

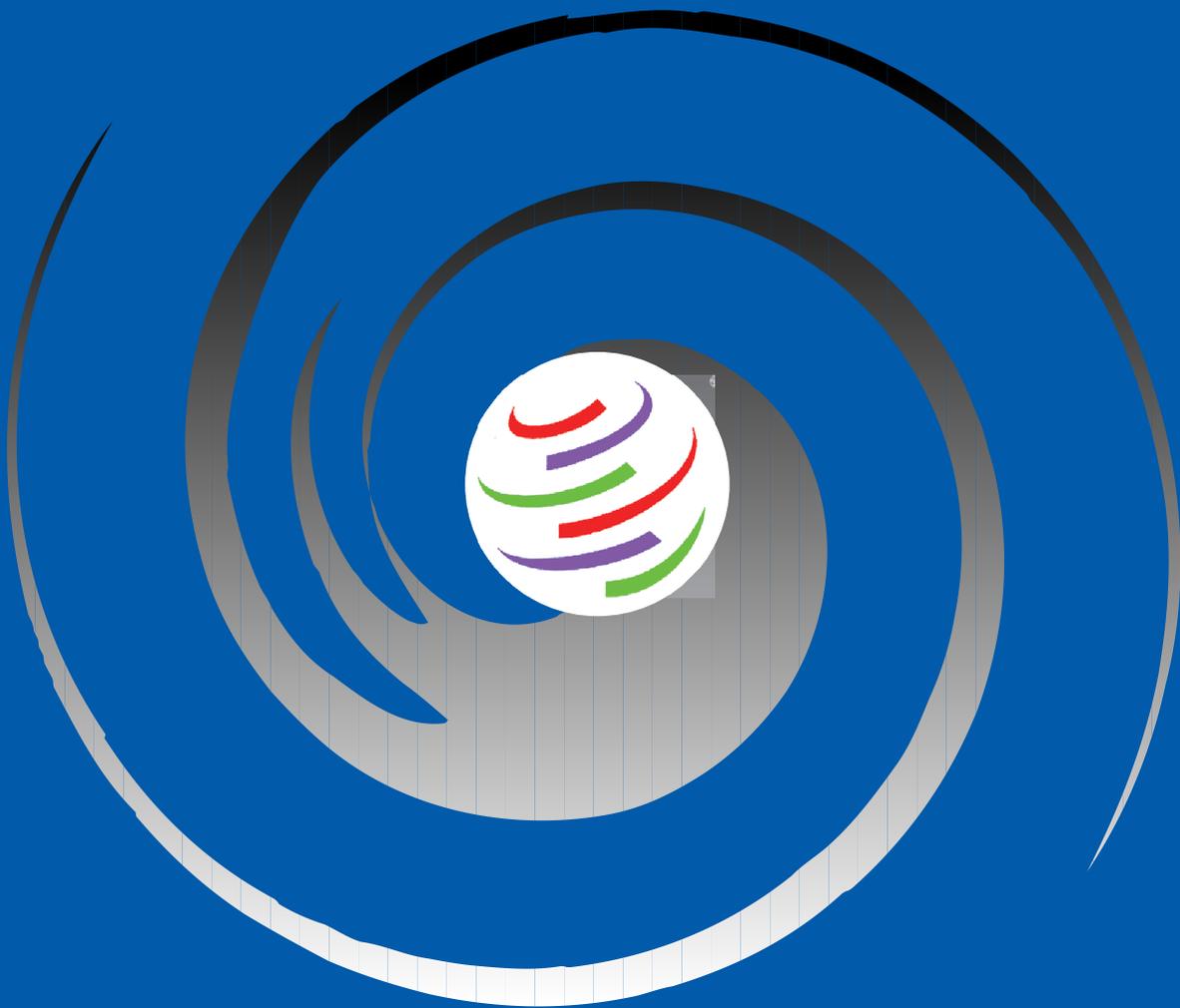
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From the Director's Desk



K.T. Chacko

THE Doha Ministerial Declaration calls upon member countries to enhance the mutual supportiveness of trade and environment through increased trade of environmental goods and services. It, thus, mandates member countries to negotiate on the elimination or reduction of tariff and non-tariff barriers to trade these goods and services.

Identification of environmental goods poses challenges as drawing up such a list of goods in a world of dynamic technological development is a difficult task. Further, many environmental goods would have environmental and non-environmental use. The issue of cost of technology and its affordability of importing the same *vis-a-vis* low cost technologies adopted in many developing countries also needed to be factored. The enhancement of trade in environmental goods cannot and ought not be reduced to a market access initiative for the "environmental goods" which in many cases would have dual use.

Proposals have been tabled for adopting an alternate environmental project approach as it is perceived to be more effective and comprehensive. Apparently, lot more work needed to be undertaken in furtherance of the objective of enhancing trade in environmental goods and services and more concerted efforts needed to be made by the developed as well as developing countries in capturing the multi-dimensional issues so as to arrive at a consensus, in the matter.

WTO Environmental Negotiations and Sustainable Development

Aparna Sawhney*

The article examines the current environmental negotiations under the Doha agenda and the linkage with sustainable development. In this context it considers two negotiation issues namely the liberalization in environmental goods and services, and the relationship between multilateral environmental agreements and the WTO rules. The paper argues that while both negotiation issues are closely linked to environmental protection and sustainable development, the current negotiations at the WTO have often failed to reflect this connectivity.

I. Introduction

SUSTAINABLE development, though not an explicit goal of the WTO, is recognized as a compatibility condition in its primary goal of trade liberalization. This is amply evident in the way the concept of sustainable development has been embedded in the Preamble to the Marrakesh Agreement, which states that in the pursuit to expand production and trade in goods and services it would allow for “the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development” (paragraph 1, Agreement establishing the WTO 1994). The Doha Ministerial Declaration reaffirmed the commitment of the WTO Members to upholding and safeguarding an open and non-discriminatory multilateral trading system, which “can and must be mutually supportive” in the protection of the environment and the promotion of sustainable development. Moreover, as part of the continuing work within the WTO, the Committees on Trade and Development and on Trade and Environment look into the developmental and environmental aspects of the negotiations.

For the first time “environment” was included in the trade negotiating agenda in the Doha Round (earlier in the Uruguay Round environment was not part of the original agenda but was eventually discussed). Two of the environmental items have been the focus of much deliberation among the members, namely the relationship between existing WTO rules and specific trade obligations set out in the multilateral environmental agreements, and the liberalization of trade in environmental goods and services (paragraphs 31 (i) and (iii) respectively of the Doha Ministerial Declaration). This paper analyzes the linkage between these two negotiating items and sustainable development.

II. The Relationship between WTO and MEAs

The relationship of GATT/WTO rules with respect to MEAs in the Doha is an unresolved issue from the Uruguay Round. The issue had been part of the regular work of the CTE (Committee on Trade and Environment), before it entered explicitly into the Doha mandate. In particular, two of the ten agenda items of the CTE’s work cover this area: the relationship between the provisions of the multilateral trading system and trade

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measures for environmental purposes, including those pursuant to multilateral environmental agreements (Item i); and the relationship between the dispute settlement mechanisms in the multilateral trading system and those found in multilateral environmental agreements (item v). In 1996, the CTE endorsed multilateral solutions based on international cooperation and consensus, as the best and most effective way for governments to tackle environmental problems of a transboundary or global nature. It acknowledged that the WTO Agreements and MEAs are representative of the efforts of the international community to pursue shared goals, and in the development of a mutually supportive relationship between them, due respect must be afforded to both.

Although the current negotiations on the MEA-WTO relationship is restricted to specific trade obligations (STOs), it raised questions regarding the intent and outcome of establishing such a relationship among several WTO members, especially developing countries looking towards more open markets in industrialized countries. Considering the fact that the environmental agenda in the WTO has been primarily driven by the EC, concerns abound as to whether this would move the trading system towards a more restrictive regime at a time when the developed world is being asked to remove trade distortions in their economies. In July 2006, the EC (European Commission)

proposed that a ministerial decision should be taken on trade and environment that would establish the core principles to govern the relationship between MEAs (multilateral environmental agreements) and WTO rules.

It is obvious that the final clarification of the relationship will have significant impact on the interpretations of the GATT Article XX exceptions (for the protection of human, animal, and plant health; and conservation of exhaustible natural resources); and of the term "sustainable development" in the Preamble establishing the WTO.

The negotiation stance of the developed Member countries like the EC, Japan, Switzerland and Norway, is to push for a broad scope legitimizing trade measures based on cooperative environmental initiatives (taken among at least three parties). The official stand is that the decision would clarify the environment for "trade policy-makers and negotiators of MEAs alike and help prevent conflicts from happening in the first place because clearer parameters would mean that MEAs would take the WTO rules into account and WTO law would give due weight to obligations arising under MEAs" (WTO 2002). In particular, the EC states that this would boost multilateralism as opposed to unilateralism. Thus the submissions by the EC, Norway, and Switzerland refrain from doing an MEA-by-MEA analysis of STOs, and instead comment on the conceptual relationship of two equal legal systems, namely the MEAs and the WTO.

However, the broad agenda of the EC (supported by Switzerland and Norway), poses a risk to the multilateralism, since some MEAs allow party discretion to undertake unilateral restrictive trade measures based on the party's environmental priorities or evaluation. This clearly carries a potential threat of regionalism/unilateralism.

By contrast, the position of developing countries like India is to have a well-structured analysis of STOs on an MEA-by-MEA basis, in particular those MEAs where the majority WTO members are signatories. The negotiating approach of "MEA-by-MEA analysis to accommodate the STOs in the WTO system" of developing countries allows for a balancing between their commercial and environmental interests. Indeed, India noted in an initial paper in 1996 to the CTE that, in dealing with only one element of an MEA, namely the trade measure, "we may be unconsciously encouraging dependence on trade measures to achieve environmental objectives, when we are all agreed that this is not the best way of handling environmental concerns".

Since each MEA is distinct, the case-by-case analysis allows for recognizing the uniqueness of each treaty and the corresponding STOs. Although, the STOs identified by the members do not necessarily match based on the interpretation of the legal language of a treaty and the party discretion contained in the provisions, the exercise is clearly bringing out the nuances that can help identify which trade

obligations pursuant to an MEA are necessary and justifiable in achieving the environmental objective.

The results from such an analysis can also be used to derive an understanding to support MEAs within the WTO regime. While the current negotiation stand seems restrictive, it is part of the softer option to accommodate trade obligations pursuant to MEAs within the WTO rules, without compromising member rights. A structured MEA-by-MEA analysis is a judicious negotiating stand to clarify the relationship between STOs pursuant to MEAs with WTO rules, since this would lead to a clear understanding of what kind of trade measures for environmental purposes are consistent under the WTO.

While it may seem that developing countries are engaged in the semantics of each term contained in Paragraph 31(i), it is one way to minimize the risk of including non-effective and unnecessary trade measures in the guise of environmental protection. Even supporters of the broader agenda, like Japan, have acknowledged that the discretion provided in some MEAs make the definition of STOs difficult, and indeed a case-by-case analysis may be required for those MEAs. In this light, a restrictive definition of STOs, as adopted by India, is a sound approach, especially to check for the protectionist pitfalls of a broader definition.

Essentially the developing countries are keen to ensure that

their export prospects are not hurt by a broad interpretative decision between MEAs and WTO. The negotiating stand taken by developing countries allows them to steer clear of the more radical approach of presumed consistency, precautionary principle based on lack of scientific evidence, and reversal of burden of proof (fundamentally move away from the science and rule-based GATT/WTO system) of environmental trade barriers. For example, provisions within some MEAs allow for party discretion or environmental priority in the use of restrictive trade practices among parties (For example, Article 11.8 of the Cartagena Protocol to ban trade in Living Modified Organisms) even though there may be no scientific basis for such environmental measures. Thus a decision/rule that completely accommodates MEAs within the WTO system poses a potential risk to multilateralism.

It is important to reiterate that trade obligations pursuant to MEAs may not be effective or efficient, since they are meant to work in conjunction with other provisions laid out in the treaty. Even specific trade obligations are considered critical to achieve the environmental objective of the MEA. For example, trade bans in the Convention on International Trade in Endangered Species (CITES) have failed to achieve the primary environmental objective when conducive domestic factors were lacking. Thus the conditions of *necessity, effectiveness, and proportionality* of trade measures

are important aspects to maintain during the current negotiations for the decision on STOs pursuant to MEAs and WTO rules. Thus a WTO decision to support MEAs cannot overlook whether the trade measures pursuant to an MEA are indeed an integral, crucial, and efficient tool to achieve the environmental objective, or not.

Trade measures within MEAs, especially those which are embedded as punishment strategy to the cooperative game of environment protection (as in the case of the CITES), may not be effective in realizing the environmental goal, nor compatible with sustainable development. On the other hand, trade obligations in MEAs which are information enhancing (like prior consent before trading in potentially hazardous products), however, are essential and compatible with sustainable development. It follows that the relationship between the WTO rules and MEAs will need to be a qualified statement, and not a broad sweeping assumed consistent relationship (as proposed by EC) in order to be compatible with the concept of sustainable development.

III. WTO EGS Negotiations and Sustainable Development

The reduction/ elimination of tariff and non-tariff barriers to environmental goods and services (EGS) is another critical issue in the current negotiations. At the face of it, liberalization of EGS seems to offer a win-win solution

to boosting world output and enhancing environmental protection activities directly. Considering the gross under-provision of environmental goods and services in developing countries, liberalization of this sector seems to be the perfect answer to improving the provision of essential environmental services like clean water and sanitation to the population in these countries. In other words, the liberalization of EGS is inherently connected to the concept of development and sustainability issues since it covers pollution control activities.

The negotiations in the liberalization of EGS at the WTO, however has proceeded along the lines of typical horse-trading, often reflecting no link with sustainable development. This is primarily driven by the way in which the sector has been defined (rather not defined) prior to the commencement of the negotiations. Since the EGS sector is broadly defined to include activities that measure, limit, prevent or correct environmental damage to air, water and soil, and problems relating to waste, noise and ecosystem (OECD/ Eurostat definition), it is one of the largest and most diffused economic sectors.

Given the broad scope of economic activities and sectors, the negotiation outcome of liberalization in EGS will determine the future rules of the WTO trading regime, and impact a whole host of sectors (like chemicals, engineering, construction, consulting, research and development); and issues (like

subsidies, government procurement) which are being negotiated within the WTO separately.

The mandate on the current negotiations of EGS has two basic problems. *First*, the negotiations on environmental goods were launched without providing a classification or even a basic definition of what commodities constituted environmental goods. Considering the dispersed nature of the sector this inevitably led to a debate on the definition and classification of environmental goods. In environmental services too, definitional issues have been raised, although the Members have had at least a four-segment classification (provided in the GATS during the Uruguay Round) to negotiate on, namely (a) sewage services; (b) refuse disposal services; (c) sanitation and similar services; and (d) other environmental services. There was no comparable classification provided for environmental goods, and thus the negotiations began with submission of potential lists of environmental goods (mostly standard industrial products), often with questionable environmental value.

A *second* problem with the current mandate is the failure to recognize that environmental equipment and services are often provided in an integrated manner, especially in segments of water treatment, and waste management. Yet in the WTO the EGS negotiations are handled in two different forums and not in the integrated manner even though the market reality shows

that EGS are often offered in a consolidated manner. For example, technology, design and engineering of waste treatment systems fall under environmental services, but the provision of these environmental services are often integrated with the provision of the associated equipment.

The reason for the artificial separation in the WTO stems from its legal framework under which goods and services negotiations fall under the GATT and GATS respectively. Thus the current negotiations under DMD paragraph 31 (iii) are being conducted in two separate committees: environmental services in the GATS, and environmental goods in the special session of the CTE and NAMA. The disconnectedness in the environmental goods and services negotiations flies in the face of the principle of incorporating environment into the WTO in a holistic manner.

The dispersed nature of the environmental industry make listing of a neat list of goods for GATT-style liberalization difficult to say the least, and the absence of a proper classification in the DMD has only further increased the challenge for the current negotiations. The listing of standard industrial goods with questionable environmental usage reflect how the EG negotiations had lost the link to the overall goal of environmental benefits and sustainable development.

In 2005, the global EGS sector is valued at US\$652 billion with

the environmental services sector accounting for more than half the total value. The largest environmental markets are in the US, Japan and Western Europe, however, emerging economies including those of Central and Eastern Europe, Latin America and Asia-Pacific region (especially China and India) have experienced the most vibrant growth in their environmental markets. In 2005, these emerging economies accounted for 14 per cent of the global environmental market compared to only 8 per cent in 1994.

The interests of the negotiating Members on the liberalization of EGS are based on the level of maturity of their respective domestic environmental industries. The global EGS industry is dominated by developed countries, with the US, Western Europe and Japan accounting for 85 per cent of the total world market. The mature environmental firms from the industrialized countries have a comparative advantage in the export of resource-saving and clean technologies, and in technical expertise in the design and engineering of treatment and purification facilities. As the domestic environment markets in OECD countries reach saturation, exports from the environmental firms in these countries was seen as a significant growth factor.

In developing countries, the EGS sector is still at the stage of initial development. There is no scope for a level playing field for these relatively new and small firms, considering the OECD

environmental firms are large multinationals with deep pockets. However, the EGS sectors in the developing countries stand to gain from imports of cleaner technology that can be adapted to the local conditions. While developing countries will remain net importers of EGS, there is scope for some niche exports in both environmental goods and services.

In the current negotiations, in order to give credence to the development dimension of the Doha mandate, there needs to be a balance between the commercial interests of the Member nations, environmental benefits of EGS liberalization and the development concerns of industrializing countries. Liberalization in products with multiple uses, and weak linkage to environmental use may have adverse impacts like de-industrialization in certain industry segments of developing countries.

In environmental services, the developed countries have been requesting for greater market access in mode 3 (commercial presence), and where feasible in mode 1 (cross-border supply). In developed countries, like the EC, mode 3 is open but limitations are imposed in mode 4 (movement of natural persons). In 2006, plurilateral requests from developed countries (including Australia, Canada, EC, Japan, Korea, Norway, Switzerland, Chinese Taipei, and the US) to developing countries specifically asked for the opening up of sewage, refuse disposal, sanitation, cleaning of exhaust gases, noise abatement, nature

and landscape protection and other environmental protection services.

Considering the fact that developing countries are typically constrained in capital and are net importers of capital, liberalization in mode 3 abroad does not hold much scope for export gain. Developing country environmental service providers are keen on gaining market access in these countries independent of commercial presence. For instance, contractual service suppliers and independent professionals face restrictions in visa and work permit applications. Developing countries have in turn requested EC to liberalize mode 4 for environmental services, including sewage, refuse disposal and sanitation services.

Several developing countries (including India) made a mode 4-specific plurilateral request to developed countries (including the US, EU, Australia, Canada, Japan, New Zealand, Switzerland, Norway and Iceland), which included the three environmental service segments of sewage, refuse disposal and sanitation services among other indicative service sectors. The collective request sought new and improved market access for contractual service suppliers and independent professionals' categories delinked from commercial presence.

The revised offers by the developed countries have failed to accommodate this request. By contrast in the last two years, some developing countries have included the liberalization of the

environmental services (mode 3) in their revised offers, which can be seen as a response to repeated requests from the developed country Members, especially the EC and US. For instance, India did not make commitments in the environmental services sector under the GATS, and the sector was also excluded in India's initial offer in 2003. In the revised offer made in 2005, however, India opened the two segments (refuse disposal and sanitation services) within the sector. The revised offers or commitments in environmental services from developing countries (like India and China respectively) signals to the WTO Members that they are supportive of a more liberalized regime, and that developed countries need to make substantially improved offers on their parts.

The current impasse in Doha EGS negotiations, suggests that developed countries are unwilling to further liberalize their own markets especially in mode 4 for environmental services, and more keen to liberalize the trade in industrial products (mostly with multiple use) classified as environmental goods and a liberal investment regime for environmental services projects under mode 3. Such a stance is not conducive to a successful conclusion of the Doha Round since export interests of developing countries also need to be integrated in the current round of liberalization. Blocking market access in mode 4 for environmental professionals from

developing countries who have potential to export services to developed countries, while expecting developing countries to completely liberalize mode 3 is not seen as fair play. On the other hand, in environmental goods negotiations, the approach to generate a list of manufactures (typically with multiple uses) for tariff reduction is a complete departure from the holistic environmental-trade relationship envisioned in the WTO. To reflect the development dimension of the Doha Round and the founding principle of sustainable development of the WTO, the EGS negotiations need to proceed on a more integrated manner, and give due attention to the export interests of developing countries.

IV. Concluding Remarks

While both the environmental negotiation issues discussed above are linked to environmental protection and sustainable development, the current negotiations at the WTO have often failed to reflect this connectivity. In the relationship between multilateral environmental agreements and the WTO rules, there is a risk of individual country or regional in case of the EU environmental preferences (invoking an MEA signed by that country/region). In the liberalization in environmental goods and services commercial interests of industrialized countries (that have a comparative advantage in

the sector) have taken precedence over environmental/sustainable development interests. Not surprisingly, the negotiations in both forums have proceeded at snail's pace and industrializing countries have taken on a rather cautionary (narrow) stance in the negotiations as a strategy to protect their development concerns.

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Trade in Environmental Services

Can the Negotiating Mandate and Modalities Contribute to Sustainable Development?

*Mitali Das Gupta**

Trade liberalization in environmental services is often seen as having the potential to contribute to sustainable development, particularly for developing countries. The present paper studies the current WTO negotiations on environmental services and tries to analyze whether the negotiating mandate actually has the potential to contribute towards sustainable development in these countries. It is found that though there is great potential for trade liberalization in environmental services to become an effective tool towards sustainable development in developing world, yet trade agreements alone will not automatically enable such services to fulfill that desirable goal. In order for services trade to work for sustainable development, nations will have to strike a delicate balance between state and market-based policies. It is important to make the domestic environmental service sector more healthy and competitive and to build domestic capacity by aligning liberalization with evolving developmental and environmental priorities.

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1. Introduction

THE environmental problems faced by developing countries are enormous. As a result, the ecological equilibrium of these countries remain in jeopardy. About 1.1 billion people in these countries are without access to safe water, 2.4 billion people lack access to improved sanitation and 32 per cent of worldwide urban population live in slums, having no access to housing related infrastructure and services (Abugattas, 2005). In the developing countries more than 90 per cent of sewage is discharged directly into rivers, lakes and coastal waters without any treatment. Inadequate solid waste management is a serious problem in these countries. About half of the urban population lacks adequate waste disposal, less than 10 per cent of urban wastes are treated and only a small fraction of that treatment meets acceptable standards. Air pollution has been a steadily growing problem in developing countries where urbanization and rapid industrialization are accompanied by increased road traffic and growing energy consumption. As a result of an increase in international trade and migration, environmental problems which originate in a

country do not remain confined to the boundaries of a country. These problems need to be solved as a matter of urgency and is a precondition for ensuring sustainable development worldwide. Awareness of the environmental problems has led to a number of countries (especially the developed countries) to introduce environmental legislations and incorporation of the environmental dimension into the overall economic development. The ability of developing economies to provide the basic services to the people and satisfy several key environmental needs is essential for their development. However, a gap exists in developing countries between their environmental needs and the resources and technology available to satisfy them. Trade liberalization in environmental services is seen by some observers as having the potential to contribute to sustainable development, particularly in developing countries. However, most developing countries have taken a defensive negotiating position on environmental services and progress in the negotiations on environmental services has been limited. As the WTO Director General has observed, "the pursuit of sustainable development is a difficult balancing act, requiring

progress on all three of its pillars – the economic, the environmental and the social” (Lamy, 2005).

The Doha Ministerial Declaration calls for “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services” (Para 31(iii)). In a recognition of sustainable development concerns, Annex C of the Hong Kong Ministerial Declaration notes that negotiations “shall have regard to the size of economies of individual Members, both overall and in individual sectors.....”. Given this background, the objective of this paper is to study the negotiations on environmental services and analyze whether the negotiating mandate does actually have the potential to contribute towards sustainable development, particularly in the context of the developing countries. The structure of the paper is as follows. Section 2 deals with the major classification of the sub-sectors within the environmental services category. Section 3 discusses the negotiations on environmental services in the WTO and also India’s negotiating stance. Section 4 discusses about the policy reforms in the context of trade in environmental services and sustainable development and finally concludes the paper.

2. Environmental Services and Major Classification of Sub-sectors

As far as the environmental industry is concerned, at the international level, the OECD and

the Statistical Office of the European Communities (Eurostat) have taken the lead in defining and classifying it for analytical purposes as “activities which produce goods and services to measure, prevent, limit, minimize or correct environmental damage to water, air and soil, as well as problems related to waste, noise and ecosystems.”¹ It includes goods and services “which provide environmental protection in different domains: water, solid waste, air, soil, noise, natural resources, and miscellaneous services” and classifies them under three broad headings – pollution management, cleaner technologies and products, and resource management.

The environmental services (ES) sector is much larger than the goods sector. The Services Sectoral Classification List (WTO, 1991 – also known as W/120) under GATS, developed during the Uruguay Round of multilateral trade negotiations is based largely on the United Nations’ Provisional Central Product Classification (Provisional CPC) system. This has defined environmental services sector comprising: *Sewage services* (excludes collection, purification and distribution services of water and construction, repair and alteration of sewers); *Refuse disposal services* (excludes waste and scrap); *Sanitation and similar services* (excludes disinfecting/exterminating services for buildings and pest control for agriculture); and *other environmental services*. Considering the exclusion of certain environmental services

and elaboration of the “other” services, GATS has included four sub-sectors within the “others” category namely, cleaning of exhaust gases, noise abatement services, nature and landscape protection services. This segment excludes forest and damage assessment services and others not classified elsewhere. Presently the two largest environmental services (ES) segments are water and wastewater treatment services and solid waste management services (non-hazardous wastes), which constitute 30 and 22 per cent of the total global environmental market respectively.²

In the mid-1990s, many countries felt that from an environmental-policy perspective, the classification of environmental services in document W/120 was unduly limited because it did not include all the services that could benefit the environment. An OECD report (1998)³ summed up this concern: “... the environment industry is evolving rapidly beyond its traditional focus on pollution control and remediation/clean-up activities to also incorporate a broader range of pollution management, cleaner technology and resource management activities.” Various proposals were submitted to the WTO trying to address the most-recognized problems, while preserving the mutually exclusive nature of the WTO’s (1991) CPC classification. The EC then proposed a seven-part classification for core environmental services: (1) water and wastewater management; (2)

solid and hazardous-waste management; (3) protection of ambient air and climate; (4) remediation and clean up of soil and water; (5) noise and vibration abatement; (6) protection of biodiversity and landscape; and (7) a catch-all subcategory for other environmental and ancillary services. So far countries have mostly used the EC proposal in classifying environmental services, which also reflects better the types of services offered by modern environmental companies.

UNCTAD has also provided a classification of environmental services (UNCTAD, 2003). The UNCTAD classification subdivides environmental services into four segments: (i) environmental infrastructure services such as water and waste management; (ii) non-infrastructure, commercial environmental services, for example site clean up and remediation, cleaning of exhaust gases, noise abatement, and nature and landscape protection; (iii) remediation services with environmental end use, for example, construction or engineering services; (iv) support services (Vikhlyaev, 2004). The rationale behind this classification is that for environmental infrastructure services, the overriding objective is building domestic regulatory capacity. Also commercial environmental services are generally not subject to market access and national treatment limitations.

Several WTO Members have also submitted proposals suggesting alternative definitions

of environmental services that could be used when countries submit their requests and offers. The EC's approach closely resembles the OECD-Eurostat classification and has received broad support from other WTO Members, with the exception of the classification of water for human use as an environmental service, where civil society has argued that water delivery services should not be covered by the GATS obligations. Some Members including the EC, US and Switzerland have proposed that, in addition to the identification of "core" environmental services, a list should be established that would comprise a "cluster" of services that are not environmental per se, but which are important to the provision of environmental services, such as business services, research and development services, consulting, construction and transport services with an environmental component (Kirkpatrick 2006). However, while some Members agreed that services not listed in the environmental services sector may be closely connected to environmental services, this proposal did not receive the full endorsement from the WTO membership. However, the explicit inclusion of new services in the classification may have an accelerating effect on the negotiations as classifying a service normally prompts new requests in that particular area.

One of the serious problems associated with the classification

of environmental services is its relationship with environmental goods. Many suppliers of environmental services integrate their services with environmental goods, as for example in the manufacture, installation and maintenance of pollution control equipment. This has complicated the negotiation process since services are dealt under the GATS, and goods as part of non-agricultural market access (NAMA) negotiations.

3. Negotiations on Environmental Services in WTO and India's Stand

In contrast with trade in goods, where essentially all tariffs must be bound by the WTO Members, commitments in services cover only those sectors and "modes of supply" that are explicitly listed and subjected to liberalization by Members in their schedules of commitments. Members have been using the request-offer approach as the main method of negotiating new "specific commitments" (i.e. market access) in services.

GATS defines four categories of supply of services, known as modes of supply (Article I:2):

- cross-border supply (Mode 1), for example, business services outsourcing
- consumption abroad (Mode 2), for example, tourism services
- commercial presence (Mode 3), for example, services supplied by a subsidiary or branch in a host country

- presence of natural persons (Mode 4), for example, services supplied by professionals temporarily working abroad.

The 2005 Hong Kong Ministerial Declaration expresses the intent to intensify negotiations in services, notwithstanding the missed deadlines, with a view to expanding sectoral and modal coverage of commitments, with particular attention to sectors and modes of supply of export interest to developing countries. In particular, Annex C of the Declaration recognizes new methods of negotiations on services, including a plurilateral approach in accordance with the principles of the GATS.

As far as environmental services are concerned, most developing countries have been requested to undertake specific commitments, the requests largely coming from developed countries. However, very few countries have made commitments in this sector. By the year 2000, just about 44 per cent of the WTO Members had made at least one commitment in this sector (Sawhney, 2006). But the developing countries have undertaken liberalization measures within this sector and have made offers in the current negotiations. At the present stage, the negotiations on environmental services raise the following issues: increased country coverage and reduction of barriers to trade, especially for mode 3 and mode 4; updating the classification of environmental services for

negotiations purposes; a common understanding of what is meant, in a commercial sense, by some proposed new categories of services such as biodiversity protection, remediation and clean-up of soil and water; a need for a clear picture of the extent and scope of subsidization of environmental services; government procurement; qualification and certification requirements for individual service providers; tied aid⁴ and technology transfer.

One of the important issues that has cropped up during the negotiation of environmental services is that under which Mode should environmental services be provided. According to the submission made by Australia, the European Communities, Japan, New Zealand, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu and the United States, it should be dealt under mode 1, i.e. cross-border supply. However, most of the developing countries are of opinion that it should be dealt through commercial presence (mode 3) and the temporary movement of natural persons (mode 4), given the need for highly specialized professionals in many of these services. Commercially meaningful liberalization of environmental infrastructure services requires market access in environmental support services such as construction, engineering, legal and consulting services, where mode 4 is an increasingly relevant factor.

The submission made by Switzerland⁵ talks about accommodating the gradual integration of environmental services with other service activities. It has asked for setting up a suitable system that would enable members to make specific commitments in the following fields of activity, which have expanded significantly in recent years, viz. professional services relating to the environment; research and development relating to the environment; consultancy, sub-contracting and engineering relating to the environment; and construction relating to the environment. The submission also states that while mode 3 is traditionally the most important for environmental services, the need for mode 4 commitments is increasing daily as the focus on prevention increases the importance of consultancy and engineering services. However, the matter for concern is that the global community has failed to define the consultancy in general and environmental consultancy in particular and still the topic lacks unanimity.

The developing countries are of the view that liberalizing markets for environmental services would prematurely prevent their ability to sufficiently strengthen their domestic supply capacity and thus prevent their ability to compete equally with foreign-service suppliers. Although Governments' right to regulate was reaffirmed in the Doha Declaration, a country's ability to regulate is relative to its

economic and negotiating capacity. Further, given the weak link established so far of the impacts of services liberalization on developing economies, Members cannot afford to simply hope that the GATS commitments will automatically result in development gains. Due to these real concerns, the developing countries have placed a higher priority on the completion of rules, particularly on emergency safeguard measures, and domestic regulation discipline negotiations to safeguard their rights so as to regulate and review the progress in negotiations.

Cuba⁶ has proposed that to make service industries perform, the underdeveloped countries need to address regulatory and institutional matters at the very beginning. The vast difference in service export capacity between developed and underdeveloped countries is largely due to the fact that competition is impossible in many sectors as they are already being dominated by transnationals. It mentioned that development of national policies is important for the Member countries seeking to integrate their economies into international trade efficiently. It has further mentioned that it is often difficult for the underdeveloped countries to gain access to information and communication technologies, which are largely in the hands of developed countries. Without the possibility to acquire technology, capital and markets, there is little point in creating openings in the domestic market. Furthermore,

the transfer of technology and know-how is particularly important in the case of environmental services, because it leads to higher standards of public health and well-being worldwide.

The latest in the series of submissions to the WTO is that of India's. India's submission⁷ has caused rumbling and has talked about a very different approach that has not been talked yet by the WTO Members. Till now countries had followed the "List approach" and members tried to add more and more goods in the list as environmental goods. As a result the focus was concentrated on the environmental goods and services were paid little attention. India in its submission has stated that the "list approach" would expose them to the adverse effects of increased market access and competition without any compensatory benefits, as the duty concessions are open-ended and permanent. India in its submission has provided an alternative approach and has talked about "project approach". The submission also states that the "environmental project approach" would address diversity in environmental standards with common but differentiated responsibilities and would bring in trade liberalization to meet the environmental as well as development goals of both the Doha Development Agenda and Agenda 21. Under this approach, a project, which meets certain criteria, shall be considered by a Designated National Authority (DNA). If approved, the goods and services included in the project

would qualify for specified concessions for the duration of the project. The approach is likely to address some of the unresolved issues like, technology transfer, dual and multiple use of the technology and synergy between environmental goods and services.

The developed countries generally have a liberal market access regime in terms of investment in the environmental service sector. The EC for instance has made full commitments in environmental services, but has kept mode 4 unbound, which means that foreign investment has no limitations but environmental professionals face restrictions. On the other hand, as mentioned earlier, in the developing countries, limitations are more stringent towards foreign investment, i.e. mode 3 (commercial presence), though some developing countries have made liberal offers in mode 3. For instance in China, mode 3 is permitted only in the form of joint ventures but not foreign majority ownership. In 2005, India has opened up refuse disposal and sanitation services (Sawhney, 2006). India along with other developing member countries have made a mode 4 request to a few developed countries (including the EU, US, Australia, Canada, New Zealand, Japan, Switzerland and others), which included sewage, refuse disposal and sanitation among other indicative service sectors. This collective request had sought new and improved market access for contractual service suppliers and independent professionals

category delinked from commercial presence. However, the offers made by the developed countries have not addressed this request.

The recent deadlock in Doha negotiations, suggests that the developed countries are not willing to further liberalize their markets, which is not a healthy sign in terms of its implications for environmental services. Developing countries like India will continue to be net importers in such sectors. Hence blocking market access in mode 4 by the developed countries and at the same time expecting the developing countries to open up mode 3 will definitely not be a fair game. Hence knowing the difficulties and the problems that are to be faced, India and other developing countries should emphasize the need for balance in the negotiations between developed and developing country interests. In particular, they must urge that the issues of special and differential treatment (Special and differential treatment was agreed in July package of 2004), technical assistance, and transfer of technology should be considered with utmost priority.

4. Trade Liberalization in Environmental Services and Sustainable Development: Policy Reforms

WTO liberalization in the area of environmental services is widely advocated as a means of enhancing developing countries' access to private capital,

technology and management expertise, and improving market access for exports of environmental services (Hoekman, *et al*, 2002). It should be borne in mind that liberalization of environmental services should be pursued in the context of sustainable development dimensions because of the public good nature of the sector. The Doha Ministerial Declaration strongly reaffirms the commitment to the objective of sustainable development, and pledges to "continue to make positive efforts designed to ensure that developing countries, and especially the least-developed among them, secure a share in the growth of world trade commensurate with the needs of their economic development." Proposals for the liberalization of environmental services under the GATS framework have stimulated considerable public debate, and a range of issues and concerns relating to the potential impact on sustainable development have been voiced by many developing countries' spokespersons. However, whether trade liberalization in environmental services would lead to sustainable development will depend on various kinds of interpretations.

Simplistically speaking, there can be a number of actual "win-win" outcomes for developing countries from trade and investment liberalization in the provision of environmental services. For instance, clean water and waste collection services

delivered to greater numbers of citizens, can lead to healthier human environments; availability of a larger choice of environmental technologies can often imply a move away from end-of-pipe solutions to preventive ones; provision of water and waste management systems can attract foreign and local investment to the community, bringing more jobs, stable economic growth and an increased local tax base; creation of skilled and unskilled jobs for local workers, in construction and long-term operation of the facilities, etc. However the important question is that how to ensure that liberalization efforts at the WTO are commercially, financially and technically viable? No institutional linkages have been established between the negotiations, and all the different forums deal with development, finance and assistance.

One of the issues, as mentioned earlier, is that the developed countries are trying to block market access in mode 4 and want greater access in mode 3. However, a number of studies have specifically looked at mode 4 liberalization, where the potential gains are the largest, especially for developing countries. Winters, *et al*. (2002) have done the most comprehensive work on the subject. The developing world has a comparative advantage in low-skilled workers and therefore has proposed allowing at least temporary schemes where such workers can work in the

developed world. One way of advancing with meaningful mode 4 negotiations may be to focus on areas where evidence of the potential gains to the "exporting" and "importing" countries can be clearly shown (Kirkpatrick, 2006). The adoption of a detailed process to assess the potential benefits and costs of mode 4 liberalization in the particular sub-sectors of environmental services could provide a solid platform from which to engage in meaningful discussions. On the other hand, in the water and wastewater management services sector, liberalization should be undertaken carefully and strategically. Opening up water distribution services by privatizing water utilities and allowing foreign direct investment in this sector may not necessarily result in the achievement of any projected economic, environmental or public consumer benefits. There will be always a risk that the private businesses may not ensure complete service coverage and an equitable price for these services. The other example is that of infrastructure services, where the key concerns are again universal access and prices. The overriding objective is to build domestic capacity by aligning liberalization with evolving developmental and environmental priorities. Hence, in order for environmental services trade to work for sustainable development, nations will have to strike a delicate balance between state and market-based policies. It is of vital importance that the GATS and

other regional and bilateral service trade arrangements give developing countries the policy space to develop the proper institutional environment for services trade.

The growing scope for prevention activities increases the importance of environmental professional and support services. Professional environmental services are generally not subject to market access and national treatment limitations. Since these services tend to be knowledge-intensive and provided on an integrated basis, the key challenges here are access to technology and know-how, capacity building, certification and recognition of qualifications, and tied aid as a restriction on trade.

There is also the need to make the domestic environmental service sector more healthy and competitive. This could be achieved through encouraging greater compliance in environmental regulations, encouraging technology development funded by multilateral donor agencies, and finally developing new regulatory institution for infrastructure environmental firms, so as to see that profit maximization does not take precedence over the social goals of equity and universal access.

Last but not the least, it should be noted that most of the environmental technologies are within the private domain, are patented and protected under the TRIPS (Trade Related Aspects of Intellectual Property Rights)

regulations. Article 66.2 of the TRIPS Agreement says, "*developed country Members shall provide incentives to enterprises and institutions in their territories for the purposes of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base.*" However, little movement on this mandate (which was favourable for the developing countries) was one of the primary reasons that resulted in paragraph 11.2 of the Doha Decision on Implementation-Related Issues and Concerns (WT/MIN (01)/17) mandated in the TRIPS Council. This stated that the developed country Members shall submit detailed reports on the functioning in practice of the incentives provided to their enterprises for the transfer of technology in pursuance of their commitments under Article 66.2, and this shall be reviewed by the TRIPS Council. But the absence of evaluation of these reports has made the decision inoperative in substantial terms and as a result, transfer of environmental technologies has remained a bone of contention between the developed and the developing countries. DuPont, for example, refused to grant licenses for the production of CFC (chlorofluorocarbon) substitutes to Korean and Indian firms that sought to meet the phase out requirements of ozone depleting substances as required by the Montreal Protocol of 1987 (Mytelka, 2006). In this context, the environmental project

approach (EPA) put forward by India represents an alternative structure to tackling the issue of transfer of technology. It is believed that active participation of the host country government is required to provide for an enabling environment for technology transfer to take place. In this context the environment project approach is a substantially better model in enabling the host country government to regulate the nature and content of the technology sought to be transferred through a liberalized tariff regime.

Hence, there is great potential for services trade and investment to become an effective tool toward sustainable development in the developing world. However, trade agreements alone will not automatically enable services to work to such an end. In order for services trade to work for sustainable development, nations will have to strike a delicate balance between state and market-based policies. Also in order to foster sustainable development through liberalization of the environmental services sector, the definition and classification approaches need to address, to the extent possible, the circumstances and trade potential of all Members. Where regulatory frameworks and other mitigation measures are absent or ineffective, the gains from liberalization of environmental services are less likely to be

achieved and the outcomes for sustainable development become more uncertain.

NOTES

- ¹ Environmental Goods and Services Industry Manual for the Collection and Analysis of Data, OECD/Eurostat, 1999.
- ² Yu Vicente Paolo (2006).
- ³ OECD (1998).
- ⁴ Situations where a service provider is pre-selected as part of a development assistance package.
- ⁵ WTO document S/CSS/W/76, dated 4 May 2001.
- ⁶ WTO document TN/S/W/44 dated 17 June 2005.
- ⁷ WTO document TN/TE/W/51 dated 3 June 2005.

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Environmental Issues

INCREASED and efficient environmental vigilance is an absolute must for containing the negative environmental impact of industrialization. Industrial pollution is concentrated in industries like petroleum refineries, textiles, pulp & paper, industrial chemicals, iron & steel and non-metallic mineral products. Small-scale industries, especially foundries, chemical manufacturing and brick making, can also be significant polluters. In the power sector, thermal power, which constitutes bulk of the installed capacity for electricity generation, is an important source of air pollution.

In order to contain the damaging impact of industrialization on environment, the government has initiated various steps (see Box), for protection, conservation and development of the environment. The National Environment Policy (NEP) 2006, which was approved and adopted in May 2006, intends to facilitate realization of sustainable development by mainstreaming environmental concerns in all developmental activities and describing key environmental challenges currently and prospectively facing the country. Another significant policy development was the Environment Impact Assessment (EIA) Notification, 2006 dated 14 September 2006, which involved a complete re-engineering of the Environment Impact Assessment (EIA) process and made it more efficient, decentralized and transparent. A National Clean Development Mechanism Authority (CDM) has also been set up for the purpose of protecting and improving the quality of environment in terms of the Kyoto Protocol. The CDM Authority receives projects for evaluation and approval for carbon market. Till December 2006, host country approval has been accorded to 473 projects facilitating investment of more than Rs 36,408 crore.

MAJOR INITIATIVES TO CONTROL ENVIRONMENTAL POLLUTION

- Notification of general and source-specific standards for emissions and effluents.
- Regulating the siting of industries.
- Regular monitoring for compliance to environmental standards.
- Legal action for non-compliance.
- Setting up of clean technology mechanisms in polluting industries.
- Setting up of Common Effluent Treatment Plants (CETPs) in industrial estates.
- Establishing waste minimization circles (WMC) in clusters of small scale industries.
- Implementing recommendations of Charter of Corporate Responsibility for Environmental Protection (CREP) in 17 categories of highly polluting industries.
- Implementing an Eco-mark scheme to encourage production/consumption of environment-friendly products.
- Setting up of progressive emission norms at the manufacturing stage for controlling vehicular pollution and introduction of cleaner fuels like unleaded petrol, low sulphur diesel and compressed natural gas (CNG).
- Setting up National Clean Development Mechanism Authority (CDM) as per Kyoto Protocol.
- Promoting economic instruments to internalize the costs of pollution and fiscal incentives for pollution control equipments.

(Economic Survey 2006-07)

India Warned Against Neglecting Environment

DOES the economic growth of the country match its environmental growth? A report of the World Bank, jointly authored with the Ministry of Environment and Forests, comes with the message for India to pause and consider environmental sustainability before moving on the fast track of economic development.

Coming along with the Inter-governmental Panel on Climate Change and its grim forecast of doom in the form of natural calamities and food shortages, the World Bank report finds India's economic activity doubling that of the Organization for Economic Cooperation and Development (OECD) countries in its density by 2020.

It says this has frightening implications for the environment of the country. Environmental sustainability is likely to become the next greatest challenge along India's development path, the report says. The density of economic activity is a heightened demand for and pressures on land, water, air, soil and forests. And in India it is to become the highest in the world in 2020, it says.

This will mean more pressure on an already stressed environment and natural resources. It says that regulatory instruments are needed and those that are already there have to be made effective. It points towards participatory and partnership models of development and environmental growth. It talks of partnerships with the community, NGOs and corporate.

Commenting on the report, Dilip Biswas who formerly headed the Central Pollution Control Board said that India had a readymade model for participatory and partnership models provided by the panchayat system through the 73rd and 74th amendments of the Constitution. If these are enforced then environment, the rivers, the irrigation, the power, land, and all these matters would be the jurisdiction of the local community and none else.

This is the pattern which is followed in developed countries but in India distant bodies like Central and State Pollution Control Boards continue to make futile efforts to enforce environment laws, Biswas who was the advisor for the report said.

Environmentalist Shekhar Singh said that unless economic growth is not linked with environmental growth, then GDP may lose quite a few percentages. If with 9 per cent GDP, the environment growth was 4 per cent then what is left? he asks. On the linkage with OECD level of economic activity, he asks: "Does anyone know how much garbage the OECD countries produce? Double that for India by 2020."

(*Business Standard*, 11 April 2007)

Climate Change Affecting Fruiting Patterns

A climate change could turn the autumnal fungus foray in Britain into a year-round event, say researchers who have recorded changes in fruiting patterns over the past half-century.

In the autumn, the Britain's mushroom season has doubled in length, from about 33 days in the 1950s, to nearly 75 days now, *Nature* quotes them as saying. Fungi are starting to fruit earlier, and finishing later.

And some species are fruiting in both spring and autumn, a unique development in response to rising temperatures, Alan Gange of Royal Holloway, University of London, is quoted as saying.

Although it has been shown that climate change is making birds nest and flowers bloom earlier, he knows of nothing else that has added a complete extra breeding season to its life cycle.

Of the 300 common species of British fungus analyzed, more than 70 per cent show a significant change in their calendars, *Nature* says.

The species showing a spring fruiting include sulphur tuft (*Hypholoma fasciculare*), honey fungus (*Armillaria mellea*), which can kill trees in gardens and orchards, and the fairy-ring mushroom (*Marasmius oreades*). Mushroom hunters trying to identify their haul should disregard the fruiting dates given in field guides, says Gange: "You can expect to find fungi fruiting in any month of the year."

Fungi, says *Nature*, spend most of their year out of sight, as (sometimes vast) networks of underground fungal filaments. But following a certain quantity of warm weather, and a burst of rain, they throw up spore-bearing mushrooms. Frosts bring the season to a close.

The extended autumn season is due to warmer summers, wetter autumns, and fewer autumn frosts although very dry summers can also delay mushroom fruiting.

The extra spring season is probably a consequence of warmer weather in late winter and early spring, Gange thinks. In that area, Gange notes, February has warmed more than any other

month, from an average temperature of 3.5° C in 1950 to 5.2° C now.

(*The Hindu*, 8 April 2007)

Indo-US Tie-Up to Reduce Mercury Contamination

RENEWAL of partnership between India and the US on environment protection for another five years may see some breakthrough in reducing mercury contamination in the country.

A working group was set up by the industry to check mercury contamination under the joint leadership of United States Environment Protection Agency (USEPA) and India's Environment Ministry.

Mercury pollution has been an unregulated terrain in India. Every year, hundreds of tonnes of mercury is imported into the country, which the environment activists term as "dumping" of the silvery chemical.

USEPA administrator Stephen L. Johnson said, "At present, we are facing environmental challenges that have to be dealt with new approaches. USEPA would partner with Indian industrial sector on this front, by sharing our experiences of reducing mercury contamination and to stop the element from drifting into environment."

While the Union Environment Ministry has been criticized for not regulating mercury, Secretary Prodipto Ghosh hinted at progress in the future. He said the MoU with USEPA was an agreement for partnership in 17 distinct sectors and its provisions would enable a better industry partnership in the projects taken up.

According to Johnson, the agreement would encourage joint work in air and water quality, toxic chemicals, waste and management of environmental agencies.

The FICCI working group on mercury will evolve strategies to reduce mercury in clinics and hospital gadgets through the use of new technologies developed in the US, FICCI Secretary General Dr. Amit Mitra said.

The working group comprising experts and medical institutions associated with FICCI, along with other related industry bodies, would evolve

an action plan to use safer and more accurate instruments than the conventional ones using mercury.

According to Toxics Link, an NGO working against toxic contamination, while all the developed nations are phasing out the element, in India the reverse is happening with around 150 tonnes of the element imported every year to make different medical and electrical equipment.

"Even after repeated requests, the Government seems to be indifferent to the danger. We do not have any kind of legislation or regulation, which would control the import of mercury or check the contamination," said Toxics Link Associate Director Satish Sinha.

(*Business Standard*, 5 April 2007)

India: Trade and Environment should be Supportive

DOHA Ministerial Declaration had provided a negotiating mandate on certain issues of trade and environment. On the issue of the relationship between existing WTO rules and specific trade obligations set out in Multilateral Environment Agreements (MEAs), India believes that trade and environment should be mutually supportive of the objective of achieving sustainable development. India is one of the proponents of MEAs, and is party to all the major MEAs. The principles of no-hierarchy, mutual supportiveness and deference can be the guiding principle on the issue of relationship between existing WTO rules and specific trade obligations set out in MEAs. The discussions so far in the WTO Committee on Trade & Environment (Special Session) have been on submitting national experiences, so as to come up with a "bottoms-up" approach to the subject. Though a number of countries have given their experiences, but no actual conflict has come to notice so far between existing WTO rules and specific trade obligations set out in MEAs.

On the other important issue of identifying environmental goods and services, developed countries had submitted a list of environmental goods. The list has the problems of being a "NAMA backdoor", and applying sectoral approach to the NAMA negotiations. Besides, it does not bring

about the environmental benefit, which is central to the mandate. Besides focusing only on goods, it does not address the issues of environmental services. Further, most of the goods in the "list" have dual or multiple uses.

India submitted an alternate approach, called "environmental project approach" to the CTE of the WTO which clearly identified environmental benefits and eliminates, or at least reduces, dual or multiple uses. It brings in synergy between environmental goods and services, and by linking tariff concessions to a particular project mitigates the apprehension of "NAMA backdoor method". The approach was supported by developing countries as well.

(Ministry of Commerce & Industry, Govt. of India
Annual Report 2006-07)

Halting Trade in Ozone-Depleting Chemicals

A United Nations-backed initiative to curb illegal trade in chemicals that damage the ozone layer, the naturally occurring gas that filters out cancer- and cataract-causing ultraviolet (UV) rays from the sun, has reported its first promising results ahead of the start of its second phase on 1 March.

Up to 64.8 tons of illegal ozone depleting substances (ODS) have been recorded in China, India, Thailand and other countries following the start of Project Skyhole Patching, an initiative launched on 1 September by China Customs, coordinated by the UN Environment Programme (UNEP) and operated by related customs administrations and international organizations in the region.

The project seeks to combat illegal trade in ODS and hazardous waste in the Asia Pacific region and involves 20 customs and environmental authorities from 18 countries.

"It is encouraging to see that our training efforts, involving customs and enforcement officers in the 18 participating countries is beginning to have payoffs," UNEP Policy and Enforcement Officer Ludgarde Coppens said.

Since the project began, customs in Hong Kong, India and Thailand have played an active role in

sharing information on ODS. Some countries like Viet Nam and Cambodia are holding bilateral discussions on illegal ODS trade.

Chlorofluorocarbons (CFCs) are among ozone depleting substances targeted for phase out under the Montreal Protocol. Now entering its 20th year, the Protocol - one of the most successful environmental agreements to date has succeeded in phasing out ODS in developed countries, led to the closure of many ODS producing plants and deterred the creation of industries that use them.

But the phase-out becomes more crucial for developing countries as the date they have pledged for completion in 2010 approaches. Illegal trade in CFCs and other ODS is expected to grow as a complete ban is enforced. Studies indicate that trade in illegal ODS represents nearly 10 to 20 per cent of all trade in ODS. CFCs alone account for 7,000 to 14,000 tons of this trade, valued at \$25-\$60 million.

Project Skyhole Patching partner States are: Australia, Bangladesh, Bhutan, Brunei, Cambodia, China, Fiji, India, Japan, Republic of Korea, the Maldives, Mongolia, New Zealand, the Philippines, Samoa, Sri Lanka, Thailand and Viet Nam.

(UNews, March 2007)

G-8, Key Developing Nations Set to Debate Climate Change

ENVIRONMENT ministers from the G-8 and five key developing nations are meeting for two days of talks in Germany to push for "impetus" to fight climate change, which UN Secretary-General Ban Ki-moon says is a threat to world security.

Governments at a climate-change meeting in Nairobi last year failed to agree on conditions for a new agreement to reduce emissions of carbon dioxide and other gases after the Kyoto Protocol treaty expires in 2012. The US never ratified Kyoto, citing potential economic damage, while developing nations such as India and China faced no restrictions. Poorer nations have argued that cuts will hamper their development.

"The international climate negotiations urgently need fresh political impetus to cope with this task - the task of the century," German Environment Minister Sigmar Gabriel said in a statement in

Potsdam, near Berlin. "We will engage in frank debate in Potsdam on the obstacles which have impeded progress up to now, and the avenues by which to remove them."

Ministers will discuss climate change and energy policy, while discussions will focus on the preservation of biodiversity, the variety of animal and plant species found around the world. Germany's Gabriel said in January he will press the US to take on binding emissions-reduction targets.

(The Financial Express, 17 March 2007)

New Eco-Friendly Option to Process Leather Developed

LEATHER industry has major environmental challenges. Research is under way to develop alternative process technologies that would add to the value and quality of leather and reduce the chemical load on the environment.

The Central Leather Research Institute (CLRI) is working on total bio-processing of leather. Use of enzymes have been helping to reduce use of chemicals.

The Mumbai-based Advanced Enzyme Technologies Ltd (AETL), a leading manufacturer of enzymes and pro-biotics, has developed enzymes that can partially replace some of the chemicals in the processing of hides and skin and produce better quality leather in terms of the grain structure.

"Our enzymatic process does not degrade hair, so the hair can be recovered from the water. Water can be recycled and reused. They are very specific to the substrate and are not as chemicals which act harshly irrespective of the substrate. Enzymes will work specifically and give better grain structure," according to Managing Director C.L. Rathi.

AETL invests over 10 per cent of its earnings for R&D and sells customized and eco-safe enzymes across the globe to various industry segments like healthcare, textiles, leather and foodgrains. The company has received patent for the leather process and it is named "eco-friendly wet blue manufacturing," he said.

Shri Rathi said the total replacement of chemicals may not be viable now as "some chemicals or salts are necessary to bring about the necessary textural

and other changes in hides. Enzymes will co-work with such chemicals to give improved effect," he added.

The advantage of using enzymes would be more on the leather quality and environment, he said. Cost may be similar to the chemicals. Enzymes would help tanners to comply with the Pollution Control Board specifications easier and the entire process water could be reused.

According to Dipak Roda, General Manager (Marketing), AETL has entered the Chinese and Bangladeshi tanning market. "The company plans to take its success to the American and European markets also," he said.

(The Financial Express, 8 March 2007)

Genetically Modified Food Set to be Labelled before Import

THE Health Ministry is set to amend the Prevention of Food Adulteration Rules, 1955 to introduce the provision of mandatory labelling of genetically modified (GM) foods, likely to be imported or produced in the country.

An expert committee set up by the Ministry under the chairmanship of the Additional Director-General of the National Institute of Communicable Diseases, Shiv Lal has recommended mandatory labelling of GM food and food ingredients, without any threshold limit. The committee has defined GM food as those composed of or containing genetically organisms obtained through modern biotechnology. Even the GM processed food would be labelled. The expert panel included representatives from the industry, Indian Council for Medical Research and farmer leader Yudhvir Singh.

The move has been initiated to fulfill the provisions of the Foreign Trade Policy, which said that all imported GM products should be labelled. If the consignment does not contain such a label and is later found to contain traces of GM material, the importer is liable for penal action under the Foreign Trade (Development & Regulation) Act, 1992.

Since the formulation of the policy in 2006, the regulator, Genetic Engineering Approval Committee (GEAC), was in a fix to regulate the imports of GM

soybean oil. GEAC was awaiting the guidelines being framed by the Health Ministry. Since the work of the Health Ministry was delayed, the Commerce Ministry deferred the implementation of Foreign Trade Policy norms.

So far, no GM food product has been approved for consumption in the country. Bt cotton is the only non-food GM crop to be approved. GEAC is the sole regulator for production, transportation, distribution, import and export of all GM products.

(*The Financial Express*, 7 March 2007)

EU Wants Rest of the World to Adopt its Rules

BRUSSELS wants the rest of the world to adopt the European Union's regulations.

A European Commission policy paper that examines the future of the Union's single market says European single market rules have inspired global standard-setting in areas such as product safety, the environment, securities and corporate governance.

"Increasingly the world is looking to Europe and adopts the standards that are set here," the paper, seen by the *Financial Times*, says.

The paper calls on the EU to encourage other jurisdictions to follow suit - for example by "promoting European standards internationally through international organization and bilateral agreements".

This strategy, it claims, will help the European businesses beat their rivals abroad since it "works to the advantage of those already geared up to meet these standards".

The EU's drive to establish itself as the pacesetter for worldwide business regulation could well lead the bloc into conflict with the US and other trading partners. US officials have often voiced concern about the Union's growing clout as a global standard-setter, and the two sides have clashed over issues such as rules for the chemicals industry and the EU's stance on genetically modified foods.

The two sides are set to discuss a road map to a transatlantic market harmonizing regulations this week at a meeting between José Manuel Barroso, Commission President, and Senator Bob Bennet.

The two sides have very different regulatory philosophies, with the EU placing a heavy emphasis on consumer protection and environmental legislation while the US tends to promote a more market-based approach. Some critics of the European approach argue that the Union's stance on issues such as GM foods may also reflect a desire to protect the region's commercial interests.

However, as the Commission paper points out, the sheer size and wealth of the Union's single market mean that few corporations can afford to ignore it.

By harmonizing the rules for a market boasting 500 million consumers, the Union has set standards "which partners then have to meet if they are to benefit from the single market", it says.

"[The single market] gives the EU the potential to shape global norms and to ensure that fair rules are applied to worldwide trade and investment. The single market of the future should be the launch pad of an ambitious global agenda."

The Commission paper forms part of an ambitious review of the Union's single market - widely seen as one of the proudest achievements of European integration.

Thanks to product harmonization, common business rules and the erosion of national trade barriers, the single market means that goods, services, capital and people can move freely among the EU's 27 member states.

(*Business Standard*, 20 February 2007)

China Loses Out to Indian Leather Industry

THE recent clampdown by China on polluting tanneries has come as a boon to Indian leather goods exporters. Several tanneries in China have closed down owing to strict implementation of environment laws. The Chinese industry has also been hit by the 30 per cent rise in prices of raw hides and skins globally.

Against this backdrop, India's acknowledged status as a high-quality leather processing centre and availability of skilled labour compared to China seems to have turned the focus of leading European buyers of leather goods on India. Interest about

Indian leather goods is increasingly been shown by Italy, which as the world leader in leather products is becoming more active in stitching up joint manufacturing and sourcing ties with India.

Reflecting Italy's interest in India as one of the sourcing hubs for leather goods, a 10-member consortium of buyers from Italian Leather Goods Manufacturing Association representing around 100 retail outlets in Italy. Visited Kolkata during Leather Fair in February 2007.

(*The Economic Times*, 21 February 2007)

“Globalization and the Environment in a Reformed UN: Charting a Sustainable Development Path”

Lamy Urges Support for Environmental Chapter of the Doha Round

THE WTO Director-General Pascal Lamy, in an address to the UNEP Global Ministerial Environment Forum in Nairobi on 5 February 2007, warned that a failure of the Doha negotiations “would strengthen the hand of all those who argue that economic growth should proceed unchecked” without regard for the environment. He stressed that “trade, and indeed the WTO, must be made to deliver sustainable development”. This is what he said:

“Gaia” – which means “mother earth” in Greek – is traversing a difficult phase: a zone of turbulence. It was as early as 1979 when James Lovelock published his famous work – *Gaia: A New Look at Life on Earth* – that we were warned that living matter is not passive, and that the Earth responds to provocation. We learned that the Earth's air, oceans and land surfaces react in the face of threats to their very existence. They fight to defend themselves. Today, as we face environmental challenges of an unprecedented magnitude, like we do with climate change, there is little doubt that Gaia will indeed react, and that humankind may suffer the consequences.

James Lovelock, for those of you who do not know him, was not only the originator of the Gaia theory, but was also the inventor of the electron

detector. The device that made possible the detection of CFCs.

On 4 July 1994, when the United States awarded the Czech President, Vaclav Havel the Liberty Medal, Havel's words were:

According to the Gaia Hypothesis, we are parts of a greater whole (he said). Our destiny is not dependent merely on what we do for ourselves but also what we do for Gaia as a whole. If we endanger her, she will dispense with us in the interests of a higher value – life itself.

UNEP's Governing Council meeting could not be more timely. It comes in the wake of many serious warnings that we have received about climate change, and other environmental problems. It suffices to glance through the UNEP Global Environmental Outlook for 2007 to see the full scale of the challenge before us.

In 1987, when the Brundtland Report coined the term “sustainable development”, many of us saw it as *one* option. The other option was the business-as-usual scenario. Twenty years later no one can argue that sustainable development is a choice anymore. It has become a must.

Sustainable development should be the cornerstone of our approach to globalization and to the global governance architecture that we create. If I have come to this forum, it is to deliver a message: the WTO stands ready to do its part.

When the WTO was established back in 1995, “sustainable development” was placed right at the heart of its founding charter. Governments vetoed the type of trade that is premised on the depletion of natural resources. Rather, they called for their “sustainable” use. They went further in their pledge to pursue a sustainable development path by launching environmental negotiations in the Doha Round. This is the first time in the history of multilateral trade talks that such negotiations have been started. The credit for these negotiations must not only go to WTO member governments. The environmental community has, no doubt, played a decisive role in their launch through its repeated calls for greater mutual supportiveness between trade and the environment.

There are many different ways to look at globalization. Some see it as an economic

phenomenon, driven by a greater flow of goods, services and capital between countries. In this definition, the WTO plays a central part. Others see it as a technological phenomenon, driven by the revolution that we have witnessed in information technology, and so on. The one certain element in all of this, is that the world has become interconnected to a point, that today it is impossible for a country to live and prosper in isolation of the rest of the world.

Clearly, globalization is a phenomenon that requires careful management. By connecting people from opposite ends of the planet, globalization offers tremendous potential, but it can also have drawbacks. As goods, services and people cross borders, so does pollution for example. The management of globalization would allow us to capture its benefits, while leaving behind its downside. There is no doubt that the world needs more effective "global governance" – governance at a level that transcends national boundaries. Our institutions of global governance must therefore be strengthened. They must also be made to function as a more coherent whole. This applies to the WTO, and to all other international institutions, which should complement each other.

Trade, no doubt, leads to a more efficient allocation of resources on a global scale. However, for this efficient allocation to truly materialize, we all know that resources must be properly priced to start with – that externalities would have to be internalized. In today's world, our policies are not fully synchronized. Greater awareness of the need for this synchronization is, first and foremost, required of governments.

We need to turn the page on the era in which governments would bring conflicting positions to different fora. The right hand of government should not compete with its left hand. The WTO, UNEP, and MEAs – as well as all other international institutions – must be put to work towards a shared sustainable development vision.

The Doha Round of trade negotiations contains a promise for the environment. A promise to allow for a more efficient allocation of resources – including natural ones – on a global scale through a continued reduction of obstacles to trade (tariffs and subsidies). But it also includes a promise to

ensure greater harmony between the WTO and MEAs: a promise to tear down the barriers that stand in the way of trade in clean technologies and services; as well as a promise to reduce the environmentally harmful agricultural subsidies that are leading to overproduction and harmful fisheries subsidies which are encouraging over-fishing and depleting the world's fish stock.

The WTO needs the engagement of the environmental community in these negotiations. The engagement of environment ministers, of UNEP, of MEAs, and of civil society. As I said earlier, it is due, in large part, to the efforts of the environmental community that these negotiations have come about. But these efforts must be sustained, especially at this crucial phase of the Doha Round. As imperfect as the WTO may be, it continues to offer the only forum worldwide that is exclusively dedicated to discussing the relationship between trade and the environment. Through Doha Round, decisions on that relationship can finally be made, influencing the way that the relationship is shaped. I call upon the environmental community to support the environmental chapter of the Doha Round, and to provide its much needed contribution.

The world must forge ahead with these negotiations as fast as it possibly can. Not because the negotiations are going to save the world's environment. But because they are the very modest start that the international community has agreed to make to address environmental challenges through the prism of trade. A failure of these negotiations would strengthen the hand of all those who argue that economic growth should proceed unchecked. That economic growth is supreme and need not take account of the environment. Trade, and indeed the WTO, must be made to deliver sustainable development. They are starting to.

This modest first step that governments have taken, would allow them in future to become bolder, addressing issues that have so far been left behind. The proper pricing of resources, the internationalization of externalities, and sound energy policy, are but some of the topics requiring much more serious attention.

The contribution of the Doha Round to the environment is but a drop in the bucket of the solutions required to address the world's

environmental problems. But that drop needs to enter the bucket, so that governments are encouraged to begin looking at the bucket as a whole. A sustainable development strategy, linking all international actors, must become our goal. We must not wait for Gaia to react!

(www.wto.org)

Beyond Kyoto

THE report of the United Nations inter-governmental panel on climate change (IPCC) may not have unveiled anything that was not known before, but it has raised the decibel level of the alarm bells regarding the threat to planet earth. Extreme swings in temperature, unprecedented droughts and floods, the melting of sheets of ice and rising sea levels in recent years have all served as evidence that nature is no longer behaving as before. Though there are differences of opinion within the scientific world on whether these are admissible symptoms of climate change or just cyclical climatic extremes, they have visible and measurable consequences that mankind can ill-afford to disregard. For, should the sea level continue to rise at the present pace of 3 mm a year, it could have a perilous geo-economic aftermath. For India, a 1 metre rise in the sea's surface level would mean the loss of as much as 576,400 hectares of land, affecting over 7 million people, as reckoned by an Asian Development Bank study. What is worse, some of the coastal commercial hubs, including Mumbai and Chennai, would be among the first to face the brunt of the problem. On the global scale, the world atlas would have to be redrawn owing to the possible disappearance of several small island nations and the shrinking of the land masses of larger countries. What is especially unnerving is the hypothesis that plenty of irreversible damage has already been done to the earth's atmosphere. This is reflected also in the IPCC's observation that higher temperatures and rises in the sea level will continue for centuries, no matter how much restraint humans observe henceforth.

Apart from re-stressing the urgency for action on controlling global warming, the IPCC report should logically raise several critical questions pertaining to the efficacy of the Kyoto Protocol on climate change, the only significant initiative that is in force to tackle this issue. The points to be

pondered in particular include whether the emission reduction goals are pitched right and whether the clean development mechanism envisaging meeting emission reduction targets through carbon trading constitutes the right approach to tackling this problem. What is also needed is to revisit the role that the US, the world's largest polluter, has been playing by opting out of the Kyoto accord. In fact, such issues should have already been on centre stage as the validity of the Kyoto mandate is set to expire in five years. Unfortunately, little has been done to work out Phase II of this pact. Judging by the time that international treaties normally take to be hammered into shape, the putting together of a post-Kyoto deal, too, is unlikely to be a quick and smooth affair. This is more so because several uncomfortable and time-consuming issues have to be faced. These include, among others, the demand from several quarters for ending the exemption to the developing countries, especially the likes of India and China, from taking on emission-reduction targets. Should this happen, which seems quite likely, it is bound to reopen the entire debate on who should bear the cost of clean development and in what proportion. Since carbon trading has not turned out to be either an ideal or fair and transparent way of ensuring cost sharing, it would have to be suitably refined, or replaced with a better alternative.

(*Business Standard*, 9 February 2007)

Developing World should Get a Break on Climate: UN

EMERGING giants China and India should not be required to cut carbon emissions as quickly as rich countries, despite being among the world's top greenhouse gas producers, the top UN environmental official said.

Achim Steiner, Head of the Nairobi-based UN Environment Programme (UNEP), urged developed nations to "take the next big step" against climate change and negotiate tight new standards that may exempt their poorer neighbours.

Otherwise, he warned that rich-poor tensions could sour efforts to extend the United Nations' Kyoto Protocol beyond 2012.

"If we don't have significant political momentum this year, the negotiations on a new climate change

convention are going to be increasingly jeopardized," he said in an interview during the World Economic Forum in Davos, Switzerland.

The US, which is not a signatory to Kyoto, emits a quarter of global industrial greenhouse gases that scientists say trap solar rays in the atmosphere, causing severe storms, floods, droughts and ecological ruin.

China's blistering economy has rocketed it to the number two worldwide carbon emitter, with India in fourth place, according to World Resources Institute data. While pledging shifts towards renewables and more efficient energy, both developing powers have resisted calls to curb emissions that could endanger growth.

Mr. Steiner, a German who took over at UNEP last year after heading the World Conservation Union said it was "a matter of fairness" to give developing countries extra slack on new emission limits, given western powers built their modern industries burning fossil fuels. It is "a litmus test" for international diplomacy whether countries can develop a new climate regime.

(The Financial Express, 28 January 2007)

India Set to Get \$150-mn GEF Aid for Biodiversity

INDIA is likely to receive around \$150-million assistance from the global environment facility (GEF) in the next four years for several green projects and also those related to biodiversity conservation.

India is also a major beneficiary of GEF's small grants programme (SGP) which has been implemented by the United Nations Development Programme (UNDP) in 90 countries. A new SGP eco-development and biodiversity project for a cluster of 28 villages in Tumkur district in Karnataka will be launched in Bangalore.

The GEF Chairperson, Monique Barbut said, "India is a major beneficiary. We have financed several projects in India amounting to \$180 million. GEF's financing led to co-financing by different agencies to the tune of \$1 billion."

Ms. Barbut said many project proposals from India were under consideration, the total fund flow

from GEF may touch \$150 million in the next four years. She said though GEF was an important part of the public sector's effort to address growing environmental problems, it had kept aside \$50 million corpus for funding private sector initiatives.

Ms. Barbut was in India to participate in the Delhi sustainable development summit and discuss eco-development with the Federation of Indian Chambers of Commerce and Industry (FICCI). She said GEF had financed several projects to the extent of \$2 billion in 140 developing countries during 2006. GEF's efforts have also helped generate \$22 billion co-financing from different agencies.

India is also a donor of the GEF Fund. Out of the last replenishment of \$3.2 billion contributed by donor countries, India and China contributed \$9 million. Ms. Barbut lauded India's efforts and said in many projects the country was able to do without GEF funding. In a World Bank-assisted wind energy project, India returned \$28 million assistance by GEF.

(The Financial Express, 24 January 2007)

WTO Plans Threaten Sea Life: Greenpeace

PIRATES and licenced trawlers are ravaging the world's oceans, while proposals for trade ministers meeting in Switzerland could prove the final blow to sea life, Greenpeace said.

Three-quarters of global fish stocks are now classed by the United Nations as fully or over-exploited, and the conservation group said WTO plans to slash or cancel fish and fish product tariffs would be a disaster. "Under trade liberalization, only a few countries will benefit, and then only in the short term", said Daniel Mittler, a political adviser on trade for Greenpeace.

"The reality is, all other countries will lose. There must be regulated trade and proper management...The last thing the world needs is a relaunch of the Doha global trade round." The world's seas are already ravaged, with waters off developing nations most at risk from pirate trawlers flying cheaply purchased flags of convenience, Greenpeace said.

At any one time, some 600 foreign vessels are fishing off the Kenyan coast, said Athman Seif of

the Kenya Marine Forum, particularly targeting lucrative hauls of yellow fin tuna. Some of the boats are licenced, many are not, he said. "They are sophisticated and unscrupulous, and something must be done," he said at the launch of the report in Nairobi.

(The Financial Express, 20 January 2007)

Concerns over Environment Forcing Nations to Go for Eco-Labels

THE growing awareness about eco-friendly products, coupled with the effort to end the reckless exploitation of natural resources, is forcing countries to have eco-labels on products.

As part of an UNCTAD initiative in the marine sector, a major meeting was organized in Kochi on 15 January. In that meeting, representatives from Swiss-based Marine Steward Council (MSC) held discussions with central and state governments, exporters and other stakeholders. An independent, international non-profit body, created by the WWF, the council is globally recognized as a leader in certification, a concept promoted by Unilever Plc/NV and the WWF at the MSC initiative in 1996.

Several exporters have admitted that since eco-labels would be a reality soon, it would be appropriate to take up initiatives and get advantage of the new system. They pointed to the European ban in 1997 when initial resistance by the trade players was done away with and processing units across the country had to upgrade their facilities to meet global standards. The EU is now the top market for Indian seafood. Experts see the prospect of eco-labelling becoming mandatory soon. Although it is voluntary right now, the growing concern over environment would force nations to accept eco-labelling, they said.

The labelling process involves tracing the whole life-cycle of a product from extraction of raw materials to processing, manufacture, distribution, use and disposal.

Exporters admit that there was growing concern for environmental issues, which could be translated into market advantages. The first initiative was taken up in the 'seventies in Germany and today the EU eco-label scheme (flower logo) is accepted across Europe, recognizing products that are less harmful to the environment.

Officials in the Marine Products Development Authority (MPEDA) said the concept of eco-label for marine products could lead to improved management of marine resources. It was a market-based economic instrument aimed at directing consumers purchasing behaviour and looking beyond price to other attributes - environmental and ecological objectives. This would also ensure premium prices, access to new markets, preferred supplier status and higher product quality in terms of nutritional and health benefits. It involved a fisheries management plan, availability of steady scientific and technical advice and precautionary steps in case of problems.

Exporters pointed to lack of consensus on how international trade agreements would be interpreted and applied to such eco-labelling schemes, especially since the WTO had yet to establish procedures and norms that were internationally acceptable.

Exporters said that during the meeting, they would express their concerns since there were fears that this was being imposed by developed countries and whether it would act as a trade barrier. Also, environmental problems of developed countries were not the same for developing ones and distinctions could be biased against products from developing countries.

Steps would have to be taken to support the testing process in developing countries. The special characteristics of marine capture fisheries would have to be taken into account. Since eco-labelling demanded a stringent chain of custody, in India where there were a large number of small and marginal farmers, financial and technical assistance was mandatory, exporters said.

(The Financial Express, 2 January 2007)



BOOKS/ARTICLES NOTES

ARTICLES

Trade and Environment Negotiations at the WTO: The Interface of Multilateral Environmental Governance and Multilateral Trading System by Aparna Sawhney, *GALT Update*, The Energy and Resources Institute (TERI), New Delhi, March 2007, Volume 1 Issue 2, pp. 3-6.

AFTER the Doha Ministerial Round, the WTO member countries have entered into numerous discussions clarifying the issue of environmental goods for liberalization. However, the core issue of relationship between the Multilateral Environmental Agreements (MEAs) and the WTO rules on environment had taken a backseat till the European Commission (EC) proposed in July 2006 the “enhancing of mutual supportiveness of trade and environment”.

WTO rules have specific bearing on Specific Trade Obligations (STO) within MEAs worldwide and their mutual agreement or disagreement can drastically change the face of world trade. It can be gauged from the way it has featured in WTO negotiation rounds. Though the current proposition is related to STO and the WTO rules, it can address the larger question of when and which restrictive trade measures may be considered WTO consistent on environmental grounds.

The process of ensuring mutual supportiveness between the MEAs and the WTO rules is distinctly complicated, since both are designed to address different realities. The angle which further entangles this is the EC, which treats both the MEAs and the WTO rules as having equal legal status. The EC supported by Switzerland and Norway heighten the threat of regional dimension as compared to multilateralism. In comparison, developing

countries vie for a softer approach wanting the MEAs and the WTO to be supportive of each other.

The EC, Japan, Norway and Switzerland want broad conceptual clarification while a large number of developing countries propose systematic and restrictive clarification between the STO in MEAs and WTO rules. India features in the second category seeking to ensure that its export prospects are not hurt by a broad interpretative decision. India along with the other countries seek an MEA by MEA analysis to accommodate the STOs in the WTO system, since it allows a balance between commercial and environmental interest and gives space to each treaty and the corresponding STO.

In this light, the developing countries had taken a more systematic and thorough approach and the negotiating stand is advantageous to either the precautionary principle or the “science and rules-based” WTO approach.

While advancing the negotiation stand, the article emphasizes the importance of overall success in the negotiation for the advancement of global trade.

Trade and Environment: In Search of a Global Agenda by Nitya Nanda, *GALT Update*, TERI, March 2007, Vol. 1 Issue 2, pp. 6-11.

THE article briefly captures the history of the relationship between trade and environment under the WTO and highlights the fear in the minds of developing countries as to the restrictive trade and environmental policies of many developing countries.

The article shows that lack of empirical evidence negates the hypothesis that polluting activities are more concentrated in developing countries as compared to developed ones, since developing countries have received less FDI in proportion to developed countries in terms of polluting industries over 1990 to 2003. Moreover, these countries earn more FDI from mining, quarrying and petroleum

among the six polluting industries. This shows the intensity of location specific and mineral-based industries in these countries rather than slackness in environmental regulation.

The argument that trade promotes environmental conservation is not sustainable as factors like shipping which are highly damaging to the environment, are integrally linked to the concept of multilateral trade. The current WTO framework with subsidy rules and global IPR regime make environmental protection more complicated and expensive for developing countries.

While several important issues like STOs in MEA, observer status to multilateral environment bodies, reduction or elimination of tariff and non-tariff barriers to environmental goods and services are part of WTO's environmental agenda, many bilateral and regional level trade agreements are also used for trade measures which did go to WTO's Dispute Settlement Process (DSP). But the key factor that no measure effecting trade taken under any MEA has been challenged by the WTO system shows that it has adopted a minimal agenda on trade and environment.

The article highlights that such an agenda has made the WTO more of a market-access promoting organization for developing countries than an organization supporting sustainable development or environmental protection. The various negotiation agendas under the WTO on trade and environmental issues have not made much headway. Therefore, there is all the more scope to make the WTO agenda on trade and environment global, since it leaves out many important issues from the viewpoint of developing countries at its current stage.

The article tries to identify agendas which the WTO must take up to achieve the status of a truly global organization like climate change mitigation, taking a stand on TRIPS, agricultural subsidies and investment protection, etc.

India's Negotiations on Trade and Environment Issues at WTO: A Decade-Long Experience by Debashis Chakraborty, *GALT Update*, *TERI*, March 2007, Vol. 1 Issue 2, pp. 12-17.

THE article discusses less than encouraging experience of developing countries in terms of trade negotiation in recent years and then proceeds to discuss India's position in terms of such negotiations

at the WTO. While India's approach to these issues has remained proactive but hesitant, since Cancun 2003 the country has adopted a dual approach strategy to enhance market access for its products. At the backdrop of the general issues of the WTO and India's approach to seek resolution on these issues, the article discusses in details India's participation in the WTO negotiations on trade and environmental issues.

In the early years, India had concentrated on the relationship between the TRIPS and MEAs concerning IPR related obligations in order to protect its own interest. This was particularly linked with Environmentally Sound Technologies and Processes (EST and Ps), since the IPR holders would enjoy self evident advantages in terms of price in these categories, and therefore India categorically had asked for rectification of the procedure.

Post Seattle, India has extended its focus to protection of biodiversity and traditional knowledge. Even post Doha, India has actively focussed on the relation between STOs in MEA and WTO rules, which is the issue highlighted by the EC in recent years.

Before the Hong Kong Ministerial round there were two approaches related to freeing of trade in Environmental Goods and Services (EGS), and India remained a key proponent of one of these. While many developed countries like the US and New Zealand wanted a "least approach", India enumerated several problems associated with it like the dual use of items and instead proposed the adoption of Environment Project Approach (EPA). In this case, every project approved by a Designated National Authority (DNA) in member countries would be considered as meeting environmentally safe criteria, for any other project, the same goods however will need a fresh approval. Since each project will be contemporary, the changing needs of member countries would be observed and there would be scope for capacity building.

The EPA has gathered support, though it is yet to gain universal acceptance. This is also, in competition with the Argentinian integrated approach. However in 2006, India has reaffirmed its position in terms of EPA claiming that this has precedence in the WTO meets the transparency requirements, and also ensures more policy space for member countries in a multilateral trade environment.

The article recommends that to further gain mileage on the issue of EPL, India should make joint submissions with other developing countries at the WTO and must focus on winning friends to place the EPL ahead of the list approach.

Effect of Environmental Standards on India's Market Access Concerns by Pavel Chakraborty and Nidhi Srivastava, *GALT Update*, TERI, March 2007, Vol. 1 Issue 2, pp. 17-21.

THE economic upsurge witnessed by many developing countries in the multilateral trade regime under the WTO has seen a setback in terms of imposition of environmental requirements as trade barriers for these countries, which limits their market access opportunities.

This is further a matter of concern as trade sanctions or environmental requirements barely serve as the most efficient devices to protect environment. They rather act as non-tariff barriers, thus limiting market access. Moreover, developing countries and their Small and Medium Enterprises (SMEs) are less advantaged in terms of technical and financial requirements to meet these norms and standards. Another concern is that similar standards across countries cannot be deemed appropriate.

In the light of these developments, the article specifically discusses marine products in India, the issue of market access of these products *vis-a-vis* the impact of environmental measures.

Risk and Precaution in World Trade Organization Law by Ilona Cheyne, *Journal of World Trade*, October 2006, Vol. 40 Issue 5, pp. 837-864.

THE article analyzes that though some limited environmental provisions do exist in the WTO agreement, proposals to further accommodate environmental concerns remain deeply controversial. Given the complex dynamism of the WTO rules over trade-environment disputes, the respective discretion of the WTO and its member states in terms of taking complex decisions based on risk analysis, risk management and using a precautionary approach remain areas of concern. The precautionary principle in itself is a paradigm of the tension between the trade rules and the member states' power in environmental policy making.

The WTO Appellate Body's approach to risk analysis has been largely developed in the context of the Agreement on Sanitary and Phytosanitary Standards (SPS) which has specific provisions concerning risk assessment, and Article XX (b) which has no explicit reference to risk. In both sets of provisions, only risk evaluation is free from review but it may be restricted in practice by the weighing and balancing analysis used to decide whether a measure is necessary.

This is because one of the relevant factors in the analysis is the importance of the interest or value being protected. This objective standard reveals a reluctance to give member states full discretion where a risk is highly subjective.

While risk assessment is based on scientific evidence, the concept of risk management is more subjective, as it depends on an individual society's perception of threat to environment and their response to the crisis. Therefore it remains a difficult process to evolve certain common rules or decision regarding the entire process of risk assessment and management in the context of the WTO and its member states. The precautionary principle has always remained a bone of contention between the WTO and environmentalists and experts.

In the light of these three principles guiding and determining environmental concerns between the WTO and the member states, the article discusses their importance in the SPS and GATT Article XX (b).

Is the World Trade Organization Anti-Precautionary? by Doaa Abdel Motaal, *Journal of World Trade*, June 2005, Vol. 39 Issue 3, pp. 483-501.

IN this article, the writer discusses the attitude of WTO towards environmental issues relating to its member countries. WTO rules stifle the enactment of stringent health and environmental regulations, because these do not allow the member countries to respond to "threats" of harm, thereby only allowing response to scientifically proven harm, thereby undermining the importance of the precautionary principle.

The precautionary principle is described as a policy-making tool to respond to environmental catastrophe and uncertainty combined together in order to prevent risks to health or the environment.

By this, countries are asked not to postpone preventive, cost-effective actions against with respect to serious and irreversible environmental damage even when there is a lack of full scientific certainty.

However, in the context of the existing situation, the author discusses at length why everything is not right, throwing light on how the existing Multilateral Environmental Agreements (MEAs) including Montreal Protocol on Substances that Deplete the Ozone Layer, and Convention on Biological Diversity have failed to clearly define the criteria for selecting a precautionary action. However, in recent times, particularly after the Cartagena Protocol, the threshold for precautionary action has been significantly lowered, though the level of danger that can trigger precaution is still not uniform across MEAs.

Even in the context of the WTO, there are only two agreements, the Agreement on Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT), which make an explicit reference to science. The article hereafter provides a detailed analysis of the risk assessment process of the WTO with reference to various cases, in terms of likelihood, proof of scientific nature as well as risk management and the role of the Dispute Settlement Understanding.

A Qualitative Analysis of the WTO's Role on Trade and Environment Issues by McCormick Rachel, *Global Environmental Politics*, February 2006, Vol. 6 Issue 1, pp. 102-124.

THIS article discusses how the WTO addresses environmental issues, assesses the current and potential role of the WTO in trade-environment controversies, and provides insight into how strategies used by nongovernmental organizations (NGOs) and industry could complement and facilitate work within the WTO.

The article is based on the results of interviews with 71 individuals with varying backgrounds and experience, all of whom are actively engaged on the topic of trade and environment. The responses basically deal with the role of the WTO in terms of its scope, successes, challenges, opportunities, and misperceptions related to environmental issues.

As per the role of the WTO in environmental issues is concerned, the experts feel that economic

and environmental goals can be mutually compatible if the right policies and strategies are in place. This finding shows that improved awareness of different sides of an issue is warranted among policy-makers, academia, industry, and NGOs. But the most prevalent opinion on the scope of the organization in such matters was that the WTO should focus attention to issues directly related to the mandate of the organization (i.e. trade-related environmental issues) and not impose authority in the area of environmental governance. Their basic opposition to the role and scope of the WTO was that many WTO members send only trade experts to negotiations and committee discussions, and that WTO committees and working groups therefore lack sufficient environment-related expertise to address issues in an informed manner.

As per the success of the WTO's environmental role is concerned, most experts agreed that there has been notable movement on the issue, from a point where members could not discuss a topic to a point where there is some common ground and agreement to discuss solutions and engage in negotiations.

However, the experts identified four overarching categories of challenges as to why the WTO will not be able to play a mentor for environmental concerns, which are the structure of its negotiation process, green protectionism concerns, developing country concerns, and the approach of the CTE. Experts noted the lack of progress within the CTE as a central challenge to the advancement of environmental issues within the WTO, specifically on the relationship between multilateral environmental agreements (MEAs) and trade rules within the CTE Special Session.

An Assessment of Environmentally-related Non-tariff Measures by Lionel Fontagn, Friedrich Von Kirchbach, and Mondher Mimouni, *World Economy*, October 2005, Vol. 28 Issue 10, pp. 1417-1439.

THE article details how international trade exposes the environment to specific risks of damage, by citing various examples like the risk of exhaustion of natural resources raised by intensive and subsidized fisheries (as pointed out in Paragraph 28 of the Doha Ministerial Declaration). Another example quoted is the on-sustainable logging and international trade of illegally harvested forest

products as seen in the declarations of the World Summit for Sustainable Development regarding sustainable forest management.

Since there is no systematic approach to guiding international buyers about the environmental hazards of the products they buy. The quality of a product cannot be detected prior to repeated purchases, and therefore an exporter is likely to expend less effort on sanitary quality and deliver low quality.

To tackle risks of environmental damage, the article emphasizes the necessity of "measures at the border" like quarantine, inspections, bans, etc. and the challenge is to implement these without effecting barriers on trade. However, the issue of concern is that claims of environmental violation cannot be protectionist in nature, and should be based on scientific evidence or international sanitary standards. There is also the precautionary principle which is a highly disputed issue in the WTO arena.

This article analyzes the magnitude and the structure of Environment-related Measures (ERM) notified under the SPS and TBT agreements, and aims to draw the distinction between protection and protectionism.

The article takes into account six different categories of importing countries' motivations for ERM, namely:

- Protection of the environment;
- Protection of wildlife;
- Protection of plant health;
- Protection of animal health;
- Protection of human health; and
- Protection of human safety.

The article presents researched data on products affected by ERM in at least one importing country, the value of world imports in affected products and value of imports in notifying countries respectively. The world's leading importing countries have introduced ERM for the majority of traded goods and it could be concluded from this that the majority of products traded internationally are perceived as having the potential to harm the environment.

Against the extensive evidence based on research regarding the importing ERMs, the article proceeds to discuss the most revealing factors

regarding implementation of ERMs, that is, the degree of exposure to ERM is quite similar for exporters based in developed market economies, and developing countries, while in contrast, the Least Developed Countries (LDCs) exports are characterized by a very specific pattern. On the one hand, less than half of the LDC exports in value terms consist of products potentially affected by ERM. On the other hand, of these products, 40 per cent are directly affected because they are shipped to markets imposing ERM. The clear implication is that the exporters from the LDCs are significantly more exposed to ERM than those from any other group of countries.

Based on its analysis, the paper proposes a systematic assessment of environmental trade barriers, using all environmental-related notifications to the WTO for 2001, and international trade data at the six-digit level of the Harmonised System of the UNCTAD.

Eco-labeling and the Trade-Environment

Debate by Daniel Melser and Peter E. Robertson, *World Economy*, January 2005, Vol. 28 Issue 1, pp. 49-62.

THIS paper discusses the potential global environmental benefits of eco-labeling programmes particularly for internationally traded commodities, since the introduction of eco-labels can work as an alternative to more trade-restrictive environmental policies, such as import bans or tariffs on goods with harmful environmental effects.

The benefits of the eco-labeling programmes are promotion of consumer awareness, creating markets for green goods and providing consumers with the ability to make informed choices. Since its inception in 1977 in Germany, it has gained in importance and popularity among countries.

Though eco-labeling is more or less like the widespread safety and health labeling followed by numerous countries worldwide, perceived differences in policies across countries as to what is liable for such labeling make it more complicated than the other practice, there is often scope for disagreement between countries over the validity of a specific requirement.

Whereas health and safety norms are about costs that occur at the stages of consumption, eco-labeling

is about costs that occur at the production and disposal stages of a product's life-cycle. This difference is important from the perspective of international trade, since WTO rules exclude trade policy measures based solely on different process and production methods (PPMs). Moreover, the effectiveness of health and safety labeling depends on a consumer's willingness to pay a premium to protect their own well-being. Eco-labeling, however, depends on consumers' willingness to protect the environment.

In such a scenario, the cause might suffer from "tragedy of the commons".

Due to the controversial WTO history of dispute settlement in environmental cases, where the practice in countries are often in conflict with WTO rules, the article shows that many governments have taken recourse to this labeling method as a politically expedient policy option to ease pressure from national environmental lobbies and pressure from exporters and foreign governments to comply with the WTO rule.

Despite the beneficial effect of eco-labels in creating markets for green goods, there remains a concern whether the self-interest motive provides a strong enough impetus for consumers to act to reduce environmental costs.

The article further discusses the political-economic implications of eco-labeling and how it has special significance for Genetically Modified (GM) food items. Since costs involved for consumers are only external, even a perfectly monitored labeling scheme will not force consumers to internalize these costs. Hence eco-labeling should only be seen as a part of a range of policies for environmental management.

The WTO and Environment by Shaban Uppal, *Economic Review*, January 2005, Vol. 36 Issue 1, pp. 19-21.

THE article focuses on the several provisions in the World Trade Organization (WTO) agreements, which deal with *environment* and facilitate action by government to protect the environment, incorporated in the Agreement on Agriculture (AOA) and the General Agreement on Trade in Services (GATS). However, according to the writer, the most important provision concerning

environmental issues by far in the WTO are Article XX of the GATT and the Agreement on Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT).

The article then goes on to discuss in detail the various measures of the organization for protecting environment. Article XX of the General Agreement on Tariffs and Trade (GATT) specifies what activities are exempt from GATT rules, in which the common exemption is to preserve freedom of action to protect national security. These exemptions give members very wide latitude to control trade to protect the environment. For ex. Article XX (b) permits restriction on trade to protect human, animal and plant life health and safety. Article XX (d) permits restrictions on matters not inconsistent with the objectives of the GATT, Article XX (g) also permits restriction if they complement national programmes for the conservation of resources. This is the basis upon which restriction is applied to trade in pharmaceuticals, hazardous product, toxic product and product carrying risk of disease, etc. The capacity of governments to prevent the entry of such products into their national territory in this way enable governments to maintain the integrity of national environmental programmes in the vast majority of cases.

However, experience with the use of Article XX of the GATT over many years revealed weaknesses in some provisions. Particularly where the latitude to act was so wide that governments use the provisions to secure economic protection.

The other act in this context, the Agreement on Technical Barriers to Trade (TBT) was negotiated in the Uruguay round, to reduce the scope for countries to use technical standards as disguised barriers to trade. Technical Standards with restrictive trade effects, are permitted for four "legitimate purposes" (including Standards developed for the protection of the environment, for national security requirements, for the prevention of deceptive practices and for the protection of human health and safety and animal and plant health and life), provided the effect is not more restrictive than necessary to meet one of those objectives taking into account the risk of non-fulfillment.

Along with these two agreements there are other regulations, standards and the need for eco-

labeling to ensure environmental safety. Also as part of the agreement on agriculture, which was negotiated in the Uruguay Round, there are subsidies to protect the environment.

The article also suggests certain steps on how exporters can ensure environmentally safe like adopting quality management systems, especially ISO-14000, and adopting stringent production principles.

The WTO and the Environment: Its Past Record is better than Critics Believe, but the Future Outlook is Bleak by Eric Neumayer, *Global Environmental Politics*, August 2004, Vol. 4 Issue 3, pp. 1-8.

THE article argues that the WTO has done less damage than what its critics believe to the environment, and to demonstrate this, the writer extensively scans WTO's jurisprudence. Even if a particular country is free to exercise certain trade related task according to the rules of its own country, WTO cases show that many a times the organization's panel has basically upheld trade restrictions aimed at process and production methods (PPMs) outside a country's proper jurisdiction.

For example, in the famous case of "United States – import prohibition of certain shrimp and shrimp products" harvested without sea turtle excluder the WTO appellate body ruled that regulations aimed at PPMs in foreign countries need not necessarily violate WTO rules as long as the country imposing the restrictions has undertaken good-faith efforts at reaching a multilateral agreement, has applied the restrictions in a fair, non-arbitrary and non-discriminatory manner, giving affected countries some flexibility in terms of how to achieve the aim of natural resource protection. Since the United States had not complied with these requirements at the date of ruling, the appellate body ultimately decided that the import ban was in violation of WTO rules.

The article also contends that there are widespread misunderstandings about WTO's dispute settlement process and its implications. Many critics contend that the organization's regulatory bodies actually decide on a case based on available facts rather than initiating a fact finding process on its own. However, this is not so different from the judicial system of most countries where similarly higher courts

often restrict themselves to examining whether the lower court has applied the law correctly, but will not commence a new fact finding process.

The WTO rulings on environment have also refrained from blocking any Multilateral Environmental Agreements (MEAs), despite the fact that some MEA rules do contend with WTO rules. Moreover, it is the duty of the member countries to strengthen rules guarding their respective environment, and WTO as an organization does not in any way hinder the process of enacting strong measures for safeguarding the environment of its member countries.

But at the same time, the organization has also failed to use its prominence adequately in ensuring environmental safety through its action. It does not proactively promote environmental protection, and very little has been done to remove trade barriers which are detrimental to the environment. The organization does not follow the precautionary principle adequately and is to take care of its current impasse related to pending cases against economically stronger countries like US and Canada.

The Big Chill: The WTO and Multilateral Environmental Agreements by Robyn Eckersley, *Global Environmental Politics*, May 2004, Vol. 4 Issue 2, pp. 24-50.

THE article argues that there seems to be a significant lack of integration between the pre-eminent global governance structures set up to manage trade and environment respectively. While the WTO is a sophisticated mechanism to ensure fair trade practices in the international scenario, most Multilateral Environmental Agreements (MEAs) typically work in accordance with the voluntarist tradition of international law and proceed on an ad hoc, issue-by-issue basis by inducing cooperation and generally avoiding punitive sanctions.

There is a constant need to skilfully manage conflicts between the international trade regime and international environmental regimes. In the present scenario, the trade regime appears to enjoy an upper hand when it comes to trade retaliation. While MEAs can be challenged for its effectiveness within the framework of WTO's legal measures, the MEAs hardly can show any power as they function without

a corresponding set of punitive remedies that are comparable to WTO. For the same region, WTO has been at the receiving end of severe criticism by international theorists saying that the WTO rules form a particularly important element in a “disciplinary neoliberal” form of governance over state and non state actors, with the effect in this case of undermining international and national efforts towards more concerted environmental protection. Environmental nongovernment organizations (ENGOs) have stepped up their critique of the global trading rules, arguing that they are primarily concerned with the effect of environmental policies on trade, but not the effect of trade policies on the environment.

The article observes that the expanding reach of the WTO’s trade agreements does serve to cramp the scope and operation of MEAs, albeit in subtle rather than direct ways. Though the WTO Committee for Trade and Environment (CTE) has worked significantly in some cases concerning the environment, there is a definite stalemate, which raises serious concern about the environment.

Given the status of WTO, which enjoys an upper hand in legal resolution on environmental issues, there is a visible attempt in the international community to demonstrate a conservative approach towards applying trade restrictive measures as envisaged by MEAs in order to avoid a legal challenge within the WTO framework. This increasing awareness about the limited effects of MEAs is having a serious effect on such negotiations, and further, the current stalemate at the CTE has dampened any serious international effort on environmental policies.

Finally, the writer reviews some of the major reforms that have been proposed and assess the political prospects of new institutions of “disciplinary environmentalism” designed to counterbalance the WTO and give MEAs freer rein.

The WTO, the Environment and Health and Safety Standards by Trish Kelly, *World Economy*, February 2003, Vol. 26 Issue 2, pp. 131-151.

WTO has been at the receiving end of serious criticism regarding its role on environmental issues. Because the WTO is more powerful than its predecessors, critics claim that it poses a threat to

national sovereignty. Concerns about the ability of nations to set their own environmental and health and safety agendas have figured prominently in these critiques. In addition, critics suggest that the WTO prioritizes trade objectives at the expense of environmental and health and safety objectives.

The article explores the extent to which the WTO has been able to reconcile trade, environmental and health and safety objectives by analyzing its rulings on these matters. Overall, this analysis suggests that the WTO dispute resolution process has balanced all three sets of objectives.

However, it is important to note the small number of disputes to date; only 21 of the 175 disputes before the WTO involve environmental and health and safety matters. Further, the WTO has issued decisions in only six of these cases. The article discusses at length the history of the six cases and recommends some policy issues for future action.

Live with a Quiet but Uneasy Status Quo? - An Evolutionary Role the Appellate Body Can Play in Resolution of “Trade and Environment” Disputes by Satoru Taira, Discussion Paper from Research Institute of Economy, Trade and Industry (RIETI), <http://econpapers.repec.org/scripts/search.asp?>

THIS paper is related to the process-and-production method (PPM) issue, which determines whether a trade ban on a product imposed because of the fact that it is harmful to the environment, and tries to reason if this method can be consistent with the WTO law.

The purpose of this paper is to trace what the panels and the Appellate Body of the WTO have done in settlement of disputes concerning this problem and especially to think about a possible “evolutionary” role the Appellate Body can play in resolution of “trade and environment” disputes.

This paper discusses the essential characteristics of the so-called “trade and environment” issue which has gained momentum owing to increased environmental awareness among countries and then seeks to identify a special problem which is raised by these characteristics in the context of the dispute settlement system of the WTO.

It also discusses another important issue at a more substantial level, which relates to trade

related environmental measure (TREM) based on a PPM. Is such a law broadly inconsistent with the rules of WTO and then it tries to trace how the panels and the Appellate Body have disposed of these issues in practice and also make some analysis of a new approach adopted by the Appellate Body in interpreting the WTO law in recent two cases.

The paper also aspires to affirmatively evaluate this new approach and suggests the possibility of a new horizon opening for WTO in its controversial stand on environmental issues provided the Appellate Body strives to deviate from the *status quo* and break new grounds with a fresher approach to such issues.

Dirty Exports and Environmental Regulation: Do Standards Matter to Trade? by John S. Wilson, Tsunehiro Otsuki and Mirvat Sewadeh, *Policy Research Working Paper from the World Bank*, No. 2806, <http://econpapers.repec.org/scripts/search.asp>?

THE objective of this paper is to address the link between environmental regulation and trade which was an important part of discussions at the World Trade Organization Ministerial in Doha, Qatar in November 2001. There, trade ministers of various countries had agreed to launch negotiations on trade and the environment, in relation to clarification of the WTO rules. Here the main focus of the authors is to address an important part of the background context for deciding whether or how to link trade agreements to the environment from a developing country perspective.

The context is developed around the exports of pollution-intensive or "dirty" goods in 24 countries between 1994 and 1998. Their method of analysis is based on a Heckscher-Ohlin-Vanek (HOV) model. The authors measure net exports in five pollution-intensive industries in a regressive analysis on factor endowments and measures of environmental standards.

The results suggest that, if country heterogeneity such as enforcement of environmental regulations is controlled for, more stringent environmental standards imply lower net exports of metal mining, nonferrous metals, iron and steel, and chemicals.

Moreover, the authors also find that a trade agreement on a common environmental standard will cost a non-OECD country substantially more than an OECD country. This is particularly a matter of concern for the developing countries, since these countries will, on average, reduce exports of the five pollution-intensive products by 0.37 per cent of GNP. This represents 11 per cent of annual exports of these products from the 24 studied countries.

The article provides an extensive analysis of the implications for exports based on trade regulatory standards.

A Conceptual Framework for Agricultural Trade and the Environment: Beyond the "Green Box", by C. Ford Runge, *Journal of World Trade*, 33(6), 1999, pp. 47-68.

THE author focuses on the co-evolution of environmental and trade policies since the end of the Uruguay Round, which has left governments and trade negotiators grappling with two central questions. The *first* question concerns the impact of trade on the natural environment, namely when does trade impose such burdens on the natural environment that trade rules must be revised, or offsetting interventions made to protect environmental quality?

The *second* question concerns the impact of environmental measures on trade, namely when do the burdens of environmental measures on trade justify their removal or reform? Both these questions arise from the interaction of trade and environmental measures.

This article is concerned with whether a more general characterization can be given to environmental (or other policies that are justified, *even if* they affect trade, and the converse question of under what conditions trade policies with negative environmental impacts must require discipline. These actions and decisions may occur through consultation, negotiation or formal rule changes. Thus, this article covers how the trade affects the environment; affects environmental business and trade; verifiable criteria; and also discusses the target instruments and joint products; multifunctionality and agricultural subsidies.

Trade and Environment: Reconciling the Montreal Protocol and the GATT by Ann Rutgeer TS, *Journal of World Trade*, 33(4), 1999, pp. 61-86.

THIS article discusses the importance of trade and environment; following the establishment of Committee on Trade and Environment (CTE). The CTE is intended to (a) "identify the relationship between trade measures and environmental measures, in order to promote sustainable development"; and (b) "to make appropriate recommendations on whether any modifications of the provisions of the multilateral trading system are required, compatible with the open, equitable and non-discriminatory nature of the system". In this context, the relationship is identified between provisions of multilateral trading system and trade measures for environmental purposes, including those pursuant to multilateral environment agreements. The author deals with such trade related environmental measures pursuant to multilateral environmental agreements, and takes the Montreal Protocol as an example for analyzing the issue in detail in this article.

The Trade and Environment Interaction in the WTO: How Can a "New Round" Contribute? by Hector Rogelio Torres, *Journal of World Trade*, 33(5), 1999, pp. 153-167.

THE author attempts to address in this article the two questions, i.e., "Is there any intrinsic friction between the Multilateral Trading System (MTS) and environmental policies?" and "Is trade liberalization good for the environment?" He describes the instruments of environmental policies that occupy the contact zone between trade and environment. The MTS is based on the rule of non-discrimination, which is reflected in two basic principles: (i) National Treatment, and (ii) Most-Favoured Nation Treatment. Both the principles are progressively expanding beyond product export towards non-discrimination producers. The environmental policies may have to differentiate between various productions and processing methods depending on their respective environmental externalities.

The author states that multilateral environmental agreements may also require some manoeuvre for discrimination. This is the key area of potential conflict between the MTS and environmental protection policies. Trade libera-

lization promotes a more efficient allocation of economic resources, which eases the environmental pressure caused by the production process (fewer natural resources are needed to produce the same amount of output, or more output could be produced with the same amount of natural resources). Therefore, as trade liberalization lessens the demand of production on the environment, it promotes economic and environmental efficiency.

Examining the Environmental Case Against Free Trade, by Matthew A. Cole, *Journal of World Trade*, 33(5), 1999, pp. 183-196.

THIS article reviews previous studies that have theoretically and empirically examined the relationship between trade liberalization and the environment. The potential environmental benefits of the free trade are then considered, whilst the majority of this article reduces the environmental case against freer trade implemented through the WTO, can be reduced to four essential points. *First*, by promoting economic growth, trade may damage the environment through the unsustainable use of the natural resources and pollution emissions that threaten the earth's assimilative capacity. *Second*, international environment agreements may contain trade measures which are illegal under the WTO rules, whilst the market excess provisions associated with most trade agreements may, to some extent, limit the ability of nations to implement domestic environment turn regulations. *Third*, countries operating low environmental standards may have a competitive advantage over those countries with higher standards, thus creating pressure to lower standards. *Fourth*, freer trade, as it is being implemented through the WTO, may prevent nations from using trade restrictions to protect their environment.

The author, however, states that trade liberalization also contains the potential to damage the environment, firstly through the impact of economic growth. Whilst economic growth may provide more financial resources for environmental protection, an increase in the scale of economic activity may increase the scale of resource use and hence pollution. However, there is growing empirical evidence that suggests that emissions of certain pollutants do fall as GDP increases, implying that economic growth can be beneficial to at least some environmental indicators, if accompanied by appropriate environmental regulations.

GATting a Green Trade Barrier: Eco-Labeling and the WTO Agreement on Technical Barriers to Trade by Seung Wha Chang, *Journal of World Trade*, February 1997, pp. 137-159.

IN this article the author focuses some of the important issues relating to Eco-Labeling and WTO Agreement on Technical Barriers to Trade (TBT). They are very important to meet eco-labelling criteria and are based on processes and production methods (PPMs). In this context, serious concerns were raised by developing countries during discussion at the Committee on Trade and Environment (CTE). Developing countries may use very different PPMs from those which may qualify for eco-labels, they more often than not let the capital and technology to adapt their PPMs accordingly. An UNCTAD report succinctly describes environmental effects of eco-labelling programmes which aims to improve the environment by raising consumer awareness of the environmental effects of the products and hence changing behaviour, as well as changing the manufacturing design of products in favour of relatively environmentally friendly products and technologies.

The Agreement on TBT is perceived to exert some legal discipline over domestic standards having effects on trade. It is, therefore, not surprising that a key issue under Item 3(b) of the CTE is whether all eco-labelling programmes are covered by the TBT Agreement.

The Uruguay Round negotiations extended the coverage of the TBT Agreement to standards based on product-related PPMs. However, there remains controversy among the WTO Members over whether the WTO/TBT Agreement covers eco-labelling programmes based on non-product-related PPMs. In cases where the awarding of an eco-label is dependent on whether foreign suppliers meet criteria based on non-product-related PPMs, such programmes can amount to the exportation of domestic environmental standards and might raise issues of extra-territorial application.

Part II deals with the issue of whether eco-labelling programme based on non-product-related PPMs are covered by the TBT Agreement. Section A introduces several views on this issue held by

various WTO Member countries. Then, the following sections examine the language and the negotiating history of the TBT Agreement. Part III answers the question whether the GATT 1994 can effectively regulate abuses of non-product-related PPM-based eco-labelling which have adverse effects on trade, and Part IV proposes that the CTE adopt a multilateral agreement which can effectively regulate abuses of all eco-labelling programmes, especially those based on non-product-related PPMs.

Greenhouse Gas Emissions Trading and the World Trading System by Zheng Xiang Zhang, *Journal of World Trade*, 32(5), 1998, pp. 219-239.

THIS article discusses the Kyoto Protocol, which is the first international agreement that sets legally Greenhouse Gas (GHG) emissions. In this regard WTO Committee on Trade and Environment (CTE) has been established to co-ordinate the policies in the field of trade and environment. The Committee's work programme includes a review of the relationship between the provisions of the multilateral trading system and trade measures for environmental purposes, including those pursuant to multilateral environmental agreement.

The author examines the relationship between GHG emissions trading and the world trading system. Section II explains why emissions trading is considered to be the most promising way to control GHG emission. Section III of this article discusses the basic requirements for setting up a successful emissions trading scheme. Section IV addresses some trade-related aspects of emissions trading, and Section V relates the discussions on joint implementation with developing countries.

This article further examines the compatibility of an international emissions trading scheme with the GATT/WTO. It has been found that in dealing with the allocation of permits, non-compliance with emission targets, and emissions trading system enlargement, emissions trading has the potential to bring parties into conflict with the WTO provisions. The WTO will also have to resolve the very difficult question of what to do about the Annex 1 countries of the WTO, should they decide to pursue the abetting trade measures against non-Annex 1 countries of the WTO, who for some legitimate

reasons have decided to remain outside an emissions trading club. In this regard, joint implementation may offer the way out, because it succeeds in reducing GHG emission leakage without discriminating against such countries.

This underlines the importance for governments to enhance energy research and development and for the WTO CTE to explore the possibility of envisioning a more flexible patenting and intellectual property rights scheme that allows developing countries to acquire such technologies on preferential terms under the Agreement on TRIPs.

Toward GATT-Proofing Environmental Programmes for Agriculture by David E. Ervin, *Journal of World Trade* 33(2), 1999, pp. 63-82.

THE liberalization of agricultural trade and the protection of environmental quality are often cast as conflicting objectives. The task of devising complementary policies is complicated by the vastly different cultures of production, trade and environmental interests. Nonetheless, with the next GATT round scheduled to take up environmental issues, this is an opportune time to identify approaches but work in harmony rather than conflict.

Thus, in this context, the author reviews in this article the evidence on agricultural production, trade environmental linkages to clarify some popular myths and misconceptions. The review indicates that, in most developed countries, agricultural policy reform and trade liberalization will lead to modest and mixed environmental effect and likely a small net improvement.

On linkages among agricultural, trade and the environment, the author states that there are two main relationships between trade and the environment, with lines of causation running in opposite directions. The first describes the effects of liberalized trade and the ensuing shifts in transport and production on environmental conditions, i.e., the environmental effects on trade. The second describes the effects the environmental policies on trade flows, i.e. the trade effects of environmental programmes.

The author opines that despite all the GATT, and AoA provisions pertaining to agri-environmental measures, the criteria to judge

whether country schemes conform to trade liberalization precepts are incomplete. Considerable uncertainty surrounds the design and implementation of effective environmental and conservation programmes for agriculture that will not be challenged as trade restrictive. He suggests that one approach to address the uncertainty is to apply a checklist of criteria that form a "Code of Good Process" for designing agri-environmental programmes that are consistent with WTO rules and guidelines. The SPS Agreement is instructive in this exercise. He also warns that a comparable set of criteria to guide the design of trade policies that are consistent with legitimate national and international environmental policies should also be constructed.

A Real World Where People Live and Work and Die: Australian SPS Measures After the WTO Appellate Body's Decision in the Hormones Case by Gavin Goh and Andreas R. Ziegler, *Journal of World Trade*, 32(5), 1998, pp. 271-290.

THE use of SPS measures remains potentially one of the most disputed areas of international trade law. They raise such complex issues as national sovereignty, domestic quarantine, the state of scientific evidence and divergent socio-cultural attitudes towards protection of plant, animal and human life and health.

The authors give an overview on the Agreement on the Application of SPS Measures which was adopted as a separate Agreement in the Uruguay Round. Thus, they review the SPS Agreement in the context of the Appellate Body. Article 14 of the Agreement on Agriculture also provides that Members shall give effect to the SPS Agreement. The Agreement expands on Article XX(b) of the GATT by providing a specific framework of rules and guidelines for assessing SPS Measures. These measures are to be permitted only to the extent that they are based on genuine health and safety requirements, as assessed on scientific principles (Article 2). The process of the assessment is detailed, with relevant factors to be taken into account identified (Article 5). The Agreement also introduces the key concepts of harmonisation (Article 3), with negotiations of equivalent measures (Article 4), transparency (Article 7) and area freedoms (Article 6).



DOCUMENTS

Committee on Trade and Environment
Special Session

Procedural and Technical Aspects of the Environmental Project Approach

Submission by India

Paragraph 31 (iii)

The following communication, dated 16 September 2005, is being circulated at the request of the Delegation of India.

I. Background

1. In fulfilment of the Doha Mandate and to achieve the sustainable development goals as enshrined in the WTO preamble and the Millennium Development Goals, we have proposed an alternate approach to the present negotiations under Paragraph 31(iii). This alternate approach, called "Environmental Project Approach", provides for tariff reductions on goods and appropriate concessions on services included in specific environmental projects. The objective of the approach is to address the environmental as well as developmental goals of the Doha Development Agenda through trade liberalization. The approach is need-based and objective-oriented, and brings in positive measures like capacity building and transfer of technology. It also addresses diversity in environmental standards with common and differentiated responsibilities, giving policy space to the national governments. This framework is particularly crucial for developing countries in the present negotiations.

2. The approach envisages bringing environmental gains in a focused, direct and quantifiable manner through appropriate market access in environmental

goods and services in a composite way. The project approach substantially deepens and enriches the mandate of the Doha Ministerial Declaration to not only include market access but also to provide scope for developing countries to develop capacities and achieve national environmental priorities. It also brings in synergy between environmental goods and services, crucial for the benefit of developing economies.

3. Two submissions have previously been made to the CTESS¹ explaining the key elements of the project approach. This submission, besides elucidating on some of the positive measures of the project approach, seeks to address some technical and procedural aspects of the approach.

II. Some Positive Elements of the Project Approach

4. One of the important elements of the project approach, as already stated, is the synergy between environmental goods and services. The project approach recognizes this market trend and builds on it. Environmental products and related technological services are frequently provided on

¹ TN/TE/W/51 and TN/TE/W/54.

an integrated basis commercially. Firms bring together “horizontally” the range of materials and expertise to undertake an environmental project. They also associate “vertically” with firms specializing in different sectors. In the project approach, firms can procure goods and services from wherever they can access them at reasonable prices, on a comparative advantage basis; thus ensuring a gain in market access for world trade. Further, since these goods and services are being procured for a particular environmental project, the objectives of environmental benefit are addressed in a cohesive, focused, direct and integrated manner.

5. The project approach has been built on developing the mutual supportiveness of trade and environment. It is not a question of being import oriented or export oriented; rather it is impact oriented. Such direct impact on environment would not only improve the environmental performance of local industries but would also increase a country’s attractiveness for other foreign direct investment, while bringing benefits to the environment and health of the population.

6. Another important aspect of the project approach is to provide a framework for transfer of technology and for its adaptation by the developing countries. Development of technological capacity is a determining factor for building competitiveness of firms in developing countries; inextricably linked to this are the managerial or organizational factors and the management of technologies themselves. The project approach provides a framework by which these tools of technology transfer and adaptation (which can include design and manufacture, import of technical capital goods, management contractors, technical service contractors and other important methods) could be used to create forward and backward linkages with local firms and thereby increase their capacities for present and future market access. Such increased local capacity to produce goods and provide services under this multilateral negotiation would translate into increased export opportunities.

7. Non-tariff barriers are an important issue of the paragraph 31(iii) mandate. These are often intractable. The project approach can prove an effective mechanism for reduction or elimination of such barriers in respect of identified goods and services in an approved project.

8. In the project approach, goods and services required for the environmental project would be provided adequate market access. These goods and services will have direct use and can be related to the environmental objective for which they are being given market access. This brings in the crucial aspect of transparency in the market access. Since a project will be determined to have an environmental benefit at the national level, this approach also takes into account the diversity of environmental absorptive capacities of the WTO Members. The “list approach”, in comparison, gives market access to a number of goods, which have dual or multiple uses. In most cases this aspect of dual or multiple uses is intrinsic to these goods and cannot be altered. This brings unpredictability to the outcome of the negotiations (whether we are able to achieve the environmental objective of Paragraph 31(iii) negotiations or not) and so, the results would not be transparent. The project approach, on the other hand, envisages reduction or elimination of tariffs on goods and services required for an approved project. Since these goods are required for the project which is aimed at addressing an environmental objective, the question of dual or multiple use of these items is either nil or, at least, minimized. Any subsequent appraisal can also establish the contribution of these goods in addressing environmental objectives, which in itself brings predictability and transparency to the exercise.

III. DNA to Facilitate Trade and Environment

9. The project approach envisages the creation of a Designated National Authority in every Member country. The DNA may comprise, for example, representatives from government, private sector, civil society or any other entities deemed appropriate by national governments. While it is for each country to determine the actual functioning of the DNA, we have envisaged that the role of the DNA would be to appraise the proposals. This appraisal would be technical and would be done in a specified period of time. Details that would be provided in any proposal would include the quantity and the tariff line of each of the goods required for the project. Similar information for services can also be provided in the same proposal. The role of the DNA would be to see that the information provided in the proposal is

appropriate for achieving the objectives of the project. In case of non-approval of a project proposal, reasons for the same would be conveyed to the proposer, along with appropriate details, to bring greater transparency and predictability to the exercise. A fast-track approval process could be devised for SMEs.

10. Over a period of time, the DNA could perform the function of a nodal information point for all aspects of trade in environmental goods and services involved in environmental projects. For the purpose, it could maintain a database of the approved environmental projects with a complete list of goods and services included in them. This would not only provide useful guidance to the project proposers but would also contribute to facilitating trade and building institutional memory. An effective consultation mechanism could be built into the process. The advantages of this approach in bringing into focus the environmental objectives would clearly outweigh any additional procedural requirements necessitated in achieving these transparency and predictability functions of the DNA.

IV. Organizational and Functional Linkage with the WTO

11. The project approach envisages a definite and clear-cut role for the CTESS. The CTESS provides the negotiating forum for agreeing on the approach to achieving the mandate of Paragraph 31(iii). Common responsibilities of the Member countries can be in terms of the objectives of the WTO and the various MEAs², for bringing in greater cohesiveness between trade and environment.

12. The issues and questions addressed above are intended to bring more clarity to the working of the project approach. We feel that the project approach addresses the mandate more appropriately than the "list approach". Member countries are invited to deliberate on both the structural and substantive dimensions of the project approach so as to fulfil the mandate of Paragraph 31(iii). We ourselves look forward to contributing further in this regard.

(TN/TE/W/60, 19 September 2005)

² For examples of environmental objectives see Paragraph 14 of TN/TE/W/51.

Structural Dimensions of the Environmental Project Approach

Submission by India

Paragraph 31 (iii)

The following communication, dated 4 July 2005, is being circulated at the request of the Delegation of India.

I. Background

1. This submission is a follow-up to our earlier submission¹ in which we had discussed an alternative approach for Paragraph 31(iii) negotiations of the Doha Ministerial Declaration (DMD). This submission deals with four principal aspects of the "Environmental Project Approach" (EPA) - (1) the EPA and environment & sustainable development, (2) the EPA and multilateral trading system, (3) the EPA and transfer of technology, and (4) the functioning of the Designated National Authority (DNA) under EPA. All of these clarify the feasibility and the potential for the operational success of this approach.

¹ TN/TE/W/51.

II. The EPA and Environment & Sustainable Development

2. It is significant that the original task of the CTE is to address trade and environment for sustainable development, and to make recommendations on whether any modification in the provisions of the multilateral trading system is required. It must also look at the environmental benefits of removing trade restrictions and distortions. *The mandate of Paragraph 31(iii) is essentially environmental-benefit oriented, and market access is a means to that objective; not the objective itself.*

3. Paragraph 31(iii) mandates the elimination of tariff and non-tariff barriers to trade in

environmental goods and services. The World Summit on Sustainable Development supports the “voluntary WTO compatible market-based initiatives for the creation and expansion of domestic and international markets for environmentally friendly goods and services, including organic products, which maximize environmental and developmental benefits through, *inter alia*, capacity building and technical assistance to developing countries”. Both the DMD and the Johannesburg Plan of Implementation (JPOI) of the World Summit on Sustainable Development seek to promote sustainable development through trade, and in that sense there is an essential convergence of objectives; their approaches are, however, different. While the DMD focuses on removal of market access barriers, the JPOI largely focuses on the creation of market-based initiatives for environmentally friendly goods and services through capacity building and technical assistance to the developing countries.² These two mandates are not exclusive of each other. Not only do they share the same objective but the implementation of each, to a certain extent, is contingent upon the other. For instance, tariff/non-tariff barriers could reduce the effectiveness of market-based initiatives in expanding the market for environmental goods and services, resulting in a failure of Paragraph 31(iii) negotiations to produce credible results, if they are not supported by policies “aimed at creating additional demand and increasing the capacities of developing countries supply capacities”.³ There is, therefore, an urgent need to synergise the JPOI mandate with that of the DMD in order to effectively achieve the goal of sustainable development. *In this sense the EPA substantially deepens and enriches the mandate of DMD to not only include market access but also to provide scope for developing countries to develop capacities and achieve national priorities.*

III. The EPA and the Multilateral Trading System

4. The multilateral trading system under the WTO is based on the principles of transparency,

² Concept Note on “Environmentally Preferable Goods and Services: Opportunities and Challenges for Caribbean Countries” UNEP-UNCTAD Capacity Building Task Force on Trade Environment and Development; November 2003.

³ *Supra* note 3.

predictability and non-discrimination. It is a rules-based organization that is supported by a strong dispute settlement mechanism. The EPA also envisages a transparent and rules-based mode of functioning that is aligned with that of the functioning of the WTO. There are several reasons supportive of this contention.

5. *First*, it is the CTESS that would formulate the criteria to be applied by the Designated National Authority (DNA) in determining if an Environmental Project qualifies for tariff concessions on environmental goods and services. The DNA’s role would be that of examining applications in the light of those criteria and other declared special and differential criteria such as transfer of technology, environmental goals mandated by the MEAs that the Member is a party to, and other environmental concerns that may be unique to a particular country. It is thus akin to the approach put forward by a Member country which calls for developing broad guiding principles as criteria for inclusion of environmental goods (and in this case, also services).

6. *Second*, the commitments to be made by Members on tariff reductions on goods or concessions in services to be given for approved environment projects would be negotiated with due regard to the principles of special and differential treatment, and less than full reciprocity.

7. *Third*, the fact that the criteria for projects are being discussed and determined based on environmental and sustainable development concerns, independently of NAMA considerations, is itself a guarantee that the EPA has transparency and predictability. An exporter would have the assurance that if the goods or services are part of a project that falls under the agreed criteria, his/her application would be given due regard. This too would ensure predictability and transparency.

8. *Fourth*, the concessions granted in terms of project specific tariff reductions in environmental goods and services would subsist for the time period of the project. The concessions granted are, therefore, entirely project driven. On the issue of dual use, it cannot be assumed that the assets created during the life of the project would

cease to have relevance after the project ends. In all probability, these would continue to be used. Even in cases where the goods cease to have relevance once the project is complete, it is more than likely that the bulk of the productive life has been utilized for furthering the environmental objective. Thus dual use, if any, would be secondary and minor.

9. *Finally*, the CTESS will play a crucial role in determining the definitional boundaries of the word "project" in terms of the size and nature of the venture requiring the environmental goods and services as inputs in the production process. The "project" could range from large commercial ventures to individual purchases. The "project" need not be differentiated in terms of private, governmental, non-governmental or non-profit ventures so long as it meets the criteria. This would ensure transparency in the system. In this context we would also like to mention that the EPA could be accommodated in Chapter 98 of the HS Code Book of the WCO.⁴

IV. The EPA and Transfer of Technology

10. The inclusion of the principle of special and differential treatment in the application of the criteria agreed by the CTESS in the developing countries would further the objectives of sustainable development,⁵ transfer of technology,⁶ national environmental obligations mandated under the MEAs and promotion of country-specific national indigenous environmental priorities would be considered.

11. Agenda 21, while addressing transfer of technology issues in the context of Environmentally Sound Technologies (ESTs), puts forward a holistic definition that rejects ESTs as individual technologies and instead interprets it to be total systems which include know-how procedures, goods and services, equipments, and organizational and managerial procedures. It also

⁴ World Customs Organization.

⁵ Preface to the Agreement Establishing the World Trade Organization.

⁶ Paragraph 37, Trade and Transfer of Technology: "possible recommendations on steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries".

states that ESTs should be compatible with nationally determined socio-economic, environmental priorities, obligates developed countries to facilitate access and transfer of technologies. Analogous to this is Paragraph 37 of the DMD that enjoins WTO Member countries to examine the relationship between "trade and transfer of technology, and of any possible recommendations on steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries".

12. It has to be realized that the framework for such transfer of technology mechanism has to be co-operative, based on the principles of it being voluntary and mutually beneficial. The net benefit of co-operation via coalition would be more than the sum of stand-alone costs of Members, due to cost-complementarities. The CTE provides an appropriate forum for building such coalition and co-operation, and the EPA is an appropriate vehicle for this.

13. The EPA provides an opportunity for the validation and operationalization of the various environmental and development mandates in harmony and conjunction with each other and would provide synergy in the implementation. By allowing policy space to individual Member countries so as to internalize environmental priorities in trade policies, such transfer of ESTs would increase compliance with MEAs, enhance national capacity building in EGS and improve compliance with TBT and SPS requirements and thereby provide more market access.

V. Functioning of the DNA

14. The DNA is to be the nodal authority and also the national focal point for overseeing all approvals to be granted for tariff reductions on environmental goods and services related to a specific project that is to be implemented within the country. Its primary role would be to function as an authority that would appraise the project proposals for granting tariff concessions on goods and services. It would issue a notification to the custom authorities in this regard.

15. The composition and structure of the DNA would be determined by individual Member countries. The DNA could invite the participation

of stakeholders across the board from the government, non-governmental organizations, etc. It could, therefore, be in the nature of a public-private partnership.

16. We could draw a useful analogy in this context from the structure and functioning of the DNA that has been mandated under the Clean Development Mechanism (CDM) of the Kyoto Protocol. The DNA under the Kyoto Protocol performs a similar task of project clearance of CDM projects on the basis of certain given criteria. It would be useful to draw insights from the experience of developing countries that have set up a DNA under the CDM. Thus for several developing countries the past experience of the setting up of the DNA under the CDM would greatly contribute to their ease and expertise in setting up the DNA under the "environmental project approach". In fact in many cases, if considered appropriate, the Members can have one authority for both the purposes, or it can be different, based on how Members choose to operationalize it. This approach facilitates the engagement of most developing countries in contributing proactively and achieving their national priorities in a common but differentiated manner.

17. The DNA would streamline the entire process of project approval for environmental goods and services by providing for a single window clearance. This would also contribute in vastly improving trade facilitation by putting it into a fast track and would thus support the "win-win" strategy of negotiations on environmental goods and services.

VI. Conclusion

18. The "environment project approach", therefore, essentially envisages a broader and deeper role for the national governments of the Member states in defining, selecting and finally

approving environmental goods and services for tariff reduction and concessions. It entails setting up of the DNA by each country at the national level.

19. In this context one also needs to adequately address the concern shown by Members about the progress of the negotiations and the forthcoming Hong Kong Ministerial meeting. It needs to be mentioned that the "list approach" has so far produced results that are below expectations of most of the developing countries, and has failed to garner effective participation from such countries. This is not surprising, since many of the developing countries have clearly expressed their inability to contribute effectively to the debate and have a perception that the "list approach" only succeeds in expanding market access for developed country products without concomitant benefits to developing countries, or even effectively addressing the proposed environmental objectives of Paragraph 31(iii).

20. The EPA is, therefore, India's attempt to introduce new thinking and engage the attention and participation of all Member countries so as to make the negotiations truly multilateral in functioning, and substantive in content. The objective of the negotiation should not be reduced to a mere exercise of chasing deadlines. It is crucial that the negotiations produce a result that is both substantive and holds benefits for all the Member countries. The approach is also simple in its content and easy to implement.

21. We would like to reiterate that the "Project Approach" cannot be complementary to the "List Approach". It is a stand-alone approach and we would like to invite Member countries to think creatively, and deliberate on both the structural and substantive dimensions of the EPA. We would wish to contribute to further engagement on the approach.

(TN/TE/W/54, 4 July 2005)

Environmental Project Approach – Compatibility and Criteria

Submission by India

Paragraph 31 (iii)

The following communication, dated 12 June 2006, is being circulated at the request of the Delegation of India.

1. The Environmental Project Approach (EPA) fully responds to the objectives of Paragraph 31(iii) of the Doha Ministerial Declaration, which seeks to eliminate tariff and non-tariff barriers to trade in environmental goods and services. It responds to the objectives in a much more effective and comprehensive manner by adopting an integrated approach to the mandate unlike the “list approach”. The “list approach” is limited to tariff reduction in goods only, and does not address the explicit mandate to include environmental services; it does not address in any manner the issues relating to non-tariff barriers, and comes with the added baggage of being static, needing repeated negotiations and implementation problems due to classification issues.

2. A project-based or sector-specific approach is not new to the WTO. Negotiations during the Uruguay Round addressed sector specific issues, namely in the field of chemicals and pharmaceutical products, medical equipments, and information technology. Recently, the Doha Declaration on the TRIPS Agreement and Public Health is another such negotiation which focused on finding solutions to the public health issues relating to diseases, namely HIV/AIDS, tuberculosis, malaria and other epidemics. The WTO thus provides a regulatory framework to find common solution (like elimination of tariffs) or creates necessary policy space for the Member countries to address the problems unilaterally (such as, by recourse to compulsory licensing of patented drugs). These examples show that Members have been able to address sector specific objectives within the general WTO regulatory framework. The EPA, therefore, is not an exception; rather it is in line with the general structure of the multilateral trading system, providing appropriate answer to address

specific environmental problems of the Member countries.

3. It has been argued that EPA does not provide predictability or transparency. In fact, the underlying philosophy of the EPA proposal does address these objectives. EPA will multilaterally define policy space for Member countries for tackling and addressing their environmental problems in a manner which is efficient and commensurate with their needs and levels of development. EPA defines the WTO framework within which Members will undertake and implement specific projects. It seeks to define the boundaries and parameters by which privileged market access can be granted for the products for the environmental projects. EPA will also include the parameters under which such projects can be undertaken as well as the criteria that would be applied by any Designated National Authority (DNA) to determine whether a proposed environmental project qualifies for tariff concessions on environmental goods and services .

4. Questions have been raised about the lack of novelty or additionality offered by the EPA as Members unilaterally undertake and implement environmental projects. Unilateral action by Members does not assure privileged tariff access to other Members. The importance and value of creating an appropriate legal framework in the WTO needs to be recognized in this context. Agreement in CTESS on definitions and criteria of environmental projects would create predictability and legal security to this arrangement. It would not only be able to address global environmental objectives but would also be able to address the individual national environmental goals thus being need-based and objective-oriented. Since the

(Contd. on page 48)

An Alternative Approach for Negotiations under Paragraph 31 (iii)

Submission by India

The following communication, dated 2 June 2005, is being circulated at the request of the Delegation of India.

I. Background

1. The Doha Ministerial Declaration (DMD) mandates Member countries to negotiate on *the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services with a view to enhancing the mutual supportiveness of trade and environment*. The intent inherent in this is to bring economic benefits (promote dynamic efficiency in production and greater access to consumption goods at lower prices), developmental benefits (addressing basic human needs in terms of the Millennium Development Goals) and environmental benefits (promote sustainable modes of production and consumption), and achieve gains from trade with improvement in environmental quality so that it leads to "win-win" situations.

2. Following the Ministerial Mandate, identification of environmental goods has been at the core of the negotiation process so far. A number of Member countries and groups have made their submissions. New Zealand has called for a pragmatic approach to the negotiations in which the Members could "define (environmental goods) by doing". It suggested that certain reference points would guide the identification of environmental products.¹ It also expressed a preference for adoption of a "single consensus list" of environmental goods but stated that a dual-list approach could also be considered in the event that agreement on one list could not be obtained. New Zealand also introduced the concept of a "living list" which would allow an agreed list to be updated for technological progress. The EC also urged a "pragmatic" and "innovative" approach. The EC's suggestion is to develop guiding principles for identification of environmental goods, so as to include goods used in pollution control and resource management and goods that have a high environmental performance or low environmental

impact.² It suggested that negotiations should define categories general enough to cover all related technology for given purposes. The South Korean submission has presented an initial list of environmental goods which has been created on the basis of criteria viewed by South Korea as "practical" and which could be "broadly accepted and applied by WTO Members".³ Some countries have also argued that the environmental goods can include goods produced in an environmentally friendly manner. The United States (US) attempted to address the environmental goods negotiations in a "creative" and "flexible" manner. It proposed the use of two lists - Core and Complementary. The Core List would deal with two categories: Environmental Remediation and Pollution Prevention and Clean Technologies.⁴ This list, as suggested by the US, would be arrived at by consensus and definite concessions would have to be committed. The Complementary List would contain products on which consensus could not be arrived at.

II. Problems with the "List Approach"

3. The discussions in the CTESS over the last three years have been on potential criteria, definitions and classification of environmental goods; but the ambiguity continues. Suggested definitions have varied between "limited primarily to pollution prevention activities" to "extend beyond simply end-use criteria". Though there has been constructive engagement on the subject, there is need to move forward. The Chairperson of the CTESS has also reported to the Trade Negotiations Committee that Paragraph 31(iii) of

² EC's submission TN/TE/W/47 on 17 February 2005.

³ Korea's submission TN/TE/W/48 in the CTESS on 18 February 2005.

⁴ US' submissions TN/MA/W/18/Add.5 and TN/TE/W/38.

¹ New Zealand's submission TN/TE/W/46 on 10 February 2005.

the DMD would emerge as the most likely candidate for tangible progress for the Hong Kong Ministerial Conference.⁵ But proposals for the composition of the final list show wide divergence of opinion. This is a cause for concern. In fact there is a growing feeling that the direction of negotiations so far have focused on goods which are likely to give highly industrialized countries a comparative advantage.

4. Many of the items suggested for inclusion in the Lists have dual use. Though these items may be utilized for an environmental purpose, other industrial applications of such goods are also significant. Examples include electricity meters, liquid flow meters, heat exchangers, conveyers and centrifugal drums. The list of environmental goods contains equipments, which cannot even be considered to be *predominantly* used for environmental purposes, for example suggestions for inclusion of consumer appliances, such as microwave ovens, energy efficient refrigerators, etc. If preferential tariff treatment, including zero tariffs, is to be given to dual use and consumer goods, there would be significant ramifications for industrial sectors, particularly in developing and least-developed countries where industry is largely dominated by small and medium enterprises (SMEs).

5. Further, most SMEs lack in resources to invest in research. As most environment-related technologies of the developed world are under intellectual property protection, technology transfers either do not take place or come with export restrictions and other conditionalities. Also, these technologies have been developed keeping in view the factor endowments and environmental standards of developed countries, and so are not always appropriate to developing countries.

6. Some developing countries have been promoting growth of indigenous pollution prevention and pollution control enterprises so as to provide low-cost solutions to environmental problems based on standards appropriate to the countries, also taking into account the carrying capacities of the receiving environment and affordability of the SMEs. Development of these enterprises is vital for finding

location-specific solutions consistent with the stage of development and also for capacity building. The likely impact of unrestricted concessional duty import of environmental goods and services (EGS) would be highly adverse to the development of these enterprises.

7. Further, merely permitting the flow of a number of goods into a country does not seem to achieve any particular environmental objective. It is too diffused an approach. If environmental ends are to be successfully met, then the approach would have to be more focused.

8. Rather than addressing the environmental concerns of developing and least-developed countries, the "List Approach" would expose them to the adverse effects of increased market access and competition without any compensatory benefits, as the duty concessions are open-ended and permanent.

9. Even if the goods included in the list are not dual-use ones, SMEs, which produce a large part of the environmental goods in most of the developing countries, could lose their markets, and be rendered unviable. The long-term effects of such an eventuality not just on the economies of developing countries, but also on the sustainability of their indigenous pollution control and environmental upgradation programmes would be adverse.

10. One of the objectives of the WTO is conducting trade with a view to achieving sustainable development by allowing for the optimal use of the world's resources; and the key objective of the Doha Mandate is to ensure the development dimension of the WTO through the results of the Work Programme. Ways and means to address questions relating to environmental imperatives, poverty alleviation, and creation of additional wealth in developing and least developed countries seem to be adversely impacted by the "List Approach".

11. Also, the negotiations so far have primarily been on environmental goods, and the issue of environmental services has not been addressed in a significant manner. The mandate includes environmental goods as well as environmental services. It needs to be emphasized that there are many environmental activities that entail the delivery of services in conjunction with use of goods. The separation of services and goods in a particular environmental activity is difficult, as these are very

⁵ Report by the Chairperson of the CTESS to the Trade Negotiations Committee, TN/TE/11, dated 14 March 2005.

often integrated. The “List Approach” treats these in a mutually exclusive manner, which is not appropriate.

III. “Environmental Project” Approach

12. In view of the issues involved in the “List Approach” for environmental goods, an alternative approach is proposed, i.e. the “Environmental Project Approach”. This approach would address diversity in environmental standards with common but differentiated responsibilities and would bring in trade liberalization to meet the environmental as well as development goals of both the Doha Development Agenda and Agenda 21. Under this approach, a project, which meets certain criteria, shall be considered by a Designated National Authority (DNA). If approved, the goods and services included in the project would qualify for specified concessions for the duration of the project.

13. The projects would be decided by the DNA and could include those aimed at meeting national environmental objectives as well as objectives of any bilateral or multilateral environmental agreement. They would include, *inter alia*, equipment, parts and components, consumables, services, investment, financial aid and transfer of technology. The commitments that Members agree to undertake may include (a) reduction or elimination of tariffs on import of all project related goods; (b) reduction, elimination or appropriate treatment of standards, licensing restrictions, non-tariff barriers and other related issues; (c) specific commitments required in all modes of service delivery.

14. The broad criteria for “environmental projects” could be agreed upon in the CTESS with due consideration to the policy space of national governments. The projects may, among others, include: Air Pollution Control; Water and Waste Management; Solid Waste Management; Remediation and Clean-up; Noise and Vibration Abatement; Environmental Monitoring and Analysis; Process Optimization; Energy Saving Management; Renewable Energy Facilities; and Environmentally Preferable Products.

IV. Advantages of the “Project Approach”

15. The “Project Approach” would address the mandated requirements in a cohesive, focused, directed and integrated manner. The commitment of each Member government will be commensurate

with clearly identified environmental benefits to be achieved, since the approach is based on a conscious national assessment of both developmental and environmental concerns specific to each Member country by the Member country itself within the broad parameters agreed upon in the CTESS. It is a need-based and objective-oriented approach.

16. Since each project would be contemporary, it will address the changing needs of Members and there would be an incentive to employ the latest technology and products. This, in a way, will be a “living list”, as suggested by one Member. This approach is dynamic as it would take into account the evolving nature of environmental technology and equipment and reduce or eliminate tariffs on a contemporary list of goods and services; the list would not be a static one requiring periodic renegotiations for its expansion, as would be the case in the “List Approach”. The “Project Approach” meets the suggestion of another Member for a “pragmatic and innovative approach”, as it seeks to directly address the concerns for achieving the environmental goals. It is “practical”, as suggested by yet another Member. Also, since there is sufficient policy space for the national governments to achieve the environmental objectives, the approach provides ample “flexibility” to the national governments.

17. Since the tariff concessions would be available for goods used in the project for a finite period of time (even if extended), the concerns expressed regarding dual use are mitigated. This also has a significant bearing on the national revenue, particularly from a developing country perspective. Although there will be revenue loss to the Member country due to concessions offered, such loss will be out of a conscious decision, looking at the environmental objectives of the country. The concessions given for the goods and services for the project would not result in any undue leakage of national revenues, because the revenue authorities could effectively address any diversion due to the specific “project” nature of such concessions.

18. Under the “Project Approach”, positive measures like capacity building, technology transfer and technical assistance would be strengthened as national authorities would factor them into their decision of designating environmental projects. Since environmental projects could also be a part of

infrastructural investment, they would not only result in benefits of capacity building, but also enhance market access opportunities.

19. The "Project Approach" would neither immediately affect the market access schedules of Members nor would continuous negotiations and amendments be needed to accommodate newer environmental goods and services.

20. There is a clear conceptual difference in the tariff reductions and elimination of non-tariff barriers

desirable for the mutual supportiveness of trade and environment, and those to be achieved towards greater market access in general. The "Project Approach" exemplifies the former.

21. This is a concept paper and it is recognized that various aspects of the "Project Approach" will need a greater level of clarity than presently offered. We look forward to discussing the issues to further develop this concept.

(TN/TE/W/51, 3 June 2005)

(Contd. from page 44)

adopted global projects would be as per the CTESS agreement, domestic implementation of the framework would be subject to dispute settlement, as in other areas of the WTO law. Administrative decisions taken can be reviewed along the lines of reviewing determinations of anti-dumping and countervailing measures under the WTO Agreements by the dispute panels and the Appellate Body. This would enable traders to assess conditions for participation and market access. All these legal commitments enhance legal security of the EPA.

5. It must also be noted that environmental goods are in any case included in the product coverage of the ongoing tariff negotiations – both NAMA and agriculture, EPA does offer additional binding tariff concessions. The CTESS would agree on the appropriate criteria, definition, and types of environmental projects. Goods imported for the projects would be eligible for appropriate tariff concessions. This certainly provides predictability to the exporting countries. Member countries implementing such environmental projects would therefore guarantee additional market access on the agreed terms for the duration of the project, which cannot be withdrawn during the period of the project. This binding would also be available for spare parts for the equipment or goods used in the project. This temporal binding of commitments under the auspices of the WTO would be an element of multilateralism. Regarding scheduling of Members' commitments under this approach, the format can be finalized by taking into consideration the different kinds of schedules used in the WTO under different types of agreements, such as the GATT schedules, the GATS schedules, the GPA schedules, etc.

6. The EPA does not conflict with MFN principles of GATT. Specific products would obtain privileged market access without reference to the origin of the product. Such preferential access is not granted on the basis of the products originating in a particular Member country, as in the case of FTAs or Customs Unions, but because it complies with the requirements of the EPA. Products from all Members will equally qualify to compete for the project. The EPA adheres to the MFN principle better than several practices presently followed by Members such as country specific tariff rate quotas, whereby the same product receives different tariff treatment depending on its origin and on the quantity of imports. In any case, Members are entitled to rely upon the criteria relating to the end-uses of products in a given market, to that extent a product used for a specific environmental purpose could be distinguished from the same products used for a different purpose (reference can be made to the Border Tax Adjustment Report of the Working Party, adopted on 2 December 1970, BISD 18/S (1972) Para 18).

7. The EPA is in line with the overall goal and working of the WTO to achieve sustainable development and to bring synergy between trade and environment. The role of the Designated National Authority can be built in a manner so as to provide transparency and access to project-related information. Other legal concerns (if any) can always be taken into account while negotiating an appropriate framework and agreement.

(TN/TE/W/67, 13 June 2006)



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