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RIS
Research and Information System
for Developing Countries

Core IV-B, Fourth Floor
India Habitat Centre
Lodhi Road
New Delhi-110 003, India.
Ph. 91-11-2468 2177-80
Fax: 91-11-2468 2173-74-75
Email: dgoffice@ris.org.in
Website: <http://www.ris.org.in>
Website: <http://www.newasiaforum.org>

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the Regional Process in South Asia:
Evidence from SAPTA and
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Core IV-B, Fourth Floor, India Habitat Centre
Lodhi Road, New Delhi – 110 003 (India)
Tel: +91-11-2468 2177/2180; Fax: +91-11-2468 2173/74
Email: dgoffice@ris.org.in

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Prospects for Environmental Trade under the Regional Process in South Asia: Evidence from SAPTA and Proposals for SAFTA

S. K. Mohanty*
Sachin Chaturvedi**

Abstract: The debate about identification of environmentally sensitive goods (ESGs) is highly complex as discussed in the economic literature. In the context of SAFTA, ESGs assumes significance as the region is significantly dependent on these products for trade. In this paper an attempt has been made to formulate a new approach to identify ESGs, and the same definition is used to analyses the nature of trade flows in the South Asian region. The implications of three Rounds of SAPTA trade liberalization in ESGs trade is examined at a disaggregated level separately. The empirical exercise indicates that South Asia has a large market for these products, and nearly one quarter of the regional trade is falling under the medium and high technology product groups. The study has prepared a road map for setoral trade liberalization, which would promote intra-regional trade in ESG products under SAFTA. An effort has been made to suggest counter balancing measures to minimize negative environmental implications of possible trade expansion once SAFTA is implemented.

Keywords: SAFTA, ESGs, MEAs, Technology, Biosafety

I. Introduction

There are discussions in various forums relating to trade in environmentally sensitive goods (ESGs), but not many empirical studies are available to identify such products, taking in to the current practices in the global trade. In the past, some attempts have been made to identify environmentally sensitive tradable products in the context of ‘dirty industry’ and ‘pollution heaven hypotheses, but they are too broad and general to make them relevant

* Fellow, RIS. Email: skmohanty@ris.org.in

** Fellow, RIS. Email: sachin@ris.org.in

in the context of various trade negotiations. There is a need for re-examining the issue and identify the ESGs in a more pragmatic and realistic manner. There are prevailing apprehension about the environmental sensitivity of regional trading arrangements (RTAs). Moreover, they are being seen as a quick instrument to circumvent the commitment at the multilateral environmental agreements¹.

The regional cooperation in South Asia has just completed twenty five years of its existence. During this period, the region has not only successfully implemented different Rounds of SAPTA but also signed the SAFTA Agreement which is all set to commence from January 1st 2006. Unlike many Regional Arrangements in different parts of the world, the regional arrangement in South Asia could make little headway in expanding trade within the region. The region has been maintaining high growth rate in its external sector performance during the last decade, but the intra-regional trade has not picked up to the expected level. During the period 1995-2003, the region's overall exports grew at the rate of 8.52 per cent per annum whereas imports expanded at the rate of 9.62 per cent annually during the same period. The share of region's intra-regional trade to its overall trade has remained over five per cent during the same period. As the South Asian region is a net trade deficit region, the economic prosperity of the region is critically dependent on the performance of the external sector.

The Fourth Round of SAPTA is to be implemented soon. However, there is no attempt so far to assess the impact of trade liberalisation on ESGs in the region. Such analysis may have relevance for evolving adequate policy measures for addressing the impact of trade liberalisation under SAFTA for ESGs. There is a common perception that ESGs are technologically poor, and they are very often produced for consumption in developed countries. On the other had high technology-intensive ESGs involve capital-intensive technologies, and such products are generally produced and absorbed in developed countries. But this is not true in the real world. The Southern countries produce and absorb technology intensive ESGs. The absorption capacity of South Asian market for different technology intensive ESGs has gone up several times which needs further examination. A special focus is being placed on the policy challenges emanating from the introduction of biotechnology goods in the region. The

policies for trade in agricultural commodities would have to be additionally sensitive about this.

The present study has made an attempt to address these policy issues along with empirical evidences. It may be noted that trade data for some of the South Asian countries are not reported by the multilateral institution. In the current paper, we have made an attempt to generate bilateral trade database for those countries in the region for which data is not available. Section II puts together various environmental provisions as adopted in different RTAs while Section III discusses different approaches towards ESGs. Section IV explains the approach adopted in this paper. Section V presents the data analysis and the results are discussed in Section VI. The Section VII analyses the technology intensity of ESGs. Policy recommendations and conclusions are drawn in the last section.

II. RTAs and Environmental Issues

There are growing apprehensions that the environmental concerns being raised at various multilateral fora are likely to be marginalized by adopting the free trade agreements at bilateral levels. As in many of the FTAs, environmental provision are not being included. This happening with developing countries is a matter of grave concern. This is particularly troublesome when empirical evidences have established the fact that expanded economic activity in countries where governments have weak or non-existent environmental protection policies may be harmful to the environment and to the long-term development goals. Some of the FTAs are all set to legitimize what developed countries are not able to establish at the multilateral fora.

The NAFTA has a special agreement to take into account environmental issues. This is called the 'North American Agreement on Environmental Cooperation' (NAAEC). Under the NAAEC, each country has to maintain and enforce its own environmental laws to work towards sustainable development. It also very categorically states that environmental concerns would prevail over trade rules in case of a conflict. The NAAEC imposes a general obligation in terms of reporting emergency environmental measures and promotion of environmental education, science and technology. At the

level of trade agreements, the USA-Jordan bilateral agreement of 2000 is the first agreement to have taken note of enforcing provisions of environmental protection². Most of the trade agreements involving Mexico, Canada and USA are largely in the spirit of the NAFTA provisions. The Canada-Costa Rica agreement is modeled on NAFTA and allows both the countries to develop their own environmental laws for sustainable development.

The Chile-Mexico Trade Agreement takes a different and interesting position in regard to environmental issues. In case of incompatibility between the trade agreement and specific obligations under trade matters included in the Convention on International Trade in Endangered Species (CITES) of Flora and Fauna; the Montreal Protocol on substances responsible for depletion of the ozone layer and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, are some of them. However the party should chose a course of action which shows the least incompatibility with the regulations included in the trade agreement. The bilateral trade agreements involving the USA have been analyzed from the environmental perspective. The US-Chile Trade Agreement proposes to strengthen cooperation projects including capacity building for wildlife protection and resource management. The agreement has a provision for elimination of methyl bromide use and the development of Pollutant Release and Transfer Register (PRTR) in Chile. Similarly, the US-Chile Trade Agreement refers to cooperative projects for capacity building in order to eliminate usage of methyl bromide.³ According to the Montreal Protocol, one of the core MEAs, this has to be phased out by January 1, 2005. Incidentally, the US in a recent Meeting of Parties of the Protocol demanded a two year extension of the deadline. According to some studies illegal trade of chlorofluorocarbons (CFCs) has reached at the level of 15 per cent of its total production.⁴

There are some studies which bring out adverse implications of the U.S.-Mexico trade agreemnt.⁵ It was being expected that the increased demographic and economic growth along both sides of the U.S.-Mexico border as well as increased economic integration between the U.S. and Mexico have led to severe natural resource and environmental problems

which often spill across the political boundary⁶. The realization of the U.S.-Mexico Trade Agreement would not only increase these problems, but also given the expected additional investment that could flow into Mexico. This may be having potentials to create environmental problems in non-border areas as well.

In Asia, the content of environmental provisions in the FTA texts is generally not very clear. The proposed study on possible FTA among the far eastern economies including Japan, China and South Korea and ASEAN has some brief mention of environment related issues.⁷ It talks about joint monitoring of dust and sand storms and monitoring of water-marine pollution. Similarly, the Indo-Thailand FTA has just briefly referred to the need for exploring possible cooperation in the environment sector.⁸ This *per se* does not refer to the precautionary management of environment related issues. In the Singapore-Japan FTA, there is no reference to environmental agreements.

The most commented bilateral FTA in Asia from the environmental point of view is probably the US-Singapore FTA. Singapore has long been a major entrepot for importing and exporting wildlife to and from Asia, including illegal items as tiger bones and tiger bone medicines.⁹ In the present form of this FTA there is no mention of environment but after the severe criticism a group has been nominated to incorporate relevant policy instruments to safeguard environment.¹⁰

As a major entrepot for both legal and illegal wildlife trade, Singapore's enforcement of CITES and its prosecution of traffickers are essential to stemming illegal wildlife trade in the region. For example, there have been numerous examples of Singapore being used to launder wild-caught birds, particularly parrots, as birds that are captive bred in Singapore. Singapore's penalties, however, are too low to act as a sufficient deterrent to such a lucrative industry. The penalties for wildlife trafficking include a fine not to exceed US \$ 3000 or US \$ 6250 for repeat offenses and/or one year imprisonment. Given that one whole ivory tusk can sell for over US \$ 9000 and just one kilogram of tiger bone can sell for almost US \$ 800¹¹, Singapore will not be in a position to deter illegal trade until existing penalties are

increased substantially. In addition, Singapore needs to better monitor operations within the country to ensure that their claimed activities, such as captive breeding, are verified. In any case we need a clearer understanding of various other environmentally sensitive goods which may become eventually important. However, as discussed before, the FTAs have taken care of or in some cases have made an effort to circumvent the environmental concerns based on MEAs but somehow have failed to address environmental standards being implemented which may at best be classified as SPS/TBT concerns. Therefore, the very category of ESGs need to be redefined to capture the growing chasm between the real environmental concerns and usage of NTBs on pretext of environment protection.

III. Concept of Environmental Sensitive Goods

The debate about the definition of the ESGs has intensified over the years¹². As a result there is no agreed definition so far. In fact basing on the objective of the study, various approaches are being applied. These may be classified into three broad categories comprising (a) those studies using abatement cost as a criteria, (b) studies using emission intensity criteria for identifying ESGs, and (c) approach based on the contribution in degradation of natural areas, ecosystem and biodiversity.

The conventional approach uses pollution intensity as the basis for defining ESGs. In this, industrial activities are classified as most pollution intensive on the basis of the abatement and control costs. They are concentrated in relatively few sectors, such as cement, chemicals, pulp and paper, certain wood industries, petroleum refinery, and ferrous and nonferrous metal industries. Tobey (1990) used this approach and defined a polluting intensive industry as those, in which case pollution abatement costs (in the United States) was 1.85 per cent or more of total costs. Industries meeting this standard were pulp and paper, mining, iron and steel, primary nonferrous metals and chemicals. Low and Yeats (1992) also selected a list of industries on the basis of pollution abatement costs in the U.S. They identified environmentally sensitive goods as ones that have incurred pollution abatement and control expenditures of approximately one per cent or more of the values of their total sales. The study identified environmentally sensitive goods using the SITC classification, and the

identified products were: iron and steel (67), nonferrous metals (68), metal manufactures (69), pulp and waste paper (251), organic chemicals (512), inorganic chemicals (513, 514), radioactive material (515), coal and petroleum chemicals (521), manufactured fertilizers (561), paper and paperboard (641), paper articles (642), veneer plywood (631), wood manufactures (632), petroleum products (332), agricultural chemicals (599), and cement (661).

The World Bank in collaboration with United States Environment Protection Agency (USEPA) and United States Census Bureau, identified some sectors as pollution-intensive sectors in the United States, using the actual emission intensity method¹³. Iron and steel, non-ferrous metals, industrial chemicals, petroleum refineries, non metallic mineral product, pulp and paper, other chemicals, rubber products, leather products and metal products were identified as dirty industries. Another World Bank study (Lucas, Wheeler, and Hettiage, 1992) identified metals, cement, pulp and paper, and chemicals as dirty industries, on the basis of aggregate toxic releases per unit of output. Letchumanan (1998) used United States toxic release data and arrived at a similar list of environmental sensitive goods.

The Government of India has classified 64 types of polluting industries/ industrial activities as “Red Category” industries (Central Pollution Control Board, India) on the basis of their emissions, discharges of high pollution potential or generation hazardous wastes. These are mainly concentrated in iron and steel, petrochemicals, metal products, pulp and paper, chemicals, fertilizer, leather, rubber goods, cement and fermentation industries. The environmental standard committee (ESC) of Pakistan has classified industries into three main categories. Category A refers to the most hazardous industry which includes textile processing industry, tanning and leather industry, petroleum refining, fertilizers, chemicals. Category B refers to moderately hazardous industries, such as dairy industry, fruit and vegetable processing, sugar, detergent, etc. In the category C are the least hazardous industries, such as pharmaceuticals, marble, cement industry.

The third approach is based on the effect of industrial products on degradation of natural areas or loss of biodiversity, but has hardly tested in

the existing literature¹⁴. Using this approach, timber and wood products, fish and other seafood, and endangered species can be identified as environmentally sensitive products. These products have a long-term impact on the environment. A study by Jha, Markandya and Vossenaar (1999) have included marine product, wood and wood products and timber products in the list of environmentally sensitive products. Similarly, a study by Scholz (1996) on Chile's trade includes wood and wood pulp and furniture.

Other products that may influence the balance of plant species or the biodiversity of wildlife are genetically modified foods. There are a number of issues that arise in the context of WTO rules with respect to such products. The first is whether naturally occurring fruits and genetically engineered fruits should be regarded as 'like products' in the context of WTO rules. One argument advanced is that, as genetically engineered fruits may not be reproduce at the end of their life span, the final product characteristics are affected by the process and production method (PPM), therefore they cannot be regarded as 'like products'. At the same time as the end use of GMOs may be same as naturally grown products, they could be regarded as 'like products'. Another related issue that is particularly relevant in the context of the Biosafety Protocol relates to the labelling of products using GMOs. While some countries believe that such labelling would be entirely consistent with WTO rules on the grounds of public health concerns, other countries argue that their exports may be affected by such labelling¹⁵.

On several counts, there is a need for choosing an alternative approach to identify ESGs other than the 'dirty industry' approach. There is a wide gap between theory and practice in regard to definitional issues of ESGs. Identification of such products on the basis of their origin of industry, using the criterion of pollution abatement cost, may not be appropriate for various reasons. Most of the tradable items produced by an industry (where industry is identified under International Standard Industrial Classification, ISIC Rev. 3) may not have similar level of technology and pollution abatement cost. Which means an industry may produce varieties of technology-intensive products. Moreover identification of 'dirty' industries based on 2-digit level of ISIC Revision 3, may be too broad to identify disaggregated products in the trade sector. In a recent study, Mohanty (2005a) has examined this

aspect and found that several tradable products do not fall under the category of ESGs, despite their originating industry is recognized as a polluting industry. Secondly, the current practices in global trade indicate that several products are subjected to various forms of Non-Tariff Measures (NTMs) under similar grounds as enumerated in the 'pollution heaven hypothesis', but targeting these products under NTMs is based on other specific scientific considerations, but not on the basis of 'pollution emanating industries'. Taking into consideration the dynamic nature of the use of tradable products and identifying them as ESGs on the basis of broad industry level (i.e. at the 2-digit ISIC revision 3) may be inappropriate as per the scientific assessment. This approach may lead to over estimation of ESGs as many of them may not qualify as environmentally sensitive by different countries¹⁶. Thirdly, the definition and identification of ESGs require adherence to a specific international classification which may be useful for regional and multilateral negotiations.

In this paper a new approach is being evolved to identify ESGs, which are commonly traded in the global market. While identifying ESGs, we propose to consider following aspects – (a) product classification adhering to the harmonised system (HS) to make the classification useful for the WTO and other trade negotiations, (b) identified ESGs products should be subject to environmentally sensitive NTMs by at least one of the major trade players just to ensure that these products are subject to different forms of trade restrictions on environmental grounds. This list of ESGs has more practical relevance, because they are chosen from the current practices in the global market. In the literature, there are few other lists available which are prepared by APEC and the WTO. Apart from the lists there are certain goods which are emerging as major trade barriers but are not classified as yet for example biotechnology based products.

IV. Environmental Concerns and GM Products in South Asia

As is being noticed in other regions of the world, it is sure that South Asian region would also face a major challenge in terms of governance of biotechnology. The environmental management of regulatory aspects of biotechnology needs an urgent attention in the region. The biosafety regulations in some countries in the region are not in place while others

have to work further on the gaps between Cartagena Biosafety Protocol and their national legislations for effective management of biosafety.

The SAARC has provided a forum to exchange experiences, knowledge and expertise for combined technological advancement of the region. It has also helped in working towards harmonization of biosafety and other regulatory issues. This forum should be used in a more effective manner. There are certain major challenges which the region would have to be addressed on priority. The trade in GMOs is a major area which needs urgent attention. Though this is being addressed in various committees of WTO but it would be in the interest of the region to work out a common position as it concerns conservation of biodiversity in the sub-continent. The South Asian region also needs to consider issues like whether Convention of Biological Diversity (CBD) should prevail over WTO as has been proposed by several other developing countries. The trends in IPR regime within biotechnology also needs to be analyzed from the perspective of access to technology in the region.

In the recent years almost all the South Asian countries have promoted development and diffusion of biotechnology in a major way. The inter-linkages between different sectors have been strengthened and institutional structures have been developed for commercialization of various biotechnology products. However, there is some apprehension about adverse implications of biotechnology. The status of regulatory system in the South Asian countries is summarized in Table 1. In Pakistan, in order to overcome the biosafety concerns, NIBGE proposed a voluntary code of conduct for release of GMOs way back in 1994. This has now been updated by the Ministry of Environment, as bio-safety guidelines, in consultation with all the stakeholders, which hopefully will soon be approved. This will provide an impetus to the indigenous biotechnology R&D activities. A National Biosafety Committee has also been formed. Draft proposal on Biosafety Regulation was prepared and is at the approval stage by the Federal Government.

The biosafety debate in South Asia came under a sharp focus when Sri Lanka banned completely the imports of GM food in May 2001. The Sri

Table 1: Leading Biotechnology Institutions and Status of Biosafety in South Asian Countries Status of Regulatory System

Country	Responsible Agency	Protocol Signed	Protocol Ratified	Field Testing
India	<ul style="list-style-type: none"> · Ministry of Science and Technology (Department of Biotechnology) · Ministry of Environment and Forests (Genetic Engineering Approval Committee) · Centre for Cellular and Molecular Biology · Center for DNA Fingerprinting & Diagnostics 	√	√	√
Pakistan	<ul style="list-style-type: none"> · Establishment of Centre of Excellence on Molecular Biology (CEMB) · National Institute for Biotechnology and Genetic Engineering (NIBGE) · Centre of Chemistry and Biotechnology, Agricultural Biotechnology Institute of Biochemistry and Biotechnology 	√	X	√
Sri Lanka	<ul style="list-style-type: none"> · National Science and Technology Commission (NASTEC) · National Genetic Commission · National Assisted Reproductive Technologies Commission · National Science and Technology Commission · Plant Genetic Resource Centre · National Agriculture Research Council (NARC) · Royal Nepal Academy of Science and Technology (RONAST) · Biotechnology Development Council · Biotechnology Coordination Committee 	√	X	√
Nepal	<ul style="list-style-type: none"> · National Biodiversity Center · National Environment Commission · Renewable Natural Resources Centres 	√	X	X
Bhutan	<ul style="list-style-type: none"> · National Biodiversity Center · National Environment Commission · Renewable Natural Resources Centres 	√	√	X

Source: RIS Discussion Paper # 68.

Lankan gazette notification on the ban stated that, “it affects any food or food additives that have been subjected to genetic modification”. It mentioned that “genetically engineered food” means, “food that contains or was produced with a genetically modified material”. There are materials derived from any part of genetically engineered organism. One of the reasons given for the ban was that Sri Lanka did not have the expertise to judge whether imported GM foods were good or bad. This got Sri Lankan authorities at the centre of storm. The ban was subsequently suspended. However the ban had made environmentalist and conservative happy. They all had supported the ban, but some members of the scientific community completely dismissed the idea. At this point Sri Lanka is working with the UNEP-Biosafety project to evolve national guidelines and strengthening the risk assessment and management system for effective biosafety mechanisms. As part of the project, the database is also been established to put together information about GMOs and LMOs. Sri Lanka has also signed the Biosafety Protocol on 24 May 2000 and is all set to establish domestic legal measures and build capacity in the area of biosafety before final ratification comes. The Ministry of Environment is the National Focal Point and is obliged to implement the articles of the protocol.

In Bangladesh the priority at this point is in setting up of a National Committee on Biosafety of Bangladesh (NCBB) as has also been proposed in the Biosafety guidelines. The committee is to oversee research on transgenic and hazardous organisms in the research institutes handling such material, monitor release of such organisms into the environment and also to ensure food safety, if such organisms are detected in food. The committee will also oversee the import of such organisms into the country. The NCBB has to be headed by a full Secretary and a member-secretary on a full time basis as explained in the guidelines.¹⁷

In India, the debate on biosafety guidelines has come a full circle as Indian Ministry of Environment and Forest (MOEF) reported sowing of unapproved genetically modified (GM) cotton seeds in several hundred hectares of land. The report has stirred the ongoing debate on GM crops in India, as had happened way back in 1997 when, unapproved GM egg plant was found in an agricultural research institute without sufficient safeguards.¹⁸

This has once again brought the implementation-related aspects of biosafety protocol at the centre-stage and has raised several issues concerning the very ability in many developing countries to handle sensitive technologies in such vital sector as agriculture. Though India established the biosafety guidelines way back in 1989, till now no commercial trials of GM crops have been allowed except the one permission granted last month (March 2002). India’s Biosafety and Recombinant DNA Guidelines (1990) fall under the Environment (Protection) Act of 1986. In 1994, after India signed the Convention on Biodiversity, the DBT revised its earlier guidelines to accommodate the safe handling of GMOs in research, application and technology transfer. This includes the large-scale production and deliberate release of GM plants, animals and products into the environment. The guidelines are also provided for the shipment and importation of GMOs for laboratory research.

In the South Asian region there is a growing concern about rapid degradation of major ecosystems and their biological components. Developing and establishing adequate conservation measures and mechanisms for sustainable utilization of bioresources pose multidimensional challenges. These issues have been negotiated extensively under the aegis of the United Nations. Consequently, the international treaties such as the Convention on Biological Diversity (CBD), 1992; Trade Related Intellectual Property Rights (TRIPS) agreement under World Trade Organization (WTO), 1995; the Cartagena Biosafety Protocol, 2000 have been finalized (see Table 2). The

Table 2: Status of the Convention on Biological Diversity

Countries	CBD		Contribution to Trust Fund for CBD (in USD)
	Signatories	Ratification	
Bangladesh	05-06-1992	13-05-1994	955
Bhutan	11-06-1992	25-08-1995	92
India	05-06-1992	18-02-1994	31,534
Nepal	12-06-1992	23-11-1993	370
Pakistan	05-06-1992	26-07-1994	5,641
Sri Lanka	10-06-1992	23-03-1994	1480

Source: RIS Discussion Paper # 68

Contracting Parties of these instruments are actively engaged in evolving mechanisms to effectively implement the provisions contained therein.

Significantly, these developments have also reflected some contradictory trends, which need to be closely examined, in order that we succeed in safeguarding livelihoods of local communities dependent on biological resources and in ensuring full realization of potential of new emerging technologies for the benefit of coming generations. It is being increasingly accepted that the task of reconciliation cannot be discharged by any single country and that regional co-operation and global responsibilities need to be formalized and gives an institutional mechanism. In Pakistan the various ministries are also working towards the necessary legislation concerning access to genetic resources required under the Convention on Biological Diversity (CBD). Biodiversity in Sri Lanka has been a major policy concern. This country is one of the 25 biodiversity hotspots of the world.¹⁹ The South Western region of Sri Lanka is extremely rich with biodiversity. The Convention on Biological Diversity was signed and ratified by Sri Lanka in July 1992 and March 1994 respectively. The Ministry responsible for the subject is the Ministry of Environment and Forest has the duty to ensure that the provisions of the Convention are adhered to.

Despite of the fact that Bhutan signed CBD in 1992 and ratified it in 1995 things have not changed much. Bhutan, as is a well know fact, is rich in biodiversity. It has an estimated 300 species of plants and animals which are of immense value for medicinal purposes in forming nearly 200 different traditional medicines but is still struggling for strengthening technologically advanced facility for ex-citu conservation. This is when Bhutan has been contributing to the global gene pool quite liberally. An International Plant Genetic Resources Institute (IPGRI) mission to Bhutan in 1981 collected 483 samples of food plants, legumes and vegetables. The mission noted serious threat to indigenous wheat and rice varieties.²⁰ In 1983, an IRRRI mission collected 184 traditional rice varieties from high and medium altitude rice growing areas, but most remote areas were not visited. Recently, 154 samples of cultivated rice from 68 villages have been collected. This germplasm has special value as it has been collected from a very high altitude areas and traversing about three quarters of the country's rice growing regions.²¹ Moreover now studies are raising apprehensions about the

sustainability of agriculture in Bhutan. Here specialized forms of crop production have evolved as a result of its geography and climate.

V. SAPTA, SAFTA and Technology Intensity of ESGs: Methodological Issues

In order to identify ESGs in the global economy, TRAINS (UNCTAD, 2001) database, has provided some useful information. It has provided the list of products, which are subject to different forms of NTMs for number of countries separately. Such NTMs include both environmentally sensitive and other trade-related WTO compatible measures. For each country, products are listed at their national lines and the nature of NTM is provided against each product separately²². There are several cases where certain items are subject to multiple numbers of NTMs by a single country. Because of poor data reporting by countries, number of NTMs differs from one country to another in the UNCTAD database. For example, while four NTMs are reported by one country, another country may have reported twelve NTMs in the same database. However, UNCTAD has provided a codified classification of NTMs, and such measures are uniformly used for reported countries.

We have taken certain assumptions while identifying ESGs using the TRAINS database. We have assumed that most of the environmentally sensitive NTMs are applied on the basis of scientific evidence concerning human health issues and impact on animals and plant lives. We also assume that the information about an NTM would disseminate fast among other trade players. Based on this, we have tried to prepare a list of currently tradable ESGs in the global markets for which we have taken country-wise products subject to different forms of NTMs, at their national lines. For this purpose, we have chosen six major countries, namely the US, the EU, Japan, Canada, Australia and New Zealand. Combining the lists of NTMs from these countries, a consolidated list is prepared. We have found that 15 NTMs are reported by these countries for the year 1999. Only four of them are related to environment while others are related to economic issues. The four environmentally-sensitive NTMs are: prior authorization relating to CITES (110), quota in relation to Montreal Protocol (113), prohibition for environmental protection (114) and product characteristic requirements on health ground (116)²³. From the consolidated list of products, we have

separated from others those items which are environmentally sensitive. For making it relevant for multilateral negotiation and maintaining product definition comparable across countries, a final list of environmentally sensitive products is prepared at 6-digit HS.

On the basis of this new definition of ESGs and the above mentioned methodology we are analyzing herewith liberalization of trade in ESGs in the context of RTAs. In the SAPTA Charter there is no mention about the environmental issues. Trade liberalisation in SAPTA is a complex matter, as offers come from member countries, on the basis of ‘positive list’. Member countries are free to liberalise their commodity markets for the regional partners. Since there is no compulsion on the coverage of liberalisation, and offers are made in a disorganised manner. There is little scope to understand the extent of liberalisation made in different Rounds of SAPTA. The liberalisation of trade offers by individual Members are made between 2-digit to 8-digit HS level. The SAARC Secretariat has presented the coverage of such trade concession offers by regional partners as shown in Table 3. Moreover many Member countries have offered market access in several products, but many of those items are not imported by them.

Therefore the above table may not be appropriate to understand the extent to which each country has extended offer to liberalise regional trade, unless country offers are presented in a uniform level of commodity disaggregation (which could be at 6-digit HS). Another aspect of the SAPTA offer schedules is that each country has offered separately for LDCs and non-LDCs. In an earlier study, Mohanty (2003) examined the implication of SAPTA process on India in the trade sector, and environment aspect of trade was not covered in the analysis. In the present study we have mapped individual country offers to LDCs and non-LDCs separately at 6-digit HS²⁴ for ESGs. Moreover there is discussion in the literature that gains from different Rounds of SAPTA are not uniformly distributed across Member countries. In order to cover this dimension, we have prepared a database where offers made by individual countries in different rounds are presented separately. In short, the database used in the present paper covers the tariff offers made by individual countries in different Round of SAPTA for the ESGs to both LDCs and non-LDCs separately.

Table 3: Tariff Preferences Offered by SAARC Members in different SAPTA Rounds

Concession Offering Country	SAPTA Round	No. of HS Lines offered		
		for all countries	for LDCs	Total
Bangladesh	I	11 (10)*	1 (10)	12
	II	215 (10)	11 (10)	226
	III	338 (10)	143 (10 & 15)	481
Bhutan	I	4 (15)	7 (10,13 & 15)	11
	II	37 (10)	10 (15)	47
	III	23 (10)	101 (10, 18 & 20)	124
India	I	44 (10,25,30,50 & 90)	62 (50 & 100)	106
	II	390 (10,15,25 & 40)	514 (25 & 50)	904
	III	43 (10 & 20)	1874 (50)	1917
Maldives	I	17 (7.5)	17 (7.5)	34
	II	5 (10)	2 (15)	7
	III	390 (5 & 10)	368 (5 & 10)	758
Nepal	I	10 (7.5 & 10)	4 (10)	14
	II	166 (10)	67 (15)	233
	III	52 (10)	137 (10 & 15)	189
Pakistan	I	20 (10)	15 (15)	35
	II	227 (10)	131 (15)	358
	III	24 (20)	271 (30)	295
Sri Lanka	I	20 (10 & 20)	11 (10 & 15)	31
	II	72 (10)	23 (10,50 & 60)	95
	III	28 (10)	54 (10, 30, 50 & 75)	82
Total	I	126	100	226
	II	1109	759	1868
	III	876	2580	3456

*Figures in parentheses represent percentage concessions in tariff rates. **Source:** Mohanty (2003), based on SAARC Secretariat.

Technology-Intensity of Products

It is apparent from the contemporary literature that there is no short-cut to classify tradable products in terms of their technology intensity. Various studies indicate that products with higher level of technology retains higher margin of profits than products with low level of technology. The current literature throws very little light on the technology-intensity nature of tradable ESGs. Since technology content in ESGs has wider connotation in

evaluating the quality of trade, technology intensity of product needs to be examined. In the literature, several studies have attempted to classify products according to their technology intensity²⁵. Lall (2000) has classified the tradable products in to ten broad technology intensity groups using Standard International Trade Classification (SITC) Revision 3. Since the trade classification has changed over the period, and trade negotiations are taking place using Harmonised System (HS) of trade Classification, an alternative variant of the technology-based trade classification is presented for trade analysis using HS²⁶.

In the present study, the trade-technology classification is extended further to ESGs. The purpose of expanding the classification to cover ESGs is to demonstrate that developing and Least Developed Countries export varieties of technology intensive ESGs, and they require wide range of technologies (Environmentally Sensitive Technologies) to make their exports clean. Besides, this classification may provide some light on the size of different types of ESGs markets in the region, so that the SAFTA process would widen the scope for intra-region trade in ESGs.

Trade Database for South Asian Countries

In current economic literature, trade-related studies on South Asia are poorly represented as compared to other regions due to data constraints for important regional countries. For this reason, many empirical studies have used domestic databases for undertaking impact assessment analysis. Very few studies have analysed regional trade issues using multi-country analysis.

In the present study, we have used PC-TAS data for undertaking regional analysis. This database does not provide data for two important Members of the South Asian region, namely Bangladesh and Pakistan. We have used alternative methods to generate trade data for these two countries at 6-digit HS. For generating export data for these two countries, we have used bilateral import data of 150 countries, and extracted bilateral-information for these two countries. The approach has been reversed while generating import series for these two countries. Suitable adjustments are made to handle the issues like FOB and CIF. There are possibilities that the data series generated for these two countries may be underestimated.

VI. Empirical Results

Though South Asia contributes very little to the global trade, significant proportion of its regional trade is covered by ESGs (Table 4). Even the global dependence on these products is very high. The results show that one product in every five tradable product is found to be ESG in the global trade. Based on the current practices, as many as 1053 ESG products are traded in the global economy. Several of them are subject to one or more number of environmentally sensitive Non-Tariff Measures (ES-NTMs). The export basket of ESGs for South Asia is smaller than the world market.

The size of overall trade of individual countries is highly divergent in the region, and the contribution of individual members to the region differs significantly depending upon their level of trade openness and overall economic activities. In the region, trade is mostly dominated²⁷ by India, Pakistan, Bangladesh and Sri Lanka. The results show that the share of member countries in the region's total exports ranging between 0.1 per cent (Bhutan) to 77.6 per cent (India), and the pattern remains almost similar for

Table 4: Pattern of South Asian Environmentally Sensitive Goods Trade in 2002

(Thousand US\$)

South Asian Countries/ Region	Exports			Imports		
	Share in		ESGs to total (per cent)	Share in		ESGs to total (per cent)
	Total	ESGs		Total	ESGs	
Bangladesh*	7.2	3.5	10.3	7.9	16.8	36.5
Bhutan	0.1	0.1	14.5	0.2	0.3	28.1
India	77.6	78.1	21.2	73.9	50.2	11.7
Maldives	0.1	0.3	61.5	0.4	0.9	39.4
Nepal	0.6	0.6	23.6	1.5	2.5	27.9
Pakistan*	9.4	12.3	27.6	8.9	15.5	29.9
Sri Lanka	5.0	5.0	21.1	7.1	13.7	33.4
South Asia	100.0	100.0	21.1	100.0	100.0	17.3

Source: PCTAS 1998-2002, UNCTAD, ITC, WTO and World Bank, 2004

* Databases for Bangladesh and Pakistan are generated by authors based on trade of these countries with 150 countries. The exports and imports databases are created for each country separately. There are possibilities of under estimation of trade figure for these two countries.

imports. The low share of Pakistan and Bangladesh in both exports and imports of the region is due to adjustment in database.²⁸

The empirical results show that the region is critically dependent on ESGs for both exports and imports. The contribution of ESGs in the total exports of the region was 21.1 per cent and similar figure for imports was 17.3 per cent in 2002. The dependence on such trade varies significantly across Member countries. About 61.5 per cent of Maldives' export is dominated by ESGs. Countries like Bangladesh and Bhutan have shown less dependence on these products in their export baskets. Import dependence of the region on such products has been relatively lower than that of exports at the regional level. At the individual country level, the picture is something different. Unlike exports, most of the South Asian countries rely more on ESGs imports, with the sole exception of India.

Intra-Regional Trade in ESGs

SAARC process is very often described as a non-starter by the western media. It is because the inter-linkages between the member countries in trade have been very poor. RIS (2004) estimated that the intra-regional trade (IRT) to total trade of the region is close to 5 per cent in 2003. However intra-regional trade in ESGs is almost doubled that of IRT as shown in Table 5. There are considerable amount of variations in the level of IRT among the individual countries of the region. Most of the LDCs in the region have high trade links with other partners of the region in ESGs trade. One of the reasons for the proliferation of trade in ESGs is due to fast liberalisation of trade through the SAPTA process.

Trade Liberalisation in ESGs under SAPTA

Liberalisation of trade in ESGs under different Rounds of SAPTA happened in its natural course. As discussed earlier, there is no provision in the SAPTA charter so far to give exclusive focus on trade and environment. On the strength of competitiveness and various other considerations, many such products have received attention in early Rounds of trade liberalisation in the region. The coverage of such products under first three Rounds of SAPTA are present in Table 6 at the regional and country level. The results show

Table 5: Trade of South Asian Countries with the Region and the RoW in ESGs in 2002

South Asian Countries/Region	ESG Exports			ESG Imports			Intra-Regional to Total (per cent)
	World	Intra-Regional	Intra-Regional to Total (per cent)	World	Intra-Regional	Intra-Regional to Total (per cent)	
	(Thousand US\$)	(Thousand US\$)	(Thousand US\$)	(Thousand US\$)	(Thousand US\$)	(Thousand US\$)	
Bangladesh	678853	15724	2.3	2385364	600934	25.2	
Bhutan	16612	16510	99.4	48243	41754	86.5	
India	15107991	1435167	9.5	7131467	177249	2.5	
Maldives	55305	13854	25.1	131649	34850	26.5	
Nepal	120052	104690	87.2	353440	173270	49.0	
Pakistan	2385012	82013	3.4	2202048	69390	3.2	
Sri Lanka	974261	84029	8.6	1950618	437014	22.4	
South Asia	19338086	1751987	9.1	14202829	1534461	10.8	

Source: PCTAS 1998-2002, UNCTAD, ITC, WTO and World Bank, 2004.

Table 6: Coverage of ESGs Product Lines under SAPTA

Section	Description	BGD	BHU	IND	MAD	NEP	PAK	LNK	SAC
I	Live Animals and Animal Products	82	24	56	0	6	31	54	94
II	Vegetable Products	55	21	63	8	53	102	37	141
III	Animal or Vegetable Fats & Oils	5	0	34	24	0	8	1	34
IV	Prepared Foodstuff, Beverages, etc.	33	13	15	1	5	14	0	33
V	Mineral Products	0	0	0	0	0	0	0	0
VI	Products of Chemicals	20	28	81	7	17	45	6	89
VII	Plastics & Articles thereof	0	0	0	0	0	1	0	1
VIII	Raw Hides & Skins, Leather, etc.	38	18	15	25	9	17	7	47
IX	Wood & Articles of Wood	26	0	41	39	44	8	9	44
X	Pulp of wood or of other Fibbers	0	0	0	0	0	0	0	0
XI	Textile & Textile Articles	9	0	71	0	67	71	1	81
XII	Footwear, Headgear and Umbrella	0	9	13	15	11	0	1	15
XIII	Articles of Stone, Plaster, Cement	0	2	2	0	2	0	0	2
XIV	Natural or cultured pearls, Jewellery	0	0	0	0	0	0	0	0
XV	Base Metals & Articles of Base Metal	0	0	8	0	0	0	0	8
XVI	Machinery & Mechanical Appliances	0	0	40	0	1	0	0	40
XVII	Vehicles, Aircraft and Vessels	0	0	0	0	5	0	5	5
XVIII	Optical, Photograph & Cinematography	0	0	5	0	0	1	0	5
XIX	Arms and Ammunition	0	0	0	0	0	0	0	0
XX	Miscellaneous Manufactured Articles	0	0	13	0	1	0	0	13
XXI	Works of Art Collectors' Pieces	1	0	0	0	0	0	0	1
Total Lines		269	115	457	119	221	298	121	653

Source: PCTAS 1998-2002, UNCTAD, ITC, WTO and World Bank, 2004.

that 3612 products have been liberalised under SAPTA at 6-digit HS and 653 products are falling under the category of ESGs. Some of the broad commodity groups (i.e., HS Section) which are subject to significant trade liberalisation are: animal products, vegetable products, chemicals, skin and leather products, articles of wood, textiles and footwear. So far regional partners have not reached at a consensus to take a common view on the liberalisation process in the region. The results show that only 15 products at 6-digit HS are liberalised by six countries simultaneously under different Rounds of SAPTA and 12 of them happened to be ESGs. It indicates that there is no consensus emerged so far between Member countries to give priority on sectoral liberalisation.

The efficacy of different rounds of SAPTA is discussed in the literature²⁹. It is observed from various studies that different rounds of SAPTA are not equally efficient in terms of liberalising trade within the region. It is rather realised that latter rounds of SAPTA are more effective than former rounds in terms of quantum of liberalisation in trade. In the present paper, we are examining the manner in which ESGs are liberalised in different rounds of SAPTA.

So far trade liberalisation in ESG is concerned, first three Rounds of SAPTA are equally efficient in liberalising almost similar level of trade within the region as shown in Table 7. There are evidences that individual countries have received unequitable market access in different rounds in the region. For example India and Sri Lanka had achieved better market access in the First Round, whereas Maldives and Pakistan had benefited the most in the Second Round. In the Third Round, Bangladesh, Bhutan and Nepal secured higher market access than other regional partners in ESGs trade.

There are two broad trends emerging from the analysis. Firstly the South Asian region is sourcing nearly 9.1 per cent of its import requirements from within the region and importing the rest from the rest of the world. This trend brings home the point that there is large scope within the region to have intra-regional trade in ESGs in future. Secondly trade liberalisation in ESG trade is not complete in the region. There is large amount of ESGs trade, falling within the ambit of intra-regional trade, which is not yet

Table 7: Distribution of ESG Exports by SAPTA Rounds

(in per cent)

South Asian Countries	SAPTA Round		
	I	II	III
Bangladesh	35.5	8.3	56.2
Bhutan	0.5	3.4	96.1
India	40.1	44.6	15.3
Maldives	0.0	99.1	0.9
Nepal	1.4	7.2	91.4
Pakistan	30.6	48.3	21.1
Sri Lanka	67.6	32.2	0.1
South Asia	33.5	37.2	29.3

Source: PCTAS 1998-2002, UNCTAD, ITC, WTO and World Bank, 2004. SAARC Secretariat for Country Schedules.

liberalised under SAPTA. Nearly 21.5 percent of intra-regional trade in ESGs is liberalised under the first three Rounds of SAPTA. Therefore South Asian Free Trade Area (SAFTA) has lot of potentials to carry forward the present process of trade liberalisation.

Technology Intensity of Environmental Goods

South Asia has a large market for various categories of technology-intensive products in ESGs. As mentioned above, around 17.3 per cent of regional imports are falling under ESG imports. South Asia has the largest market for the resource based products, followed by primary products, as presented in Figure 1. These two product categories have jointly covered 71 per cent of the total market available for ESGs trade in the region. However market for the high and medium technology ESGs products is also large. These high-end-technology products (i.e., medium and high technology) cover nearly 22 per cent of the total ESG market of the region.

The market size differs from one country to another in South Asia so far as technology intensive products are concerned (Figure 2). The largest market for the resource based products is located in India. Similarly the market for the medium technology products is quite substantial in India. The market for the low technology is mostly located in Bangladesh, India

Figure 1: Market Access in South Asia: By Technology Intensity ESGs

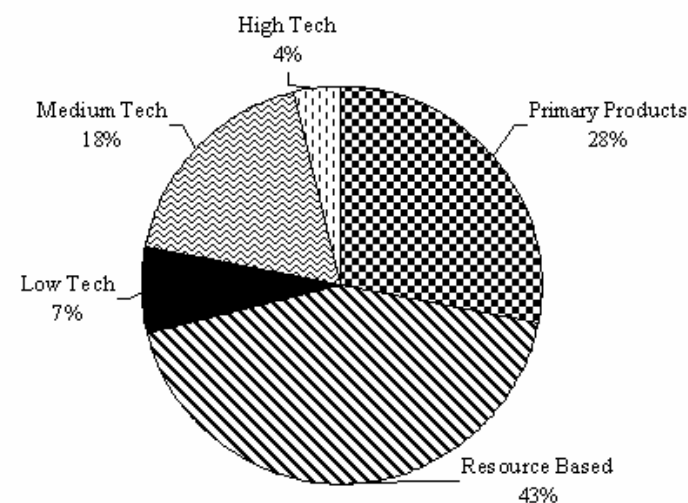
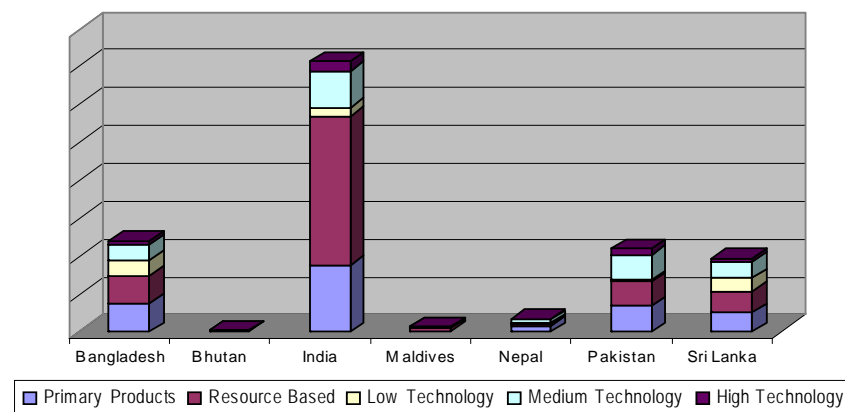


Figure 2: Structure of Technology Intensive Imports in SAARC



and Sri Lanka. Pakistan has almost identical size of markets for primary, resource based and low technology ESGs. Bhutan, Maldives and Nepal have small markets for ESGs.

Towards SAFTA Liberalisation

Despite the region has large expectations from SAFTA, there is very little homework done by individual Member countries in the region. As mentioned before the SAFTA process will start from 1st January 2006 and the first phase of liberalisation will start with India and Pakistan. There has been concerns in the region regarding the efficacy of the new phase of liberalisation by countries like Bangladesh. In case the process will be delayed, it would cost very dearly to individual Member countries and to the region as a whole.

It may be noted that with the failure of the Cancun Ministerial, there has been surge in regional process and various realignment between countries is taking place for regional, sub-regional and bilateral economic cooperation. The South Asian region is no exception to this trend. Pakistan-Sri Lanka bilateral FTA is very much on the top of the agenda. Bangladesh has two-prong approach³⁰ to deal with the regional cooperation issue. It is also actively engaged with Pakistan and Sri Lanka to have bilateral FTAs separately.

India foresees its prosperity with the development of its close neighbours. During the last three decades³¹, India has deeply engaged in different forms of RTAs. India's engagement with ASEAN, as an outcome of 'Look East Policy', has been highly rewarding. Besides, India is associated with various new initiatives such as India-SACU, India-GCC, India-MERCOSUR, India-Brazil-South Africa (IBSA), India-MERCOSUR-SACU, India-Singapore CECA, India-Thailand FTA, India-China FTA, India-Korea CECA, India-Japan CECA, India-Malaysia FTA, India-Chile FTA, etc. In case the South Asia trade initiative does not work in a desirable manner, there are possibilities of engagement of regional economies with various other alternative arrangements.

In a recent study, the implications of India associating with and without the SAFTA process on the regional and other economies of the region³². The results based on CGE model indicate that India's association with SAFTA would generate welfare gains to the extent of US\$ 344 million per annum. If India prefers to go along with a few alternative partners, the welfare gains for India could increase further to US\$ 2.8 billion per annum.

If the SAFTA process is delayed too much and liberalisation in Asia takes place almost at the same period, India's welfare gains may increase further to US\$ 3 billion per annum. In that case exclusive gains of the South Asian region will decline as compared to the first scenario. The study suggests that there is gain for the South Asian region if SAFTA process is picked up on a first track.

Taking in to account the speedy progress in normalisation of relationship, there is optimism in the region that SAFTA may fulfil its mandate concerning comprehensive trade liberalisation. In that situation, trade liberalisation should also take up liberalisation in ESGs. It is agreed in the SAFTA agreement that 'negative list' approach is adopted in place of 'positive list' approach. This has far reaching implications for the sector-by-sector liberalisation. Under the sector-by-sector liberalisation, one should choose those sectors which can give large market access to the region, and the entire liberalisation process may be segmented in to a few phases.

Taking in to account the trade liberalisation issue in ESGs, we have estimated the volume of regional ESGs trade in different trade sectors (i.e. HS Section). The broad trade sectors are ranked on the basis of size of ESGs trade in the region as shown in Table 8. In the early phases of liberalisation, most important sectors are to be liberalised first followed by low ranking sectors. It is assumed that trade liberalisation in ESGs are to be liberalised in three phases. We propose that sectors like vegetable products, mineral products and vehicles, are to be phased out in the first round. These three sectors would combinely liberalise 69.6 per cent of the ESGs trade in the region. The scheme for liberalisation in other sectors is provided in the Table 8.

VIII. Concluding Remarks and Policy Recommendations

The environmental concerns in trade are slowly getting into various regional and bilateral trade agreements in a significant manner following signing of the NAFTA Agreement in 1992. While NAFTA Agreement has given priority on environmental issue over the trade issues in case of any conflict, the US-Chile has gone further and emphasized on capacity building for wildlife protection and resource management. Other Agreements like US-Mexico

Table 8: Regional Exports in ESGs and Road Map for Liberalisation under SAFTA (in 000' US\$)

Section	Description	SAARC	World	Share of SAARC in Wld (per cent)	Sectoral Dist. in SAARC of SAARC	Ranking in Sectors	Phasing out Period
I	Live Animals and Animal Products	47505	2336607	2.0	2.7	9	3
II	Vegetable Products	578523	4513534	12.8	33.0	1	1
III	Animal or Vegetable Fats & Oils	57411	148040	38.8	3.3	7	3
IV	Prepared Foodstuff, Beverages, etc.	78692	353211	22.3	4.5	6	2
V	Mineral Products	234422	2312798	10.1	13.4	3	1
VI	Products of Chemicals	134488	1757153	7.7	7.7	4	2
VII	Plastics & Articles thereof	59	1584	3.7	0.0	18	3
VIII	Raw Hides & Skins, Leather, etc.	8391	1926503	0.4	0.5	11	3
IX	Wood & Articles of Wood	12051	37891	31.8	0.7	10	3
X	Pulp of wood or of other Fibres	0	0	0.0	0.0	19	3
XI	Textile & Textile Articles	133704	1846308	7.2	7.6	5	2
XII	Footwear, Headgear and Umbrella	755	659938	0.1	0.0	15	3
XIII	Articles of Stone, Plaster, Cement	1249	19062	6.6	0.1	14	3
XIV	Natural or cultured pearls, Jewellery	66	25433	0.3	0.0	17	3
XV	Base Metals & Articles of Base Metal	1646	5704	28.9	0.1	13	3
XVI	Machinery & Mechanical Appliances	52022	410279	12.7	3.0	8	3
XVII	Vehicles, Aircraft and Vessels	405707	1093094	37.1	23.2	2	1
XVIII	Optical, Photograph & Cinematography	104	29026	0.4	0.0	16	3
XIX	Arms and Ammunition	0	6256	0.0	0.0	20	3
XX	Miscellaneous Manufactured Articles	5192	102300	5.1	0.3	12	3
XXI	Works of Art Collectors' Pieces	0	1378	0.0	0.0	21	3

Source: PCTAS 1998-2002, UNCTAD, ITC, WTO and World Bank, 2004.

and Chile-Mexico have contributed many other dimensions such as addressing protection of ozone layer, etc. A broad consensus is emerging from these regional agreements that environmental issues are likely to dominate in a massive way in various regional trade agreements in the near future. In several prominent regional agreements where environmental policies have been included in the policy documents have included various elements of different MEAs such as CITES, Montreal Protocol, etc in the trade policies, but other dimensions such as standards related to labelling, packaging, etc are not covered in them. The new regional agreements need to be broad based to cover elements of both MEAs and SPS/TBT related measures in these regional agreements. The issues become more complicated if we take into account the entry of biotechnology good in trade.

Though there has been an intense debate on the linkages between trade and environment for long no conclusive effort has been made so far to identify ESGs for regional and multilateral negotiations. Different studies have used various criteria such as emission intensity, abatement cost and contribution in degradation of natural areas, ecosystem and biodiversity to define ESGs. The present study has attempted to identify certain ESGs based on NTMs in the global trade. Identification of such products may be useful for both regional and multilateral trade negotiations.

As discussed before, South Asia is largely dependent on both exports and imports of ESGs with the region and also the rest of the world. With the heating up of trade-related environmental issues at the regional and at the multilateral forums, the South Asian region has to gear up itself to meet the challenges. At the present setting, restricting of the flow of ESGs trade from South Asia may be detrimental to the interest of the region. The other option of augmenting trade in ESGs with cleaned up products could be an alluring proposition for the South Asian Countries.

The regional countries are critically dependent on trade ESGs. This is equally important for both exports and imports of these countries. The dependence of the region on ESGs is to the extent of 21.1% on exports and 17.3% on imports in 2002. Certain countries in the region like, Maldives, Nepal, Pakistan, and Sri Lanka are significantly dependent on ESGs trade

both for exports and imports. Moreover India's exports are also largely dependent on ESGs exports.

The region's intra-regional trade in ESGs is almost double that of all trade. The Intra-regional export in ESGs was 9.1 per cent and figure for import was 10.8 per cent in 2002. High intra-regional trade in ESGs may be due to the liberalization process under SAPTA. Our re-examination SAPTA Schedules indicates that the South Asia has liberalized 3612 actually traded products in the first three Rounds of SAPTA at 6-digit HS in 2002. From the total number of concessional products under SAPTA, 653 products are falling in the basket of ESGs. The results show that trade liberalization under SAPTA in ESGs is rather more equitable than the over all trade. While India and Sri Lanka received better market access in ESGs in the First Round, Maldives and Pakistan received similar market access in the Second Round. In the third Round, remaining Members of SAARC countries have got wide market opening in the region.

Trade liberalization under SAFTA is to commence from the early 2006, and it will be more pronounced than the SAPTA process. The region has not made adequate preparation for the new phase of trade liberalization. If the region does not gear up to make SAFTA successful, there are possibilities that individual members may choose alternative path of regionalism. In that situation the interest of South Asia is likely to be hampered. There is tremendous scope for trade within the region in ESGs. Nearly 78 per cent of trade in ESGs is not liberalized under SAPTA. If three important sectors namely animal products, minerals and vehicles (including vessels, etc) could be liberalized under SAFTA, nearly 70 percent of the ESGs sector could be liberalized. It is in the interest of the region to liberalize these sectors in the first phase of trade liberalization under SAFTA.

Endnotes

- ¹ Chaturvedi, 2003.
- ² Audley 2003
- ³ Audley 2003
- ⁴ BRIDGES Weekly Trade News Digest, November 19, 2003
- ⁵ Quiroga and Ozuna, 1991.

- ⁶ Quiroga and Ozuna, 1991
- ⁷ KIEP 2003
- ⁸ GOI 2003
- ⁹ Nowell, 2000.
- ¹⁰ See website of Carnegie Foundation (www.carnegieendowment.org)
- ¹¹ ibid
- ¹² Mohanty, 2002 and Chaturvedi, 2001
- ¹³ Mani and Wheeler, 1997
- ¹⁴ World Bank, 1998
- ¹⁵ Chaturvedi, 2005
- ¹⁶ The UNCTAD database (TRAINS, 2001) provides list of products subject to different environmental and health related Non-Tariff Measures (NTMs) for selected countries. These country-specific lists do not support production-based products as the basis of imposing NTMs.
- ¹⁷ Recommendations adopted at the Fourth International Plant Tissue Culture Conference, 2001, Dhaka
- ¹⁸ Chaturvedi, 1997.
- ¹⁹ Perera A.L.T., 2003
- ²⁰ UNDP, 2002.
- ²¹ Dupka, Kumbu and Yaganagi, Medon, 2002
- ²² Though, we have noticed from domestic exporters that most of the countries in the developed world impose large number of NTMs than what they report to UNCTAD. By the way of not reporting about the domestic NTMs, several developed countries have concealed information about NTMs in their countries despite the fact that they use them frequently for protecting their domestic markets.
- ²³ Figures in the parenthesis refer to UNCTAD NTM codes.
- ²⁴ In some cases where offers are made at a higher level of disaggregation than 6-digit HS, suitable adjustments are made to accommodate such variations.
- ²⁵ Mayer, Butkevicius, Kadri and Pizarro (2003), Mayer and Wood (2001) and UNCTAD (1996)
- ²⁶ Mohanty, 2003
- ²⁷ In this Table 1, the size of external trade of Bangladesh and Pakistan is shown very small because disaggregated database at 6-digit HS level was not reported by the UNCTAD. There possibilities of error while collecting information on these countries from around 150 countries.
- ²⁸ The shares of Pakistan and Bangladesh in the regional trade may due to some methodological problems which are discussed in methodology section.
- ²⁹ Mohanty, 2003

- ³⁰ Bangladesh trade policy dialogue within the country is seriously influenced by trade imbalance issue with India. Bangladesh is highly optimistic about the gains from the bilateral trading arrangement. But it is not yet sure about the appropriate approach to be adopted in this regard. One dominant argument is that Bangladesh should try FTAs with small countries so that the country can gain experience to deal with large countries in the region. Another line of argument is that it is too much time consuming if first approach is adopted first before dealing with larger countries in the region. Possibly the country may miss the bus while trying with various alternatives. Therefore it is suggested that Bangladesh should try with larger countries with the region to maximize its gains from the regional process.
- ³¹ India engaged with the regional process with the signing of the Bangkok Agreement in 1975.
- ³² Mohanty (2005)

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