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Environmental Protectionism, North-South Trade, and the Uruguay Round 1/

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Abstract

The paper seeks to provide an overview of the present state of debate on trade, environment and the GATT for developing countries. Potential for green protectionism and relevant GATT rules are discussed in three areas: i) environmental product regulations including eco-labeling and other product measures with effects on production processes and border adjustment of environmental taxes; ii) extraterritorial use of trade measures to influence environmental behavior in other countries; and iii) the use of trade measures with international environmental agreements. The conclusion of the Uruguay Round will have a number of direct and indirect effects on trade and environment and the GATT debate on it.

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Summary

The paper seeks to provide an overview of the present state of debate on trade, environment, and the GATT for developing countries. The threat of green protectionism can arise from the use of environmental product regulations for protectionist purposes, from extraterritorial use of trade measures to influence environmental behavior in other countries, and from the use of trade measures to enforce compliance with international environmental agreements. At present, the protectionist threat seems exaggerated as available information suggests that the use of green trade barriers is still small compared with traditional trade barriers against developing country exports.

To prevent the threat from becoming a reality, the paper contends that developing countries have an interest in seeing that some GATT rules are reviewed, while others are maintained. First, in some areas, existing GATT rules may be too flexible and may not cover all potential environment-related product measures. Further discussion is likely to take place on how to shield eco-labeling from protectionist abuse; how to deal with measures that resemble product standards but have no impact on consumption externalities in the importing country such as recycling content requirements; and how border adjustment of taxes may undermine the environmental objectives of the measures. Second, extraterritoriality is unlikely to be accepted in the trade rules in the context of environmental goals, and existing GATT rules protect developing countries against it. This is not only a North-South issue, but one between large and small countries.

Third, the use of trade measures with international environmental agreements is more controversial and will be a topic for debate in the World Trade Organization (WTO), especially between developing and industrial countries. Here, political consideration is likely to call for some action from the international community. Developing countries should oversee that, if trade measures are used to induce participation in or enforcement of environmental agreements, their use remains limited under clear criteria and a last resort, and that an international environmental agreement has the widest possible participation.

The Uruguay Round will have a number of direct and indirect effects on trade and environment. The Round was important, not only in reducing all protectionist pressures, but also in preserving and reinforcing the multilateral framework to deal with new and old trade issues. In addition, the results of the Round in improving growth, in general, and market access for labor-intensive products, in particular, can be beneficial for improved environmental quality in developing countries. Some rules with links to the environment are modified, and new sectors added to the debate. The paper believes more focus is also needed on the environment's broader links with trade, sustainable development, and other economic policies.

However, developing countries will need to pay more attention to environmental issues. Much of the increase in green standards is a market phenomenon reflecting the increased environmental awareness of consumers. In many cases producers in developing countries have no choice but to adjust or lose markets.

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I. Introduction

The recent re-emergence of labor and environment issues on the world trade agenda has raised concerns among developing countries, many of which are exporters of labor- and resource-intensive goods, about their use as new barriers against their exports. Many fear that the new "green" protectionism could reverse their hard won gains in the Uruguay Round in lowering border barriers, especially in their traditional export sectors, i.e., textiles and agriculture. Developing country exports can be affected by environment-related product standards and the use of trade restrictions to enforce external environmental objectives. Many of these issues have been discussed in depth over the past years, and it is difficult to find new angles to the debate. Agendas for action to reconcile trade and environment objectives in the near term have been drawn up. For example, the OECD will seek to formulate guidelines or recommendations in the spring of 1995 and the GATT/WTO will discuss issues and present its recommendations for further action in two years from its entry into force.

This paper seeks to provide an overview of the state of play in the present debate in GATT on trade and environment from the perspective of developing countries. It considers main sources of green protectionism, and to what extent present GATT rules deal with them. It also discusses the links of the Uruguay Round agreements with the environment. The central theme is that the threat of green protectionism is exaggerated, as traditional trade barriers remain more important. To deal with the threat, relevant GATT rules will be reviewed in the near future along with other initiatives. The conclusion of the Uruguay Round is important for developing countries, as it provides a reinforced multilateral forum to discuss new trade issues and to put a brake on protectionist trends in general. More attention is needed to broaden links between trade, the environment, and other economic policies to diffuse green protectionism and to advance the environmentalist agendas.

II. Green Trade Measures and Protectionism 1/

1. Product-related measures and developing countries

One aspect of green protectionism is potential abuse of environment-related product regulations for non-environmental aims. Scientific uncertainty and difficulties in evaluating environmental externalities render regulations vulnerable to protectionist abuse, as the line between

1/ In the discussion on trade and environment, it is conceptually useful to distinguish between product-related measures that address consumption externalities and production- and processing-related measures (PPMs) that address production externalities. In addition, a distinction is often made between local and transboundary, or global environmental problems. GATT rules allow countries to apply domestic product regulations on imports, but not on those related to production processes.

legitimacy and abuse is often hard to draw. Developing countries with less technical capabilities and generally lower environmental awareness are particularly vulnerable.

a. Evidence of protectionist abuse: A number of factors suggest that fears of green protectionism by developing countries resulting from product standards are justified. First, the use of product regulations has increased in general. No exact data are available, but one indicator of this is the increase in notifications to the GATT Technical Barriers to Trade Code (TBT) since 1987 (Figure 1). Second, many industrial countries have plans to extend eco-labeling schemes to new sectors of importance to developing countries, such as textiles, clothing, leather, and footwear. Third, although evidence on protectionist capture of environmental issues is scanty, it exists in anecdotal form. ^{1/} This reinforces fears for protectionist abuse of environmental issues. Moreover, adjustment pressures in many environmentally sensitive (basic metals, steel) or labor-intensive industries (clothing, footwear) in industrial countries affected by the Uruguay Round, or by other factors such as rapid technological change, that have been losing comparative advantage to developing countries, may induce these industries to seek new sources of protection. In textiles and clothing, for example, these pressures may intensify by the end of the decade when existing quotas are scheduled to be liberalized. Many of these industries have a history of intensive lobbying for protection against imports through anti-dumping investigations, subsidies and quotas. Also, the potential for introducing much broader carbon/pollution content taxes could intensify the concerns.

However, a number of other factors suggest that such fears are likely to be exaggerated, at least at present. First, much of the increase in regulations is legitimate, and reflects a consumer and regulatory trend toward more environmentally friendly consumption and production patterns. This will have an impact on relative prices and patterns of production, consumption and trade. For developing countries, as well as for other exporters, this means that maintenance of markets will require them to meet many of the new product requirements. Despite the increase in notifications to the GATT TBT Code, few of these have been challenged. Second, the impact of environment-related product regulations on imports from developing countries so far has been minimal compared to traditional forms of protection. No systematic analysis is available on the extent or incidence of direct environment-related trade barriers in general, or against imports

^{1/} In the United States' dispute with Mexico in 1992 over tuna and dolphins, Mexico has argued that the case was initially put forward by the United States tuna canning industry, which for years has lobbied for more protection. The mandatory labelling of tropical timber in Austria in 1992 was supported by local wood industries, despite the stated aim of the measure to combat global warming. The Danish ban on non-refillable beer bottles had wide support from local brewers.

Figure 1: TBT Notifications per member 1980–93

Source: GATT(1994c)

from developing countries in particular. Partial information from a number of sources indicates no large impact. For example, the share of environment-related notifications in total under the GATT TBT Code ^{1/} of mandatory product regulations has been only approximately 10 percent, although it has increased in recent years. An UNCTAD study (1994) shows no major impact on developing countries' exports of product-related environmental regulations, as products or sectors covered have been relatively few. Traditional non-tariff barriers are estimated to cover at least a fifth of developing countries' exports to industrial countries. Studies in the United States (Pearson 1993) show that rejections of imports from developing countries for non-compliance with food standards have been a minor share of total trade in relevant products (less than 10 percent).

b. Adequacy of existing safeguards: International trade rules provide some safeguards for judging the "appropriateness" of product measures. Main criteria are non-discrimination, transparency, use as a disguised barrier to trade, and necessity in achieving the environmental or health objective. While present GATT rules provide for much flexibility and some checks and balances against protectionist abuse, the discussion in the GATT group on trade and environment has identified a number of areas in which GATT rules might be either too flexible, or do not cover all measures. These are eco-labeling, recycling and packaging requirements, and border adjustment of environmental taxes. A common characteristic of these measures is that, although they deal with products, in one form or another they can involve non-product-related production methods. For example, GATT rules may allow the application of some measures on imports, when it is neither effective nor necessary for the achievement of the local environmental objective.

c. Eco-labeling has become an important way of responding to increased consumer demand for green products. Eco-labeling also influences the decisions of an increasing number of institutional and government buyers, who are accountable for the "greenness" of their purchases. The voluntary and market-based nature of eco-labeling schemes makes them an attractive alternative to trade sanctions for influencing environmental behavior (production externalities) in other countries. However, the fact that adherence to schemes is voluntary--they can include PPMs--and the scientific uncertainty or complexity in making credible environmental impact assessments or life-cycle analysis renders them very vulnerable to protectionist abuse. Although both imports and domestic producers can be equally subjected to the same labelling requirements, the domestic industry could easily establish a label under subjective criteria, suitable to production conditions in the importing country, that ignores environmental

^{1/} Notification covers technical regulations that differ from international standards.

conditions in exporting countries. 1/ This could affect the market access of many exporters, who cannot meet these criteria for legitimate differences in environmental conditions. At present, eco-labeling is not covered by GATT notification requirements. Production methods are not covered by the GATT.

Developing countries have a strong interest in improved safeguards against abuse in this area. The challenge to policy-makers is to guarantee truthful information to consumers. While the voluntary nature of eco-labeling poses problems for regulators, their main market characteristic--credibility--could be reinforced by international collaboration and transparency. As with other PPMs, the search for solutions has concentrated on international cooperation in certification, harmonization of risk assessment methods, and mutual recognition. The feasibility of each alternative depends on the nature of the product and structure of markets. Tropical (and temperate) timber, for example, could benefit from international certification, although it would always be subject to the difficulty of defining and establishing sustainability. The role of international trade rules can be limited to setting guidelines or notification requirements to improve transparency.

Another area affecting developing country exports is recycling content and some packaging requirements. While the validity of the application of measures such as recycling content requirement in paper to imports under current GATT non-discrimination rules is not in dispute, questions are raised about the "necessity" 2/ or "effectiveness" of the measures in achieving the environmental goal when applied to imports. This is because imports do not contribute to the domestic local consumption

1/ There are cases in which developing countries' market access has been influenced by eco-labels both in positive and negative direction. For example, Brazilian paper producers have complained that conditions for the German eco-label include such production criteria that are impossible or environmentally senseless to meet in Brazil due to differences in ecological conditions. In 1994 a group of African exporters of tropical wood faced threats of trade bans or voluntary purchase bans in the Netherlands and Germany for a number of species judged by the importers as in threat of extinction. The African exporters responded by asking for an international eco-label that could prove that the wood in question comes from a sustainably managed forest.

2/ Necessity in GATT means that if GATT inconsistent measures are invoked on public policy exemptions in Article XX, the measures have to be necessary to the achievement of this goal. This has been interpreted in past Panels as the least trade distorting alternative of all available measures. For example, restrictions on imported cigarettes in Thailand in one case were not considered "necessary" to reduce smoking, as less trade-distorting measures such as advertising campaigns were available.

externality. 1/ For example, the fact that the aim of a recycling content requirement is to reduce waste in importing countries, whether or not an imported product complies with this requirement is irrelevant for the achievement of this environmental goal. Waste management may not be a problem in thinly populated exporting countries such as Brazil. These problems have led trade economists to question the need of limiting the freedom in present GATT rules to apply to imports environment-related product regulations that have no impact on the consumption or disposal externalities in the importing country. This is a sensitive area, as exempting imports from some of these requirements could reduce the willingness of domestic producers to comply with the measures, and would seem to be against the established non-discrimination rule in GATT.

Environmental groups have also criticized the present "necessity" concept in GATT. They argue that the interpretation of "necessary" as least trade distorting gives too much weight to trade arguments (Charnovitz 1992, Repetto 1994). Furthermore, the setting of the burden of proof on the importing country to justify its measures is evidenced as restricting its freedom to set its own environmental standards. They argue that shifting the burden of proof to countries challenging the standards would give more freedom to the setting of standards nationally. While it seems reasonable to weigh the trade "costs" and environment benefits of a specific environmental policy, it could be economically costly to accept any environmental measure for its own merits, as some environmental groups propose. Protection of the environment does not have infinite value, and therefore environmental policies should be subjected to a cost benefit analysis. These issues are likely to be debated in detail in the WTO.

Environmental taxes and their border adjustment are of some concern to developing countries. GATT rules allow countries to rebate indirect taxes on products and on inputs used in the production process, provided they are physically incorporated in the product 2/ when exported. Imports can be subjected to internal taxes levied on products. 3/ GATT border adjustment rules do not take into account the purpose of the taxes.

The rules raise a number of controversial issues for trade and environmental policies. First, if taxes on inputs are part of cost

1/ This applies to local production externalities. In case of a global production externality effectiveness will depend on all countries addressing the production externality.

2/ This concerns cumulative indirect taxes such as sales, excise, turnover when there is no mechanism for subsequent crediting of the tax. (Article XVI and the Subsidies Code).

3/ This includes products as such and articles from which the imported product has been manufactured in whole or in part (Article III). In the so-called Superfund Panel the United States was allowed to tax imported substances, because they were produced from chemicals subject to an excise tax in the United States and the tax rate is determined in relation to the amount of these chemicals used.

internalization measures designed to reduce environmental damage, their rebate at the border upon export may undermine the achievement of the environmental goal they were designed to address. This clearly would be in conflict with the achievement of the local environmental goal. Second, rebating taxes on exports and levying them on imports can reduce the impact of environmental taxes on competitiveness, creating resistance to change the present rules. However, this might also reduce the resistance to adopting the taxes. The effectiveness of the tax would then depend on the share of exports in production. Third, the tax rule reinforces the asymmetry between taxes and regulations under GATT rules. The costs of compliance with command and control measures cannot be rebated at the border (or imposed on imports). This could induce a shift to both environmentally and economically more efficient price-based measures. It also increases the risk of double taxation of environmental damage. Exporters from countries relying on command and control measures may have to pay an additional environmental levy in their target markets. Fourth, the rules can lead to imports from developing and other countries being inappropriately subject to the environmental standards of industrial countries. For example, if a country imposed a tax of 50 percent on non-recycled content of paper, it could impose it on imports of the product from all sources. This could be inappropriate as, with recycling content requirements, the environmental externality in the importing country (waste management) being addressed by the tax can be quite different from that in the exporting country. If countries differ in their absorptive capacities and environmental problems, optimal environmental taxes are likely to differ across countries and products. Fifth, the fact that GATT allows border adjustment of product taxes, but not of process taxes, could lead to sub-optimal environmental policies. For example, a production externality, which would be addressed more efficiently by a process tax, could be made subject to a less efficient product tax when adjusted at the border. This could lead to taxing imports on environmental grounds for no reason.

At present, environmental tax equalization at the border has been occasional and has not led to many disputes. This reflects a number of factors. First, environmental taxes are less frequent than command and control measures, despite the proven efficiency of the former. This has reduced the need for border adjustment measures. Second, application of environmental taxes on imports, or their rebate on exports, can pose very difficult measurement problems. If the use of environmental levies increases in the future, or more substantial carbon taxes are introduced, the existing tax adjustment rules may give rise to trade conflicts. The border adjustment of environmental taxes is one area in which present GATT rules may be too "flexible", and one which will be further discussed in the Sub-Committee on Trade and Environment. Any change to the present rules that would consider environmental objectives of taxes faces measurement and implementation problems.

2. Production or processing rules - extraterritoriality

A second source of green protectionism is attempts by countries to raise production-related environmental standards in other countries that have no

impact on other countries' environment. This includes border measures to restrict imports in products that may cause pollution in their production stage, or restrictions on trade to compensate for differences in environmental standards to reduce the impact of environmental measures on competitiveness (eco-dumping).

The economic and environmental arguments against extraterritorial application of process standards are strong. Many of these issues have been widely discussed in the literature (see, for example, OECD 1994) and not much new can be added. Both environmental and economic concerns point against any harmonization of production-related environmental standards across countries (with both local and global problems) and support sovereignty in dealing with local environmental problems. Furthermore, several studies have shown that, as costs of compliance have been low in general, differences in environmental standards have had no noticeable impact on either trade or investment ^{1/} reducing their impact on competitiveness. At present, enforcement of environmental goals by trade sanctions is against the GATT and they have affected exports of only a handful of developing countries.

Unilateralism offers great potential for protectionist abuse. It could lead to discrimination in trade relations and to arbitrary choices of environmental priorities, to which developing countries are particularly vulnerable. Unilateral use of trade measures allows one group in one

^{1/} The only area where some studies have shown potential impacts on competitiveness are carbon taxes, if they were to be imposed at high enough levels (Winters 1992 for a survey). Some have argued that if the costs of compliance with higher standards is so low as indicated in many studies, demands for higher production standards in developing countries should be of no issue. However, the practice is not so simple. Owing to differences in levels of development, compliance with Northern standards in the South can be even costlier than in the North in relative terms. Despite the small share of pollution costs in total industrial costs, developing countries may ill afford them. Many of the basic investments in infrastructure, for example, have not been made, which would increase the cost of compliance with similar Northern standards. Environmental priorities are also likely to differ in the South, making the opportunity cost of complying with Northern standards high. The need to invest in sanitation, water, education, or population control may far outweigh that to reduce industrial emissions, and is likely to bring higher marginal returns for the environment. The World Bank (1992a), for example, has estimated that only about 15 percent of the costs needed annually for sustainable development during the next decade in developing countries would be for industry (assuming that in 15 years developing country standards would match the present level of industrial standards in industrial countries). Insisting on Northern production standards for Southern exports might take resources away from more pending development and environmental needs with larger environmental returns both on local or global scale (education, basic health, sanitation, etc.).

society to impose its values on other countries. This can lead to high economic costs and small benefits for the environment. Environmental groups tend to ignore global issues and often concentrate on small but visible problems. In the tuna-dolphin case, for example, the United States chose Mexico and Venezuela as targets, although similar fishing practices are likely to have been employed by other countries. U.S. environmental groups chose to act forcibly on dolphin protection over other environmental issues with potentially wider environmental benefits, such as greenhouse gases. These aspects of extraterritoriality need more attention and have not been adequately discussed in the literature.

While the threat of increased use of unilateral trade measures and sanctions exists, it is unlikely to be legitimized. It can be argued that, as only few countries have the market power to apply sanctions, their acceptance or legitimization becomes an issue between small versus big countries. As the majority of countries in the GATT are small, the large powers are unlikely to gain the necessary backing to legitimize the practice. Here, developing countries have a strong interest in maintaining existing GATT disciplines. Present GATT/WTO rules protect them against external imposition of environmental agendas with trade measures.

A more constructive way to upgrade standards is via foreign investment, growth, and increasing environmental awareness among developing countries. Democratic processes are needed to set domestic priorities, whereas international environmental priorities can be set through international cooperation.

3. International issues

A third source of green protectionism can be the use of trade measures with international environmental problems. Some consensus exists that transboundary and global environmental problems should be tackled and resolved through internationally agreed measures in connection with international environmental agreements (IEA). ^{1/} However, there is less consensus on whether, in some cases, GATT-inconsistent trade measures can be justified against non-parties, or how the relationship of IEAs and GATT should be organized. These will be issues of intense debate in the WTO.

Developing countries in general oppose involuntary obligations from IEAs, as well as the use of trade measures that induce compliance or participation. They do not want to accept obligations and make commitments that would be disproportionate to their level of development and role in consuming global commons. Non-participation may reflect differences in development, risk assessment, etc. They are more likely to participate with carrots than sticks.

^{1/} However, some countries continue to raise the need to legitimize unilateral use of trade sanctions with transboundary environmental problems outside or in the context of an IEA.

Although the trend in GATT has been to reduce the special and differential treatment of developing countries with their international trade obligations, such treatment with many (global) environment-related obligations is strong. This is related both to inter-temporal equity, i.e., the fact that most stocks of global commons are, or have been, consumed by industrial countries, and that demand for environmental quality is closely related to income and varies from one country to another. The priorities of sustainable development are likely to differ substantially, not only between rich and poor countries, but according to countries' environmental endowments. This was also recognized at the Rio Summit: Principle 7 of the Rio Declaration states that "in view of the different contribution to global environment degradation, States have common but differentiated responsibilities".

Developing countries also point out that the necessity and effectiveness of GATT-inconsistent trade measures, or trade sanctions, to enforce participation or implementation of IEAs are not clear. The role of trade restrictions as a policy instrument to tackle environmental externalities is likely to be second best, and their role and effectiveness in enforcement are subject to much controversy. Experience shows that the need for trade measures in international environmental agreements has been minimal (18 out of 180 have included trade measures, GATT (1994e)).

Industrial countries differ on how to deal with GATT and IEAs. To accommodate international environmental issues, some want to ensure that the GATT fulfills two functions: not to impede the implementation of "legitimate" trade obligations in an IEA, and to provide for reasonable safeguards against their misuse. Here, a number of proposals have been forwarded: a trumping clause à la NAFTA, giving precedence to environment treaties over trade treaties; collective interpretation of the GATT to define rules on the use of trade measures in IEAs (ex-ante approach), or a waiver in the GATT (ex-post approach). Some are of the opinion that the present coexistence of GATT and IEAs without challenges has worked well. The pros and cons of each approach have been widely discussed (GATT 1994d). Developing countries' views diverge, although most tend to favor the ex-post approach.

The discussion on the ex-ante approach to date has identified some issues for further elaboration. The first challenge is to define what is an international agreement, a transboundary or global environmental problem and what is contained in "environment". ^{1/} Finding the right definitions is important to preventing abuse and to take account of the interests of all

^{1/} The determination of a transboundary environmental problem may not be an easy task. Many environmental problems have different threshold levels depending on results of risk assessment and scientific evidence and physical circumstance or preferences. The precautionary principle may justify action to prevent the occurrence of future damage, but may pose difficult problems of measurement for levels of risk and their assessment.

potentially affected parties. 1/ Some have underlined that a key precondition for an IEA, in which the use of GATT-inconsistent trade measures is proposed, is a high threshold of participation in the agreement. Another problem is to define or clarify the conditions under which potential trade measures would be justified. 2/ Existing GATT rules, e.g., on health exemptions etc. (Article XX), provide a basis for judging the necessity and effectiveness of GATT-inconsistent trade measures for environmental purposes. The most difficult task is to balance the trade costs (disguised protection) and the environmental benefits of achieving the environmental goal. Ideally, a proposed trade measure should be subject to a cost-benefit assessment. GATT has concluded (GATT 1994b) that trade measures pursuant to an IEA should be the least trade restrictive reasonably available. 3/ The degree of restrictiveness should be proportional to the risk of non-fulfillment of the objectives of an IEA. It remains to put these concepts into operation. 4/

1/ Suggested criteria include the treaty being open for acceptance by all countries, adequate geographic coverage, level of development, and involvement in the environmental problem.

2/ Whether IEA-related trade restrictions should cover process and production methods has been controversial. As mentioned above, current GATT rules deal with product-related environmental damage. It has been argued that if the source of transnational pollution is in the production, IEA related trade restriction should cover them, as well as action by all may be needed for effectiveness. To avoid their use for protectionist purposes, it has been proposed that restrictions on products with dirty processes be allowed, if the IEA requires the importer to control/limit the same production process. Caution may be required for differences in efficiency of abatement, or absorptive capacities and level of development.

3/ However, a recent Panel on the U.S. taxes on automobiles concluded that the necessity test does not apply to Article XX(g) dealing with conservation measures and that the trade measure used need not be least trade restrictive. The fact that the measure was primarily aimed at conservation was enough to justify it.

4/ A strict necessity test with proportionality can mean that trade restrictions cannot be used as an instrument to put pressure on non-signatories to join. This is because participation is not an underlying factor in perpetuating the environmental problem being addressed (GATT 1994b). Thus trade sanctions could not be justified against non-participants merely for not participating in an agreement. Differential treatment becomes linked solely to countries' environmental conduct and not on their membership or non-membership in a IEA. Thus developing countries could only be subject to trade sanctions to the extent that their behavior affects the achievement of the environmental objectives of the agreement. Some industrial countries think that, if combined with financial incentives and proportionality of obligations with due account of levels of development, developing countries might be brought on board to accept the use of trade measures in IEAs.

It has also been proposed that the burden of proof should be shifted to a country challenging a trade restriction from that maintaining it (NAFTA precedent). It has been argued that if unanimously agreed upon trade measures in an IEA are challenged, the burden of proof could be shifted to those challenging the measure. When a regulation is applied for legitimate objectives, and is in accordance with the relevant international standard, it shall be presumed not to create an unnecessary obstacle to international trade. It would follow that measures conforming to international standards meet the necessity test. This might, however, put developing countries in a disadvantageous position. Building a case against industrial countries could take substantial efforts, knowledge on very technical environmental issues, and increase the cost of the challenge, which could act as a disguised trade barrier.

This is an area in which GATT/WTO is likely to come up with some new rules, as political pressure for action is strong. Developing countries should make sure that the threshold for an international agreement is high, and that any use of trade measures be subject to strict criteria.

III. Environment and the Uruguay Round

How does the outcome of the Uruguay Round (UR) affect the threat of green protectionism and the trade and environment debate? Although the UR did not deal with trade and environment directly, its conclusion and implementation of the various agreements will have important direct and indirect consequences on trade and environment. An exact environmental or economic assessment of the Round is difficult owing to its very complexities. The following are some pertinent points for the developing countries:

1. Global and systemic impact

First, the conclusion of the UR was important in diffusing green and any other protectionism. It brought stability to the world economy and enhanced the credibility of the multilateral trading system. The threat of bilateral trade wars and collapse of the multilateral system was great and could have had a very negative impact on economic activity and the environment. Stability will enhance growth prospects, hence allowing more resources to be devoted to environmental protection. 1/ The preservation of the multilateral system allows small countries to make their voices better heard on old and new issues.

1/ Growth, by increasing the scale of economic activity, can also increase polluting production if technologies or relative prices do not change. The environmental impact of higher growth will be a result of a complex interaction of many forces such as income elasticity of demand of environmentally sensitive production, impact of increased utility consumption on the environment, and impact of changes in production methods.

A number of studies show that income elasticity of demand for clean environment is positive beyond a certain income level (around US\$1,000 per capita, World Bank 1992a). Estimates of the UR's impact on world income are very approximate and subject to varying assumptions. As an illustration of potential magnitudes, a study shows that an additional 1 percent of sustained growth in industrial countries over a four-year period would generate more than US\$80 billion in annual foreign exchange earnings for developing countries (World Bank 1992b). Although it is unlikely that all of this would be used to protect the environment, it is slightly over the annual estimated incremental investment needed (US\$75 billion) for sustainable development in developing countries during the next decade (World Bank 1992a).

2. Uruguay Round trade liberalization and the environment

Second, the trade liberalization resulting from the UR will affect the environment in several ways. The composition of output will change, as countries specialize in products with comparative advantages--changes in relative prices will reallocate resources within sectors and among countries. More openness would also promote changing methods of production of transfer of technology. The impact on the environment in developing countries will depend on how these changes will affect the "environment intensity" of production, and on how environmental costs are internalized. Furthermore, world prices may differ from changes in supply and demand. Although the impact of these changes will be complex and difficult to measure, an examination of some sectoral examples in market access provides an overview.

In manufactures, by improving market access in many labor-intensive products and reducing tariff escalation, the UR could help reduce dependence on resource-intensive exports by developing countries with potentially positive environmental consequences. 1/ The larger expected trade gains in textiles and clothing than in resource-based goods should shift more

1/ Above average trade barriers in industrial countries on labor-intensive goods, in which developing countries have a natural comparative advantage, can increase environmental pressures by forcing developing countries to export more resource-based goods than otherwise. Similarly, tariff escalation, i.e. higher duties on processed than on unprocessed commodities, may impede exports of more processed goods, and may raise those of resource-based raw materials, thus putting more pressure on the environment in the South. In agriculture, protection in industrial countries has encouraged excessive use of fertilizers and chemicals with adverse consequences to the environment, and has lowered prices for commodities reducing incentives for conservation in developing countries.

resources in developing countries toward labor-intensive industries, 1/ reducing pressures to over-exploit their natural resources. In 1992 natural resource-based products accounted for 11 percent, and clothing 14 percent, of developing countries' non-oil exports to industrial countries. In many countries, even larger gains could be achieved by removing domestic constraints, such as implicit taxing of exports by import protection, uncompetitive exchange rates, or unrealistic domestic prices, to export development, i.e., allowing relative prices to reflect relative costs of production.

Despite some apparent improvement in tariff escalation, no drastic changes to production patterns are to be expected from the UR, and, on average, the reductions in duties by stages of processing are modest. 2/ The environmental impact of reduced tariff escalation depends on the nature of existing distortions, the resulting production structure, and how environmental costs would be internalized. For example, the largest reductions in tariff escalation are in products that tend to be relatively environment-intensive, such as paper and wood articles. Increased processing may also imply more environmentally sensitive activities in developing countries. The net environmental effect depends on interaction of these forces.

Reduction in protection of agriculture in industrial countries may have beneficial environmental impacts. High domestic agricultural prices often go with intensive use of fertilizers, with adverse environmental consequences. 3/ Liberalization can reduce the chemical intensity of farming in industrial countries, and can promote more sustainable cropping in developing countries. However, the high levels of tariffed 4/ protection and the broad exemption of many domestic subsidies from cuts are likely to produce less liberalization than expected. Nevertheless, the UR will set upper limits on support (in nominal terms), which is likely to reduce gradually protection of agriculture in many industrial countries.

1/ The GATT estimates that over a ten year period the largest real growth in trade in goods would take place clothing (60 percent), textiles (34 percent), agricultural products (20 percent), and processed food (19 percent) (GATT 1993). UNCTAD estimates that tariff reductions (average rate declines from 4.0 percent to 2.7 percent) would increase exports of natural resource-based products from developing countries by 3.2 percent (UNCTAD 1994).

2/ Over a five-year period average duties on raw materials in industrial countries will decline from 3.1 percent to 2 percent, on semi-manufactures from 3.5 percent to 2 percent, and on final goods from 7.9 percent to 5.9 percent. But as these are sectoral averages, the actual impact on protection in various stages of processing will depend on their impact on effective rates of protection.

3/ In 1992 average fertilizer consumption in Japan was 84 times higher and in Germany 77 times higher than in land-rich Argentina (World Bank 1992a).

4/ Conversion of non-tariff measures to equivalent tariffs.

The UR may also have an impact on trade in services, although actual liberalization commitments have mostly codified the status quo. Freer trade in services, apart from income effects, 1/ could reinforce the reallocation of resources away from dependence on resource-intensive commodities in developing countries. Exports of labor-intensive products by developing countries may also increase, as resources in industrial countries shift to services. Open trade in services can enhance transfer of technology and the efficiency of many services inputs to production processes in developing countries.

Little systematic analysis has been made on the factor intensity of services, including the environment. The analysis is made more difficult if commercial presence, in addition to cross border trade in services, is included. Among the various service sectors listed by the GATT Secretariat, 2/ transport is likely to require large capital inputs; other services tend to be human capital (professional services) or labor intensive (labor services), and would require small amounts of natural resources. In some sectors, such as tourism or transport--air, land, or sea--environment intensity can be important. 3/ As the two sectors account for the bulk of measured trade in services (balance of payments statistics, 60 percent in 1992), the environmental impact of increased services trade can be important. This component of services trade will indirectly increase as

1/ Freer trade in services is also likely to increase income growth with an impact on import demand according to the income elasticity of various imported products.

2/ Business, communications, construction, distribution, education, environment, financial, health, tourism, transport and other services.

3/ The impact of liberalization on services trade on transport or tourism is likely to depend heavily on existing distortions, and the way environmental policies address them. Similar to trade in goods, many transport activities suffer from existing distortions, such as route or cargo sharing, which may lead to inefficient use of cargo space (more traffic) and high prices. Liberalization tends to reduce waste and to promote efficiency and to lower prices. Nevertheless, the increased demand for transport services may increase environmental stress of activity, unless environmental costs are internalized. Similarly, tourism may increase the pressure on natural resources (mountains, sea shores) by human activity. Some tourism activities foster conservation efforts (natural parks, game parks, etc.). For example, in Kenya revenues from tourism in national parks are estimated to be ten times larger than those from poaching (Brown-Henry 1990). Open trade in services also carries many environmental benefits by easier transfer of technology etc. However, as in the case of goods, the answer to environmental problems in services is unlikely to be less trade in services, but application of appropriate environmental policies to cover the environmental costs of these activities. If restricting an activity like transport is deemed necessary, there seems little justification to discriminate against foreign service providers. Some activities can have important international dimensions such as pollution from ships in high seas, or that of aircraft in the air.

trade in goods increases. The impact on the environment will depend on how environmental costs will be internalized.

The agreement on intellectual property rights may also have some impact on the environment. By promoting innovation and the transfer of technology, the UR agreement can ease the transfer of environmental technology to developing countries.

3. Environment-related rules

The third main area is rules. The UR widened the trade-environment agenda by adding new sectors to the scope of the international trade rules with links to the environment, and by modifying some rules with a bearing on environmental issues:

a. Preamble: The goal of sustainable development is contained in the preamble of the World Trade Organization (WTO). Although this is an important symbolic achievement for many environmental groups, it may affect the way dispute panels deal with the goals of the agreement.

b. Institutions: By strengthening multilateralism in international trade relations, the UR reinforced the case and potential for multilateral and rule-based solutions to environmental and trade problems. The new rules on dispute settlement should speed up the solving of disputes, allowing developing countries to enforce their GATT rights against threats of green protectionism. The new rules remove the veto right of one party to the adoption of panel reports and set time limits for the various steps in the process. It is hoped that the reinforced institutional structure will curb unilateralism in solving trade disputes in general, or those related to the environment, in particular. This reinforces the position of smaller and poorer countries. The UR also established a formal forum to discuss trade and environment.

c. Standards: The agreement on Technical Barriers to Trade was only slightly modified and will now apply to all members of the WTO. The UR introduced a similar agreement on Sanitary and Phytosanitary Measures. These aim at preventing the use of product standards as barriers to trade. They create a presumption for the use of harmonized international standards (but countries are free to deviate from this up and down), take account of special concerns of developing countries, broaden the necessity concept toward a proportionality type of test between environmental objectives and trade measures, and extend coverage to sub-national standards.

Revisions of the TBT agreement raise a number of issues for the trade-environment debate, but are unlikely to reduce the potential for protectionist abuse. It appears that the scope of the necessity test for environment-related product standards is expanded toward more explicit balancing of environmental and trade objectives. The revised text links more explicitly the necessity test to the achievement of the stated

environmental objectives. 1/ However, no specific criteria are given on how to weigh these objectives. The agreement also broadens the scope of using production- and processing-methods (PPMs) as a basis for standards, to the extent that they have an impact on the product as such. The notification requirement of standards will be broadened by extending the agreement to all members of the WTO--coverage will increase from about 45 to over 125 countries. It is hoped that ex-ante notification will reduce controversy in introducing standards. The Sanitary and Phytosanitary agreement creates a presumption of scientific evidence for the use of higher-than-international standards. However, scientific evidence is unlikely to reduce protectionist abuse, as in many cases it can be subject to challenge.

d. Subsidies: The agreement on subsidies has many links to environmental policy. First, the extent to which the UR will discipline subsidies, either in agriculture or in industry, can remove important existing distortions with negative environmental consequences. For example, subsidies to ship-building and fishing may have contributed to over-fishing and depletion of fish stocks in high seas. 2/ Other sectors in which subsidies have contributed to adverse environmental pressures are agriculture and coal (Anderson 1992). The UR is likely to affect some agricultural subsidies, but not the pricing of natural resources. The use of many natural resources is subsidized worldwide, with adverse consequences for the environment. Low prices for energy have contributed to wasteful practices and excessive emissions of pollutants in much of the developing world or countries in transition. The agreement also explicitly allows the use of subsidies, especially in developing countries for some environmentally sensitive activities. Developing countries are allowed to subsidize agricultural inputs, such as fertilizers and domestic or international transport of export products.

Second, to a certain extent, the agreement allows members to subsidize environmental investments in industry with potentially positive incentives for the environment. In agriculture, environmental subsidies are also part of the green box (allowable subsidies not subject to cuts).

Third, the agreement may have clarified some concepts related to eco-dumping. For the first time subsidies are defined, which requires a financial contribution by governments. This may remove doubts for claims of implicit subsidies from differences in environmental standards. Furthermore, the UR introduced a de minimis clause for actionable subsidies: 3/

1/ "Technical regulations shall not be more trade restrictive than necessary to fulfill a legitimate objective, taking into account the risks non-fulfillment would create".

2/ The FAO estimated that in 1989 costs of operation of world's fishing fleets were \$92 billion compared to revenues of \$70 billion. The difference is about 25 percent (Financial Times, 8/15/94).

3/ Actionable subsidies are subject to countervailing duty investigations if injury is proven.

1 percent for industrial, and 2 percent for developing countries. As environmental costs generally have been a small share of total costs, these should eliminate some potential pressure for eco-dumping investigations.

Fourth, the agreement modifies border adjustment rules for energy and some other input taxes, 1/ potentially causing more controversy for environmental policies. In practice, this could mean that environmental taxes, such as carbon taxes on energy used in an exported product, could be rebated upon export, with obvious consequences for the environmental objectives of these measures. The rules would not apply on the import side as the clarification refers to export subsidies only. While this eliminates some of the uncertainty related to energy taxes under the old GATT, it may complicate the environment-trade debate in the area of taxation in the future.

In summary, while the above analysis only identifies a number of areas with trade-environment linkages in the UR, it shows that the subject is very complex, and more debate is needed on the wider links between trade liberalization and the environment. Better public understanding of the issues can in itself diffuse some of the sources of green protectionism against developing countries. One lesson is that the impact of the UR on the environment goes well beyond some rules. Environmental groups that have widely criticized the UR 2/ tend to base their analysis on narrow interpretations of limited aspects of the agreement. Failure to see the wood for the trees and avoidance of complex issues seem to characterize the trade and environment debate in general. 3/

1/ A footnote to Annex II of the subsidies agreement states that taxes on "energy, fuels, and oil used in the production process and catalysts which are consumed in the course of their use to obtain exported products" can be adjusted at the border. In the past, some uncertainty remained on input taxes, such as energy, as it was not clear to what extent they could be considered as being physically incorporated (subject to border adjustment) in the exported product. Energy, in general was not considered physically incorporated unless it was itself a traded product (petroleum).

2/ In the United States, for example, nearly 20 environmental organizations petitioned against its ratification.

3/ Too often, Northern citizen groups attach importance to specific and visible environmental problems, and fail to see more complex issues with wider repercussions. The use of trade measures to deal with dolphins and elephants was subject to much attention, while the Everglades in Florida have gradually been destroyed by subsidies to sugar growing (Repetto 1994).

IV. Summary and Policy Conclusions

The threat of green protectionism arises from the use of green product regulations for protectionist purposes, from extraterritorial use of trade measures to influence environmental behavior in other countries, and from the use of trade measures to enforce compliance with international environmental agreements. At present, the protectionist threat seems exaggerated, as the use of green trade barriers is still small compared to traditional trade barriers against developing country exports.

To prevent the threat from becoming reality, developing countries have an interest in seeing that some GATT rules are reviewed, while others are maintained. First, in some areas, existing GATT rules may be too flexible, or do not cover all potential environment-related product measures. To prevent protectionist abuse, better safeguards may be needed. Further discussion is likely to take place on how to prevent protectionist abuse of eco-labeling, or how to deal with measures which resemble product standards but have no impact on consumption externalities in the importing country, such as recycling content requirements, or border adjustment of taxes that may undermine the environmental objectives of the measures.

Second, extraterritoriality is unlikely to be accepted with trade and environment, and existing GATT rules protect developing countries against it. Despite pressures by environmental and some industry groups, and a few large countries, the use of trade measures--such as sanctions, eco-dumping duties, etc., to influence environmental behavior in other countries--is unlikely to gain support. This is not only a North-South issue, but one between large and small countries. The environmental benefits are likely to be minimal compared to the trade costs.

Third, the use of trade measures with international environmental agreements is more controversial and will be debated in the WTO, especially between developing and industrial countries. Here, political consideration is likely to call for some action by the international community. Developing countries should oversee that, if trade measures are used to induce participation or enforcement, the use of trade measures remains limited under clear criteria and only as a last resort, and that an international environmental agreement has the widest possible participation.

The UR agreements will have a number of direct and indirect effects on trade and environment and the GATT debate on it. It was important, not only in reducing all protectionist pressures, but also in preserving and reinforcing the multilateral framework to deal with new and old trade issues. In addition, the results of the UR in improving growth, in general, and market access in labor-intensive products in particular, can be beneficial for improved environmental quality in developing countries. Growth allows more resources to be devoted to the environment, and gains in market access increase specialization in labor-intensive products, which tends to have low environment intensities, and reduces pressures to export more environmentally sensitive resource-intensive products. Openness should also promote the transfer of environmentally friendly and resource-efficient

technologies to developing countries, thus improving efficiency of resource use. Some rules with links to the environment are modified, and new sectors have been added to the debate. More focus is also needed on the broader links with trade, sustainable development, and other economic policies. This could diffuse some of the resistance of environmental groups to freer trade and their willingness to use trade measures to advance environmental goals.

However, developing countries will need to pay more attention to environmental issues on their own. Much of the increase in green standards is a market phenomenon of increased environmental awareness of consumers. In many cases, producers in developing countries have no choice but to adjust or lose markets. Globalization of markets will also spread environmental standards and technologies worldwide. Openness to investment and trade will allow developing countries to adapt more easily to the market situation. This may also diffuse protectionist abuse of environmental standards, as much of international trade today is intra-industry trade between producers, or producers and distributors.

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