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The integration of the world economy and increased awareness of environmental issues are two of the most powerful global phenomena that have emerged in recent decades. These forces have resulted in creating a conflict of interest between those supportive of growth and those concerned with the environment. These factions are commonly viewed as being mutually exclusive, given the evidence in several developing countries.

However, there is growing consensus that it is possible to design policies, which make environment and trade goals complementary and mutually beneficial. A positive outcome requires the support of economic and environmental policies by countries. There is an emerging trend of addressing 'trade and environment' issues through an agenda of 'trade for sustainable development' so as to better align the discussions in line with developing country interests.

Within the context of the WTO (World Trade Organization), the question is no longer whether trade and environmental policy are going to be linked, but how they are going to be linked. The answer, of course, is far from clear. Hence, there is a tremendous opportunity for all parties to shape the future agenda of trade and environment negotiations in profound ways. It is heartening to note that there is increasing support for this mode of thought, and most countries believe that the current Doha Round of trade negotiations should resolve issues concerning trade and the

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environment. Recently, Mr Pascal Lamy, the present Director-General of WTO, strongly urged that support be provided for an environmental chapter in the Doha Round. In his speech, he has specifically highlighted the need for efficient and optimal allocation of natural resources on a global scale in order to address the world's environmental problems along the lines of the Doha Development Agenda. He stated that the WTO requires the engagement of the environmental community, for instance environment ministers, UNEP (United Nations Environment Programme), MEAs (Multilateral Environmental Agreements), and the civil society, in these negotiations.

The current issue of the GALT newsletter focuses on this important topic of trade and environment and analyses the interplay between these two issues through a set of thought provoking articles.

Parthapratim Pal, Guest Editor

Trade and environment negotiations at the WTO: the interface of multilateral environmental governance and multilateral trading system

Aparna Sawhney[1]

Associate Professor, Centre for International Trade and Development, Jawaharlal Nehru University

Introduction

In July 2006, the EC (European Commission) proposed that a ministerial decision should be taken on trade and environment at the WTO (World Trade Organization), which would establish the core principles to govern the relationship between MEAs (multilateral environmental agreements) and WTO rules.[2] This proposal brought to the forefront one of the environmental negotiating items in the Doha Round that had been pushed to the back shelf during the last two years, while members were busy clarifying the issue of environmental goods for liberalization.

The current negotiating agenda under the DMD (Doha Ministerial Declaration) paragraph 31 on trade and environment is primarily aimed at 'enhancing the mutual supportiveness of trade and environment'. Two negotiating items have been the focus of much deliberation among the members: establishing the relationship between existing WTO rules and STOs (specific trade obligations) set out in the multilateral environmental agreements (paragraph 31 [i]), and liberalization of trade in environmental goods and services (paragraph 31 [iii]). Among these two negotiating items, the former has the potential to drastically change the rules of the international trading system, since it impinges on the governance of two existing legal multilateral frameworks, one of trade and the other of environmental protection.

Although the current negotiations on the MEA–WTO relationship is restricted to specific trade obligations, 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.

Implications of negotiations

The relationship of GATT (General Agreement on Tariffs and Trade)/ WTO rules with respect to MEAs in 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 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 WTO Agreements and MEAs are representative of the efforts of the international community to pursue shared goals, and in the

[1] This article draws largely from Sawhney (2004).

[2] Proposed by the EC at the Committee on Trade and Environment Special Sessions meeting held from 6 to 7 July 2006.

development of a mutually supportive relationship between them, due respect must be afforded to both.

While the negotiation agenda in paragraph 31 (i) of the Doha mandate is limited to only MEAs with specific trade obligations, 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. In other words, the clarification of the relationship between multilateral environmental agreements and multilateral trading rules is closely linked to the larger question of when and which restrictive trade measures may be considered to be WTO-consistent on environmental grounds

The consistency of trade measures under MEAs with GATT/WTO rules is important, especially where the parties to an MEA constitute only a subset of the WTO members. It may be noted that Article 41 of the Vienna Convention allows 'two or more of the parties to a multilateral treaty' to conclude an agreement 'to modify the treaty as between themselves', as a modification is either provided by the original treaty (Article 41.1 a), or not prohibited in the treaty (Article 41.1 b). The conditions of the current WTO negotiations fall under Article 41.1 b of the Vienna Convention, which requires that the new treaty among the subset of parties '(i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;' and '(ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the treaty as a whole.'

Connecting two distinct judicial regimes

The clarification sought by the current negotiations on the relationship between specific trade obligations pursuant to MEAs and WTO rules is bound to be complicated, since the WTO and MEAs represent two distinct regimes. There cannot be hierarchy in the ranking of the MEAs and the WTO rules since they pertain to completely different sets of rules for two distinct matters of concern. After all, as the ASEAN (Association of South-East Asian Nations) pre-Doha proposal had noted, the WTO is the *lex specialis derogate generali*, which is the most specialized treaty on trade. By the same token, the MEAs will remain the specialized fora to solve environmental problems.

The EC, the main demander of the environment agenda in the WTO, regards MEAs and WTO as holding equal legal status, even though the two distinct regimes defy such ranking. The broad agenda of the EC (supported by Switzerland and Norway), poses a risk to the multilateralism it claims to uphold, since some MEAs allow party discretion to undertake unilateral restrictive trade measures based on the party's environmental priorities or evaluation. Thus the broad agenda of the EC carries a potential threat of regionalism/unilateralism.

Rather than a legally contentious approach of considering MEAs and WTO as 'equal' legal bodies, the developing countries have opted for the softer approach that one regime recognizes, in principle, some rules of another regime (and *vice versa*) and the two regimes can be supportive of each other.

The negotiating groups and the Indian stand

The negotiating approach on Paragraph 31(i) has seen a spilt between two broad groups: a broad conceptual clarification of the relationship between MEAs and the WTO, as proposed by developed countries like the EC, Japan, Norway, and Switzerland. A more systematic (and restrictive) clarification of the relationship between STOs within MEAs and WTO rules is proposed largely by developing countries from Asia and Latin America, including Argentina, Brazil, China, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, and Thailand. The negotiation stance of the EC, the principal *demandeur* of Paragraph 31(i) of DMD, as well as that of 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 WTO rules into account and WTO law would give due weight to obligations arising under MEAs'.[3] The objective of the negotiations is to make STOs under MEAs 'more secure than similar measures taken unilaterally and without any form of international frame of reference, endorsement, or debate'.[4] In particular,

[3] WTO (2002): paragraph 15.
[4] Ibid paragraph 16.

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.

By contrast, the developing countries' position in the current negotiations reveal that they are keen to ensure that their export prospects are not hurt by a broad interpretative decision between MEAs and WTO. They have thus proposed a well-structured analysis of STOs on an MEA-by-MEA basis. The MEAs in which the majority of WTO members are parties have been the focus of developing countries.

The negotiating approach of 'MEA-by-MEA analysis to accommodate STOs in the WTO system' of developing countries including India, 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.

In this light, the recognition of STOs on an MEA-by-MEA basis in the WTO system seems the most systematic and thorough approach to clarify the relationship sought under the current negotiating agenda. 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.

While it may seem that developing countries are engaged in the semantics of each term contained in Paragraph 31(i) of the DMD, the final interpretation of the provisions under the MEAs hinge on these definitions. 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.

Finally, a structured MEA-by-MEA analysis is a judicious negotiating stand to clarify the relationship between of 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.

The negotiating stand taken by developing counties, including India, allows them to oppose the recent trend in unilateralism and impose domestic environmental rules extra jurisdictionally (through trade barriers on environmental grounds). It also steers clear of the more radical approach of presumed consistency, precautionary principle based on lack of scientific evidence, and reversal of burden of proof (fundamental move away from the science and rule-based GATT/WTO system). In lieu of a broad interpretation of a relationship between MEAs and WTOs, negotiations may move towards a narrower 'multilateral interpretative decision and understanding within the WTO'. Such a conceptual understanding is particularly significant in the face of unilateral trade restrictions on environment being sanctified in the post-WTO era.

While the radical approach of the EC is claimed to be in support of multilateralism, it contains risks of protectionism and national discretion. Indeed, 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 LMOs [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 pertinent to reiterate at this point 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 considered critical to achieve the environmental objective of the MEA (For example,

CITES [Convention on International Trade in Endangered Species]) have not worked when conducive domestic factors were lacking (such as habitat loss endangering species). Thus the conditions of *necessity, effectiveness, and proportionality* of trade measures (submission by Chinese Taipei, and pre-Doha proposals by New Zealand and ASEAN) are meaningful and 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.

India has traditionally supported multilateral efforts to protect the environment as well as the principle of free and fair trade, and her stand in the current Doha negotiations on trade and environment reflect the balance sought between these two principles. For instance, India's environmental interests would be to ensure concessional import of environment-friendly technology and prevention of hazardous products that are domestically prohibited in industrialized countries (the information enhancing MEAs are of particular relevance here). At the same time, India is looking forward to the further opening up of markets for exports, particularly agricultural and textile products, in industrialized countries. The decision on trade obligations pursuant to MEAs and GATT/WTO rules is long overdue, since the members have been deliberating for a decade now. Moreover, in view of the increasing significance of the environment in political, social, and business agendas across all major countries, the current negotiations need to be successful to ensure that the multilateral trading system under WTO continues to thrive in the new century.

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Trade and environment: in search of a global agenda

Nitya Nanda
Fellow, TERI

The nature of the linkage

The relationship between trade and environment has been a highly debated issue for a while now. The issue came to the limelight in 1971 when the GATT (General Agreement on Tariffs and Trade) Secretariat expressed concerns regarding the implications of environmental policies on international trade through its document titled, *Industrial Pollution Control and International Trade*. It was feared that environmental policies would become a form of protectionism. Over time, however, the fear became more prevalent among developing countries, as some developed countries started using

environmental policies to restrict trade. Developing countries, hence, were quite opposed to linking environment with trade. Nevertheless, environment and multilateral trading systems were linked in 1994 through the Marrakesh Agreement, placing sustainable development within the objectives of the WTO (World Trade Organization).

This debate remains unresolved. It is argued that trade openness, in the context of inter-country differences and the stringency of environmental regulations, will lead to a 'race-to-the-bottom'; and polluting activities will shift to developing countries that are generally slack in environmental regulations. However, the empirical evidence in support of such a hypothesis is still lacking. Table 1 shows the increase in the FDI (Foreign Direct Investment) stock (which can be a proxy for migration of economic activities) in polluting industries of different groups of countries. It is evident that developing countries are not attracting polluting industries. Compared to developed countries, developing countries have received less FDI in polluting industries in proportion to the total FDI over the period 1990 to 2003. It is also worth noting that among the six polluting industries considered here, developing countries have attracted more FDI in mining, quarrying, and petroleum, which is more location-specific and guided by availability of minerals rather than environmental regulations. The share of FDI in the six polluting industries in total FDI has fallen significantly globally, but the fall has been much sharper in developing countries. This is also in line with a study that tried to see if Mexico was specializing in polluting and injurious industries as a consequence of NAFTA (North American Free Trade Agreement) and did not find any significant evidence for such a hypothesis (Rabindran 2001).

It is also argued that trade has the potential to promote development that will contribute to environmental conservation. Therefore, trade can be a promising economic activity for sustainable development. However, trade itself can be damaging to the environment due to transportation of goods as shipping causes pollution. This can be quite significant as one EU (European Union) estimate says that ships are set to emit more greenhouse gases than all land sources combined by 2020, unless some measures are taken (EUROPA).

The existing WTO framework, to some extent, can also be a dampener in nations' efforts towards the protection of environment. If national governments provide subsidies to their companies to adopt cleaner technologies then that can be challenged under the WTO rules on subsidies. Secondly, adoption of cleaner technology, particularly in developing countries, may be discouraged due to the global IPR (Intellectual Property Rights) regime introduced by TRIPS

Table 1 Increase in the FDI stock in polluting industries from 1990 to 2003

	Increase in FDI Stock (%)		
Industry	*IC*	*DC*	*W*
Mining, quarrying, and petroleum	194	562	234
Coke, petroleum products, and nuclear fuel	15	463	417
Chemicals and chemical products	279	68	227
Rubber and plastic products	198	33	177
Non-metallic mineral products	273	95	250
Metals and metal products	224	55	185
Overall growth in six industries	203	184	202

	1990			***2003***		
	IC	*DC*	*W*	*IC*	*DC*	*W*
Total inward FDI stock in six industries (Bn$)	385	87	481	1164	247	1453
Total inward FDI stock (Bn$)	1458	333	1791	6526	2034	8624
Total inward FDI stock (Bn$) in non-service industries	741	175	916	2510	923	3470
Share of six industries in total FDI (%)	26	26	27	18	12	17
Share of six industries in non-service industries (%)	52	50	52	46	27	42

IC – Industrialized (developed) countries; DC – Developing countries; W – World
Source UNCTAD, World Investment Report (2005)

(Trade-Related Aspects of Intellectual Property Rights), which can make such technologies more expensive and beyond their reach.

World Trade Organization agenda

The WTO system's overriding purpose is to help trade flow as freely as possible—so long as there are no undesirable side effects. The preamble to the Agreement Establishing the World Trade Organization lists the following aspirations.

Raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing 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 (WTO 2002)

However, the environment finally became a part of the WTO's mainstream agenda, as the Doha Ministerial Conference agreed to launch negotiations on the relationship between existing WTO rules and specific trade obligations set out in MEAs (multilateral environmental agreements). The negotiations are expected to address how WTO rules are to apply to WTO members that are parties to environmental agreements, in particular, to clarify the relationship between trade measures taken under the environmental agreements and the WTO rules (WTO 2001).

The other issues in the area of trade and environment are as follows.

- Examining the issue of granting observer status to multilateral environment bodies
- Reducing or eliminating tariff and non-tariff barriers to environmental goods and services
- Reducing the number of fisheries subsidies

Source WTO (2001)

At the same time, the issue of the environment has already found its way into many trade agreements that have been signed bilaterally or at a regional level. There has also been use of trade measures, on environment grounds, some of which went to WTO dispute settlement process. However, so far, no measure affecting trade taken under an environmental agreement has been challenged by the GATT–WTO system.

It is evident, therefore, that the WTO has adopted a minimal agenda on trade and environment. This is, in most part, due to resistance of the developing countries. However, when a minimal agenda is agreed upon, there is a chance that the proponents tend to focus on the issues that are of particular interest to them. Moreover, economists tend to regard the 'environment' as a discrete good and analyse environmental effects in terms of 'pollution' (WWF 2006). Given this, the WTO agenda has become more about promoting market access for developed countries in particular, rather than promoting sustainable development, or even protecting environment. This is also reflected in the way negotiations on trade and environment at the WTO have progressed so far. Negotiations on the relationship between WTO rules and MEAs were largely bogged down by procedural issues. Discussions on environmental measures and market access, eco-labelling, and paragraph 51 (integrating sustainable development into the Round as a whole) also virtually came to a standstill. Only the negotiations on environmental goods saw some movement. However, even in this area, the negotiations are yet to reach the final stage (Centad 2006).

Some of the developed trading nations have already provided their lists of environmental goods that can be considered for reduced tariff rates. As one would expect, in most of these goods, developing countries hardly have any export capabilities. Moreover, many of these goods have multiple uses and once imported they may not be used exclusively for environmental purposes. To tackle such problems, India has suggested a project-based approach wherein goods would be eligible for lower duty rates only if they are used for environmental purposes. However, this proposal has been facing stiff opposition from the developed world. This bears witness to the fact that market access concerns predominate concerns for environment protection.

Making the agenda global

In short, the trade and environment agenda being pursued at the WTO cannot be considered global, as it has been framed from the perspective of the developed world. As a result, many issues that are truly global, or are important from the perspective of developing countries, remain outside it. So, the question arises, what would it take to make it a global agenda? Some of the issues that can be highlighted in this regard are mentioned in subsequent sections.

Kyoto Protocol

To merit a place in the global agenda, an issue must have global implications. In the context of the environment, the issue that qualifies as global is probably that of climate change. The Kyoto Protocol, an agreement made under the UNFCCC (United Nations Framework Convention on Climate Change), is hence of immense significance. Countries that ratify this protocol commit to reducing their emissions of carbon dioxide and five other greenhouse gases, or engage in emissions trading if they maintain or increase emissions of these gases.

There are potential conflicts that might arise between climate change mitigation measures under the Kyoto Protocol and the system of trade rules under the WTO. Such issues might be clarified under the ongoing negotiations at the WTO. However, a peculiar situation would be created as the US (United States), which is responsible for more than one-third of global greenhouse gas emissions, would not be a part of it. When Kyoto was agreed upon, the US signed and committed to reducing its emissions by six per cent. President George W Bush said in March 2001 that the US would not ratify Kyoto because he thought it would damage the US economy and because it did not yet require developing countries, particularly the fast-growing nations, such as China and India, to cut their emissions (The White House 2001). China and India, despite their huge populations, emit less greenhouse gases than the US. The Indian emission level is among the lowest even among the developing countries and it ranks 140th, globally (Baumert, Herzog, and Pershing 2005). This has also created an anomalous situation, as the US is quite enthusiastic about enhancing market access in environmental goods and services, which are, to a large extent, linked with the emission reduction commitments under the Kyoto Protocol.

TRIPS

There is widespread apprehension that TRIPS is a threat to the CBD (Convention on Biological Diversity). The convention is an international treaty adopted at the Earth Summit, Rio de Janeiro, in 1992 to conserve biodiversity including genes, species, and ecosystems, and to promote their sustainable use as well as fair and equitable sharing of benefits arising from their uses (Adhikari 2005). The only explicit reference to the environment in the TRIPS Agreement is in Article 27.2, where some of the conditions for exclusions from patentability are noted. Governments can refuse patent applications that threaten human, animal, or plant life or health, or risk serious damage to the environment.

However, there is a clear qualifier in Article 27.2, and products cannot be excluded from patentability merely because they have not yet been approved by national health and safety regulatory procedures. Most developing countries would find it difficult to use this provision due to their lack of capabilities in the area of science and technology. Moreover, there is no guarantee that a country will consider the issue of preserving the biodiversity in another country. Furthermore, preservation of biodiversity can be a costly affair and the absence of benefit sharing mechanisms in TRIPS can be a threat to biodiversity, as most of world's biodiversity is found in developing countries, while the exploiters of these resources are more likely to be in developed countries, with better scientific and technological capabilities. Article 16 of the CBD, however, clearly indicates that IPRs are not to undermine the working of the convention (Cullet 2003). However, the stronger dispute settlement mechanism at the WTO might just ensure that TRIPS concerns take precedence over CBD concerns. The fact that the US has not ratified the CBD but is a powerful member of the WTO does not bode well for the CBD.

There is another way through which TRIPS can be a dampener for the protection of the environment. Protection of the environment would require access to new technologies, which are generally more expensive under TRIPS. This is particularly important in developing countries, which are richer in biodiversity and where environment is often more fragile. However, this issue is being addressed only through market access in environmental goods and services. This may not be of much help, as such goods and services could be quite expensive for developing countries even if there is no duty. It would be useful to explore the idea of according the protection of environment the same status as that of protecting the public health *vis-à-vis* TRIPS.

Agricultural subsidies

Though fisheries subsidies has been included as an item in the WTO trade and environment agenda, the issue of agricultural subsidies has not been looked at from the same perspective even though it has implications for environment. High subsidies promote the use of chemical fertilizers and pesticides, which can create

problems for the environment. The high-subsidy regions, namely, Canada, Japan, US, and Western Europe, consume more than half of the chemical fertilizers, pesticides, and commercial seeds, though they occupy less than 20% of total cropped land (Wood, Sebastian, and Scherr 2001). In fact, the EU, which is the most enthusiastic proponent of the environment agenda at the WTO, consumes almost half of the pesticides consumed globally, despite occupying less than 10% of cropped land. No wonder the EU had to adopt stringent measures on pesticide residues in food items. However, removal of pesticides from food products by using advanced technology does not help protecting the environment.

Land productivity (output per hectare) of agriculture is higher in developed countries but they are not necessarily more profitable because they are more input (fertilizer/pesticides) intensive. Thus, partial shifting of agricultural production from developed to developing countries may result in the reduced consumption of input, globally. Will agricultural trade liberalization lead to destruction of agriculture in developed countries like the US and EU, as many people fear? This need not necessarily be true. Developing countries are unlikely to flood the markets of developed countries, as they have their own supply constraints. Moreover, most agricultural goods are bulky and prone to damage, and therefore subject to high transportation costs. In the absence of subsidies, inter-continental agricultural trade will remain within a limit. Developed country farmers will also adjust to the situation at hand and, in their quest to remain competitive, will use less input-intensive technology as practised in Oceania.[1] They may even opt for organic farming, thus promoting the cause of the environment further. Reduced use of chemicals and fertilizers will enhance global welfare, as agricultural technology is likely to become increasingly environment-friendly.

Moreover, agricultural subsidies, probably causing unnecessary inter-continental trade in bulky goods could have adverse impacts on the environment due to excessive shipping.

Investment protection provision

Though the proposal for a distinct multilateral agreement on investment at the WTO has been dropped for the time being, the relevant provisions may be found in many bilateral investment treaties, more than 2000 of which are in existence now (UNCTAD 2005). Such provisions can also be found in several bilateral and regional trade agreements. The way the issue of investment protection has been dealt with in some of these agreements can be a threat to the environment. Most developing countries have relatively lower regulatory standards for environment, as compared to those in developed countries. However as they develop, they need to upgrade these, something they may find difficult if adoption of higher environmental standards is considered a form of expropriation.

Investment obligations mentioned in Chapter 11 of NAFTA are illustrative in this regard. The chapter allows for corporations or individuals to sue the participating governments for compensation when actions taken by those governments have adversely affected their investments. This chapter has been invoked in cases where governments have passed laws or regulations with an intent to protect their constituents, including the environment, thereby impacting a corporation's profits. For example, Metalclad, an American corporation, was awarded $15.6 million from Mexico after a Mexican municipality refused a construction permit for the hazardous waste landfill it intended to construct. The NAFTA panel found that the municipality did not have the authority to ban construction on the basis of alleged environmental concerns.

This chapter has been criticized by many in all the three countries of NAFTA for not taking into account important public interest considerations, including environmental concerns (Kurtz 2002). Such provisions in bilateral and regional agreements can be a threat to environment but there can be a global arrangement to mitigate such threats.

Conclusion

The discussions above indicate that the WTO agenda on trade and environment lacks a global perspective as it focuses more on market access of environmental goods and services rather than the protection of the environment. It also expects some countries, particularly the developing countries, to share the burden disproportionately. This may be partly due to the lack of serious engagement of developing countries in the discussions on trade and environment at the

[1] Among the developed countries, Australia and New Zealand are least input-intensive and yet they are highly competitive in agricultural products.

WTO, particularly in the initial years. It is also because of their inability to forcefully articulate their concerns. However, since environment is already in the WTO agenda despite their strong resistance, developing countries should aggressively promote this to highlight their concerns. Developing countries may insist on linking market access on environmental goods and services not only to technical and financial assistance from developed countries but also to ratification of the Kyoto Protocol and CBD by the US who would be the major beneficiary of the market access commitments. The trade and environment agenda outlined herein is not a comprehensive global agenda but an exploratory one. There are various such issues that can be included in a global agenda. However, a precursor to making this happen is changing the perspective in the discourse on trade and environment, both at the WTO and other trade fora.

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India's negotiations on trade and environment issues at WTO: a decade-long experience

Debashis Chakraborty
Assistant Professor, Indian Institute of Foreign Trade

India's negotiations at the World Trade Organization

During the Hong Kong Ministerial in December 2005, barring the decision to phase out agricultural subsidies by 2013, no major breakthrough was experienced from a developing country's perspective. To add to their worries, the negotiations during 2006 yielded limited benefits, because most of the members remained unwilling to detract from their stance, as adopted at Hong Kong. With unfinished discussions on modalities in core areas like NAMA (Non-Agricultural Market Access), clearly, in the days to come, the negotiating capacity of a developing country would determine the extent of its gains from further liberalization.

India's negotiating strategy has so far been a combination of defensive as well as proactive strategies. Before the Doha Ministerial (2001), although it was part of a few developing country negotiating collaborations, the association among the members in those coalitions was quite weak. This hesitant but proactive approach adopted by India at that time evolved through the cumulative functioning of a number of factors (Chakraborty 2005), and was termed to be 'inflexible' (Anant 2001) and 'characteristically but perhaps not unjustifiably defensive' (Mattoo and Subramanian 2003). Since Cancun (2003), however, India adopted two routes to enhance market access for its products. On one hand, the number of joint submissions made at WTO, both on defensive and proactive fronts, increased considerably. On the other hand, the country has started to increasingly negotiate for entering into RTAs (Regional Trade Agreements) with several developing countries located in Asia, Africa, and Latin America.

The submissions made by India at WTO (World Trade Organization) during 1997 and 2006, classified under twelve broad categories, are summarized in Table 1. The figures in parenthesis indicate the number of joint submissions (both with developed, as well as developing countries) made during a particular year. It is observed that apart from the increase in the number of submissions over the years and the number of focal areas, as evident from the Table, the number of joint submissions has also escalated in the post-Doha period. While during 2001 and 2003 (that is, during the Doha to Cancun days) India collaborated with several countries following an issue-based approach, since the time of the Cancun Ministerial, it has joined a number of developing country negotiating alliances like G-20 and G-33, and subsequently has become part of G-110 (G-20 plus G-90) and NAMA-11, formed at the Hong Kong Ministerial.

The focal areas of Indian interests and the changing perspective can be determined from Table 1. It is observed that while the absolute number of submissions in the post-Doha days increased in the case of Dispute settlement, NAMA, WTO Rules, Services, and Trade Facilitation; it has declined in the case of Agriculture, Environment, General Council, TRIPS (Trade-Related Aspects of Intellectual Property Rights), and Singapore Issues. The current Indian focus on Trade Facilitation is in response to the recent inclusion of the same under multilateral negotiations. While submissions in the area of service and rules (For example, anti-dumping, subsidy, and countervailing duty) indicate a proactive mindset, the same in NAMA testify to a combination of defensive (negotiation on modalities) and proactive stances. Furthermore, the joint submissions on Dispute settlement, in association with other developing countries in the post-Doha period, show India's concern towards improving the procedural framework as well.

The decline in absolute number of submissions, however, can be deceptive, as it does not reveal the

Table 1 An analysis of India's submissions at WTO over the last decade

(Number of submissions)

Category	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*Total*
Agriculture	7	7	0	4	6	1	6	2	0	0	33
	(-)	(-)		(2)	(1)	(-)	(4)	(2)			(9)
Competition policy	1	3	0	1	0	2	0	0	0	0	7
	(-)	(-)	(-)			(-)					(-)
Dispute settlement	0	0	0	0	0	4	1	1	2	0	8
						(3)	(1)	(1)	(2)		(7)
Environment	2	2	0	3	0	0	1	0	3	1	12
	(-)	(-)		(-)			(-)		(-)	(-)	(-)
General Council	0	4	29	1	7	1	8	1			51
		(-)	(9)	(-)	(5)	(1)	(7)	(1)	0	0	(23)
Investment	1	1	4	1	1	4	0	0	0	0	12
	(-)	(-)	(-)	(-)	(-)	(1)					(1)
NAMA	0	0	0	0	0	1	4	0	3	3	11
						(0)	(1)		(3)	(3)	(7)
WTO rules	0	0	0	0	0	2	3	0	2	3	10
						(-)	(-)		(-)	(2)	(2)
Services	3	1	0	2	1	1	5	5	7	0	25
	(-)	(-)		(1)	(1)	(-)	(3)	(4)	(6)		(15)
TRIPS	0	0	2	7	4	4	1	1	2	2	23
			(-)	(2)	(4)	(3)	(1)	(1)	(2)	(2)	(15)
Trade facilitation	0	0	0	0	0	0	0	0	3	8	11
									(2)	(1)	(3)
Trade and development	0	0	0	0	0	3	0	0	1	0	4
						(2)			(1)		(3)

Source Constructed by author from India's submissions to WTO (Updated on 1 January 2007)
Note Submissions under Services includes informal submissions as well.

entire story. For instance, in the case of TRIPS, although the absolute number of submissions has gone down in post-Doha days, India is currently actively negotiating at the WTO for compulsory license provisions and for better protection of traditional knowledge-related concerns in association with other developing countries. Similarly, in agriculture, despite the decrease in the absolute number of submissions, the number of joint submissions (through G-20 and G-33) has increased since 2003 and the outcome at Hong Kong testifies to their qualitative effectiveness.

India's participation in WTO negotiations on Trade and Environment issues should be viewed in that light. Although India's number of submissions in this area has declined in the post-Doha period, the qualitative aspect of the last four submissions on environmental services favouring 'project approach' definitely does more justice to the special needs of developing countries. Table 1 depicts the changing perspective of India's negotiating stances in this front over the last decade.

The early years

In the initial years, India's focus of negotiation in this area centered on the relationship between the TRIPS agreement and the MEAs (Multilateral Environmental Agreements) containing IPR (Intellectual Property Rights)-related obligations, with a focus on protecting its own interest. For instance, India proposed that EST and Ps (environmentally sound technologies and processes) should not be made obligatory until these items are freely available.[1] The transfer of technology-related concerns were also raised in India's latter submissions during late nineties and the potential trade-distorting effects of environmental concerns were highlighted.[2] Subsequently, India pointed out that in

[1] India's submission to WTO (Document No. WT/CTE/W/65, 29 September 1997).
[2] India's submission to WTO (Document No. WT/CTE/W/66, 29 September 1997).

the transfer of EST and Ps, for most of the products and technologies involved, the absence of 'market' is a serious concern. Emphasizing the fact that in most of the cases, the IPR holders set the price, based on their legal right to exclude all competition for their product or technology for a limited period of time, India called for the rectification of the procedure.[3]

After Seattle (1999), India's focus was extended to the protection of biodiversity and traditional knowledge. India stressed that national action alone is not sufficient to ensure realization of the expected benefits and called for effective steps to be taken to guarantee compliance to the consent requirement for using the knowledge and equitable sharing of benefits, as visualized in the CBD [Convention on Biological Diversity].[4] In a later submission, the effects of environmental measures on market access were highlighted and it was pointed out that positive measures like capacity building, technology transfer, and technical assistance need to be strengthened nationally, bilaterally, as well as multilaterally. In addition, India maintained that, '... standard setting efforts have to be informed by their impact on trade and competitiveness, high costs of adaptation, and irrelevance of many foreign standards to local conditions'.[5] In the post-Doha period, India further focused on the relationship between specific trade obligations set out in MEAs (Basel Convention, Montreal Protocol etc.) and WTO Rules.[6] The EC (European Commission), in the recent period, is focusing actively on this front.[7]

The recent standpoint: project *vs* list approach

Before the Hong Kong Ministerial, the issue of freeing trade in EGS (environmental goods and services), by 'reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services' as per the DDA (Doha Development Agenda) (Paragraph 31(iii) of DDA, WTO, 2001) came to the forefront. A number of developed countries were interested in ensuring greater market access in the developing country markets on this front and with that view they submitted their own list of environmental goods for discussion. Understandably, such lists were loaded with products where they possessed comparative advantages. However, most of the developing countries were not in a position to open their domestic markets and therefore had to adopt defensive strategies.

The negotiations in this area took place mainly on the issue of identifying environmental goods and the method to be followed for that purpose. New Zealand submitted a proposal for adopting a 'single consensus list' of environmental goods but expressed willingness to accept a dual-list approach in case there is no agreement on the former arrangement.[8] It also discussed the possibilities of having a 'living list' that would allow an agreed-upon list to be continually updated, keeping the technological progress in view. The EC, on the other hand, suggested arriving at some guiding principles for the identification of environmental goods.[9] The US (United States) came out with a proposal of using two lists for this purpose: 'Core' and 'Complementary'. While the former list was supposed to deal with Environmental Remediation, Pollution Prevention, and Clean Technologies, arrived at by consensus and therefore loaded with commitments on definite concessions; the latter was expected to include products on which no consensus had been reached.[10]

Participating in the negotiation process, India criticized the list approach by indicating several problems associated with it (For example, the problem of dual use of many items mentioned in the list, the impact of unrestricted concessional duty import of environmental goods on indigenous innovation, problems of developing country SMEs [Small and Medium Enterprise], over-emphasis on goods by neglecting services, the missing link between environment goods and services, etc.). Stressing the fact that simply permitting the flow of goods would not necessarily guarantee the fulfillment of environmental objectives, India proposed the adoption of an EPA (Environment Project Approach) instead.[11]

[3] India's submission to WTO (Document No. WT/CTE/W/82, 7 April 1998).
[4] India's submission to WTO (Document No. WT/CTE/W/156, 14 July 2000).
[5] India's submission to WTO (Document No. WT/CTE/W/177, 27 October 2000).
[6] India's submission to WTO (Document No. TN/TE/W/23, 20 February 2003).
[7] EC's submissions to WTO (Document No. TN/TE/W/68, 30 June 2006; Document No. TN/TE/W/66, 15 May 2006.
[8] New Zealand's submission to WTO (Document No. TN/TE/W/46, 10 February 2005).
[9] EC submission to WTO (Document No. TN/TE/W/47, 17 February 2005).
[10] US submissions to WTO (TN/MA/W/18/Add.5 and TN/TE/W/38, 7 July 2003.
[11] India's submission to WTO (Document No. TN/TE/W/51, 3 June 2005).

The EPA proposed by India requires that a project in question has to meet certain criteria set by the DNA (Designated National Authority) in member countries. Once approved, the goods and services included in the project would qualify for specific concessions for the duration of the project (ranging from large commercial ventures to individual purchases), and would need approval again for another project. The commitments of the members may have provisions for: '(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; and (c) specific commitments required in all modes of service delivery' (De and Chakraborty 2006).

According to India, the process of classifying products should be to left to the CTESS (Committee on Trade and Environment Special Session), which would specify certain broad categories and criteria for selection; and the countries could subsequently adopt those criteria that meet their national environmental priorities. Since, by definition then, each project would be contemporary, the changing needs of members will be observed and it would also provide an incentive to employ the latest technology and products for each project by the foreign firms. Also, there would be scope for capacity building, technology transfer, and technical assistance for developing countries.[12] India further argued that the EPA would be an effective mechanism for reduction or elimination of NTBs (non-tariff barriers) in respect of identified goods and services in an approved project, thereby substantially contributing towards the fulfillment of the DDA by providing scope for developing countries and LDCs (least developed countries) to develop capacities and achieve national priorities.[13]

The EPA has gathered support from various quarters so far. Several analyses pointed out that the EPA is far superior to the list approach, as it addresses not only the DDA requirements, but also the grievances of the concerned countries, in an integrated manner (Mukherjee 2006). It is further argued that the successful tackling of the dual use of most of the environmental goods included in the lists is another major point where the EPA scores over the list approach. Moreover, the concept of maintaining a 'living list' originates from the uncertainty surrounding updated technology transfer and other related issues. However, that provision involves negotiations on a regular basis, thereby being open to the possibility of friction and consequently, transaction costs. However, the fact that under the EPA each project would require the best and most advanced environmental technology, both in terms of goods and/or services, eliminates the need to work on a living list (Kumar and Chowdhury 2005). De and Chakraborty (2006) have also argued that the EPA is in line with India's economic interests.

Nonetheless, the EPA is yet to obtain universal acceptance. Developed countries in particular remain unhappy with the implications of this approach, and question whether the proposed case-by-case approach would have as widespread effects as envisaged under the DDA Paragraph 31(iii) mandate on EGS. Developed countries are currently busy submitting their list of environmental goods and exploring the NTB issues.[14] The developing countries, on the other hand, are generally not averse to the idea, but they are still unsure about the future implications. The general perspective on this issue before Hong Kong can be summarized as follows.

Some noted that the benefits might in fact be limited to multinational corporations since an environmental project implies a certain scale that might be beyond the capacities of smaller enterprises, which would therefore not be able to take full advantage of this option. Many developing countries welcomed the new, alternative approach as a basis for further discussion, but also raised questions about practicalities (ICTSD 2005).

The changing perspectives of developing countries towards the EPA in the post-Hong Kong period is clear from their views, as expressed at the Fifteenth Meeting of the Committee on Trade and Environment Special Session, held from 21 to 22 February 2006. Thailand, talking on behalf of Malaysia and Indonesia as well, has supported the EPA by claiming that it provides 'more policy space, especially to developing country members'. Egypt has also expressed a similar opinion. South Africa has been cautious in its statement and said that the EPA is an easy mechanism of identifying goods that have a specific and clear environmental use.

[12] India's submission to WTO (Document No. TN/TE/W/54, 4 July 2005).
[13] India's submission to WTO (Document No. TN/TE/W/60, 19 September 2005).
[14] Communication from Canada, the EC, New Zealand, Norway, Singapore, Switzerland, and the US (Document No. TN/MA/W/70 and TN/TE/W/65, 9 May 2006).

Ecuador has supported the EPA saying that technology transfer could be more operational under this provision.[15] Cuba has also stated that the project approach is best suited for making SDT (Special and Differential Treatment) viable for developing countries.[16]

Argentina, a leading developing country (and India's collaborator in issues like agriculture and NAMA) on the other hand, has suggested an alternative approach ('integrated approach') that integrates elements from both the list and the project approaches. The integrated approach requires the fulfillment of two conditions. First, the goods falling within a particular environmental project category (For example, air pollution control, water and wastewater management, etc.) should be identified by the CTESS. The CTESS should then identify the EGS, in each category, that are available for application to the development of national projects. Tariff reduction/elimination and the elimination of NTBs would be agreed to multilaterally, taking into account the SDT needs of developing countries. The tariff benefit granted by the importing member country would cover only the project implementation period.[17]

In 2006, India reaffirmed its position on the EPA claiming that the project/sectoral initiative is nothing new at the WTO / GATT forums. It cited various past instances of similar nature, which support the case for EPA in EGS today (For example, negotiations on chemicals and pharmaceutical products during the Uruguay Round; focus in the DDA on finding solutions to the public health issues relating to diseases, namely HIV/AIDS, tuberculosis, malaria, and other epidemics). India's submission also stated that the underlying philosophy of the EPA takes care of the predictability or transparency requirement and also multilaterally ensures more policy space for member countries to efficiently tackle and address their environmental problems. It further clarified that the EPA is not in conflict with the MFN (Most Favoured Nation) principles of GATT (General Agreement on Tariffs and Trade). In this case, specific products would get privileged market access without reference to the country of origin of the product, unlike the case of FTAs (Free Trade Agreements) or Customs Unions.[18]

The way ahead

While we have witnessed the emergence of several supporters of the EPA so far, it should be noted that India is yet to make any joint submission with other developing countries on this issue. Therefore, the extent of actual support for India on EPA is not very clear. This is very important in light of the fact that for developing countries to gain at the multilateral stage, they have to negotiate jointly. For instance, on 6 December 2005, the General Council approved the move to change TRIPS provisions relating to patents and public health (WTO 2005). The provision will only formally be a part of the TRIPS agreement, when two-third of the members would ratify it by 1 December 2007. Once implemented, this would mark the first amendment of a core WTO agreement. This came as a result of the unstinting joint negotiation by the developing countries with their developed counterparts since the Doha Ministerial. Similar success is likely to follow in the area of environment only if developing countries continue on a joint negotiating agenda on adoption of the EPA. Therefore, India's future negotiating strategy must focus on winning friends to place the EPA ahead of the list approach.

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[15] Summary Report on the Fifteenth Meeting of the Committee on Trade and Environment in Special Session, 21–22 February 2006, (Document No. TN/TE/R/15, 5 April 2006).
[16] Cuba's submission to WTO (Document No. TN/TE/W/69, Dated 30 June 2006).
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Effect of environmental standards on India's market access concerns

Pavel Chakraborty and Nidhi Srivastava[1]

Introduction

The emergence of the WTO (World Trade Organization) as the strongest multilateral trade body was one of the crucial developments of the 1990s. It has the mandate of making way for free and fair trade by reduction of tariffs and quantitative restrictions between nations. The trade regime ushered in by the Uruguay round has enabled the opening up of several inward-looking economies that have, in the process of deregulation and liberalization, experienced an upsurge in growth and development.[2] Trade has been a significant propeller of growth for these economies by providing the global market access to a country's goods and services. However, these benefits have been slightly offset by the imposition of environmental requirements that are now seemingly taking the form of disguised trade barriers. These measures affect market access opportunities for developing countries and, thereby, hamper the growth process and efforts to eradicate poverty.

For India and other developing countries, the concerns with regard to such environmental requirements are at least fourfold.[3] Firstly, trade sanctions or environmental requirements will not serve as the most efficient devices to protect the environment. Secondly, environmental regulations are likely to be used as non-tariff barriers to trade thereby limiting market access. Thirdly, the technical and financial

[1] Research Associates, Centre for Global Agreements, Legislation and Trade, The Energy and Resources Institute.
[2] TERI Report, 2001EM63.
[3] TERI Report, 2003EM63.

capacity of units in developing countries, especially SMEs (small and medium sized enterprises), to conform with such environmental regulations is limited. Lastly, same standards across countries, or even different regions within the country, may be wholly inappropriate.

One of these areas of concern is regarding market access barriers created on account of non-product standards including environmental and health measures. This issue assumes importance in the light of the fact that the past decade has seen a global proliferation of environment and health-related standards along with the rise of trade in environmentally sensitive goods (Chaturvedi and Nagpal 2002).

This article aims at addressing the key issues relating to market access, in particular the impact of environmental measures on access, by focusing on marine products in India.

Treatment of environment in WTO

The evolution of debates on environment and international trade from Marrakesh in 1994 to Doha in 2001 delineates a shift in emphasis from more macro concerns of sustainable development to those that have greater underlying thrust on economic reform and trade liberalization for economic growth and poverty alleviation. The 1994 Marrakesh Agreement marked the signing of the final act establishing the WTO in January 1995. The comprehensive work on trade and environment began with the establishment of the WTO CTE (Committee on Trade and Environment) in 1994, following largely from the Uruguay Round agreements. With respect to developing countries, it focuses on implementation of trade provisions, guidelines for technical cooperation, freer participation of developing countries in the trading system, etc.

In 2001, the Doha Declaration made the most explicit reference to and laid emphasis on negotiations on issues of linkages between trade and environment in the context of WTO. In its paragraphs 31 and 32, the DMD (Doha Ministerial Declaration) has provided a specific mandate relating to trade and environment. It relates to an examination of the relationship between existing WTO rules and the specific trade obligations in the MEAs (multilateral environmental agreements), as applicable to parties to the MEA. In doing so, however, it makes little reference to concerns of impact of compliance with the environmental measures pursuant to the MEA on market access.[4]

Market access has been the WTO's quintessence and core concept since its very inception.[5] The DMD clearly seeks to take an in-depth look into

'…the effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed among them and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development'.

Market access issues have gained substantive limelight in the DMD, which only reinforces the importance given to the protection of environment in the trade agenda. The DMD has emphasized that the inclusion of environmental issues would by no means dilute the main agenda of the WTO. The onus lies with developing countries and the WTO, as far as possible, on the stance that could be taken by the WTO, on aspects of trade and environment, such that their economies do not suffer on account of reduced/constrained market access

Export sectors and unilateral environmental measures

The impact of unilateral measures[6] on export sectors is visible at two levels—demand and supply. On the demand side, developed country markets, with the power to create trade barriers, may impose measures to protect their domestic markets or welfare. In the past, many importing countries have introduced ETBs (Environment-related Non-Tariff Barriers) to protect their environment as well as the health and safety of plants, animals, and humans. Measures such as pesticide MRL (maximum residue levels) permitted in foodstuffs, emission standards for machines, and packaging requirements impede the trade of developing countries, either implicitly or explicitly.

Developing countries allege that from the supply side, environmental measures often impede trade and market access. Compliance with standards imposed by importing countries often requires large investment and recurrent costs resulting in high production costs and reduced profitability. For instance, the costs of

[4] Analysis of the outcome of World Trade Organization talks in Doha, Qatar http://www.foe.org/international/qatar.html.
[5] TERI Report 2003EM63.
[6] Unilateral measures are those measures that are taken atomistically by a country in order to maximize its own domestic gains or welfare.

upgrading sanitary conditions in the Bangladesh frozen shrimp industry to comply with EU (European Union) and US (United States) hygiene requirements is estimated to be $17.6 million in 1997/98 (Cato and Dos Santos 1998) and the total industry cost to maintain HACCP (Hazard Analysis Critical Control Point), is $2.2 million per annum. It has also been contended that standards are kept strategically high to check exports, no matter how 'unlikely and inconsequential' the risk is (Bakshi 2005).

A major issue of concern *vis-à-vis* these measures is that the line distinguishing between environmental, health, and quality standards is diminishing. For instance, there may be overlaps where food quality standards may also fall in the category of environmental standards (Jha 2001). Marine products, an export-oriented industry in India, is one such sector.

Marine products

Marine exports including fish, shrimp, squid, lobster, crab, cuttlefish, etc. contribute by over Rs 70 000 million to the Indian exports. The share of marine product exports in the total exports from India is around 2.1%. With domestic deregulation in the 1980s, accompanied by the blue revolution and liberalization, the fisheries sector in India gradually moved from dried fish, dried shrimp, and shark fins to exports of frozen and canned items with products shipped to more sophisticated markets like US, France, Australia, Canada, and Japan.

Due to the impact of the seafood industry on the environment and ecology of an area, it comes under the ambit of certain environmental legislation as well. In recent times, there have been concerns regarding excessive harvesting, unsustainable aquaculture, and deep-sea fishing policy. Deep-sea fishing is marked with significant costs and overexploitation of resources. To protect the marine environment, the Government of India issued the CRZ (Coastal Regulation Zone) notification under the EPA (Environment Protection Act) 1986, which regulates various activities in the coastal zone. Besides, the Supreme Court, in 1996,[7] banned all aquaculture activities except for certain traditional ones practiced in the coastal zones of up to 500 metres in most places along the coast.

The marine sector in India has thus been closely linked to environmental and ecological issues. However, there have been several instances where India's seafood exports have been banned or rejected under the guise of SPS (sanitary and phytosanitary) measures. It has been seen that in many cases, SPS measures can easily be used to restrict the import of food products, as in the case of marine products, which are also food products. Most of the unilateral measures imposed by developed countries call for stringent hygiene, sanitary requirements, and compliance to HACCP and other standards set by international standard-setting bodies. Many South Asian and African countries that were predominantly exporting marine products had lost out on trade and market access as a result of such unilaterally imposed measures and requirements that have been stipulated by countries in the EU and US. The Indian marine industry, like many other South-Asian and African countries that lost out on market access as a result of failure to comply with unilateral measures, is facing similar threats. In the last few years, consignments of India's marine exports have attracted automatic detention in the US. US stipulated that marine products must be sampled and tested before they are allowed entry into the country. This meant that, procedurally, there would be long delivery delays, storage costs, and possibly a substantial refusal rate where there lies the risk of import consignments being cancelled, as fish is typically a perishable commodity.

The US imposition of HACCP and its demand that exporters draw up and implement a plan for environmental measures within one month (Chakraborty 2001) was clearly unreasonable and an impediment to market access for India. US is not the only country to take such measures. In 1997, EC (European Commission) banned fishery products from India on grounds that serious deficiencies with regard to infrastructure and hygiene were found without guarantee of the efficiency of controls by competent authorities, potential risk for public health, and possibility of contamination by micro organisms constituting a hazard to human health.

Certain standards are not feasible for developing countries. For instance, the requirement of washing floors and ceilings of the processing unit with potable water is not imaginable for a country where drinking water is not easily available. Besides, some norms such as requirement of conducting 62 tests to check water standards used in processing fish seem irrelevant, unnecessary, and unjustifiable for product safety. Most of the standards are bound to cause substantial increase

[7] S Jagannath vs Union of India, AIR 1997 SC 811

in the cost of production. As observed in a 2001 study (Kaushik and Mohammad 2001), the compliance costs for meeting EC norms was 15% to 40% of the FOB (Freight on Board) value, with the cost being higher for existing units.

Compliance with EC-imposed standards has caused significant increase in production costs. Adhering to EU norms involves heavy investment in infrastructure and equipment besides incurring higher running costs. Although one view is that part of these costs could be considered as necessary investments, while a range of foreseeable and unforeseeable costs might arise from adoption of different technologies and systems (Jafee and Spencer 2004), one cannot ignore the fact that it results in unavoidable financial and social costs for the marine sector in India with the small players being the hardest hit, as most of the units are in the small-scale sector. However, such an investment would be advantageous to India only if it is allowed by some price premium for the cost incurred in complying with such regulations. Otherwise it would only be to the detriment of the Indian marine industry in terms of loss in market access (Kaushik and Saqib 2001).

The way forward

Until now India has made three important submissions to the CTE on Item 6 of its work programme, regarding environment and market access. The first submission in 1996, articulated the vulnerability of the developing countries to adverse effects of environmental measures on market access and the need for CTE to re-examine its environmental measures under various WTO agreements. The submission essentially focused on improving market access opportunities by trying to, on the one hand, reduce/eliminate adverse market access effects of such environmental measures while on the other, seeking further reductions in tariff levels. The second submission in 2000 reiterated the concerns raised in the previous submission with a special focus on the links between trade and sustainable development. The third submission was important as it was made post Doha, in 2001. The issues were raised here again but with a greater emphasis on the inability of developing countries to conform to unilateral environmental measures due to lack of infrastructure, limited technological choices, inadequate access to environmentally-friendly raw materials, small size of export units, etc. It further stated that trade measures were not the best options for addressing global environmental concerns. So far, India's submissions and negotiations have been related to re-examining Article XX[8] of GATT (General Agreement on Tariffs and Trade), as well as the agreements on SPS, TBT (Technical Barriers to Trade), and SCM (Subsidies and Countervailing Measures). Also re-examined were the specific clauses of agreements, which can be used as indirect barriers to trade; precautionary principle and risk assessment in the SPS; and conformity assessment of the TBT. Thereafter, uniform standard mechanisms were laid down and greater transparency effected in the implementation of agreements and principles.

Besides the aforementioned issues, India must also emphasize the use of equivalence[9] as provided in the SPS agreement. Emphasis should also be laid on the need for a well-integrated information system on various SPS measures. There is an urgent need to carry out an in-depth sectoral analysis of the impact of each type of environmental or health-related regulation on market access opportunities for India. These effects may well be negative or positive. India should also highlight the need to set-up bilateral and multilateral funds to be pooled in by the developed countries or those countries that impose such standards to enable the adoption of environmentally-friendly technologies in compliance with such measures.

India should strongly put forth its concerns as a developing country that lacks the kind of infrastructure and technical assistance, which would enable it to become a producer of environmentally-friendly goods and services. Simultaneously, India should solicit technical assistance from those countries that are in a position to help India sustain and augment its market access opportunities. This would enable India to launch itself into the trajectory of economic growth along the lines of sustainable development while also meeting the needs of liberalized trade and cleaner environment.

[8] Subject to the requirement that such measures are not applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination between countries, members can adopt measures which are necessary to protect human, animal, or plant life or health; and relating to the conservation of exhaustible natural resources, if such measures are made effective in conjunction with restrictions on domestic production or consumption.

[9] The SPS agreement encourages countries to give positive consideration to accepting the SPS measures of other members as equivalent to their own, even if these measures differ from their own.

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Book review

Greening leather trade

Anandajit Goswami[1]

Trade and Environment: a study of India's leather exports
Prof. U Sankar (ed) Published by Oxford University Press (2006), New Delhi
ISBN – 019568395 – 1 9780195683950
299 pp. Rs 625

Trade and Environment: a study of India's leather exports deals with a wide range of trade and environment issues particularly pertinent to India's leather sector. It provides comprehensive insight into the nuances of these issues, as put forth by eminent researchers from the varying disciplines, ranging from economics to law.

In the first chapter, **Trade and environment: linkages and policy issues**, U Shankar maps out the evolution of the multilateral trading system and its linkage with trade and environment by emphasizing the history of evolution of the multilateral trading system starting from Article XX of the General Agreement on Tariff and Trade 1947 to the UNCHD (United Nations Conference on Human Development) Stockholm Conference of 1972, to the UNCED (United Nations Conference on Environment and Development) 1992 at Rio De Janeiro, followed by the Marrakesh Decision of 14 April 1994 finally leading to formation of the Committee on Trade and Environment. The author, through a theoretical analysis, deals thoroughly with the following research questions.

- Is trade liberalization harmful to the environment in developing countries?
- What are the implications of cross-country diversity in environmental standards?
- What global policy regimes are needed to handle domestic pollution and cross-border transfer of pollution?
- Is the use of trade measures (tariff, non-tariff) legitimate in achieving a country's environmental goals?
- To what extent is the multilateral trading system successful in implementing the Rio Principle of 'Common but Differentiated Responsibilities'?
- Do environmental requirements of developed countries act as non-tariff barriers for a developing country's exports to developed countries?

With regard to the last research question the author discusses the main principles of technical barriers to trade agreement, which are as follows.

1) Non discrimination[2]
2) Avoidance of unnecessary obstacles to trade[3]
3) Harmonization
4) Equivalence
5) Mutual recognition
6) Transparency

The chapter concludes by highlighting the theoretical validation of the fact that trade liberalization would affect an increase or decrease in welfare gains in the presence or absence of environmental policy, respectively.

The second chapter, Global Environmental Requirements, by A Sahasranaman reviews the global environmental requirements for specific leather products in EU (European Union) and US (United States). The author highlights the prescribed limits of restricted substances like PCP (Pentachlorophenol), Azodyes, Formaldehyde, Chrome VI, Short Chain Chlorinated Paraffins, and Tetra ChloroPhenols, etc. in leather and leather products in the EU and US. In addition, the chapter outlines how standards in leather products have been maintained in Denmark through an emphasis on packaging requirements and sustainable public purchase policies. In this respect, the eco-labelling schemes and standards like Type – I

[1] Research Associate, Centre for Global Agreement, Legislations and Trade, Resources and Global Security Division

[2] This applies the MFN (Most Favoured Nation) and National Treatment Principles according to which WTO (World Trade Organization) members should ensure that there is no discrimination between the trading partners. In other words, if special favour is given to one WTO member it has to be extended to all WTO members (MFN). Similarly, imported products should merit treatment no less favourable than products of national origin; and originating in any other country after the imported foreign products have entered the national market (National Treatment Principle). By like products, what is being referred to are the physical characteristics of a product, not how a product is formed

[3] This means that the technical regulations must not be more trade restrictive than necessary to fulfil legitimate objectives of national security; protection of human health, animal health, plant life, and environment; and prevention of deceptive practices

(ISO 14024), Type – II (ISO 14021), Type – III (ISO 14025) in traded leather products are being discussed. The chapter covers the important issues of cross boundary environmental management and increased awareness on parameters like occupational safety and health, ethical issues of child labour, low wages, and animal welfare hindering trade. To buttress this fact the chapter emphasizes how, in US, ethical officers are appointed by companies for managing ethical issues associated with the trade of leather products. The issue of publishing the ethical and environmental code of conduct of firms in UK (United Kingdom) that trade in leather products; and the question of growing voluntary environmental compliance by the firms to get market access in the markets of EU and US through the trade in environmental compliance products is also discussed.

The next chapter, **Global Leather Industry Supply Chain: temporary and cross country changes**, by U Shankar, M Rao, N Karthikeyan, and B Preethi is an empirical justification of the impact of environmental standard diversity on the trade earnings of countries engaged in the export of environmental compliant products. This is shown by a cross-country analysis of changes in production, exports, and imports by stages of production in the leather industry. The empirical findings of the chapter show that leather footwear exports, globally, have increased over the years in which the share of the export of developing countries has increased whereas that of the developed countries has fallen. The chapter highlights the fact that lack of access to environmentally friendly technologies by developing countries creates hindrances in producing and exporting environmental compliant products to the markets of EU and US. For example, in the leather segment of India, the semi–finished environmentally non-friendly leather product produced through the wet–blue process is exported to Italy because of inadequate access of environmentally friendly technologies to Indian Leather Companies. Furthermore, with regard to leather products, countries like Italy, Spain, France, Germany, and Portugal have a demand for high-value-added fashion goods. Leather exports from China cater to the low priced market, whereas leather exports of Brazil and India meet the demands of the medium priced market.

Chapter 4, **Trade Liberalization and Environmental Protection: leather industry responses in Brazil, China and Italy**, by U Shankar, discusses the specific leather industry responses of countries like Brazil, China, and Italy. It mentions how the small tanneries in Brazil have gone bankrupt and how a merger has taken place between the small, financially bankrupt, and other, financially stronger, tanneries. This chapter emphasizes the cost advantage of Brazil in the tanning stage. It elaborates on how a clustered approach, through joint ventures and FDI (foreign direct investment) has facilitated the growth of the leather and tanning industry in Brazil. However, the primary factors facilitating the growth of the leather sector in China have been identified as fiscal incentives, access to finance and new technologies of Taiwan along with lower inventory costs, and a shorter order time for product deliveries. Italy, which faces raw material shortage and high unit labour cost, has been able to grow in the high-value-added segment by importing labour-intensive semi-finished products from other countries. The semi-finished products have been converted to high-value-added products by means of joint ventures and FDI in technical training

The next chapter by U Shankar and S Jawahar, **Indian Leather Industry Supply Chain**, goes on to provide an overview of supply problems associated with different stages of leather production in India. These include a low offtake rate of cattle, the absence of slaughterhouses in some states, and consideration of ethical issues regarding the slaughtering of animals with a religious value. This chapter highlights the need to formulate institutional reforms towards supply augmentation by increasing FDI and joint ventures in tanning sector for enhancement of low average capacity utilization rate of slaughterhouses. The author indicates that this can only be achieved with policy support facilitating the growth of small-scale industries and non small-scale industries, providing a level playing field for both. The author argues that an attitudinal change in policy-making is also necessary for creating an environment where access to essential resources is given to both small-scale and other industries in order to ensure a level playing field and foster growth in the sector.

The next two chapters, **Preparedness of the Indian leather industry with respect to domestic and global environmental requirements** (U Shankar) and **India's exports of leather and leather products: trade policy and composition and direction of trade** (U Shankar, M. Ramachandran, S Tholkappian, M Rao, and B Preethi), deal with the legal and policy framework, which exists in the leather sector. The Acts that have been operational in the legal framework of India are—the Water Act 1974, the Water Cess Act 1977, and the Air Act 1981. The Acts deal with the issue of pollution abatement costs, which polluting firms have to bear. The pollution abatement costs depend, to a large extent, on wastewater generation per unit of output and are found to be higher in case of IETPs (Integrated Effluent Treatment Plants) in comparison with CETPs (Common Effluent Treatment Plants) of the Indian leather industry. A cross comparison of the treatment costs across countries in 2001 shows that the treatment costs were highest in Italy, followed by France and India, owing to higher purification environmental norms. The need for a cost sharing arrangement among CETP members, with proper allocation of operational cost on the basis

of installed capacity and sound environmental management information system at the level of CETP, is also highlighted.

Chapter 6 discusses the allocation of operational costs, calculated on the basis of volume of effluents and pollution loads, as an incentive measure for tanneries to ensure water conservation and wastewater minimization. Chapter 7 highlights some of the policy initiatives taken in the leather segment. The complete exemption in the excise duty in export-oriented units and export processing zones, as well as exemption of minimum alternative tax for export profits are some of the policy measures that have been taken in the leather sector of India. The trade policy for the leather sector has emphasized the unshackling of controls, simplification of procedures, reduction in transaction costs, neutralization of incidence of all duties on input used in exportable products, and specification and focus on areas generating additional employment. One of the interesting findings of chapter 7 is that the dependency of India's exports on Germany kept increasing from 1990 to 1998 and then fell. Another interesting finding is that India's market share in UK and Italy, in leather and leather products, has declined from 2000 to 2003. The reason behind this drop in the market share has been environmental standards, tariff escalation for leather and leather products, increase in regional trade agreements, and growing competition from countries like China, Brazil, and Romania. So, all future trade policies have to focus on these specific issues to foster the growth of trade in leather and leather products.

The last two chapters, **Perceptions of Indian leather exporters to environmental requirements and transaction costs** by U Shankar, M Ramachandran, S Jawahar, S Tholkappian, and N Karthikeyan and **Growth prospects for exports of Indian leather and leather products: what needs to be done?** by U Shankar broadly, outline the environmental standards in the leather sector and their widespread implications. One of the interesting facts to note is that most of the leather exporters of India are in the small-scale sector and the ownership of the firms in the sector operates in the form of proprietorship, partnership, private ltd, and public ltd On a broad scale in terms of export sales realization, the firms could be classified in the range of export values of less than Rs 50 million to Rs 200 million, and less than Rs 250 million. There is a need to import environmentally friendly technologies from EU to the firms by effecting a reduction in import duties to increase the product quality and cost competitiveness of the firms. The impact on the cost competitiveness is more in case of the firms falling within the export value range of Rs 250 million and Rs 500 million.

The final chapter of the book advocates that firms in developing countries could become associated with agencies responsible for formulation of eco labels and environmental standards in order to facilitate their market access through the platform of WTO (World Trade Organization). The non-tariff barriers of environmental standards in WTO imposed by the countries of EU could block the export of developing countries firms through a non-compliance in the environmental standards. So, the path forward is to create a platform, which facilitates access to cleaner technologies, ensures finance for developing country firms, thereby enabling them to produce high-value-added environment-friendly quality products.

The authors lucidly analyse the implications of trade in leather products across various countries of the world. Although the book touches upon the issues of environmental regulation through measures like eco-labelling, legal measures, and environmental management systems, a more detailed analysis of how dissemination of information regarding pollution could create peer pressure amongst firms that trade in pollution-generating products could contribute to literature on trade and environment. Dissemination of information could play a crucial role in the environmental regulation of firms trading in products facing environmental standards. Environmental benchmarking of the shares of firms trading in products like leather, which face environmental standards in WTO, could be one of the areas highlighted in future works pertaining to this sector. This would establish a linkage between the firms trading in leather products and their performance in the stock market (if the firms are listed in the stock market). A further analysis of environmental regulation through use of economic instruments (by means of environmental benchmarking of shares instead of command and control measures) would give a holistic picture of the ways of creating a balance between trade and sustainable development in the context of sectors trading products facing environmental standards in WTO. This would thereby provide direction to policy-makers in strengthening their negotiation stands in the context of WTO.

For copies, contact
Anandajit Goswami
Centre for Global Agreements, Legislation, and Trade
TERI, Darbari Seth Block
IHC Complex, Lodhi Road
New Delhi – 110 003/India

Tel. 2468 2100 or 4150 4900
Fax 2468 2144 or 2468 2145
India +91 ▪ Delhi (0) 11
E-mail anandjit@teri.res.in
Web www.teriin.org