



Trade and the Environment

Leaflet No. 3

Gary F. Fairchild, Professor, University of Florida
Geoffrey A. Benson, Extension Economist,
North Carolina State University
James L. Seale, Jr., Professor, University of Florida
Kirby S. Moulton, Extension Economist,
University of California, Berkeley

The combination of regional and multilateral trade agreements, recognition of the global impact of economic development on the environment, an increase in the level of interest in international policies addressing global environmental problems, and citizen concerns about food safety make trade and the environment a major issue and source of disagreement. The North American Free Trade Agreement (NAFTA), notable in linking economies as divergent as those of the U.S. and Mexico in a free trade area, is also the first international agreement to explicitly link the reduction of trade barriers to compliance with environmental requirements.

From the post-WWII period until the 1980s, the U.S. was one of the staunchest supporters of the global integration of the world economy, see [Leaflet 7](#). In the 1980s, environmental groups gained influence in Congress. As a result, the U.S. has become much more likely to link international trade policy with environmental issues. For example, during the NAFTA negotiations, the U.S. made it clear that pollution on the U.S.-Mexico border was unacceptable.

The international community also has become more concerned about the environment in the 1990s. This concern has generated interest in the relationship between international

trade and the environment. It has become a central focus of discussions in both regional and multilateral trade talks and a key issue in environmental policy debates.

Those in favor of trade liberalization, and some third world countries, are also concerned that environmental issues will be used either to justify protectionist trade measures or to exert pressure for tougher environmental standards. Global agreements on environmental issues might minimize the likelihood of a more powerful country dictating environmental regulations for a weaker one and lessen a country's ability to use environmental issues as a justification for protectionism. Many of the environmental issues, such as air and water quality, soil erosion, deforestation, product safety, and protection of wildlife and biodiversity have an impact on agriculture and agricultural trade.

Externalities

It is important to understand why pollution and other forms of environmental degradation occur. After all, no-one would deliberately choose to live in a polluted or environmentally degraded environment; however, these problems arise as a result of each of us pursuing our own best interests as individuals, families, and businesses. On a day-to-day basis we make decisions about how to earn a living and how to spend our money based on our preferences, our incomes, and the prices we face in the economy. This holds true in any type of economy, whether it be market oriented or centrally planned. The term externality refers to side effects which occur as a result of the behavior of individuals when they produce or consume a particular good or service. Externalities are impacts on individuals who are not directly involved in the production or consumption of the item in question. They can be positive or negative.

Air pollution is an example of a harmful side effect, caused by motorists driving automobiles to work, or by a factory not installing emission control devices.

An externality often occurs when there are no clearly defined and enforced property rights, such as ground water and air over a city. Externalities also tend to occur when the victims are more widely dispersed and difficult to identify, or are politically weak and unorganized.

When externalities occur, the private cost borne by producers or consumers is less than the cost to society. Thus some type of action may be warranted to equate the two costs. The welfare of society would be increased if these externalities were appropriately considered when individuals made their production or consumption decisions, i.e., by "internalizing" all costs. Costs are internalized if they are directly paid by those entities responsible for creating them. Transportation costs would be higher if drivers had to buy pollution-free vehicles, and products would cost more if factories had to control waste emissions.

Government action is the public alternative through regulations, taxes, or legal action. While this can be difficult within a given country, when externalities cross national borders the difficulties are magnified.

Agricultural and agribusiness practices can cause externalities. Farmers may avoid some of the costs associated with agricultural production, such as soil erosion, water depletion, surface and groundwater pollution by agricultural chemicals and nutrients, deforestation, loss of wildlife habitat, and food residues. Therefore, governments may attempt to reduce costs to society through some type of market intervention.

Local versus Trans-National Pollution

Current discussions of pollution and environmental externalities make a distinction between local pollution and global pollution. Local pollution occurs strictly within national boundaries. Examples of local pollution are: the pollution of Lake Okeechobee in the U.S., air pollution in Mexico City, and pesticide pollution in Tennessee. Examples of trans-national or global pollution are: the pollution of Lake Superior, acid rain in Canada caused by factories in Gary, Indiana, pesticide pollution that enters the Rio Grande in the U.S. but causes damage in Mexico, and depletion of the ozone layer by industrial chemicals.

A growing consensus in the international community is that local pollution is a local problem, and the international community has little justification to exert pressure for these local problems to be remedied. Global pollution is treated differently. The general consensus seems to be that the polluter should pay to prevent or clean up global pollution and many believe that the international community should penalize countries producing global pollution. Producers of local pollution would also bear the cost of prevention or restoration, but it is up to the national government whether or not local pollution problems are addressed. However, some people believe that it is unrealistic to separate local and global pollution.

It can be argued that the "polluter-should-pay" rule does not lead to optimal global environmental quality. The economic optimum depends on the value attached to environmental quality, cost and income levels. Even if a poor country evaluates its contribution to global pollution according to its social costs and income level and acts accordingly, an externality may still exist if the rest of the world places a different value on these social costs. This leads to the conclusion that rich nations should assist in paying for improvements in environmental quality in poorer countries if the citizens of richer countries value them more. Differences between nations concerning the value placed on environmental quality and the ability to enhance it, make it difficult to achieve agreement on global environmental policies.

Trade and the Environment

Trade and the environment is not a single issue but rather a variety of issues and concerns, which makes simple solutions unlikely. Because it is complex, it attracts numerous and often conflicting policy positions and proposals. Some proposed changes in policy to achieve environmental goals could have a serious impact on U.S. production agriculture and agribusiness involved in both domestic and international marketing.

Environmental issues can be grouped into four categories:

1. Global environmental performance standards for air, water, and soil protection.
2. Production and processing methods directed towards environmental protection: environmental control technology, harvesting methods, farming methods, and certification requirements.
3. Product standards: food safety, packaging content, labeling, and regulatory procedures.
4. Protection of species and biodiversity.

This leaflet discusses policies affecting categories 1, 2 and 4, and [Leaflet 4](#) addresses food safety issues.

The environmental community, generally, sees risks in economic growth and more open trade, while the trade community sees threats to economic growth and integration of the global economy if environmental concerns lead to additional barriers to trade. Environmentalists and advocates of more open trade both share concerns over how global environmental and trade agreements are to be linked, whether one or the other should take precedence, and the methods by which conflicts should be resolved (Runge).

There are three core propositions of environmentalists that are related to trade:

1. Trade is undesirable because it may promote economic growth that, without environmental safeguards, results in the unsustainable consumption of natural resources and degradation of the environment. Some proponents argue for decreased trade and increased economic self-sufficiency in order to protect the environment.
2. Trade interests override environmental concerns and trade liberalization agreements can be used to justify weaker national environmental regulations.
3. Trade restrictions should be available as a policy tool to promote worldwide environmental protection.

Economic Growth, Trade and Environmental Degradation. One argument often made is that trade leads to increased economic activity, which in turn, leads to increased pollution and environmental damage. If this view is correct, any impetus to growth, whether caused by increased trade or some other factor, would lead to a worsening of the environment. However, most economists would argue with this proposition. Evidence suggests that pollution increases when economic growth first occurs in a poor country, but as incomes rise, pollution eventually decreases. In an economic sense, environmental quality is desirable but, from the perspective of a poor country, it is a luxury. As nations become richer they have both the means and the willingness to spend more on protecting or improving environmental quality. However, we would not expect all countries to desire the same level of environmental quality, and this can be a source of conflict.

Certain countries may be more willing to increase the amount of pollution they produce because their environment has a greater capacity to assimilate the pollution than the environment in other countries. The same argument can be made for regions within the U.S.

Most economists also refute the view that self-sufficiency in production and consumption has a more benign impact on the environment than does free trade. The most attractive result of free trade is that it allows production to take place based on specialization according to each country's comparative advantage. By allocating resource use based on this principle, the world can produce more goods with the same amount of resources. A policy of self-sufficiency leads to inefficient use of the world's resources and might actually lead to increased environmental damage.

It should be noted that there are legitimate differences in perspectives between economists and environmentalists. Environmentalists suggest that most economists focus exclusively on economic consequences and should also consider other social goals. A broader approach to measuring the costs and benefits of environmental protection also raises questions as to the appropriate weight to assign various factors in attempting to measure social costs and benefits (externalities).

Trade Liberalization, Competitiveness, and Global Pollution. The environmentalist position sees trade liberalization as an invitation to increased local and global pollution, a loss of regulatory control, and reduced national sovereignty - an environmental counterforce driven by the desire for jobs and profits, and policy making by obscure, unaccountable, business-oriented international bureaucrats (Esty).

There is a sharp conflict between an international policy of unregulated trade and national policy that seeks to mitigate environmental costs (externalities). Countries with higher environmental standards impose added production costs on their industries, which places them at a competitive disadvantage in the global market place. Domestic economic interests fight the imposition of stricter environmental standards and put pressure on governments with higher environmental standards to reduce them. The international

business community tends to distrust the agenda of environmentalists. They fear that new forms of protection will emerge in the guise of politically attractive environmentalism.

A country that internalizes environmental costs will be at a disadvantage, at least in the short term, in unregulated trade compared to a country that does not. Therefore, those who support environmental protection see a clear justification for tariffs on imports from a country which does not internalize its environmental costs. This is not "protectionism" in the usual sense of protecting an inefficient industry, but rather the protection of an efficient national policy of internalization of environmental costs. There is a clear inconsistency between a national policy of internalizing environmental costs and an international policy of deregulated trade with other nations who do not internalize costs. Until the price of traded goods reflects their full environmental and social costs in each trading country, unregulated trade will undermine national policies of internalizing the costs of externalities (Daly and Goodland).

Available analyses, while not definitive, generally suggest that trade liberalization furthers environmental values, and that domestic environmental programs aimed at reducing emissions to air, water, and land do not have a major influence on competitiveness and trade flows. To date, the effects of environmental regulation on trends in U.S. productivity and costs have not been significant. Currently, political forces are not strong enough to enact cost-increasing regulations without strong evidence that environmental improvements could justify the associated costs. Implicit and sometimes explicit cost/benefit tests are now the rule in environmental legislation (Gardner).

Trade Policy Leverage. It is often argued that the U.S. and other rich countries should use trade policy to force low- and middle-income countries to preserve their natural resources and lower their levels of pollution. Many support this view because of competitiveness issues, others because they believe that, short of war, trade is the most effective leverage one (powerful) country has to force swift compliance from another country.

There are few policy tools available to governments seeking to address global or cross-border environmental problems and to reinforce international environmental agreements (Esty). Trade policy is one tool that can be used to reward or punish trading partners for their domestic environmental policies. Since it is common practice for the U.S. to use trade policy to achieve political objectives unrelated to trade, it is not surprising that environmental groups view trade policy as an effective and appropriate tool to coerce another country to adopt or adhere to environmentally- friendly policies.

Trade treaties are an attractive vehicle for accomplishing trade and environmental goals, because they explicitly allow retaliation against countries that violate their treaty obligations. Even though retaliation may be subject to a dispute settlement process, it remains a powerful tool of treaty enforcement. The use of this tool can apply to environmental and social objectives as well as to trade objectives, if they are included in the treaty.

Effective Policy Making

Although interest groups do not always state their goals explicitly, they are implied by positions on issues and policy recommendations. The main objective of U.S. business appears to be to retain a "fair" competitive environment in which the level of regulation is of less concern than the uniformity of its impact on all competitors. The environmental objective is to reduce or prevent environmental degradation through sustainable development with effective environmental standards and safeguards. Uniform application of these standards is of less importance than the total level of protection gained. Consumer interests appear to center on food safety, choice, and price, and within limits, they seek some balance of these variables. Opportunities for coalition building or compromise between these groups exist where interests overlap. Such coalitions can design and support policies that satisfy the members most important interests.

Issues and Concerns

The situation described above provides the policy setting within which trade, environmental, and consumer interests must be reconciled. A related issue is effectiveness of trade policies and institutions in achieving non-trade goals. These issues can be classified as those that relate to the process of negotiating, those that relate to the results achieved by trade treaties, and those related to harmonization of regulations and enforcement.

The process of negotiating treaties. Treaty negotiations must recognize the political realities in individual countries and compromises must be made to achieve agreement when there are multiple objectives. Narrowly defined trade issues must compete with environmental, humanitarian, labor, and consumer issues, and each issue may have a different political constituency. These political groups evaluate the potential impact of proposed treaty arrangements on their area of interest, pitting groups against each other.

Different countries have different priorities. There are also problems of fairness in balancing trade and environmental goals with respect to developing countries, and concerns about making special provisions and exemptions for countries which cannot afford to implement new, stricter environmental and trade policies.

An important concern is that treaties might settle on the lowest common denominator in specifying environmental objectives and procedures, thereby diluting the impact of advanced practices in some countries. One view is that "the environment is too important

to be left to trade ministers". A related concern is that political realities lead to a focus on short-term goals or piecemeal changes that may imperil the achievement of long-term objectives of balanced trade and sustainable development.

The results achieved by trade treaties. The economic consequences of changes in merchandise trade rules and regulations can be predicted reasonably accurately, but this is not the case for the consequences for changes in environmental rules. Perhaps the central issue here is whether or not trade treaties can exert as much control over production processes as they do over traded products. Legal interpretations to date suggest they cannot. This does not satisfy groups concerned with the environmental impacts of the processes by which products are produced, not just the product itself. Trade groups are also concerned with process, but only to the extent that processes are regulated or controlled uniformly among competing producers in different countries.

Harmonization of regulations and enforcement. Treaties must be translated into specific rules and regulations. Individual countries typically start off having different rules and regulations and must move towards a new, common standard. This process is called "harmonizing" and agreeing on the new rules and regulations can be a long and drawn-out process.

There are several approaches to speeding up the harmonization process. One is to keep pressure on the Sanitary and Phyto-sanitary Committees of NAFTA and the new World Trade Organization (WTO), created by the Uruguay Round agreement. One function of these committees is to analyze the rules of member countries. Another way is to participate actively in various technical advisory committees, particularly those concerned with the environmental implementation and revision of the Uruguay Round agreement and NAFTA. A third avenue of influence is to work with international organizations such as Codex Alimentarius and committees of the Organization for Economic Cooperation and Development (OECD). A fourth strategy is to assure the establishment and continuation of advisory committees to the U.S. government agencies concerned with trade issues.

Lax enforcement of environmental rules reduces compliance and the associated costs, and provides a competitive advantage (or avoids a disadvantage) for some. The process of dispute settlement under GATT appears to have been ineffective, but the new WTO incorporates an improved dispute settlement process that may overcome many of the past objections.

Aggressive use of these bureaucratic channels can help the United States achieve its international goals in the areas of sustainable development, trade, and safe, varied, and reasonably priced food products for consumers.

Concluding Remarks

Trade issues and environmental issues will be linked in future international treaty negotiations. Agriculture remains one of the most difficult sectors on which to reach agreement. Care must be taken that U.S. agriculture is not ignored or eclipsed by larger political, social, or environmental concerns and that the benefits of trade are not lost.

References

Daly, H. and R. Goodland. 1994. "An Ecological-Economic Assessment of Deregulation of International Commerce Under GATT". *Ecological Economics* 9:73-92.

Esty, D.C. 1994. *Greening the GATT: Trade, Environment, and the Future*. Washington, DC: Institute for International Economics.

Gardner, B.L. 1994. "Environmental Regulation and the Competitiveness of U.S. Agriculture", paper presented at conference on Agricultural Trade and the Environment: Understanding the Critical Linkages, Toronto, Ontario, Canada, June 17-18.

Runge, C.F. 1994. *Freer Trade, Protected Environment: Balancing Trade Liberalization and Environmental Interests*. New York: Council on Foreign Relations.

Last Revision Date: January 12, 2000

Support for the development of these leaflets was provided by the Farm Foundation, the Southern Rural Development Center and the participating universities/ This was a project of the Southern Extension Marketing Committee, the Southern Extension Public Affairs Committee, and the Southern Extension Farm Management Committee, representing the land-grant universities in 13 southern states.

The Southern Rural Development Center does not discriminate on the basis of race, color, religion, national origin, gender, or age, or against any handicapped individuals or Vietnam-era veterans.