concerned that trade policy principles and rules are not given adequate consideration when trade measures are used in two situations: for the pursuit of national environmental policy objectives and enforcement of international environmental agreements.[2] Despite these concerns by both trade and environmental officials, and the frictions that have been created in the application of trade

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1. A good example of this is the reactions of environmentalists to the GATT panel report concerning U.S. restrictions on the import of tuna caught using the purse seine method. *See generally* Steve Charnovitz, *The Environment vs. Trade Rules: Defogging the Debate*, 23 ENVTL L. 481-84 (1993). *See also infra* note 59 (tuna panel report).

2. For an example of the trade community's concern, see *infra* notes 41-43.

policy and environmental policy, the two sides share some common long-term goals.

Both trade and environmental policy are aimed at the achievement of the same long-term goals: improving standards of living, sustaining the most effective and long-term use of resources, and maximizing opportunities for future growth.[3] Trade and environmental officials, however, have different sets of responsibilities for which they must focus on different aspects of long-term growth. Trade officials endeavor to achieve a more efficient allocation of their nation's economic resources by expanding opportunities for international specialization in the production of goods and services through trade. They accomplish this by reducing barriers to trade and negotiating international ground rules for policy measures that affect trade. Environmental officials, on the other hand, strive to sustain economic growth over the long term by preserving and improving environmental resources. They seek to achieve this objective by establishing domestic and international ground rules for human activities that have an adverse impact on the environment.

To achieve the most effective allocation of resources for long-term economic growth, trade policy and environmental policy have to be pursued in tandem. Trade policy must take into account and seek to accommodate environmental policy objectives, and environmental policy must take into account and seek to accommodate trade policy goals.

Although trade and environmental policy share many common objectives, differences in concepts and terminology employed by the two policy communities require the development of a common framework which will facilitate dialogue over issues of common concern. This framework needs to establish analytical concepts understood and accepted by both policy communities. It should lead to principles and guidelines that will help decision makers evaluate overlapping policy objectives and resolve potential conflicts. Where trade and environmental

3. Among the voluminous writings on environmental policy, the most instructive are the drafts for "Agenda 21" for the Rio June 1992 conference and the 27 "Principles" outlined in the documents for "Agenda Item 9." Agenda 21, United Nations Conference on Environment and Development, U.N. Doc. A/CONF.151/4 (Apr. 22, 1992).

For analysis of trade policy and environmental policy, see John H. Jackson, *World Trade Rules and Environmental Policies: Congruence or Conflict?*, 49 WASH. & LEE L. REV. 1227 (1992) [hereinafter *Congruence or Conflict*, and Peter L. Lallas et al., *Environmental Protection and International Trade: Toward Mutually Supportive Rules and Policies*, 16 HARV. ENVTL. L. REV. 271 (1992).

policy goals conflict or require trade-offs, as will happen in some cases, the two sides must find procedures to minimize the conflict and to establish an appropriate balance between trade and environmental goals.

This Article addresses the concern that current institutional processes are not yet able to accommodate the overlapping policy considerations which arise between trade and environmental policy. It outlines some of the elements of a common framework both policy communities can use to analyze linkages between trade and environmental policies, with a view of minimizing conflicts and promoting complementarity.[4] As a first step, Part I provides a primer on the general goals and analytical framework of the trade community. Part II details the general goals and analytical framework of the environmental community. Part III then examines in broad terms how trade and environmental policies relate to each other, the scope for complementarity and areas of potential conflict. Part IV examines the relationship between the goals of trade and environmental policies and how the two can interact.[5] Part V looks at the main areas of conflict between the two types of measures and in what circumstances these conflicts are likely to occur. Finally, the Article will outline some initial thoughts, on how one might approach the development of a common set of principles and guidelines.

I. TRADE POLICY GOALS AND THE UNDERLYING ANALYTICAL FRAMEWORK

The ultimate goal of trade policy is to promote economic growth and encourage the most efficient use of scarce resources, including labor, capital and environmental resources.[6] These objectives are best served by adopting policies that allow trade to take place on the basis of market-determined prices. In markets

4. The natural synergies between the overriding policy objectives of each policy community suggest that if there is a better understanding of how each policy community approaches its objectives, policy officials can work together to most efficiently achieve the goal of economic development without sacrificing environmental integrity.

5. Environment policy is not unique in being linked to trade policy. A broad range of domestic policies affect trade and are in turn affected by trade, such as agriculture, health, public safety, national security and intellectual property. In considering the link between trade and environmental policies, it will be useful to keep in mind how the link between these two policies is similar to or differs from links between trade policy and other domestic policies.

6. For further exploration of basic trade liberalization policies see JOHN H. JACKSON, THE WORLD TRADING SYSTEM: LAW AND POLICY OF INTERNATIONAL ECONOMIC RELATIONS (1989).

open to competition, goods are produced and sold by the most efficient producers, that is, the producers who can most efficiently supply the goods and services that buyers would like to purchase.[7] In other words, the market mechanism permits the greatest output at the lowest possible cost while using the minimum amount of economic resources.

Notwithstanding the widely recognized benefits of free trade, in practice most trade is subject to some government intervention. National governments use tariffs, subsidies and regulatory measures to affect trade in pursuit of a variety of national objectives. International trade agreements, especially those negotiated under the General Agreement on Tariffs and Trade (GATT),[8] are designed to limit government intervention that affects trade in order to preserve trading opportunities. Although governments are allowed to impose certain types of trade measures at the border (such as tariffs), under normal conditions these measures must be kept within agreed limits.[9] The objective of these rules is to ensure that the most efficient producers in the world have the opportunity to deliver goods and services to potential buyers on a market-directed basis.

In addition to the commitment to keep trade barriers within agreed limits, the trade rules incorporated in the General Agreement establish two key principles — the Most Favored Nation (MFN) principle and the national treatment principle. The MFN principle is designed to assure that border and internal measures apply uniformly to suppliers of like products from different exporting countries.[10] Under the national treatment

7. This is the basic economic theory generally referred to as "comparative advantage." The benefits of comparative advantage are derived partly from economies of scale. When nations specialize, they become more efficient at producing a particular product or service. If they then trade those products or services for goods with countries of a different specialization, all parties will be better off because resources will have been employed in their most efficient use.

8. General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. pts. 5,6, T.I.A.S. No. 1700, 55 U.N.T.S. 187 [hereinafter GATT].

9. "Normal" conditions are those in which none of the GATT special exceptions apply. The most common exceptions are the safeguards exception (*Id.* Art. XIX, if "unforeseen developments" occur — usually an industry deluged with imports — a contracting party may suspend a trade concession for a short period of time to allow a more orderly industry adjustment), the national security exception, (*Id.* Art. XXI, used to restrict "sensitive" goods, especially technology), and the developing country exceptions which cover programs such as the Generalized System of Preferences.

10. *Id.* art. I. The only exception is if two or more countries have agreed to eliminate all barriers between them under a free trade agreement or customs union. *See id.* art. XXIV.

principle, a country must apply domestic laws and regulations which affect the sale or distribution of products uniformly to both foreign and domestic producers.[11]

Other GATT principles include methods for binding governments to specific obligations relating to trade with other countries.[12] For example, past tariff negotiations have resulted in detailed tariff bindings which commit governments not to charge customs duties in excess of the bound tariff. Fees on imports are permissible only if they relate directly to services rendered or costs borne.[13] Under a second concept, the doctrine of transparency, members must publish all laws, regulations, judicial decisions and administrative rulings pertaining to imports and exports.[14] This requirement prevents a country from restricting imports based on hidden regulations. Under Article XI, parties are prohibited from imposing quantitative restrictions on imports and exports, with limited exceptions.[15] Article XVI covers the trade-distorting effects of subsidies and is further interpreted in the Subsidies Code.[16] Article VI gives contracting parties that are adversely affected by the subsidy practices of others the right to apply countervailing duties to offset the adverse effects.[17] Countries may impose countervailing duties to offset subsidies applied for environmental objectives, if the subsidies create injury.

These principles are designed to prevent measures, that adversely affect the ability of foreign suppliers to compete with domestic suppliers or with each other on the basis of market-determined prices. If a country believes its exports have been unfairly treated or an importing country's justification for excluding the exports does not fit within an enumerated exception, the exporting country may initiate dispute resolution procedures.[18]

While GATT rules require governments to limit border measures under normal circumstances, the rules also spell out special conditions under which governments can impose such

11. *Id.* art. III.
12. *Id.* art. II.
13. *Id.* art. II:2.
14. *Id.* art. X.
15. *Id.* art. XI.
16. *Id.* art. XVI. For the Subsidies Code, see Agreement on Interpretation and Application of Articles VI, XVI and XXIII of the General Agreement on Tariffs and Trade, BISD 26th Supp. 56 (1980).
17. GATT, *supra* note 8, art. VI.
18. *Id.* art. XXIII.

measures.[19] One of the permitted grounds for establishing measures at the border to control trade is the achievement of environmental goals.[20] Moreover, as noted above, GATT rules do not restrict the right of a government to adopt domestic environmental measures, though such measures must apply to foreign products on a nondiscriminatory basis and must not disrupt trade more than necessary to achieve the environmental objective.[21]

II. ENVIRONMENT POLICY GOALS AND THE UNDERLYING ANALYTICAL FRAMEWORK

Understanding the relationship between trade and environmental policies requires an introduction to some key policy goals and analytical concepts of environmental policy. Making development sustainable is a critical goal of environmental policy.[22] Economic development cannot be sustained in the long term if development exhausts scarce natural resources or damages natural ecosystems essential to the production of goods and services. In order to assure that development is sustainable, producers and consumers need to recognize that environmental resources are scarce and need to be rationed much as the market mechanism rations resource inputs that are bought and sold.

Sustainable development also has a human dimension. The depletion of environmental resources and the degradation of natural ecosystems reduces the quality of life and creates serious risks to human health.[23] Sustainable development thus requires each generation to pursue environmental policies that will assure succeeding generations a safe, healthful, productive, and aesthetic environment.

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19. *See supra* note 9.

20. *See* GATT, *supra*, note 8, art. XX. For further discussions of art. XX, see *infra* notes 71-75 and accompanying text.

21. GATT, TRADE AND THE ENVIRONMENT 5 (1992) [hereinafter, GATT TRADE AND ENVIRONMENT REPORT].

22. The theory of sustainable development synthesizes resource conservation and economic growth. Sustainable development proponents aim to "[m]eet the needs of the current generation without compromising the ability of future generations to meet their needs." THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE (1987) [hereinafter BRUNDTLAND REPORT]. *See also Policies and Mechanisms for Achieving Sustainable Development: Report by the UNCTAD Secretariat*, U.N. TDBOR, 38th Sess., pt.1, U.N. Doc. TD/B/1304 (1991); *Sustainable Development and UNCTAD Activities, Report by the UNCTAD Secretariat*, U.N. TDBOR, 37th Sess., pt. 1, U.N. Doc. TD/B/1267 (1990).

23. *See* JAMES LEE, THE ENVIRONMENT, PUBLIC HEALTH, AND HUMAN ECOLOGY: CONSIDERATIONS FOR ECONOMIC DEVELOPMENT 54-87 (1985).

There is considerable dispute over what constitutes a sustainable use of natural and environmental resources. Some have argued, on the basis of pessimistic assessments such as that issued by the Club of Rome almost two decades ago, that sustainable development can only be achieved through substantially lower or even negative economic growth rates.[24] That view does not adequately account for potential improvements in resource use and reductions in environmental impact that could accrue from improved knowledge of environmental issues, better economic incentives for more environmentally-friendly resource use, and further advancements in technology. In any case, unless economic growth rates exceed population growth, very little prospect exists for persuading poor nations to devote resources for improving the environment, and thus achieving the goal of sustainable development. That is, people living at a subsistence level are unlikely to willingly reduce their consumption in order to preserve the environment. The alternative is a Malthusian trap where population growth exceeds the capacity of the local environment to support its human population.

The life-cycle principle, a second key environmental principle, holds that an evaluation of the environmental effects of an activity should encompass all of the various stages related to the production, consumption and disposal of a product.[25]

A third principle, the precautionary principle, suggests that environmental policies should err on the side of avoiding even small risks if great *potential* environmental harm exists.[26]

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24. *See generally* DENNIS MEADOWS, THE LIMITS TO GROWTH (1972); MIAHJLO MESAROVIC & EDUARD PESTEL, MANKIND AT THE TURNING POINT (1974). The Club of Rome grew out of a meeting organized in 1968. Its stated purposes were to foster understanding of the varied, interdependent components (economic, political, natural, and social) that make up the global system in which we all live; to bring that new understanding to the attention of policy-makers and the public; and to promote new policy initiatives and action. *Id.* at 9-12.

25. *See, e.g.*, Ambler H. Moss, Jr., *Afterword: Global Trade as a Way to Integrate Environmental Protection and Sustainable Development*, 23 Envtl. L. 711, 712 (1992) ("The full cost principle . . . includes the environmental damage of production and consumption in the cost of each product, [and] must be applied to adequately represent the true cost of the process.").

26. The precautionary principle has also been defined as "lowering the burden of proof required for taking action against proposed or existing activities that may have serious long-term [effects]." That is, it allows officials to act even though the scientific evidence is uncertain. Edith Brown Weiss, *Symposium: International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 Geo. L.J. 675, 690 (1993). *See also* James Cameron & Julie Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B.C. Int'l & Comp. L. Rev. 1 (1991).

Other principles are designed to assure that environmental policies are carried out in the most economically efficient manner. It is not always immediately obvious which regulatory approach constitutes the most economically efficient method of achieving a desired environmental objective. This is because it is often difficult to estimate what any particular environmental regulation will cost, and how such costs compare with potential environmental benefits. By following the principles described below, governments can help assure that environmental policy measures are chosen with a clear understanding of the costs and benefits of alternative policy choices to society.

One such principle is the Polluter Pays Principle pioneered by the Organization for Economic Cooperation and Development. The polluter pays principle holds that "the price of a good or service should fully reflect its cost of production and the cost of the resources used, including environmental resources."[27] In order to factor the achievement of environmental considerations efficiently into production decisions, environmental policies have to develop mechanisms which translate potentially adverse environmental effects of production activities into costs faced directly by producers. In the words used by economic theorists, social costs have to be internalized as costs borne by producers.

Another principle is that governments, whenever possible, should seek to use economic instruments such as taxes to achieve environmental goals. A tax, in effect, places a price on the use of environmental resources. The tax in this context serves two purposes: (1) it discourages the consumption of goods or services that create environmental costs; and (2) it encourages producers to develop and adopt alternative production methods and products that create fewer environmentally harmful effects. The government could then use the money collected by the tax for environmental purposes, such as the improvement of environmental resources, construction of better facilities for the treatment and disposal of environmentally-harmful waste or expansion of environmentally-friendly habitats such as wetlands or forests.

Another approach involves the use of tradeable pollution permits.[28] The use of tradeable pollution permits enables the

27. OECD, *Guiding Principles Concerning International Economic Aspects of Environmental Policies*, May 26, 1972, 11 I.L.M. 1172 (1972); OECD, *Council Recommendation on the Implementation of the Polluter Pays Principle*, Nov. 14, 1974, 14 I.L.M. 234 (1975).

28. *See, e.g.*, Casey Bukro, *Pollution Hedging in the Air*, CHI. TRIB., Mar.

government to set an upper limit on certain types of pollution and to auction off the right to pollute to producers willing the pay the highest price. The price of such permits will tend to reflect the costs incurred by the most efficient producers in adopting environmentally-friendly production methods. Using these permits lets the market determine which environmental abatement efforts are the most efficient.

III. RELATIONSHIP BETWEEN TRADE AND ENVIRONMENTAL POLICY OBJECTIVES

International trade creates a more efficient utilization of world resources than would be possible without trade. This is expected to reduce the exploitation of resources, including environmental resources, associated with a given level of global output of goods and services. Alternatively, trade can be seen as increasing the global output of goods and services without a corresponding increase in the exploitation of environmental resources.

Contrary to the mythology created by the growth pessimism of the Club of Rome,[29] such an increase in global economic output has a positive benefit for the environment. Experience has shown that the higher the per capita income of a country, the higher its environmental consciousness, and the more it is willing and able to commit resources to improving the environment.[30] In fact, in a country in which the majority of the population is barely able to sustain life, the government is unlikely to divert resources to an improvement of environmental quality, even if that decision clearly threatens to harm future generations. Positive per capita growth rates in the output of goods and services are therefore essential for achieving sustainable development.[31] To the extent international trade increases economic growth rates and helps lift the population of a country above the subsistence level, international trade will support the achievement of environmental goals.

Sound environmental policies are equally important for long-term growth. Without the natural wealth contained in en-

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29, 1993, § C, at 1; Michael Parrish, *Auction of Pollution Rights Called a Success*, L.A. TIMES, Mar. 31, 1993, § D, at 1.

29. *See supra* note 24.

30. *See, e.g.*, Office of the United States Trade Representative, Environment: The North American Free Trade Agreement 3 (1992) (available from the Office of the U.S. Trade Representative).

31. *See supra* text accompanying note 23.

vironmental resources such as clean water, clean air, a protective atmosphere, and a healthy ecosystem, it will not be possible to sustain a continued expansion in the output of goods and services. In this sense, environmental policy, like trade policy, can help assure long-term economic growth and help assure that economic prosperity today is not at the expense of economic prosperity and well being tomorrow.

Sound environmental policies can also help maximize the environmental benefits from international trade. If environmental policies succeed in placing an accurate value on true resource costs, including the environmental resource costs associated with production, such policies will help assure that trade results in the least environmental degradation at any level of global output.[32]

To put this relationship into language used by economic theorists, if a government elects to treat the degradation of the environment resulting from domestic economic activity as a resource cost to society, and if government policy measures succeed in placing equivalent monetary costs on producers through taxes or tradeable permits, then international trade will lead to the least degradation given the valuation put on environmental resources by the individual national and local governments.[33] Similarly, if government policy measures limit the allowable pollution through regulation, then international trade will maximize global output at the level of environmental quality embodied in the regulations.

An example can help to illustrate the above theoretical points. Assume country A can produce certain agricultural products more cheaply than country B because its farming methods are more mechanized, and a reduction in trade barriers would lead to increased exports of such products from country A to country B. The south region of country A has better climatic conditions than the north region for growing the crops in question, but the south region tends to use more water because the warmer weather evaporates water more quickly. Water use in the south region is more expensive because it is less abundant

32. One problem with this theory is assessing the true resource costs. For example, it is more costly to have a degrading effect on the environment in a region that has been only minimally spoiled by industrialization, such as a country in the Amazon Basin.

33. The valuation of environmental resources is not an exact science. It depends in part on how much value the population of a country or any of its subdivisions wish to place on clean air and water, access to natural habitats, and other "environmental variables."

and larger populations and industries create greater demands for alternative uses of water. Moreover, water use has an environmental cost in the south because it deprives certain water-dependant habitats of water, while water is so abundant in the north region that its use has no environmental impact. If farmers are not charged for water, expanded trade leads to increased production in the south region, which is economically less efficient and environmentally more damaging than would be an expansion of production in the north region. If the farmers are charged the full social cost of water, increased trade leads to expanded production in the north region rather than the south region, which is both economically more efficient and environmentally more sound.[34]

If social costs associated with resource use, including environmental costs, are not accurately factored into internationally traded goods, trade can — in some circumstances — increase the level of global environmental degradation. Nevertheless, any individual country engaged in trade can generally shield itself from potential degradation of the local environment by enforcing appropriate environmental measures within its own territory.

A country is not always able to shield itself from the potentially adverse impact of increased trade on the global ecosystem. For example, assume that country A can produce manufactured products more cheaply because it has lower wages, but the production process releases twice as many Chlorofluoro Carbons (CFCs) into the atmosphere. This production method is very damaging to the global ozone layer, which protects the earth from ultra-violet radiation. A reduction of trade barriers will

34. The valuation of environmental resources reflects the social preferences of a particular society. These social preferences are embodied in environmental measures taken by individual governments at a national or local level, or environmental agreements negotiated among such governments. The analysis of socially optimal outcomes with respect to environmental policy issues cannot be divorced from the political process used to determine how much a society is prepared to pay to achieve desired environmental goals. Disagreements among countries over actions that affect the global commons are particularly difficult because they usually involve differences with respect to desired outcomes for shared environmental resources as well as differences over how much each country is prepared to pay to achieve shared benefits. The use of trade measures to compel other countries to change their environmental measures could be resented for three reasons: because it would violate the country's sovereignty, because it would reduce national income and the competitiveness of national products in global competition, and because it might shift the cost of achieving desired outcomes in global environmental resources from the importing country to the exporting country.

lead to an expansion of production in country A and a decrease in production in country B, and this will increase the level of CFCs in the atmosphere, accelerating the destruction of the ozone layer. Similar concerns persuaded the drafters of the Montreal Protocol on the emission of CFCs to include enforcement provisions which ban imports of CFCs from countries that have not signed the convention.[35] Not surprisingly, issues concerning cross-border pollution and the global commons have been sources of particular friction between trade and environmental objectives.

Policies which require producers to fully account for the use of environmental resources can produce the collateral benefit of spurring industry to develop new production methods that make more efficient use of resource inputs and reduce long-run production costs. As new processes are developed, trade can provide the means for the rapid international diffusion of environmentally-friendly technologies.[36] Moreover, an open trading system encourages the establishment of open and democratic political attitudes, which will tend to make a government more accountable and thus more friendly to the environment.[37]

Without the natural wealth contained in such environmental resources as clean water, clean air, a protective atmosphere and a healthy ecosystem, sustaining a continued expansion of economic activity will be impossible. In this sense, environmental policy, like trade policy, can help assure long-term economic growth and help assure that current economic prosperity does not undermine future economic prosperity and well being.

Generally, trade and environmental policy goals can be reconciled most effectively when trade and environmental policies are both designed to most efficiently achieve their respective objectives. The greatest potential for conflicts exists where deficiencies in trade or environmental policies lead to suboptimal decisions with respect to either policy goal. This is likely to be the case for both economic and political reasons.

The basic economic reason for a virtuous relationship be-

35. Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 26 I.L.M. 1550 (entered into force Jan. 1, 1989) [hereinafter Montreal Protocol]. For the 1990 London Amendments, see *Report of the Second Meeting of the Parties to the Montreal Protocol on Substances That Deplete the Ozone Layer,* U.N. Environment Programme, U.N. Doc. EP/OzL.Pro.2/3 (1990).

36. *See generally Transfer of Environmentally Sound Technology, Cooperation and Capacity-Building,* UNCED Agenda 21, Ch. 34 (Apr. 22, 1992).

37. *See, e.g.,* Frederick M. Abbott, *Trade and Democratic Values,* 1 MINN. J. GLOBAL TRADE 21 (1992).

tween trade and environmental policy is that more efficient environmental policies will lead to more efficient trade policies and vice versa.[38] As mentioned above, environmental policies that force producers and consumers to take account of environmental costs will also help assure that trade results in the most efficient long-term global allocation of resources, including environmental resources. At the same time, trade policies that are designed to achieve the most efficient global allocation of resources will help assure the most efficient use of global environmental resources, including environmental resources protected by environmental policies.

A good example of the interrelationship of trade, environmental, and other domestic policies can be found in the area of agriculture. Protectionist policies combined with high price supports and inadequate environmental regulations concerning the use of fertilizers and pesticides have led in many countries to the wasteful overproduction of agricultural goods; excessive use of fertilizers, pesticides, and marginal land subject to erosion; and high prices for consumers. Liberalization of trade, along with a shift from price supports to income supports, would lead to elimination of agricultural surpluses, lower prices for consumers, less use of environmentally harmful fertilizers and pesticides, and lower cultivation of marginal land.

While the lower prices resulting from trade liberalization would reduce incentives to use high cost inputs such as fertilizers and persticides, it would not, by itself, assure the environmentally sound use of fertilizers, pesticides and land subject to erosion. This would require appropriate environmental policies. The adoption of such policies would help assure the most efficient and least environmentally damaging allocation of land resources for the production of global food needs.

Governments can achieve an even better outcome where direct income support to farmers is tied to environmentally sound practices, such as the retirement of land subject to erosion, the conversion of marginal land to forests, or the growing of envi-

38. The report of the United Nations World Commission on the Environment (the "Brundtland Commission") illustrates that long-term environmental protection is an integral requirement of sustainable economic development policy, and that environmentally sound economic development, supported by open trade, is essential for long-term environmental protection. BRUNDTLAND REPORT, *supra* note 22, at 1-23. For an example, see Office of the U.S. Trade Representative, Review of U.S.-Mexico Environmental Issues (Feb. 1992) (interagency task force) (on file with author) [hereinafter Review of U.S.-Mexico Environmental Issues].

ronmentally beneficial crops. The implementation of such policies in connection with the liberalization of agricultural trade barriers can create a strong complementarity between trade and environmental policy objectives.

To cite another example, environmental policy measures based on product design rather than on performance standards are likely to be less efficient in achieving the environmental objective as well as more trade distorting; here suboptimal results occur with respect to both trade policy and environmental policy goals. The use of design standards in place of performance standards precludes the market from operating as intended, thus stifling the innovative search for the most efficient design to accomplish the desired environmental objective. In addition, a uniform product design may not perform the same under all conditions, thus undermining the very goal for which the design standard was adopted.[39]

Politically, foreign exporters of manufactured goods who are adversely affected by an environmental decision will be more willing to accept such a decision if it efficiently contributes to the achievement of a legitimate environmental goal. This is not the case where the environmental measure is not the most effective means to achieve an environmental goal, or if the environmental goal lacks the legitimacy of scientific evidence and broad public support. Two tests apply to these measures: First, the cost of such a restriction must justify the resulting benefit. Second, the restriction must not be a disguised barrier to trade.

Similarly, environmentalists are more likely to accept limitations placed on the use of trade measures for environmental reasons if trade is based on economic factors such as differences in resource prices than if it is the result of government policies that artificially reduce the prices paid by producers for resource inputs, particularly if such subsidies encourage the wasteful use of such resources or encourage environmentally damaging production methods.

For example, in the agricultural trade example cited above, environmentalists are much less likely to support liberalization of agricultural trade if such trade is largely the result of government subsidies that encourage the heavy use of fertilizers and the farming of marginal land. They would more likely support the measure if such trade largely reflects differences in the nat-

39. *See infra* notes 49-51 and accompanying text. This is one benefit of the GATT Standards Code which prohibits disguised barriers to trade. *See infra* Part V.B.

ural fertility of the soil and in climatic conditions. Environmentalists will realize that in the latter case, trade will reduce the environmental degradation of the land, while in the former case it could well increase the environmental degradation of the land.

To put these issues another way, less efficient means of achieving stated policy objectives is likely to create increased conflicts by reducing the legitimacy of such policy measures in the eye of affected interest groups, thus reducing their willingness to accept necessary sacrifices. At the same time, less efficient means of achieving stated policy goals will often increase both the tradeoffs required and the conflicts generated by an overlap of trade and environmental goals.

To summarize, complementarity between trade and environmental goals can best be achieved if the prices at which goods and services are exported and imported incorporate any social costs associated with degradation of the environment. This will be the case if external environmental costs are internalized, either through the taxation of pollution and other negative environmental effects, the use of tradeable pollution permits or similar regulatory mechanisms.

Environmental standards do not have to be the same in all countries to achieve desirable environmental goals. Differences in the habitat and the geographic dispersion of pollutants lead to different environmental effects. Moreover, social decisions regarding the acceptable level of environmental quality or the acceptable level of risk from environmental damage vary from country to country. Differences in economic development, in particular, affect the value put on environmental resources and the avoidance of environmental risks.[40] Differences in the social values put on environmental resources and the avoidance of environmental risks create potential conflicts among nations because many environmental resources cannot be hermetically sealed within national borders. Examples include migratory species, the atmosphere, and the oceans. Transfrontier environmental issues pose a number of difficult questions as to who should bear the responsibility for the problem.[41]

Some of the most difficult conflicts between trade policy

40. Ingo Walter, *International Economic Repercussions of Environmental Policy: An Economist's Perspective, in* ENVIRONMENT AND TRADE: THE RELATION OF INTERNATIONAL TRADE AND ENVIRONMENTAL POLICY 22, 23 (Seymour J. Rubin & Thomas R. Graham eds., 1982).

41. The OECD has recommended that a number of principles be followed to solve transborder pollution problems, including international cooperation, harmonization of standards, and actions other than the use of trade sanctions.

and environmental policy are likely to be caused by international disagreements over who should decide environmental standards, and at what level of government they should be decided. Each country wants to defend its sovereignty in making environmental decisions, while at the same time seeking to influence environmental decisions by other countries.[42] Achieving an international consensus on who should decide which environmental issues is therefore likely to be important in avoiding conflict between trade and environmental policies.

Incompatible national systems for accomplishing environmental objectives can cause conflicts between trade and environmental policy officials. In this light, it would be useful to examine the desirability of and conditions for greater international compatibility of environmental policies, testing procedures and standards, taking due account of legitimate differences in approaches to risk management and the situations prevailing in individual countries.

IV. MAJOR AREAS OF POTENTIAL CONFLICT BETWEEN TRADE AND ENVIRONMENTAL MEASURES

The long-term objectives of trade and environmental policies can be made complementary and mutually reinforcing through the right policies; however, frictions between trade and environmental policies are inevitable in the short term. Even under the most rational and efficient trade and environmental policies, there are circumstances under which trade and environmental policy measures will conflict.

In a global economy, effective national environmental policies may sometimes require the use of trade policy instruments.[43] For example, protecting humans, animals and ecosystems from harmful pesticides requires not only a ban on

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OECD, *Council Recommendation on Principles Concerning Transfrontier Pollution*, Nov. 14, 1974, 14 I.L.M. 242 (1975).

42. The United Nations has condemned the use of trade measures as a means of economic coercion to influence the sovereign decisions of other nations. *Economic Measures as a Means of Political and Economic Coercion Against Developing Countries: Report of the Secretary-General*, U.N. GAOR, 44th Sess., Agenda Item 82(b), at 6, U.N. Doc. A/44/510 (1989).

43. The U.S. International Trade Commission's recent review of trade and environmental policy instruments identified 19 international environmental conventions authorizing signatories to take restrictive trade measures. U.S. INT'L TRADE COMM., INTERNATIONAL AGREEMENTS TO PROTECT THE ENVIRONMENT AND WILDLIFE 5-1 TO 5-2, USITC PUB. 2351 (1991).

domestically produced pesticides that fail to meet environmental standards, but also a ban on imported pesticides that fail to meet the same or equivalent standard. It may even require a ban on imports of products containing residues of banned pesticides. Resource conservation may in some cases require regulating domestic sales *and* restricting exports.

International environmental agreements designed to enhance the global environment may need to include the use of trade measures to limit nonconforming imports, both to enforce the agreement among members and to prevent free riders.[44] One example is the Montreal Protocol which seeks to eliminate the use of chemicals destructive of the ozone layer.[45]

The restrictive impact of trade measures on the imported goods in these types of cases can lead to frictions with the foreign producers concerned and their trade officials. The sources of potential conflict between trade and environmental policy measures are organized into five categories that highlight key areas of policy concern. Each category raises slightly different trade policy issues, each of which may require different treatment under future trade rules.

Category 1: Impact of Environmental Measures on the International Competitiveness of Domestic Producers

The adoption of new environmental regulations by individual countries could lead to a loss of international competitiveness by some national producers if the costs of implementing the new regulations are large and if major competitors in other countries are not required to adopt similar environmental standards. The resulting loss of competitiveness can lead to domestic political pressure for lower national environmental standards, or for higher tariffs or domestic subsidies to offset the potential loss of competitiveness vis à vis regional competitors.[46] Concerns about the impact of new environmental measures on competitiveness are likely to be reinforced if some governments taking environmental measures require their producers to ab-

44. Free riders in this case are non-signatory countries that may not only reap the benefits of the agreement without contributing to it, but may even undermine it by expanding their own use of the controlled substance.

45. Montreal Protocol, *supra* note 34. For an explanation of the relationship between the Montreal Protocol and GATT, see Geoffrey W. Levin, Note, *The Environment and Trade*, 1 MINN. J. GLOBAL TRADE 262-65 (1992).

46. In the United States there has been a steady call for protective legislation that would link access to U.S. markets with environmental protection. Much of the proposed legislation would have the intended effect of protecting domestic producers against foreign producers who face lesser environmental protection costs in their own countries. *See generally id.*

sorb the full cost of the new environmental measures, while other governments absorb some or all of the cost through government subsidies to industry.[47]

Fears about the competitiveness impact of new environmental regulations could create a potential tradeoff between higher levels of import protection and lower environmental standards. In this kind of situation, those concerned about the environment might well argue for higher levels of protection, while those concerned about import barriers might argue for lower environmental standards.[48]

In practice, there is little documented evidence that environmental policies have had a major adverse impact on international industrial competitiveness. Existing estimates of the cost of environmental controls in the United States suggest that such costs have run on the order of only 2 to 2 1/2 per cent of total costs in pollution intensive industries.[49] Moreover, empirical studies have shown that in key industries facing added investment in more environmentally-friendly production equipment, all the major producers face stricter environmental standards; economies of scale tend to dictate that most new equipment which producers offered for sale in international markets incorporate such technology.[50] Moreover, in some cases strict envi-

47. The Polluter Pays Principle addresses this issue. *See supra* note 27 and accompanying text.

48. The GATT Secretariat identified three approaches to decreasing the disproportionate effects of differing environmental standards: raising the standards in countries with low standards to a harmonized level; imposing duties on foreign imports to offset the claimed unfair cost advantage; and providing domestic subsidies. *Trade and the Environment, supra* note 21, at 17.

49. Review of U.S.-Mexico Environment Issues, *supra* note 38, at 165; Manufactures Pollution Abatement Capital Expenditure & Operating Costs, Department of Commerce, Bureau of the Census, Report # MA200 (88)-1 (1988). A third report classified 86% of the 445 industries surveyed in the Standard Industrial Classifications have environmental costs which are less than 2% of the value added. Department of Commerce, Bureau of the Census, Survey of Manufactures 1989 — Statistics of Industrial Groups and Industries, M 89 (A-S) -1.

50. In other words, industrialized countries with higher environmental standards require producers to purchase environmentally-friendly equipment. The equipment manufacturers, in order to achieve economies of scale, produce only the environmentally-friendly equipment, and thus all major goods producers, whether in a developed or developing country, which invest in new equipment are required to buy the safer equipment.

The steel industry provides a good example. As environmental standards in the major industrialized countries converge, steel producers are forced to purchase equipment which limits pollution. *See* Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize, USITC Pub. 2436, 3-33 Inv. No. 332-289 (Sept. 1991) (report to the President).

ronmental standards can exert a positive effect on competitiveness. Such standards can spur industries to develop new technologies and processes that are more efficient, reduce the cost of materials, reduce costs for disposing wastes,[51] and create new commercial opportunities in environmental goods and services.

Despite the empirical evidence to date on the limited competitive impact of environmental regulations, public concern about the potential loss of competitiveness remains an important factor in the political debate over environmental issues. This concern suggests the need for improved analysis and wider dissemination of such analysis.

The Polluter Pays Principle can help to defuse potential conflicts between trade and environmental goals by removing an important concern about the differential impact of environmental policies on competitiveness. If all governments require polluting industries to bear the cost of pollution abatement efforts, then one issue is removed. Moreover, whenever all major exporting countries internalize the social cost of pollution as called for by the polluter pays principle, all the remaining adverse trade effects are minimized; the trade effects that remain are welfare enhancing because they improve the allocation of resources.

Category 2: Application of Domestic Environmental Measures to Internationally Traded Products

Sub Category (a): Imposing Domestic Environmental Measures on Imports

In order to accomplish domestic environmental objectives, national governments must be able to enforce standards regarding the use or disposal of products with harmful environmental effects, whether such products are locally manufactured or imported. A conflict between trade and environmental policies can arise if foreign exporters believe that environmental regulations imposed on imports are more restrictive or costly than those imposed on equivalent domestic goods and services, or if the regulations are more costly or restrictive than necessary to achieve the stated goal. A conflict may also arise if foreign exporters believe that the stated environmental objective is not supported by scientific evidence.

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51. For example, a recent report on the U.S. steel industry estimated average environmental control measures at 0.3% of total sales. Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize, USITC Pub. 2316, 28 Inv. No. 332-289. (Sept. 1990) (report to the President).

Existing international trade rules and amendments to those rules being negotiated in the Uruguay Round of Multilateral Trade Negotiations provide some ground rules for sorting out such conflicts. The rules generally accept the application of domestic standards, including environmental standards, to imports provided: (a) the standard is applied in a nondiscriminatory fashion on imports and on equivalent domestically produced goods (the national treatment principle); and (b) any mandatory standards imposed on imports do not create unnecessary obstacles to trade.[52]

These rules allow each national government to establish its own levels of environmental quality and to adopt its own regulatory approach to the achievement of legitimate environmental goals.[53]

Of course, it should not be surprising that eminently reasonable and rational people can disagree over issues such as what is a legitimate environmental goal, what is an unnecessary obstacle to trade, and what is a necessary degree of discrimination in order to achieve desired environmental goals. Where differences over these issues arise, consultations between trade officials and environment officials on the basis of established principles and rules can result in mutually satisfactory outcomes.[54]

Environmental advocates have expressed a number of concerns with respect to these existing trade rules. For example, they have questioned whether trade officials charged with deciding whether a less trade restrictive measure would achieve the same environmental result are qualified to make such judgments. They have also questioned whether the existing trade rules make it clear enough that the burden is on trade officials to show that alternative measures would accomplish the same environmental goal, rather than placing a burden on environmental officials to prove that a particular measure is the least trade restrictive.

It is fair to ask, however, whether the guidance provided by

52. *See, e.g.*, The Agreement on Technical Barriers to Trade (Standards Code) BISD 26th Supp. 8 (1980), (entered into force Jan. 1, 1980) [hereinafter Standards Code]; *Committee on Technical Barriers to Trade: Report of the Committee Presented to the CONTRACTING PARTIES at Their Forty-sixth Session, reprinted in* BISD 37th Supp. 317 (1991); Trade Agreements Implementation Act of 1979, Pub. L. No. 96-39, 93 Stat. 144 (1979) (U.S. implementation of the Tokyo Round).

53. *See supra* notes 10-11 and accompanying text.

54. An example of such standards and rules are the Tokyo Round codes and the Standards code; *see infra* text accompanying notes 76-87.

existing internationally agreed principles and rules is adequate for the task at hand. In particular, do these rules adequately factor in the much larger demands being placed on environmental policies today, as compared to when the GATT was written? The most likely answer to this is probably not. Existing principles under which consultations are held and disputes are settled may require more transparency and more explicit provisions for inputs by environmental experts.

Sub Category (b): Imposing Domestic Environmental Standards on Exports

In accordance with the principle of sovereignty, each country should determine what standards to apply within its borders to protect its citizens and environment. Consistent with this principle, countries have a right to impose national environmental regulation on imports when the use or disposal of imports will damage the national environment. Likewise, a country need not regulate the export of goods or services whose use or disposal abroad is expected to harm the citizens or environment of the foreign importing country. Presumably the governments of such countries can take whatever measures they deem necessary to prevent such harm.

A contentious issue has arisen, however, with respect to the export of environmentally damaging goods and services to countries that lack the technical and financial resources to develop and enforce appropriate environmental standards. There has been an attempt over the years to shift at least some portion of the responsibility for the surveillance and control of potentially hazardous goods from importing countries that lack the necessary knowledge and skills to exporting countries that have the knowledge and skills.[55] Beyond these practical considerations, some have argued that countries have a moral obligation to regulate the export of products they know to be harmful to the environment.

There is a question, however, whether the desired environmental objective would be achieved if the ban on a hazardous substance were not imposed by an importing country on all potential suppliers, including local and third-country producers.

55. *See, e.g.*, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, UNEP Doc. IG.80/3, 28 I.L.M. 657 (1989) (creating international treaty to place responsibility for protecting against health and environmental risks of transboundary movement of hazardous waste) (in force as of May 5, 1992 for twenty countries not including the United States).

In the absence of a comprehensive ban by the importing country, an exporting country imposing an export ban could lose potential sales without any corresponding environmental gain in the importing country.

There is also the question as to who should most appropriately assess the risk associated with the use of banned products. The acceptable level of risk may differ from country to country, as may the trade-off between risk avoidance and other objectives.

There has been much wider acceptance of the idea that countries that ban or restrict the local use of a product or substance should share the information leading to the ban with other countries. Such a consensus has lead to the establishment of the International Register of Potentially Toxic Chemicals (IRPTC) in Geneva, a central information clearinghouse on hazardous substances.[56] Countries have agreed to disclose their domestic regulatory actions, the reasons for the actions, and the likelihood that exports will occur, and importing countries are then informed so that they can choose whether to take action on their own. Any regulation by importing countries, in accordance with GATT requirements, would have to apply equally to imports from all sources and to any domestic production of the chemical in question.[57]

Notwithstanding the issues raised above, it would be quite reasonable for an individual country to decide on its own to ban the export of domestically prohibited goods for environmental reasons. Such an action can help provide the necessary moral leadership to a broader, global ban on a hazardous product, particularly a product that is likely to endanger not only the local environment but also the broader global environment.

Category 3: Impact of Trade Measures on Environment Policy

Trade measures affect where and in what quantities goods will be produced globally. The production of such goods, however, is subject to each country's environmental regulations. International trade rules recognize the right of each government

56. UNEP/G.C. 85(V) (1977). The IRPTC was set up in 1972 at the UN Conference on the Human Environment. "The purpose of the IRPTC is to compile data, profiles for chemical production, use, environmental pathways, toxicity, and treatment of chemical poisoning, and to provide a survey of control actions which have been taken in the manufacturing country on potentially toxic compounds." GUNTHER HANDL & ROBERT E. LUTZ, TRANSFERRING HAZARDOUS TECHNOLOGIES AND SUBSTANCES 68 n.20 (1985).

57. *See supra* notes 10-11 and accompanying text.

to establish its own environmental goals and to develop its own environmental measures, provided they do not create unnecessary barriers to trade. An environmental measure is deemed to create an unnecessary barrier to trade if it can be shown that the same environmental goal could be achieved through alternative measures that would have a less restrictive effect on trade.

Environmental advocates have expressed concern that liberalizing trade with countries that have lower environmental standards or less disciplined enforcement policies would increase global pollution. This conclusion does not necessarily follow, because the capacity of different national ecosystems to absorb pollutants can vary significantly. Moreover, global pollution has to be measured in reference to the desired level of environmental quality in each country, which can vary significantly, depending on the standard of living in individual countries and other factors.[58] It leads to a key question as to who should have the right to decide on environmental standards. The importing country? The exporting country? The world community? Current trade rules leave that decision exclusively to the importing country.[59] The question is whether that rule makes sense where pollution in one country adversely affects the environment in neighboring countries or the global environment.

Category 4: Use of Trade Measures to Enforce Environmental Agreements

Trade measures have been adopted in international environmental agreements as enforcement mechanisms. Examples are agreements that have been negotiated with respect to endangered species (CITES),[60] hazardous wastes (Basel Convention),[61] and chemicals such as CFCs which destroy the ozone layer (Montreal Protocol).[62] Trade measures in such agreements are

58. Other factors include the ability of the local climate to dissipate or break down pollution. For example, air pollution over Los Angeles becomes trapped in the lower atmosphere causing health hazards while in other locations, the wind disperses air pollution rapidly. Another example is the ecological sensitivity of wetlands.

59. A recent GATT Panel has argued that measures protecting life and health should be limited to the regulating country's territory, thus prohibiting extraterritorial environmental protection through trade restrictions. *United States — Restrictions on Imports of Tuna*, 30 I.L.M. 1594 (Sept. 1991) (GATT panel report, not yet adopted) [hereinafter *Tuna Panel Report*].

60. Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 (entered into force July 1, 1975) (restricting trade in species included in its three appendices) [hereinafter CITES].

61. Basel Convention, *supra* note 55.

62. Montreal Protocol, *supra* note 35.

designed to enforce the provisions of the agreement among signatories. Trade measures are also sometimes used to impose the provisions of the agreement on imports from countries that have not signed the agreement,[63] partly to prevent the relocation of environmentally-damaging practices to non-signatory countries, partly to prevent non-signatories from deriving economic benefits from their non-participation, and partly to solve the free-rider problem, whereby non-signatories would obtain the environmental benefits of the agreement without contributing to it.

The use of trade measures to enforce environmental agreements among signatory countries creates no conflict with trade rules. Questions could arise, however, with respect to the proper forum for the resolution of disputes over the application of sanctions in particular cases.

In contrast, the use of trade measures to enforce international environmental agreements against non-signatories is not explicitly permitted by current GATT rules. The recent *Tuna* panel argued that the GATT rules prohibit any extraterritorial application of domestic environmental policies.[64] Some have argued, however, that GATT article XX(g) was not originally limited to domestic measures but validated trade restrictions implemented to protect the environment in the global commons.[65] In any case, non-signatory countries that have been potentially affected by such provisions, such as the Montreal Protocol, have been reluctant to challenge their application to date. There is wide agreement that the rules in this area will need to be clarified, whether by interpretation, amendment, or some other type of decision by GATT member countries.[66]

Category 5: Use of Trade Measures as Sanctions and as Environmental Bargaining Tools

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63. Article four of the Montreal Protocol states that, "Within one year of the entry into force of this Protocol, each Party shall ban the import of controlled substances from any State not party to this Protocol." *Id.* at 1554.

64. *Tuna Panel Report*, *supra* note 59.

65. *See, e.g.*, Robert Repetto, Trade and Environmental Policy: Achieving Complementarity and Avoiding Conflicts, 22-25 (forthcoming, World Resources Institute 1993) (manuscript on file with the *Minnesota Journal of Global Trade*).

66. Until an appropriate amendment or treaty exception to the current regulatory scheme is adopted, multilateral agreements may avoid challenge by using the GATT waiver to clarify issues in respect of those treaties. A waiver requires a two-thirds approval by a quorum of at least half of all GATT members. *See* GATT art. XXV. Professor Jackson advocates this view, arguing that because most signatories to important environmental agreements will likely be GATT members, achieving a two-thirds vote out of 105 members should not be overly difficult. *See Congruence or Conflict*, *supra* note 3, at 1244-45.

In some situations individual countries have used trade measures to impose environmental standards on the production of goods in another country without the moral and legal sanctions of an international agreement.[67] This action might be motivated by a desire to assure that environmental regulations imposed on domestic producers to improve the global environment are not undermined by increased imports. Alternatively, such measures might simply be motivated by a moral conviction that it is appropriate to use the country's leverage as an importer to force foreign producers to adopt more environmentally-friendly production methods.

As already noted, current trade rules do not explicitly permit the use of trade measures to impose environmental standards on production processes that take place outside a country's own territory. The use of trade measures in these kind of situations has been condemned by some as unilateralism. Moreover, GATT dispute settlement panels have found that the use of trade measures in such cases violated GATT rules.[68]

At the same time, many environmental advocates argue that a country should have the right to use its consumer power to improve the global environment. Moreover, they would argue that any country's ability to make an effective contribution to the solution of a global environmental problem would be undermined if it could not impose the same standards on the production of both domestically produced goods and imported goods, particularly where implementation of the standard is costly and could make the domestic product uncompetitive. Where domestic efforts are aimed at the preservation of migratory species or oceanic marine species, the use of import restraints may be the only tool available to a government to achieve effective environmental action.[69]

In this, as in the other areas, procedures and principles need to be developed that will permit governments to achieve both environmental and trade policy goals. Preservation of the earth's living resources is clearly an important objective, and achievement of this objective may require trade measures to assure that the conservation efforts of one country are not offset by the lack of such measures in other countries. At the same

67. Levin, *supra* note 45, at 256-62.

68. *See supra* note 59.

69. *See, e.g.*, the U.S. Marine Mammal Protection Act (MMPA) Pub. L. No. 92-522, 86 Stat. 1027 (1972) (as amended, notably by Pub. L. No. 100-711, 102 Stat. 4755 (1988) (codified in part at 16 U.S.C. § 1361ff)).

time, the preservation of a rule-based trading system requires that import restrictions be allowed only under carefully defined circumstances. Without such disciplines, international trade could collapse as each country imposed protectionist measures disguised as environmental measures.

V. GATT PROVISIONS RELATED TO MEASURES APPLIED FOR ENVIRONMENTAL OBJECTIVES

As summarized above, the General Agreement on Tariffs and Trade (GATT) spells out the rules governing international trade. Over 100 countries now subscribe to GATT rules. These member countries must observe GATT rules whenever they implement any measures affecting trade, including environmental measures.

Countries are generally obligated not to impose any trade barriers inconsistent with the commitments on tariff bindings or the prohibition on quotas. The GATT provides, however, for specific exceptions from these limits on the use of border restrictions, national treatment violations, and from other GATT obligations. The most important exceptions for environmental purposes are those embodied in GATT Article XX.[70]

A. ARTICLE XX

Article XX of the GATT provides explicit exceptions from GATT obligations with respect to environmental concerns. A country must abide by the obligations in the general agreement so long as the observance of these obligations does not "prevent the adoption or enforcement" of an objective enumerated under Article XX,[71] including environmental objectives listed under items (b) and (g).

The preamble of Article XX establishes two threshold tests for whether any of its enumerated exceptions apply. First, measures cannot be "a disguised restriction on international trade." Second, measures cannot be applied in a manner that would "constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail."[72]

Once the threshold tests are met, an environmental regulation must fit squarely into either subparagraph (b) or (g). Sub-

70. GATT, *supra* note 8, art. XX.; for examples of some of the other, non-environmental exceptions, see *supra* note 9.

71. GATT, *supra* note 8, art. XX, pmbl.

72. *Id.*

paragraph (b) states that measures must be "necessary to protect human, animal or plant life or health." A dispute panel has interpreted "necessary" to mean the least GATT-inconsistent alternative.[73]

Subparagraph (g) encompasses measures that "relate to the conservation of exhaustible natural resources." The 1988 case on Canadian herring and salmon defined "related to" to mean "primarily aimed at" the conservation of such resources.[74] Action taken under subparagraph (g) must be "made effective in conjunction with restrictions on domestic production or consumption."[75]

B. THE STANDARDS CODE

In addition to the provisions of the General Agreement, the Tokyo Round negotiations resulted in nine major international agreements on nontariff measures.[76] The most important existing code for environmental purposes is the Agreement on Technical Barriers to Trade, known as the "Standards Code."[77] The Standards Code acts as a check on government regulations, ensuring that governments do not create unnecessary obstacles to international trade when they adopt technical regulations or standards for reasons of safety, health, consumer or environmental protection, or other purposes. There are now forty signatories to the code.

Key features of the Standards Code are:

- National and regional certification systems must grant to foreign suppliers access equal to that granted domestic suppliers. Certifications systems must be applied on a most-favored-na-

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73. *Thailand — Restrictions on Importation of and Internal Taxes on Cigarettes*, BISD 37th Supp. 200, 223 (1990) (GATT panel report adopted Nov. 7, 1990). *See also Tuna Panel Report*, supra note 59, at 1620.

74. *Canada: Measures Affecting Exports of Unprocessed Herring and Salmon*, GATT Doc. L/6268, BISD 35th Supp. 98, (1989) (GATT panel report adopted Mar. 22, 1988).

75. The Salmon/Herring panel interpreted "in conjunction with" as a measure which is "primarily aimed at rendering effective" the restriction. *Id.* at 114. This qualification is a further extension of the national treatment principle.

76. The agreements on nontariff measures are in the following areas: antidumping practices, customs valuation, government procurement, import licensing, subsidies and countervailing measures, technical barriers to trade, trade in civil aircraft, dairy products and meat.

77. *See supra* note 8. Until the Uruguay Round, sanitary and phytosanitary measures were included in the standards code. It appears that these will become a separate code when the Uruguay round is completed. *See infra* note 87 and accompanying text.

tion basis. Signatories are encouraged to accept test results, certificates, or marks of conformity issued in the country of export when they are satisfied that such testing and certification is performed by a competent body using appropriate methods.[78]

- Open procedures must be followed whenever a new or revised standard or technical regulation is being drafted, or a new certification system is to be introduced, unless international standards are used.[79]
- Whenever possible, standards are to be specified in terms of performance rather than design or descriptive characteristics.[80]
- Signatories are encouraged to use international standards.[81]
- Information on standards and certification systems is to be made readily available to the public. Signatories must publish information, establish inquiry points, and submit notifications to the GATT.[82]
- Upon request, signatories must provide technical assistance to developing countries on mutually agreed terms and conditions.[83]
- Signatories have rights to consult and submit disputes to the Committee on Technical Barriers to Trade, which can appoint a working group of technical experts,[84] a panel of trade policy experts or both.[85] Any action must be authorized by the Committee and is limited to withdrawal of benefits contained in the code.[86] While there have been consultations, there has been no final formal resolution of a dispute since the code came into force.

The current Uruguay Round negotiations seek to (a) expand disciplines to cover conformity assessment procedures; (b) cover processes and production methods; (c) cover non-governmental regional standards development; and (d) improve transparency and dispute settlement procedures. At this stage, it appears that the Standards Code will no longer cover sanitary

78. Standards Code, *supra* note 52, art. 2, para. 2.
79. *Id.*
80. *Id.* art. 2, para. 4.
81. *Id.* at pmbl.
82. *Id.* art. 11, para. 2.
83. *Id.* art. 11.
84. *Id.* art. 14, paras. 9-13.
85. *Id.* art. 14, paras. 14-18.
86. *Id.* art. 14, paras. 19-22.

and phytosanitary measures in light of provisions under discussion and negotiation in the agriculture negotiations.

C. SANITARY AND PHYTOSANITARY MEASURES

In early 1988, a separate working group was established as part of the agriculture negotiations to discuss sanitary and phytosanitary (S&P) regulations and barriers. The current draft agreement obligates countries to ensure that health-related agricultural regulations which affect trade are consistent with sound science.[87] It also provides a mechanism for distinguishing between those sanitary and phytosanitary measures that legitimately protect health and safety and those that are disguised barriers to trade. The text creates incentives to utilize international standards while recognizing that more strict domestic standards may be necessary. In cases where more strict standards are applied, they must be scientifically based. Also, standards differing from international measures must be the least trade-restrictive measure necessary to achieve the chosen level of health protection.

VII. IMPROVING THE MANAGEMENT OF TRADE AND ENVIRONMENT POLICIES

There is a clear need for taking steps to improve the management of trade and environment policy. One of the issues that will have to be addressed is what institutional improvements could be made in GATT and in various environmental fora to assure a better flow of information and the establishment of a more collaborative process between the GATT and environmental organizations. Consideration will also have to be given to the possible elaboration, interpretation or amendment of existing GATT rules to assure environmental considerations are appropriately reflected in trade decisions involving environmental issues. In turn, reforms of GATT rules should help assure that all trade measures taken for environmental reasons agree with existing disciplines which protect the integrity of the trading system.

There is wide agreement among GATT members that the GATT's trade rules need to be adapted to better support the achievement of environmental goals at both the national and

87. Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, MTN.TNC/W/FA, L (1-74), Dec. 20, 1990 (Dunkel Draft) (Agriculture Measures).

global level.[88] As a reflection of that consensus, a GATT working party on the environment that has long lain dormant has been revived, and has already examined the use of trade measures for environmental purposes in some detail.[89] Forging a consensus on how the existing rules might be interpreted or amended, nevertheless will be difficult, and is likely to take some time. Some have called for the launching of a Green Round following the completion of the Uruguay Round to resolve these issues.

Other efforts are under way in the Organization for Economic Cooperation and Development (OECD) to establish a better understanding of the relationship between trade and environmental policies. In recognition of the urgency of this issue, OECD Ministers, in their May 1992 Communique called, for the development of guidelines for managing the relationship between trade and environment as soon as possible.[90]

To pursue the work in this area, the OECD Trade Committee and the OECD Environment Committee have established a joint working party and work program. Work is well under way on the analysis of the effects of environmental policies on trade, the effects of trade policies on the environment, the compatibility of national environment policies, the applicability of existing GATT and OECD principles to trade-related environment issues, and developing country concerns. The working party has also begun to examine a list of key issues, including the use of trade measures to achieve environmental objectives, trade provisions in international environmental agreements, convergence/harmonization of environmental policies and instruments, environmental provisions in trade policies and agreements, and procedural and institutional issues with regard to trade and environment.

In laying the groundwork for future guidelines on trade and environment, the joint working party is analyzing the relevance and applicability of a number of basic trade and environment principles and concepts. In addition to the general principle of maintaining a global focus on preservation of environmental resources, the principles and concepts being examined include:

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88. *Trade-Environment Debate Narrows Down Differences*, 82 GATT FOCUS, July 1991, at 1-2.

89. *Id.*

90. Organization for Cooperation and Development, Communique of the Ministerial Meeting, May 19, 1992 [hereinafter 1992 Ministerial Meeting] (on file with author).

- national treatment,[91]
- nondiscrimination, which holds that different foreign products or producers should be treated the same,
- transparency, which holds that there should be full public disclosure of rules and regulations,
- proportionality, which holds that the trade impact and cost of a measure should bear a reasonable relationship to the importance of the social objective it is designed to achieve, and should not be more trade-distortive than necessary to achieve the desired trade objective,
- legitimacy, which holds that measures should be based on scientific evidence regarding the potentially adverse consequences of a regulated activity and those potentially adverse consequences should be widely recognized as legitimate concerns of government,
- polluter/user pays principle, which holds that the producer and the final consumer of a product or service should pay for the cost of reducing the pollution associated with the production of that good or service to socially acceptable levels,
- sustainable development,[92]
- precautionary principle,[93]
- life-cycle concept, which holds that environmental considerations should reflect the environmental impact of production, use and disposal of a product,[94] and
- preservation of global environmental resources.

The discussions in the joint working party have revealed considerable language barriers between the trade and environmental communities, because terms such as transparency, nondiscrimination or legitimacy often have very different meanings in the two communities.[95] The joint working party and the two parent committees are therefore considering how the develop-

91. *See supra* note 11.
92. *See supra* notes 22-24.
93. *See supra* note 26.
94. *See supra* note 25.
95. Some examples of this misunderstanding include: *transparency* in the trade context means a regulation has been published in order to facilitate compliance by trading partners. In the environmental context, *transparency* means that a regulation has no substantial impact on an environmental agreement. *Nondiscrimination* in the trade context implies that a regulation does not violate the MFN principle or the national treatment obligation. In the environmental context, it means a trade regulation or measure does not discriminate among environmental alternatives. A *legitimate* trade regulation accomplishes a laudable trade goal, i.e. it is not a disguised protectionist barrier. A *legitimate* environmental regulation simply preserves and protects the environment, regardless of its impact on other producers or industries.

ment of guidelines might serve the function of defining key trade policy principles in terms of language that would be clear to environmental officials, and how environmental concepts could be defined so they could be given concrete meaning in trade policy terms. Short of a revision of GATT rules, the development of such guidelines as tools for decision-makers could go a long way towards establishing improved communications between the two policy communities and defusing potential conflicts.

As a first step toward ensuring the mutual consideration of trade and environmental issues, the joint working party decided earlier this year to draft a set of common procedural principles that would be designed to assure better communication between trade and environmental officials and more collaborative approaches to decision-making. Such procedural guidelines were incorporated in a joint report by the Trade Committee and the Environmental Policy Committee to OECD Ministers in June 1993,[96] and were approved by the Ministers at their annual meeting on June 3, 1993.[97]

The procedural guidelines by the OECD covered (a) transparency and consultation, (b) trade and environmental examinations, reviews, and follow up, (c) international environmental cooperation, and (d) dispute settlement.[98] In each of these four areas the text proposes a general guideline, an explanation of the rationale for the guideline and a more extensive elaboration of the application of the guideline. The four general procedural guidelines and the subjects covered by the further elaboration of each guideline are as follows:

1. "*Transparency and Consultation.* Governments should provide for transparency and for consultation with interested parties in the development of trade and environmental policies with potentially significant effects on each other."[99] The further elaboration addresses in greater detail (a) transparency at the inter-governmental level, (b) government policy-making, (c) consultation with non-governmental interested parties, and (d) availability of information.

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96. Organization for Cooperation and Development, Joint Report of the Trade Committee and Environment Policy Committee, June 3, 1993 [hereinafter Joint Report] (on file with author).

97. Organization for Cooperation and Development, Communique of the Ministerial Meeting, June 3, 1993 [hereinafter 1993 Ministerial Meeting] (on file with author).

98. Joint Report, *supra* note 96.

99. *Id.*

2. *"Trade and Environmental Examinations, Reviews, and Follow-Up.* Governments should examine or review trade and environmental policies and agreements with potentially significant effects on the other policy area early in their development to assess the implication for the other policy area and to identify alternative policy options for addressing concerns. Governments may co-operate in undertaking such examinations and reviews. Governments should follow-up as appropriate to implement policy options; to re-examine the policies, agreements and any measures in place; and to address any concerns identified in the conclusion of such re-examinations."[100] The further elaborations discuss the methodologies for the conduct of examinations or reviews, the type of actions that might be appropriate to address concerns identified in a review or examination, and follow-up activities.

3. *"International Environmental Co-Operation.* Governments should co-operate to address transboundary, regional, and global environmental concerns, in particular through the negotiation and implementation of environmental policies and agreements among the countries concerned, with a view to enhancing the effectiveness of environmental action and avoiding undue effects on trade."[101] The further elaboration goes into greater detail on the desirability of multilateral co-operation in dealing with transboundary and global environmental problems.

4. *"Dispute Settlement.* When, pursuant to an agreement between countries, a country is a party to a trade dispute which has an environmental dimension, or to an environmental dispute which has a trade dimension, the government, in developing its national approach, should recognize the importance of taking into account as appropriate, environmental, trade, scientific, and other relevant expertise and should therefore work further to develop, as necessary, appropriate means to assure transparency."[102] The further elaboration addresses the participation of government officials from the related policy area as well as from non-governmental organizations, and commits governments to the future development of appropriate provisions for greater transparency in dispute settlement provisions included in trade and environmental agreements.

These procedural guidelines establish the most concrete commitment to date by trade and environmental officials to

100. *Id.*
101. *Id.*
102. *Id.*

share information and to work with each other in managing overlapping issues. The most significant elements are the commitment by trade officials to review the environmental impact of trade decisions and the corresponding commitment by environmental officials to review the trade impact of environmental policy decisions. The most sensitive issue covered is the provision for greater transparency and participation in dispute settlement procedures. In this area, the guidelines represent an important step forward in as much as it encourages each government to provide for greater transparency and participation in the preparation of national positions in dispute settlement cases, but falls short of a commitment to open up the multilateral dispute settlement procedures.

Ministers urge the Trade Committee and the Environment Policy Committee to continue their work "with a view to developing appropriate substantive guidelines as well as providing input to negotiating rules in the relevant multilateral fora."[103] In their joint report to Ministers, the two committees indicated that they expected to concentrate their work on the following issues: (a) Methodologies for conducting examinations, reviews, and follow-up of trade and environmental policies and agreement; (b) effects of trade liberalization on the environment; (c) processes and production methods (PPMs); (d) use of trade measures for environmental purposes; (e) the concept of life-cycle management and trade; (f) harmonization of environmental standards; (g) trade and environmental principles and concepts; (h) economic instruments, environmental subsidies and trade; (i) environmental policies, investment and trade; and (i) dispute settlement.[104]

CONCLUSION

The stage is set for an improved dialogue between the trade policy community and the environmental policy community. Establishing close cooperation, nevertheless, remains a major challenge because the two policy communities have very different cultures and operating styles. However difficult the challenge, it must be faced, because neither policy community will be able to achieve its objectives in the future without developing a common language and mutually acceptable concepts, principles and rules to guide overlapping policy decisions.

103. 1993 Ministerial Meeting, *supra* note 97.
104. Joint Report, *supra* note 96.

While there are a number of issues that must be resolved, the key issue concerns the appropriate use of trade measures to achieve extraterritorial environmental objectives. The trade policy community must ultimately accept the notion that there are circumstances where that may be appropriate because actions that harm the environment abroad can also hurt the environment at home. The environmental community, on the other hand, must accept the notion that trade measures cannot resolve fundamental disagreements among countries over appropriate environmental goals and measures. A country ultimately cannot sustain an exclusive right to determine its own environmental policies, and at the same time insist on a right to impose its own views upon others.