PART SIX

Subjects added to the WTO work programme for study and analysis

CHAPTER 21

Trade and environment

Evolving global trends

During the last two decades, the interlinkage between trade and environment has become an increasingly important issue in international trade relations. Growing awareness of the need to protect the environment and to promote the sustainable development of available resources has led to a rise in environmental policy measures. Such measures are normally implemented by governments through regulatory or economic instruments. In some cases, both types of instruments are used.

The main regulatory measures, also known as 'command and control measures,' are as follows:

- Product standards setting out the characteristics with which a product sold in a particular market must conform;
- Regulations imposing process and production methods (PPM) and pollution standards;
- Import and export bans on products that are hazardous or harmful to health;
- Import and export restrictions decreed for the conservation and sustainable development of natural resources; and
- Packaging and labelling requirements.

Economic instruments include taxes on products that are hazardous or harmful to health; emission charges and other price-based measures; and environmental subsidies.

In comparison to regulatory instruments, economic instruments offer, in theory at least, a number of inherent advantages: greater cost-effectiveness, permanent incentives to reduce pollution, and revenue sources for the government. In practice, however, for both economic and administrative reasons, governments may consider direct regulation and control more appropriate and effective in certain situations. For instance, regulatory measures may be adopted where it is imperative that the emission of certain toxic pollutants or the use of hazardous products or substances should be completely prohibited. In other circumstances, regulatory measures may be supplemented by economic instruments to strengthen enforcement.

A country's choice of instrument – whether regulatory or economic – depends on the strengths and weaknesses of its political and administrative structures, and should be determined on a case-by-case basis. Such choices should take into account factors such as the measure's environmental effectiveness, economic efficiency, administrative feasibility and costs, equity and acceptability to the public.

The environmental policy measures taken by governments can affect trade in several different ways. It is worth noting three of these.

First, there are apprehensions that environmental standards may change conditions of competition. Producers in countries with stricter environmental standards worry about the impact of such standards on their costs and their ability to compete in world markets.

Second, producers in countries with less stringent standards (mainly developing countries and economies in transition) fear that their products may be subjected to trade measures on the ground that they have been produced by industries which do not meet the higher pollution or emission standards of importing countries. Any such measure, whether in the form of a compensatory tax or outright prohibition of, or a restriction on, imports, would amount to a unilateral assertion of jurisdiction over the environmental practices and priorities of other nations.

Third, there has been growing public concern with the global commons (for example, ozone depletion and climate change), species diversity and the treatment of animals. From the viewpoint of trade policy, this has raised an important question as to whether international environmental agreements dealing with global environmental issues should contain provisions that require members to restrict trade with non-parties, with a view to forcing them to join such agreements.

WTO provisions

The Agreement Establishing the World Trade Organization brought "trade-related aspects of environmental policies" clearly within the WTO mandate. The preamble to the Agreement states that its objective of "raising standards of living and ensuring full employment" by "expanding the production of and trade in goods and services" is to be achieved by making "optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment ... in a manner consistent with ... needs and concerns at different levels of economic development."

The main operational provisions governing trade measures taken by governments for environmental reasons are contained in GATT 1994. However, GATT does not carry direct references to environmental matters, mainly because the full implications of environmental and ecological degradation resulting from pollution or over-exploitation of natural resources were not known when the GATT text was first negotiated.

The general exceptions provided for by Article XX of GATT 1994 can be used by countries to adopt trade measures for the attainment of environmental objectives, if the conditions laid down are met. The Article permits countries to impose prohibitions or other restrictions not otherwise allowed under the provisions of GATT 1994, if they:

- Are necessary to protect human, animal or plant life and health [Article XX(a)], and
- Relate to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production and consumption [Article XX(g)].

In a recent dispute brought before WTO (on imports of certain shrimp and shrimp products and their effects on sea turtles), the Appellate Body ruled that

the term 'exhaustible natural resources' for the purposes of GATT Article XX(g) should be interpreted to mean not only 'mineral' or 'non-living' natural resources but also 'renewable' and 'living' natural resources like sea turtles.

Any trade restrictive measures taken in accordance with the above provisions of Article XX must, however, meet the following conditions:

- That they do not constitute means of unjustifiable discrimination where the same conditions prevail (the GATT principle of non-discrimination),
- That they are not a disguised restriction on trade.

In addition to the provisions of GATT 1994, certain provisions of some of the associated WTO Agreements are relevant to the interrelationship between trade and environment. These include provisions on standards in the Agreements on SPS and TBT, and the provisions on subsidies in the Agreements on SCM and Agriculture.

Trade-related issues

The main responsibility for WTO's work on trade and environment has been assigned to the permanent Committee on Trade and Environment (CTE). Discussions on the implications for trade of measures taken by countries for environmental purposes therefore take place in this Committee; they also take place in the Committees established under the individual WTO Agreements mentioned above.

The sections that follow briefly describe the trade issues that are being addressed in the light of the provisions of WTO law. The issues covered are listed below:

- Environmental measures with significant effects on trade, and the provisions of WTO law
  - Use of process and production methods in environmental regulations;
  - Packaging requirements;
  - Environmental labelling;
  - Consumption and other taxes imposed for environmental purposes.
- Trade provisions in multilateral environmental agreements.
- Environmental benefits of trade liberalization.

Environmental measures with significant effects on trade, and the provisions of WTO law

Use of process and production methods in environmental regulations

Standards can broadly be divided into two categories: product standards, and process and production methods (PPM). Product standards lay down specifications for product characteristics (such as performance, product safety, dimensions) and requirements for packaging or labelling. They need to be distinguished from PPM standards which stipulate how goods are to be produced. PPM standards apply to the production stage, i.e. before products are placed on the market for sale.

It is only logical that each country should have a sovereign right to insist that imported products should meet the product standards applicable to goods

produced domestically with a view to protecting the environment, or the health and safety of its people, or its animal life. The SPS and TBT Agreements require countries to use international standards in formulating such standards. Where international standards are not available or are considered inappropriate, countries must ensure that standards are not adopted or applied in a way as to create unnecessary barriers to trade.

The rules of the SPS and TBT Agreements do not allow countries to prohibit or restrict imports on the grounds that the imported product has not been produced according to the PPM standard imposed on domestic industries. The Agreement on TBT makes a single exception to this rule: a country may prohibit imports of a product when the PPM used affects its characteristics or quality.

However, an importing country may not restrict imports solely because a product has been produced in a plant which does not meet its national standards for water or air pollution, or because the product has not been made according to the methods of production the country prescribes. Any such requirement would be tantamount to obliging an exporting country to adopt the PPM of the importing country, which the exporting country may have good reasons not to use because of its environmental and ecological conditions.

Despite WTO law, pressures from environmental lobbies are forcing governments to introduce laws which have an impact on trade because imports are then restricted on the ground that they have not been produced according to the methods of production imposed by these laws. Such methods include the following:

- Management practices for forest resources;
- Norms for catching fish;
- Methods for fattening animals or for enhancing the milking capacities of cows; and
- Methods for killing animals.

For instance, there are moves in the Netherlands to allow imports of wood and wood products only if they are accompanied by a certificate issued by competent authorities stating that the wood raw material has been obtained from forests that are managed sustainably. The European Union bans imports of furs from animals caught with leg-hold traps. The United States has laws which restrict imports of tuna from countries which do not require their fishermen to prevent dolphins from being killed unnecessarily when tuna fishing, an obligation imposed on United States fishermen. Likewise, the United States prohibits imports of shrimp from countries which do not adhere to national standards for preventing the taking of sea turtles in the course of shrimp trawling.

The standards used for the imposition of such trade measures are generally not based on scientific principles, but reflect value preferences in importing countries. In some instances, the standards may, in the case of the proposed import restrictions on tropical timber, be based partly on scientific considerations and partly on the value preferences of the importing country. Such measures amount to the imposition of values by importing countries on exporting countries.

The United States measures prohibiting imports of tuna and shrimp were brought to the attention of GATT/WTO under dispute settlement procedures by countries which considered that their export trade was being adversely affected. In both cases the rulings have gone against the United States. The Panels and the Appellate Body have taken the view that these measures are not justifiable under the general exceptions allowed by Article XX, as they were

applied on a discriminatory basis and constituted unjustifiable barriers to trade. They have further suggested that, as such measures constitute extraterritorial application on other countries of one country's PPM standards, importing countries contemplating such measures should explore the possibility of negotiating international cooperation arrangements among all interested exporting and importing countries, in order to ensure that such measures are consistent with the provisions of Article XX.

The difficulties inherent in negotiating international cooperation agreements should, however, not be minimized. Such negotiations are time consuming, and the environmentalists pressing for immediate action may not approve of their governments postponing action until consensus is reached at an international level. Moreover, such negotiations tend to be complex, as in most cases the PPMs proposed are not based on scientific considerations but on values to which certain countries or groups in these countries attach importance. Values that may be significant to affluent and well-off societies are not necessarily shared by those with low incomes and differing priorities.

Packaging requirements

Objectives of packaging regulations

'Package' or 'packaging' can be defined as a material or item that is used to protect or contain a commodity or a product.

The main environmental objective for which new packaging requirements are being adopted is to reduce the amount of packaging that enters the waste stream, particularly packaging that has to be disposed of through incineration or landfills. It is estimated that 25% to 30% by weight of the waste generated by a typical household in European countries is packaging waste. As most of these countries are running out of landfill space, the new regulations aim at encouraging domestic manufacturers, importers and foreign companies to reduce the packaging waste that has to be disposed of, *inter alia*, by requiring them to reuse the packaging material several times and to recycle the material which cannot be used more than once.

In addition, packaging requirements may be adopted to reduce the resource intensity of packaging (e.g. by discouraging the use of materials requiring energy-, water- or air-intensive processes) or to control the risks associated with certain types of packages.

Types of requirements

The policy measures taken by governments to achieve the above objectives could include command and control instruments (such as outright bans or mandatory collection or recycling requirements) or economic instruments, which primarily aim at internalizing the externalities of packaging production, use or disposal and at influencing behaviour through the price mechanism. Box 54 highlights the main features of the measures used.

While most of these requirements are imposed uniformly throughout a country under national legislation, it is not uncommon for provincial or local government bodies to adopt a deposit refund or other schemes for the collection of packaging waste, where they consider such schemes necessary for the efficient disposal of packaging waste.

Trade effects of packaging requirements

Even when packaging requirements are applied on a non-discriminatory basis to domestically produced and imported products, they may pose special problems or difficulties to foreign suppliers, particularly in the following situations:

Box 54

Examples of packaging requirements introduced for environmental reasons

Regulatory measures

These include measures prohibiting the use of:

- *Packaging materials containing lead, mercury, cadmium;*
- *Containers that are not refillable or recyclable; and*
- *Packaging material that does not contain or has less than a specified proportion of recycled material.*

Deposit refund systems (DRS). A number of countries have adopted mandatory deposit refund systems for beer and soft-drink containers. Some countries have extended the system to cover containers for detergents and paints. As the consumer can claim the deposit only by returning the containers, the system creates an incentive for them to do this.

Mandatory recycling or recovery laws. In order to facilitate the recycling of packaging waste, the laws of a few countries require households to sort packaging waste (e.g. cans, bottles and paper containers) for separate collection.

Economic instruments

Virgin material tax. This tax can be levied on raw materials used for the production of packaging material. The aim of such an input tax is to reduce the use of virgin materials in favour of recycled materials.

Product charges. These charges are levied on packaging materials. They may be designed to encourage the use of packaging materials that are considered environmentally friendly. For instance, packaging products made entirely from recycled materials may be tax exempt, while those made partly from recycled material may face lower charges. Higher charges would be payable on containers that are not recyclable or refillable.

Cooperative arrangements

In addition, the industry may agree to abide by a voluntary code of conduct negotiated by private-sector associations with a view to reducing the generation of new packaging waste and to increasing the use of refillable or recyclable packaging material.

- Where packaging requirements vary from country to country, foreign suppliers may have to incur higher costs to ensure that their exports meet the differing requirements.
- Packaging requirements are often formulated on the basis of the packaging materials in common use in an importing country and its waste facilities or priorities; such requirements may discourage overseas suppliers from continuing to use indigenous packaging materials.
- Foreign suppliers, particularly in developing countries, may find it difficult to comply with legislation in importing countries which imposes obligations related to the collection and reuse, recycling or final disposal of the packaging waste, if:
  - They find that the costs of joining obligatory programmes (membership and subscription fees, as well as the costs of making their packaging acceptable under the programmes) are high in relation to their total sales in the import market; and

- The facilities do not cater to the packaging materials they use. For instance, the programme may provide for the collection of plastics, corrugated paper or paperboard but not for the collection of wooden packaging materials, jute or the other materials widely used in developing countries.

Some difficulties can be greatly reduced by harmonizing packaging and disposal requirements internationally. There are, however, doubts as to whether international harmonization is feasible; and if feasible, whether it is necessarily desirable, because of the wide differences in national supplies of packaging materials, waste disposal facilities, and the preferences of industries and consumers.

Legal provisions

The TBT Agreement carries specific provisions on packaging. As noted earlier, the Agreement applies primarily to technical regulations specifying product characteristics. It clarifies that such characteristics may include "packaging ... or labelling requirements as they apply to a product, process or production method."

Environmental labelling

Types of environmental labels

Recent years have seen a marked increase in the use of environmental labels on products or their packages to highlight their environmental attributes or features. Most of these labels are voluntary, in that the decision to use a label is taken by manufacturers or by retailers marketing the products under their trade names. In some cases, however, the labels may be enforced by mandatory regulations. Such regulations are intended to warn consumers against the hazardous environmental qualities of products, for instance, on their chlorofluorocarbon (CFC) content.

Voluntary environmental labels are used as a marketing technique to promote sales of products on the basis of their environmental attributes. They can be broadly divided into two categories. In the first category would fall environmental marketing labels which declare the claims of manufacturers and retailers that the product bearing the label has certain specified environmental attributes or qualities. In some cases, in order to assure consumers of the accuracy of the environmental claims, the claims may be certified by independent research laboratories and inspection agencies.

These environmental labels need to be distinguished from the labels falling into the second category, where authorization to use the label is granted by a government-sponsored or a private independent body when it is satisfied that the applicant producer or supplier has met the criteria and conditions it has laid down for the award of the label. The labels in this second category are generally termed 'eco-labels'.

Eco-labelling systems

One of the important features of the eco-labelling system is that the criteria used for awarding the right to use the label are developed by an eco-labelling body. Such criteria are almost invariably determined on the basis of a life-cycle analysis, a process also referred to as the cradle-to-grave approach. Under this approach, an assessment is made of the impact on the environment of the product in various stages of its life cycle. These stages include pre-production (i.e. processing of raw materials), production, distribution (including packaging), utilization or consumption, and disposal after use.

The methodologies for life-cycle analysis vary from system to system. In some systems, detailed analysis of a product's environmental impact is made on the

basis of data collected on input and output for each component of a product at every stage of its life cycle. Other systems analyse environmental impact only in relation to certain stages in a product's life cycle. The criteria developed by technical experts on the basis of a life-cycle analysis are approved by a jury consisting of representatives of the industry concerned, environmental, consumer and other groups, and the government. In most cases, even though the environmental impact of the product in all stages of production may have been taken into account, the final criteria may be based on only one or two environmental attributes (e.g. energy consumption in use, recyclability).

The extent of government involvement in the decision-making process, in relation to both the selection of products and the criteria used for the award of the label, varies from country to country. The eco-labelling bodies have to rely, at least initially, on governments for financial support, particularly as the research and technical work for the development of criteria based on the cradle-to-grave approach call for considerable expenditure.

Regulations on the establishment of autonomous eco-labelling bodies often require juries to submit their decisions to governments for approval. In most cases, however, governments are not expected to overrule the juries. For instance, for the Austrian and Nordic labels, the recommendations of the jury are generally accepted. For the German Blue Angel label, the jury has absolute authority to determine product categories and criteria. In contrast, the French Government may substantially change the product criteria which the standardization body (the Association française de normalisation or AFNOR) proposes. In India, representatives of Ministries such as the Environment and Industry are members of the Steering Committee which selects products and determines criteria.

Government involvement in labelling programmes is, on the whole, considered desirable as it is in a better position to ensure that the criteria adopted are based on objective considerations and that they reflect the balanced views of industry, environmental groups and other interest groups.

Eco-labelling programmes aim to protect the environment by raising consumer awareness of the environmental effects of products and hence to modify buying behaviour, and by bringing about a change in product specifications in favour of more environmentally friendly materials and technologies. Under such programmes, labelling is conceived of as a market-oriented instrument which does not establish any binding requirements or restrictions.

Trade effects of eco-labelling systems

Box 55 contains an illustrative list of eco-labelling systems in both developed and developing countries. It can be seen that many eco-labelling systems are sponsored by governments. As the products for which eco-labels have been developed are comparatively few, there is little evidence of their adverse impact on trade.

There are, however, apprehensions that such labelling programmes may put developing countries in a position of competitive disadvantage when a number of schemes now under preparation become operational. These fears are heightened by the fact that foreign suppliers are not able to participate in the negotiations on product selection and eco-labelling criteria.

The problems of foreign producers, particularly those in developing countries, may be exacerbated if the criteria (especially those related to PPMs) are influenced almost entirely by the domestic industry and the environmental values of groups in the country adopting the system. Furthermore, these producers may find it almost impossible to obtain the right to use eco-labels if the criteria differ from country to country.

Box 55
Illustrative list of eco-labelling systems

Government-sponsored eco-labelling systems

- *Developed countries*
  - *Blue Angel: Germany*
  - *Eco Mark: Japan*
  - *Environmental Choice: Canada*
  - *NF Environment: France*
  - *White Swan: Nordic countries*
  - *European Union label*

Australia, Austria, the Netherlands and New Zealand have also started eco-labelling programmes.

- *Developing countries*
  - *Eco-logo: Republic of Korea*
  - *Eco-Mark: India*
  - *Green Label: Singapore*

Efforts to develop eco-labelling systems in some other developing countries are at various stages of development.

Private labelling schemes (non-government)

- *Scientific Certification System, earlier known as the Green Cross: United States*
- *Green Seal: United States*
- *Good Environmental Choice: Sweden*

Two private initiatives in Germany, one for textiles and another for tropical timber, are developing criteria for labelling these products.

GATT provisions on environmental labelling

The main provisions of GATT law applicable to environmental labelling are contained in the TBT Agreement.

Consumption and other taxes imposed for environmental purposes

Internal taxes and charges – such as consumption taxes, product charges, emission charges and administrative charges – are being increasingly used for the attainment of environmental objectives. Box 56 cites some of the environmental purposes for which such taxes are levied.

GATT rules

GATT rules permit countries to levy on imported products (in addition to customs duties) internal taxes that are payable on like domestic products. To ensure that such taxes do not result in a higher level of protection for domestic production, Article III.2 of GATT reiterates the national treatment rule in regard to internal taxation and states that imported products should not be subjected "directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied ... to like domestic products." Product and administrative charges would thus be consistent with GATT rules so long as they are not levied on imported products at a rate higher than that applicable to products of domestic origin.

Box 56

Taxes levied for the attainment of environmental objectives

Product charges

These are applied to products that are polluting or because some of their components create disposal problems. Among these products are toxic chemicals, detergents containing phosphates, batteries containing heavy metals and non-returnable packaging. Such charges may also be levied at a lower rate to encourage consumption of less-polluting products such as lead-free petrol.

Emission charges

These are applied on pollutants released into the air, water or soil, or on the generation of noise. They may be levied at the point of consumption (in which case they are similar to product charges and would have similar trade effects) or they may take the form of user charges to cover the cost of public treatment of effluents and waste.

Administrative charges

These are generally applied in conjunction with regulatory instruments to cover the costs of government services, and can take the form of license, registration, testing and control fees.

The use of revenues raised by the application of internal taxes on imports

Can internal taxes on polluting products applicable to both domestically produced and imported products be levied to raise revenue for financing environmental programmes of solely domestic benefit?

This issue was considered in 1987 by a GATT Dispute Settlement Panel on the basis of a complaint made by the European Community, Canada and Mexico in relation to the United States Superfund Amendment and Reauthorization Act. The Act authorized a tax on imported and domestically produced chemicals used in the manufacture of derivatives to fund the Superfund programme for cleaning up hazardous wastes resulting from industrial production in the country. The United States claimed that the measures were consistent with GATT Article III – the Article which permits countries to make border tax adjustments by levying internal taxes on imported products provided the national treatment rule was strictly adhered to. The European Community argued that the tax should not have been levied on imported products.

The Panel concluded that the tax was consistent with the national treatment principle of Article III and thus eligible for a border tax adjustment. As regards the above point made by EC, the Panel observed that:

> ...the tax adjustment rules of the General Agreement distinguish between taxes on products [direct taxes] and taxes not directly levied on products [indirect taxes]; they do not distinguish between taxes with different policy reasons. Whether a sales tax on a product is levied for general revenue purposes or to encourage the rational use of environmental resources is therefore not relevant for the determination of the eligibility of a tax for border tax adjustment.

As regards the contention that, in accordance with the polluter-pays principle, only domestic production should have been taxed, the Panel observed that the principle, although accepted by OECD countries on a voluntary basis, was not part of GATT law. In particular, it stated that: "The General Agreement's rules on border tax adjustment"give a GATT member country "the possibility to follow the Polluter-Pays Principle, but they do not oblige it to do so."

The Panel, however, observed that if a GATT member country

> ...wishes to tax the sale of certain domestic products (because their production pollutes the domestic environment) and to impose a lower tax or no tax at all on the imported products (because their consumption or use causes fewer environmental problems) it is, in principle, free to do so.

The Panel Report appears to suggest that it considered it inequitable that the tax, which was intended solely to finance the importing country's domestic environmental programme, should have been levied also on imported products. However, as its mandate required it to examine the case on the basis of the existing law, the Panel, while holding that the United States measures were consistent with GATT, suggested that the GATT Group on Environmental Measures and International Trade should examine whether the polluter-pays principle should be included in GATT law and whether any changes in GATT rules relating to border tax adjustment were necessary. The annex to this chapter describes the main features of this principle.

Trade provisions in multilateral environmental agreements

There are over 140 international agreements and instruments in the environmental field. About 20 of these multilateral environmental agreements (MEAs) contain trade provisions. These can be grouped into three categories:

- Agreements to control transborder pollution or to protect the global commons. Examples of such agreements are the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances That Deplete the Ozone Layer, and the Agreement on Climate Change.
- Agreements to protect endangered species, migratory birds, and animals, fish and sea animals. Examples are the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the International Convention for the Regulation of Whaling. Among the provisions of these Agreements are guidelines on methods for catching or killing wild animals or fish.
- Agreements to control production and trade in hazardous products and substances. Examples are the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the London Guidelines for the Exchange of Information on Chemicals in International Trade.

Broadly speaking, the obligations imposed by these agreements on participating countries in order to control trade take the form of a prohibition on imports and exports.

From the viewpoint of GATT law, the imposition of restrictions on trade with the other countries participating in an MEA may not present any problem, as all the MEA participants have agreed to the imposition of restrictions. Each member country would be able to justify the restriction as being necessary under Article XX for the protection of health or the conservation of resources in its territory.

The situation would be different where the MEA also imposes a prohibition on trade with countries that are not parties to the agreement. An illustration often cited in this context is the Montreal Protocol. It calls on countries that are parties to it to eliminate production and consumption of substances that deplete the ozone layer (listed as 'controlled substances') by the year 2000. As regards trade with parties, the Protocol leaves it to each country to decide how it should restrict its exports and imports of such substances, taking into account its overall commitment to eliminating production and consumption of such substances by the target date. The parties to the Protocol, however, were

required to prohibit trade with non-parties in substances that deplete the ozone layer immediately after the Protocol became operational. Similar provisions which require parties to apply more trade-restrictive measures to non-parties than to parties are incorporated in the Basel Convention and in CITES.

These provisions raise two sets of questions. First, are the trade provisions requiring member countries to prohibit or restrict their trade with countries that are not parties to the environmental agreements really necessary and desirable from the economic point of view? The second question is whether these provisions, which apply on a discriminatory basis to imports or exports from non-parties, are consistent with the obligations of parties under the general principles of international law and, more particularly, GATT law.

These issues are being discussed in the bodies concerned with the environment such as UNEP and in the WTO Committee on Trade and Environment (CTE). However, as CTE noted in its 1996 report, the WTO rules provide broad scope for such measures and there was as yet no agreement among member countries to change the related WTO provisions.

Environmental benefits of trade liberalization

One of the broader and important issues receiving the attention of CTE is the relationship between trade liberalization, and environmental protection and sustainable development. To provide a basis for discussion on the subject, the WTO Secretariat has prepared a background paper covering a number of sectors (agriculture, energy, fisheries, forestry, non-ferrous metals, textiles and clothing, leather, and environmental services), outlining the most prevalent trade restrictions and distortions in each sector and the environmental benefits associated with their elimination.

The paper notes that, to a great extent, trade liberalization is not the primary cause of environmental degradation, nor are trade instruments the first-best policy for addressing environmental problems. The most significant part of the relationship between trade liberalization and the environment is reflected in its indirect effects on levels and patterns of production and consumption. Therefore, the environmental benefits of removing trade restrictions and distortions are also likely to be indirect and not readily identifiable in general terms.

The basic premise of the Secretariat's paper is that in well-functioning market-based economies, prices register the relative scarcity of resources and consumer preferences; their role is, *inter alia*, to allocate resources efficiently. The welfare of society can be undermined, however, when market prices fail to capture the effects of environmentally damaging activities and therefore send misleading signals on the optimal use of environmental resources. Resource misallocation undermines effective environmental management. Distorted prices obscure the abundance of under-utilized environmental resources, contribute to the excessive depletion of exhaustible resources, generate new environmental problems, and increase the excessive use of environmentally damaging inputs.

The background paper, however, points to a positive relationship between the removal of trade restrictions and distortions and improved environmental quality. Such a relationship results in:

- More efficient factor-use and consumption patterns through enhanced competition;
- Poverty reduction through trade expansion and the encouragement of a sustainable rate of natural resource exploitation;

- An increase in the availability of environment-related goods and services through market liberalization; and
- Better conditions for international cooperation through a continuing process of multilateral negotiations.

For developing countries, trade is the main means available to secure the resources needed for environmental protection. The political promises made at the United Nations Conference on Environment and Development (UNCED) of large financial and technology transfers to developing countries to help them meet their economic development and environmental protection needs have not been fulfilled. As a result, trade liberalization in favour of products of export interest to developing countries has become a fundamental requirement to help them achieve sustainable development. In addition, to address some of the most pressing global environmental problems (e.g. climate change), liberalizing trade in environmental goods and services can make a significant contribution.

Future work

CTE continues to carry out analytical work on these and other related issues. The decision on whether there should be negotiations leading to the development of new rules in this area will be taken at the third Ministerial Conference to be held in November 1999.

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ANNEX

Polluter-pays and user-pays principles

According to the polluter-pays principle (PPP) the polluter should be made to bear the expenses incurred by public authorities for the abatement of pollution and its prevention and for the maintenance of the environment in an acceptable state. It complements the user-pays principle (UPP) which was developed by OECD subsequently. While PPP is concerned with pollution, UPP deals with the pricing of exhaustible natural resources. It states that the price of a natural resource should reflect the full range of costs involved in using it, including the costs of the external effects associated with exploiting, transforming and using the resource, together with the costs of future uses forgone.

The economic rationale on which both these principles are based is that when environmental costs are fully internalized, and are thus reflected in prices, the market mechanism can be expected to encourage the adoption of techniques for pollution abatement and for the conservation of exhaustible resources to levels consistent with sustainable development, and to help prevent distortions in investment allocation and trade patterns. The implementation of the two principles by all countries could thus facilitate the sustainable development of the world's resources.

It is visualized that the internalization of costs in accordance with these two principles can be achieved through command and control measures (ranging from process and product standards to individual regulations and prohibitions) and/or through economic instruments (providing for the levy of various kinds of pollution charges).