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Enforcing Environmental Quality: Why Trade Policy Isn't the Answer

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The decade of the 1990s has seen the further strengthening of popular concern for the environment. The 1992 United Nations Conference on Environment and Development held in Rio de Janeiro, which followed numerous international conventions and conferences seeking ways to cope with environmental endangerment, drew widespread participation and media attention. The environment played an important role in the North American Free Trade Agreement (NAFTA) negotiations, and was raised as an issue, although not formally brought to the negotiating table, under the Uruguay Round of the GATT talks. It is likely that the environment will again become a negotiating point under the next GATT round.

In reality, most environmental issues are domestic in scope, with a non-optimal amount of pollution and environmental degradation within national borders. This results from the miscalculation of shadow prices and the externalization of both pollution and natural resource usage costs, as well as the lack of well-defined property rights. The environment takes on an international dimension when related to transnational pollution or protection of the global commons, such as the ozone layer and biodiversity. Why then this urge to link trade and the environment?

THE INTERFACE BETWEEN TRADE AND THE ENVIRONMENT

There are two approaches to the trade-environment question. The first approach, usually taken by economists and free-trade proponents, is to try to gauge the presumably deleterious effects of environmental regulations on the battered world trading system. The second approach, advocated by environmentalists, is to look at the effects of trading patterns and policies on the environment, usually with a priori view that free trade and unfettered development will exacerbate environmental degradation and pollution levels. It is primarily from this second camp that proposals arise to use trade sanctions as enforcement mechanisms for international environmental standards and agreements.

Indicative of the first approach, a recent World Bank report finds two main issues that link international trade to transnational pollution,[1] and hence to GATT. The first is the question of the appropriateness of the use of trade barriers to regulate or diminish transnational pollution. The second issue is whether domestic regulations to control transnational pollution will affect trade patterns. These are both broad topics, with wide-ranging implications for national sovereignty, international competitiveness, social choices and technology transfer.

In the same report, the author also considers the second approach and suggests that the recent emphasis on the reform of trade and exchange rate policy as a means to further development has sparked debate over the environmental impact of these reforms.[2] These reforms raise such questions as whether trade causes a non-optimal rate of natural resource depletion and increased environmental degradation as countries strive to become competitive in the international marketplace, and whether a devaluation will increase the export of agricultural products in a non-sustainable way in the struggle to maintain foreign exchange earnings.

A report by the World Wildlife Fund for Nature states that: "The world consumption of natural resources, and the resulting impact on the environment, is greatly influenced by the patterns of international trade."[3]

However, little empirical work has been done in this field to determine the exact relationship. Some work does exist on the relationship between economic growth and environmental quality. It provides conflicting results, however, and a generally accepted consensus has not been formed.[4]

Given the two general approaches, several possible reasons surface for the widespread desire to use trade policy as a means of enforcing environmental standards. Two are political reasons. Pushing the debate into the international arena allows for diversion of both attention and the need for action at the national level, providing an excuse for inactivity on the domestic front. International negotiations are notoriously slow and cumbersome, and "any lack of progress or inadequacy of standards in international treaties that are negotiated can be blamed on other countries."[5] The second reason is that it is easier for politicians to place restrictions on foreigners using trade policy measures, than to impose costs or further regulation on domestic industries and consumers, who make up their constituencies.

A third reason, alluded to above, is the support of protectionists for trade policy measures. Industries facing declining international competitiveness can ascribe this to lower environmental standards and compliance costs abroad. Industrial lobbies can then use environmental protection arguments to call for subsidies, countervailing duties and the like. This teaming up of industry and environmentalists was a prominent feature of the NAFTA negotiations in the United States. Despite the convergence of protectionist and environmental interests, NAFTA was ratified by the U.S. Congress. Several environmental provisions were, however, added along the way and the narrow margin of the decision leaves open the possibility for future actions on this topic.

Yet a fourth reason for promoting the use of trade sanctions is the dearth of other "sticks" available for enforcing environmental standards, especially at the international level. The environment is not the first area to suffer from the inability to come up with a credible international enforcement mechanism. Moral suasion can only go so far.

ENFORCEMENT TOOLS FOR ENVIRONMENTAL POLICY

Two categories of tools for enacting environmental policy are command and control, and market-based mechanisms. Command and control policies consist of laws, regulations and standards implemented by national governments to set caps on certain types of emissions, and require pollution abatement equipment for particular industries, for example. The governmental authority to tax, fine and imprison is the mechanism used, often involving substantial monitoring and enforcement costs.

A 1985 OECD study reviewed regulatory environmental policies in the OECD countries, finding them inefficient because they applied uniform standards resulting in conditions that were either too weak or too strong for individual industries. The study found that regulations were treated as "permission to pollute," as there were no incentives to reduce pollution below stipulated thresholds. Regulations can also discourage economic development, sometimes hindering the implementation of new processes and entrenching old and approved, though regulated, means of production.[6]

An alternative method of implementing policy is the use of market-based incentive measures. These mechanisms seek to change the production and consumption decisions that result in environmental degradation and pollution by internalizing costs which were previously unpriced in the market, or through establishing well-defined property rights. This can be achieved through user charges for water and other natural resources to which producers and consumers previously had free access, emissions permits for air and water pollution, and taxes. By altering prices, these measures address environmental problems at the sources by affecting supply and demand. The market approach also allows firms to develop innovative and efficient methods for dealing with pollution that are appropriate to their specific industry and business strategy.

To date, the developed countries have almost universally adopted control, rather than market, measures for implementing their domestic environmental policies, despite the overwhelming evidence that market

measures are more efficient. One reason for this is the need to identify "acceptable levels" of pollution for market-based alternatives, such as emissions permits. Many environmentalists are reluctant to target any level of pollution as acceptable, or to acknowledge the economic trade-offs of environmental protection.

Another reason is that government regulation is easier and quicker to establish. These measures attempt to clean up the results, rather than dealing with underlying causes. As such, they encourage evasion and cheating. One relevant example is the ban on logging in Thailand. As this policy did not affect the world price of or demand for logs, it provided incentives for "illegal logging, smuggling and additional profits for those prepared to take risks" and for the migration of unsustainable logging practices into Burma and Cambodia.[7]

Market measures are beginning to be put into use. Additional research into effective implementation and ways to overcome political hurdles is, however, necessary before these methods become widespread. Similar to the command and control measures, the market-based policies depend on cooperation at the national level, as they also use government authority to tax and assess user fees. Thus, another problem requiring research is a way to overcome the lack of institutional capacity in the developing countries to handle the administration of such taxes and user charges.

INTERNATIONAL POLICY RESPONSES

In the international trade arena, policy actions can take on three distinct environmental purposes. The first is the enforcement of domestic product standards through border measures to exclude the import of products not meeting these standards. Standards can relate to product content, packaging or the production process for the goods.

The second purpose is the enforcement of international agreements, such that countries which are out of compliance with these agreements will face trade sanctions or restrictions on the imports of related products.

The third purpose of trade policy actions is to encourage or threaten other countries to adopt particular environmental standards. Policy actions could include restrictions or bans on imports that do not comply with the standards in question, and conditionality on further trade liberalization with those countries.[8]

In the case of the United States, one author who studied Congressional voting behavior on environmental issues states that "evidence is strong, although admittedly not consistent, that environmental concerns can act to limit Congressional support for liberal trade."[9]

Specific actions proposed to protect the environment in the international trade arena have included suspending the implementation of such trade agreements as the Uruguay Round agreement pending environmental assessments and any necessary revisions, allowing unilateral trade actions to protect the environment beyond national boundaries, allowing discrimination between "like" products on the basis of production methods, the development of natural resource accounting systems, and harmonization of international environmental standards.

The suggestion of suspending the implementation of the Uruguay Round may be an attempt to make the GATT agreement compatible with international environmental agreements. As the same actions would then be illegal under both types of agreements, GATT dispute resolution methods would help enforce international environmental agreements. However attractive this might be in fostering consistency and adding force to environmental agreements, it is a politically infeasible alternative. After seven years of often turbulent negotiations, the participating GATT nations will not indefinitely postpone the agreement pending an environmental assessment that could jeopardize hard-won commitments and possibly irreparably damage the world trading system. The conclusion of the Uruguay Round was viewed by many as a necessary step in maintaining an open trading system and averting the moves down the path of protectionism taken in recent years. An assessment of the agreement's impact on the environment is,

however, a worthwhile endeavor and would expand the pool of knowledge about the effects of trade on the environment, possibly providing valuable insights to be used in future trade negotiations.

Unilateral trade actions and product discrimination violate existing GATT principles. They essentially restrict trade to promote specific environmental policies abroad, or enforce domestic environmental policies at national borders. As stated above, they can be enacted by placing restrictions or bans on the imports of particular products or countries. Unless compensatory lowering of tariffs on other products is granted, however, these types of measures would be condemned by a GATT panel. A recent example is the U.S. ban on tuna imports. Under Article III of the GATT, which deals with production methods, the U.S. argued that U.S. domestic product regulations prohibiting the use of fishing methods which capture and kill dolphins along with tuna could also be applied to imported tuna products. The GATT panel decided, however, that only measures applied to the actual product were covered and, thus, "regulations governing the taking of dolphins incidental to the taking of tuna could not affect tuna as a product."[10] Similar disapproval by GATT would be expected for environmentally-motivated trade policies that violate the MFN (most favored nation) or national treatment principles, or that raise tariffs above bound thresholds.

The development of natural resource accounting systems is an attempt to recognize the depreciation of the environment resulting from the usage of non-renewable natural resources, degradation and pollution in the national accounts system used to calculate Gross National Product (GNP).[11] Norway, France and the United States have started to implement these types of systems for use in managing natural resources.

The basic premise is that national income accounting is inconsistent in its treatment of natural versus other resources. Costs for cleaning up pollution, for example, are added to GNP if those activities are undertaken by firms or individuals other than the original polluter, but reduce GNP if the costs to prevent pollution are undertaken as part of the original production process. Using national accounts which give a consistent and realistic picture of a country's sustainable income-generating potential can help mobilize support for environmental programs at both the national and international levels, and provide the data to develop more efficient methods of environmental protection.

Harmonization of international environmental standards seems like a reasonable proposal at first glance, as it would eliminate the need for companies to address different standards and policies in different countries that might hinder investment or competitiveness. Differences in social choices, levels of economic development and in the absorptive capacities of national environmental endowments, however, would make harmonization extremely problematic.

The first issue to be addressed is whether to harmonize product or process/production standards. An ensuing question: Who chooses the "optimal" level of pollution? A research project carried out by TDRI studied the interaction of the environment and economic growth, looking at tradeoffs involved in converting forest to farmland.[12] The contradictory effects are the rises in agricultural incomes from increased output against the losses due to decreased productivity resulting from soil erosion and other adverse effects of deforestation.

The crux of the study is that there is a "balance point" to be found between resource exploitation and economic development. It is unlikely that this balance point will be identical for nations with different natural resource endowments and at varying levels of economic development. Individual approaches are necessary, leading to the conclusion that harmonization of environmental standards is inappropriate.

WHY TRADE POLICY IS NOT A "FIRST-BEST" SOLUTION

The theory of "first-best" tells us that market interventions are only optimal solutions when they seek to correct the source of market distortions. In the case of the environment, the source of the distortion is the misallocation of resources stemming from either a failure to internalize all the costs associated with the "usage" of the environment or inadequately defined property rights. Trade policy measures do not address the source of this distortion, but only serve to further misallocate resources. To the extent that trade policy

and trading patterns themselves contribute to environmental degradation and pollution, the root of the problem is nevertheless the externality and public good issues.

A recent study used the NAFTA case to predict the effects of the imposition of a pollution abatement and control expenditure (PACE) equalization tax by the United States on Mexico.[13] The trade effects found by the study were modest, amounting to at most a 2 percent loss in export earnings. The author estimated that there was an upward bias on the results and included a sensitivity analysis showing a range of export contractions from 1.2 to 2.6 percent of total exports. The author argued that there were three ways in which a policy of this type is flawed.

The first is that it has dubious environmental effects because the tariff revenue flows to the U.S., not to Mexico to rectify the problem.

The second flaw is that, as a competitiveness policy to level the playing field, the PACE gives only a minor margin of protection to domestic industry, given that PACE costs were found to be less than 3 percent of total output, even for "dirty" industries.

The third reason this is a bad policy is that it is GATT-illegal, unless compensatory tariff reductions are offered on other imports to maintain the maximum overall binding tariff level. The author thus concludes that a PACE tax or similar instrument is bad environmental policy, bad trade policy and has negative consequences for the GATT system.

It is also unlikely that trade sanctions would be successful in imposing "environmental cooperation" on third countries without also incurring other negative side effects. A current example of the ineffectiveness of trade policy in achieving non-trade related goals is the ongoing tussle between the U.S. and China over human rights. The U.S. has threatened to revoke China's MFN status if "improvements" in human rights are not evident. This type of policy creates a good deal of ill will, as countries are forced to choose between losing face and economic injury. If such a threat is used too often, or not carried through, it becomes ineffective. Once MFN status is revoked, however, it is no longer available as a weapon and reduces the threatening country's leverage. The imposing country is often viewed as meddling and unreasonable, which can damage other diplomatic and bilateral relationships.

RELEVANCE FOR THAILAND

Thailand has experienced rapid growth over the past few decades, transforming it from a predominantly agricultural to a manufacturing-based economy. The structural changes have brought new problems for Thai society, including rapid urbanization and a widening income distribution. Land scarcity, resulting in deforestation, with its problems of soil erosion, sedimentation and increased carbon dioxide emissions, is one of several issues attracting national attention. Increased demand for water by the urban and industrial sectors, coupled with below average rainfall in recent years, has exacerbated water resource allocation problems. Water pollution is creating further threats to water availability. Air pollution, increased by traffic woes and the generation of electricity by coal-burning methods, is especially worrisome in the growing Bangkok metropolis.[14]

Recent environmental policy actions show Thailand to be "one of the most active developing countries in the international environmental arena,"[15] while "public awareness of environmental issues is high."[16] Initiatives developed by the Thai government include an endorsement of the Polluter Pays principle in the Seventh National Economic and Social Development Plan (1992-1996), the Enhancement and Conservation of National Environmental Quality Act (1992), measures to promote unleaded gasoline, and the institution of an Environmental Fund to promote investment in pollution control.[17] While much remains to be done, including the strengthening of monitoring and enforcement capabilities and the integration of environmental concerns into economic policymaking, these initial steps are a sound starting point.

This proactive stance reflects the Thai government and people's recognition that, to be sustainable,

economic growth must be balanced with environmental priorities. Despite recent efforts to formulate its own environmental policies, Thailand is unlikely to have the same social choices and pollution tolerance level that environmentalists or developed countries might like to impose on it. As a potential NIC with export-oriented economic policies, Thailand is especially vulnerable to the trade policy whims of the industrialized countries. Policymakers, therefore, need to be aware of the direction of debate in international fora, and alert to policies that may jeopardize its economic growth. Promotion of environmental awareness and information exchanges through ASEAN and APEC will enhance Thailand's international image, while providing policymakers with information on the experience of other countries facing similar problems and challenges.

CONCLUSIONS

The sources surveyed all identified multiple areas for further research in assessing the impact of trade and international trading patterns on the environment. Given the existing inefficient usage, even by the OECD countries, of regulatory rather than market solutions to environmental problems, it appears that there is also much room for research in the formulation of efficient and effective policies at the national level. Two possible areas for study are compensation for the trade-related impact of different environmental policies on competitiveness, and opportunities for transfer of green technologies. Both of these alternatives involve using incentives, rather than threats, to induce environmental cooperation, and allow for more efficient trading relations as well as achieving environmental goals.

The environmental issue has the potential to cause much damage to the international trading system, notwithstanding recent progress of the Uruguay Round, to the extent that it condones a certain amount of protectionism on environmental grounds. Environmental considerations, however, must be taken into account to ensure that short-term economic growth does not jeopardize the future availability of resources. Stewart Hudson of the National Wildlife Federation acknowledges the interaction between trade and the environment and supports a balanced approach to policy-making, summed up as follows:

"If understood in the context of sustainable development, environmental concerns and trade activities are not necessarily at odds, and should be dealt with in an integrated fashion. It is clear that trade policy which does not consider environmental impacts can undermine the natural resource base on which continued, or future, development depends. At the same time, it is obvious that environmental policy, framed without regard to development needs, can be equally shortsighted."[18]
