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Ram Upendra Das

RIS-DP # 85/2004

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Industrial Restructuring and Export Competitiveness of the Textiles and Clothing Sector in SAARC in the Context of MFA Phase-out

Ram Upendra Das*

Abstract: Traditionally, the textiles and clothing industry has been considered as one of the relatively more labour-intensive manufacturing industries in which developing countries have had comparative advantage mainly on account of cheap labour. Through econometric explorations the present paper observes a situation characterized as factor intensity reversal in South Asian countries necessitated by structural transformation within the industry due to increasing use of their scarce factor. The paper argues that implementing such a change in the production process in these countries would not be easy, especially in the post-MFA regime and thus regional cooperation in this sector could be one of the ways of meeting the post-MFA challenges. In this context, the paper explores the prospects for horizontal specialization and industrial restructuring with the help of strengthening trade-investment linkages in this sector in the SAARC region along with adopting some other policy measures.

Introduction

The textiles and clothing sector has continued to occupy a place of primacy in the production, employment generation, foreign exchange earnings and overall economic space of the SAARC countries. It is well known that in the erstwhile GATT regime the textiles and clothing sector was kept outside its purview and instead, it was governed by the Multi-fibre Arrangement (MFA), through which the developed countries tried to protect their textiles and clothing sectors. With

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the inclusion of textiles and clothing sector under the WTO regime through the Agreement on Textiles and Clothing (ATC), different sets of issues have emerged as far as implications for the developing countries as a whole are concerned. On the one hand, it is apprehended that with the phasing out of the MFA i.e. removal of quantitative restrictions by the developed countries imposed upon the imports of textiles and clothing products from the developing countries, there is a possibility that various developing countries could lose their shares in this sector in the developed country markets on account of heightened global competition. On the other hand, MFA phasing out is considered as an opportunity for developing countries to fully utilize their comparative advantages in this sector under a freer trading regime. The basic objective of this paper is to explore into these conflicting views and bring about certain policy implications for the SAARC countries in this context. Having analyzed it the paper dwells upon exploring the prospects for intra-regional restructuring in this sector on a pan-South Asian basis for achieving export competitiveness in this sector. This is focused and recommended so as to prevent a situation wherein the South Asian countries try to out-compete each other in the post-MFA regime. The economic rationale for such an imperative is developed in the paper and the possible role for enhancing intra-South Asian FDI is analysed both in terms of quantity and quality of FDI. Such an effort also needs to be complemented with some other associated steps, as highlighted in the paper, in order to take fuller advantage of such a restructuring.

In so doing, Section I briefly summarizes the existing literature on the subject and points out as to how the present paper tries to fill the gap in the literature on the subject. An attempt has been made to understand the nature and implementation process of the MFA regime before ATC came into being in 1995 in Section II along with some of its effects. Not only that the ATC implementation process has been tardy, the textiles and clothing sector has been subject to additional protectionist instruments in the developed countries which makes the WTO ATC regime possibly even more stringent than the MFA. Some of the protectionist barriers pertaining to the textiles and clothing sector such as the anti-dumping measures and rules of origin stipulations are analyzed in Section III along with some developments in outward processing trade and quota growth. The Section IV attempts at analyzing the trends in the global textiles and clothing market while studying the relative positions of some of the major players belonging to both developed and developing worlds. It also dwells upon the issue of competitiveness in the context of the structural changes that this sector is undergoing and tries to empirically demonstrate that this

sector is characterized by the phenomenon of 'factor-intensity reversal'. With the help of a field survey conducted for the Indian textiles and clothing industry certain facts have been analyzed in Section V, on an illustrative basis, about the level of preparedness that exists in the region to face the MFA phasing out. Against this backdrop, a strong case is made for cooperation in this sector in the SAARC region. The issues of industrial restructuring and prospects for trade and investment cooperation among the SAARC countries are analysed in Section VI along with providing an economic rationale for such restructuring. It also emphasizes upon some other measures that need to be adopted to complement such efforts including intra-South Asian FDI. The analyses contained in the preceding sections are used for laying down an agenda for policy-action for the SAARC countries in this sector in Section VII that might help the countries to meet the challenges of restructuring in the global textiles and clothing market as entailed in the WTO ATC.

Section I

Literature Survey

There are a plethora of studies with respect to the textiles and clothing sector though their points of emphasis differ. These studies can be categorized in the following groups in terms of their focus on: (a) domestic industrial structural changes/policies and domestic policies for increasing competitiveness in post-MFA phase (b) changing global industrial patterns and impact of MFA phasing-out (c) cooperation framework for increasing competitiveness in post-MFA phase. Of these, there are only a few studies that have focused on the last category especially vis-à-vis the South Asian countries, thus the present study attempts at filling this gap in the existing literature on some dimensions.

The first set of studies include those of Chatterjee and Mohan (1993), Kelegama and Unamboowe (1994), Uchikawa (1998), Weerakoon and Wijayasiri (1999), Sinha and Sasikumar (2000), Islam (2001), Saksena (2002), Joshi (2002), CPD (2003), Gherzi (2003), Government of Pakistan (2004), Kelegama (2004) etc. among others, especially focusing on country-specific industrial characteristics and domestic policies of the South Asian countries. These studies have dealt with prospects and constrains in the textiles and clothing sector. The studies have also attempted at bringing out implications of MFA phasing-out for the countries considered. In this context, measures to lift competitiveness levels and efficiency are analysed from which various important policy recommendations emerge.

Changing patterns at the global level in the textiles and clothing sector and quantification of the impact of MFA phasing-out are analysed in the studies of Erzen and Homes (1990), Khanna (1994), Das (1994), Exim Bank (1995), Edwards (1996), Kathuria and Bhardwaj (1998), McKibbin (1999), Hyvarinen (2000), Musleh-Ud Din (2000), Ramaswamy and Gereffi (2000), Batra (2002), Evans and Harrigan (2003), Spinanger and Verma (2003), USITC (2004), Mlachila and Yang (2004) etc. A good survey of literature on the potential impact of MFA phasing-out is summarized in USTIC (2004) whereby the trade gains on account of MFA phasing-out may be in the range of US$20 billion in the short run (upon implementation) and as much as $200 billion in the long run (25 years) at the global level. According to Francois and Spinanger (2001), textile and clothing exports from Asia (especially China and South Asia) would increase substantially. Preferential access to the United States and the EU would be reduced and there would be a shift in demand away from countries like Mexico and Turkey. Sub-Saharan Africa's exports are expected to drop.

According to *DHL-McKinsey Study Apparel and Textile Report* (2004) the value of the global textile and apparel industry is likely to go up to US$ 248 billion by 2008 with China, India and Pakistan expected to be the gainers. The Report forecasts that India has the potential to increase its share from the current 4 to 6.5 per cent valued at US$16 billion by 2008. It also noted that by 2013, exports from India could grow 15 to 18 per cent annually amounting to over US$30 billion. However, it would be much clearer about the extent of gains that might accrue to the South Asian countries in post- MFA phase only when MFA phasing-out is implemented.

In the third category of studies not much work is available in the context of South Asian Countries. One notable study is by Ratnayak (2001), which explores the prospects for cooperation in this sector among the BIMST-EC (Bangladesh, India, Maldives, Sri Lanka, Thailand-Economic Cooperation) countries, which is now known as the Bay of Bengal Initiative for Multi- Sectoral Technical and Economic Cooperation. This study not only tries to assess the impact of MFA on the member countries but also probes into the possibilities of economic cooperation through analyses of revealed comparative advantage and trade complementarities. An earlier study conducted by RIS (2002b) dealt with the prospects of cooperation among SAARC countries in textiles and clothing sector whereas Rao and Das (1995) explored such possibilities on a pan-Asian basis with the help of analysis of labour costs, comparative advantage, labour productivity etc.

It is against this background that the present study tries to analyse the possibilities of South Asian cooperation pertaining to this specific sector in terms of the prospective industrial restructuring that is efficiency-seeking on a regional basis. In so doing, the study brings out some new insights of certain features and effects of the MFA in the following section to begin with.

Section II

Some Features and Effects of the MFA

During the 1960s, apprehending market disruption from developing countries' exports of textiles and clothing products, developed countries sought GATT-exceptions for imposing import restrictions on these products. This was executed through a Short-Term Cotton Arrangement (1961), which got converted into a Long-Term Cotton Arrangement (1962) and further into the Multi-fibre Arrangement of 1974. It is evident from the way MFA has evolved between 1961 and 1974 that what was supposed to be a short-term arrangement got transformed into a long-term protection arrangement. More importantly, it has been argued that the implementation of MFA has diverged from the original principles and objectives. A special mention could be made of the extension of MFA (1986), which launched a more restrictive regime with enlarged coverage. It permitted importing developed countries to impose import restrictions on products in which there is no domestic production (Majmudar, 1993 and UNCTAD, 1994). It was demonstrated in different studies that with every further extension of the MFA, its restrictiveness was enhanced. Thus, protection accorded to this sector by the developed countries was not only prolonged but also made stringent in subsequent stages. This trend continues even now as highlighted in the next section.

MFA Effects

The extent of trade distortion caused by the MFA has been estimated by various studies suggesting that there was a substantial decline in export opportunities for the developing countries and with MFA phasing out there could be substantial increase in exports from the developing countries to the developed world (USITC, 1989; Yang, 1993).

However, an interesting dimension of the effects of MFA has been highlighted whereby quite paradoxically, protectionism in the form of MFA quotas have helped some of the South Asian countries such as Bangladesh, Nepal and Sri Lanka to develop their export-oriented garment industries. An

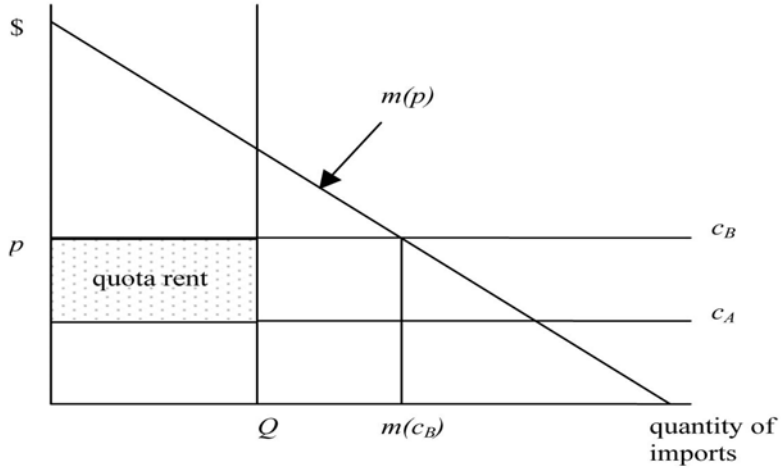
effect of this nature was possible as such quotas insulated these countries from direct competition from established producers (Kumar, 2000). This aspect is corroborated by empirical evidence, which is presented and analyzed in Section IV later.

The mechanism of the effect of MFA protection on import prices has been explained by Evans and Harrigan (2003) with the conclusion that there has been a substantial shift in the US apparel imports away from Asia in favour of Mexico and the Caribbean countries during the 1990s. One of the prime reasons for such an effect has been in terms of increasing demand for timely delivery that gives a competitive edge to a geographically proximate exporter. They also render explanation about the effect of protection on import prices.

With two or more competing exporters, a key parameter is the degree of substitutability in the importer's demand between the products of the different exporters. Evans and Harrigan (2003) consider a few simple cases here, as a guide to their empirical work.

The simplest model that is relevant to the MFA is one where there are two exporters, only one of whom faces a binding quota, and whose exports are perfect substitutes in the importer's demand. The situation is illustrated in Figure

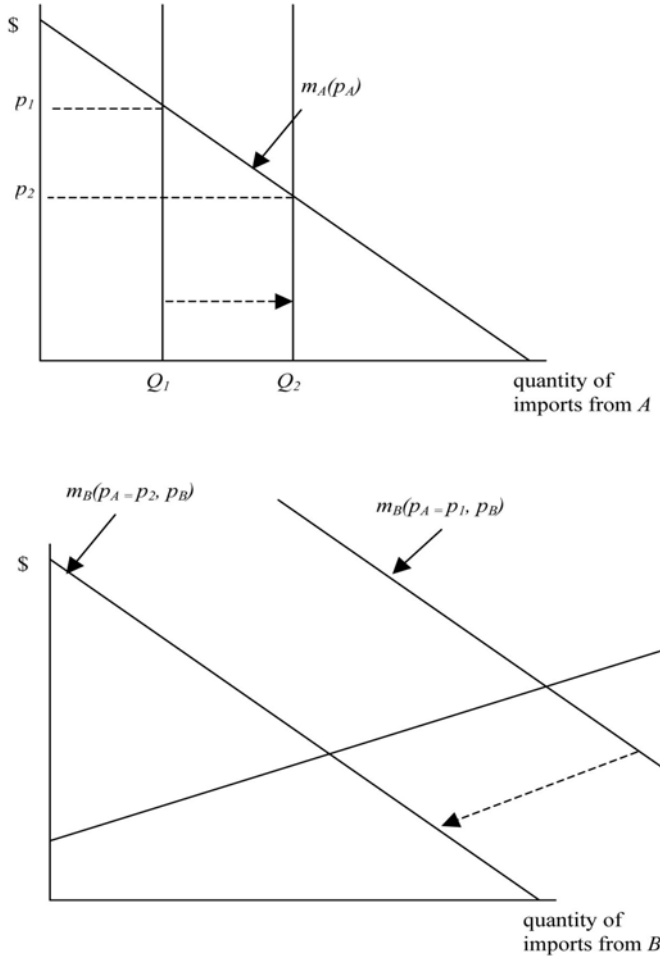
Figure 1: Effects of a quota when Imports are Perfect Substitutes



Source: Evans and Harrigan (2003).

1. The import demand curve facing two exporting countries *A* and *B* is given by *m(p)*. A has lower costs $C_A < C_B$, so that in the absence of trade restrictions all imports would be from *A*. However, a quota has been placed on imports from *A*, $m_A < Q$. As a result, the world price is determined by cost in *B*, $p = C_B$, with exporters in *A* earning a rent per unit equal to the cost difference. The quota binds, with $m_A = Q$ and $m_B = m(C_B)-Q$.

Figure 2: Effects of a quota when Imports are Imperfect Substitutes



Source: Evans and Harrigan (2003).

This model implies that, across a group of exporting countries, there need be no relationship between unit value and a binding quota: the two countries charge the same price even though one is bound by a quota and the other is not. Furthermore, any change in the level of the quota will have no effect on price, as long as $Q < m(C_B)$; beyond that point, *B*'s market share goes to zero and any further quota relaxation leads to a fall in price as the equilibrium moves down the demand curve.

If imports from *A* and *B* are imperfect substitutes then a relaxation of the quota constraint on *A* leads to lower prices on imports from *A*, which in turn shifts in the demand curve facing exporters in *B* (Figure 2). Depending on the elasticities of demand in the two markets, and the elasticity of supply in *B*, relative prices of *A* and *B* exports can rise, fall, or stay the same. A useful benchmark is one where the own-elasticity of demand is the same, while the cross elasticity is less than the own-elasticity: in this case, the shift down in *B*'s demand curve is less than the fall in the price facing *A*. This implies that the equilibrium price of imports from *A* will fall relative to imports from *B* when the quota on *A* is relaxed. In the cross-section, then, binding quotas will be associated with higher prices (Evans and Harrigan, 2003).

The above explanation suggests that MFA quotas result in higher import prices. This is also supported by the empirical evidence that Evans and Harrigan (2003) get for Asian countries vis-à-vis the US market for textiles and clothing products.

We have examined the issues by focusing on the import prices of the US and the EU for the SAARC Countries' textiles and clothing items so as to assess the impact of MFA. As revealed by Table 1, in recent times, there has been decline in the import prices of the EU in the textiles and clothing segments vis-à-vis SAARC countries. However, in the case of the US the decline is somewhat visible in the clothing segment only. One may argue that this is the effect of QR removal in the developed region. However, since the phasing out has not been substantial the effect appears to be marginal. To be conclusive on this dimension a more detailed causality tests have to be applied. But prima facie it seems that the effect of MFA on import prices is in the lines as argued above with the help of diagrams.

At this stage the question arises as to what is the status of MFA phase-out schedule, as an understanding of this would clarify further as to why the impact

Table 1: Price Behaviour of SAARC Exports to Developed Countries

	1996	1997	1998	1999	2000
UVI of Textiles Imports of EU from SAARC	4.52	4.31	4.15	3.90	3.61
UVI of Clothing Imports of EU from SAARC	18.42	18.69	12.28	11.64	10.36
UVI of Textiles Imports of US from SAARC	4.59	4.51	4.63	4.75	4.78
UVI of Clothing Imports of US from SAARC	17.73	17.15	16.63	16.45	17.23

Source: Calculated from PC-TAS, CD-ROM, 2003

on prices is not substantial. One may argue that to some extent, the impact of quota removal is offset by creation of other barriers to trade in these products. This issue is explored below.

Section III

MFA Phasing-out: Freer Trade or Increased Protectionism?

There are two aspects of freer trade in textiles and clothing sector viz. tariff liberalization and quota removal. It is argued that there are no prospects of duty-free trade in textiles even after the implementation of the tariff cuts agreed to in the Uruguay Round. The developed countries had decided to reduce the tariffs of all industrial products by 38 percent but for textile items the depth of cut was only 22 percent. The result of this differential- reduction is that the average tariffs for textile products in all the developed countries will be 12 percent compared with the average of 3.9 percent of all industrial products. The textile tariffs will thus be three times higher than the average for the industrial products. "Canada's post-Uruguay Round textile tariffs will still remain at an average of 14.5 percent in spite of a cut of 32 percent. And that persistent champion of trade liberalization, the US has made a magnificent reduction of 13 percent in the textile tariffs resulting in post-Uruguay Round average of 14.6 percent. This may be compared with the average of 9.1 percent in EC and 7.6 percent in Japan, the other members of the Quad" (Bagchi, 1998).

It has been found that textiles and clothing products belong to those product categories facing peak tariffs in the industrialized countries. Products (with certain specifications) like woven fabrics, babies' garments, men's shirts and women's blouses and trousers face high tariffs in the range of 11-12 percent in the EU, 7-22 percent in Japan, 16-32 percent in USA and 14-18 percent in Canada (RIS, 2003).

In terms of MFA phasing out, while EC and US they technically fulfilled the obligation in 1995 and 1998, no restrained products were integrated in the first stage in 1995. In the second stage, integration in EC and the US removed quotas on imports accounting for 3.15 percent and 1.30 percent, respectively, of the total imports (Bagchi, 1998). The same facts are more recently corroborated by WTO (2003), "Despite pressure from some exporting developing countries to integrate more progressively, the importing countries decided not to follow that track. Accordingly, the fourth and final phase will result in product integration and quota removal of the

remaining 49 per cent of imports. The impact of this phase in terms of real liberalization will be very significant. Only twenty per cent of the products integrated into WTO rules in the first three phases of the ATC were subject to quotas. This means, of course, that the remaining 80 per cent of quotas must be eliminated by end December 2004, consisting of a total of 239 quotas maintained by Canada, 167 quotas maintained by the European Union and 701 quotas maintained by the United States".

This implies that after the ATC only very few quotas have been phased out and the large bulk will remain until the end of the transitional period on 1 January 2005: 701 out of 758 in the United States, 167 out 219 in the EU, 239 out of 295 in Canada. What is worse is the fact that with China and Chinese Taipei joining WTO the number of quotas now remaining in place is: 851 out of 932 in the United States, 222 out of 303 in the EU, and 292 out of 368 in Canada (ITCB, 2002).

In addition, the ATC implementation has been coupled with imposition of some additional non-tariff barriers as analyzed below. It is worth analyzing as to how under the WTO regime developed countries have got additional leeway to become more protective vis-à-vis their textiles and clothing sector. In this regard, an analysis of anti-dumping measures, rules of origin provisions, business process outsourcing (BPO) and quota-related dimensions etc. is presented in this section.

Anti-dumping

It is noticeable from Table 2 that the initiations of anti-dumping investigations were launched in EC on the basis of complaints by the same industry association i.e. Eurocoton in different product lines. It is interesting to note that all the complaints were proved to be wrong. It may be mentioned that the anti-dumping investigations were got initiated though without any basis, due to the fact that developing exporting countries accounted for 44% to 67% of EC imports in these products

This is not the end, as revealed by Table 3, the dumping complaints continue by the same association and protectionist tendencies have deepened with the initiation of new investigation and imposition of duties in the same products, despite the fact that the very methodology used by the EC in dumping determinations has since been discredited by a Panel and the Appellate Body (ITCB, 2003).

Table 2: Nature of Anti-dumping Investigations

PRODUCT	Synthetic fabric	Cotton fabric	Bed linen
Complainant	Eurocoton	Eurocoton	Eurocoton
Complainant's status	Industry Assn.	Industry Assn.	Industry Assn.
Complaint lodged	September 93	September 93	September 93
EC Investigation initiated	20.1.94	20.1.94	25.1.94
Imports from targeted countries	ECU 251.4 mn	ECU 478.7 mn	ECU 246.5 mn
Import share, targeted countries	Volume 66.6%	43.9%	57.5%
	Value 50.2%	32.3%	57.0%
Result of investigation	No action	No action	No action
Investigation dropped	19.2.96	19.2.96	9.7.96
Time taken in investigation	2 years	2 years	2 ½ years
Whether product under QR	Yes	Yes	Yes

Source: ITCB, "Anti-dumping actions in the area of textiles and clothing: developing Members' experiences and concerns (Submission to WTO Negotiating Group on Rules)", February 2003.

Table 3: Anti-dumping Investigations: An Unending Process

Product	Cotton fabrics	Bed linen
Second investigation		
Previous investigation terminated	19.02.96	9.07.96
New complaint lodged by Eurocoton	8.01.96	30.07.96
EC investigation initiated	21.02.96	13.09.96
Provisional duties announced	20.11.96	13.06.97
Provisional duties lapsed	18.05.97	
Definitive duties imposed	None	28.11.97
Third investigation		
Yet another complaint by Eurocoton	26.05.97	
EC investigation initiated	11.07.97	
Provisional duties announced	7.04.98	
Provisional duties lapsed	5.10.98	
Panel/Appellate Body fault EC methodology		3.10.2000 (Panel) 1.03.2001(AB)
Still further investigation		
Yet another complaint by Eurocoton		3.9.2002 (India) 4.11.2002 (Pak)
EC investigation initiated		4.12.2002 (India) 18.12.2002 (Pak)

Source: ITCB, "Anti-dumping actions in the area of textiles and clothing: developing Members' experiences and concerns (Submission to WTO Negotiating Group on Rules)", February 2003.

Table 4: Economic Effect of Anti-dumping Investigations

Product	Before Action		Following Action	After Termination Remarks/Countries Targeted
Synthetic Fabrics	1993	1995	1997	
Value	50.24%	52.89%	56.53%	Investigation terminated in 1996; India, Indonesia, Pakistan, Thailand
Volume	66.64%	63.57%	70.44%	
Cotton Fabrics	1993	1998	2000	
Value	55.83%	38.58%	42.36%	Duties lapsed in 1998; China, Egypt, India, Indonesia, Pakistan, Turkey
Volume	59.04%	37.60%	40.44%	
Bed linen	1993	1994	2000	
Value	49.00%	47.56%	41.31%	Definitive duties ended in 2001; Egypt, India, Pakistan, Thailand
Volume	51.84%	50.90%	44.65%	

Source: ITCB, "Anti-dumping actions in the area of textiles and clothing: developing Members' experiences and concerns (Submission to WTO Negotiating Group on Rules)", February 2003.

As evident from Table 4, the economic effect of the anti-dumping investigations has been high and real. In the case of synthetic fabrics, the import share of the targeted countries dropped from 66.6% before the initiation of investigations to 63.6% after the initiation. In the case of cotton fabrics, where three back-to-back investigations continued over several years, the import share of targeted countries showed the most pronounced declines, from 59% to 37.6%. Their share could not recover to pre-initiation levels even after the proceedings lapsed (ITCB, 2003).

Rules of Origin

The US substantially changed its rules of origin with respect to textile and clothing products from July 1996 in order to protect its domestic manufacturing. It enlarged the coverage of certain cotton made-up products. These products were considered to be that of cotton only if they contained cotton as their chief weight. When challenged by the EU under the dispute settlement procedures of the WTO, the US partly modified these rules; but only in a manner that took into account the particular export interests of the EU. It has now been specified that these products should be deemed to be that of cotton even if they contain as little as 16 percent of cotton by weight. The changes in rules of origin led to widespread disruptive effects for trade. In a number of instances, new restrictions have been introduced without justification under the ATC, thus violating Article 2:4 of Agreement (ITCB, 2003).

More recently, the stringent nature of rules of origin has again come up as a matter of dispute. India demonstrated how certain US rules of origin set out in Section 334 of the Uruguay Round Agreement Act and modified in Section 405 of the Trade & Development Act of 2000 and the customs regulations implementing these statutory provisions are "inconsistent with the US obligations under Article 2 of the Agreement on Rules of Origin" (WT/DS243/5). India had sought consultations with the US on this issue, which failed to settle the dispute. After India circulated its plea for setting up of a panel on May 8, 2002 (WT/DS243/5), the dispute settlement body of the WTO established the panel on October 10, 2002 (WT/DS243/6).

While Section 334(b)1(B) establishes yarn or yarn-forward rule of origin under which yarns, threads, cordage, twine and similar products are deemed to originate in the country where they are spun from their constituent fibres, Section 334(b)(1)(C), however, establishes a new rule. This fixes the origin of a fabric in the country where it is woven, knitted or otherwise formed in the "greige" state.

(Textile Outlook International defines "greige fabric" as a term used to describe textile products prior to bleaching, dyeing or finishing). Here, no recognition of origin is accorded for any operations, which follow the forming of the fabric such as dyeing, printing or other finishing steps. This is a major departure from the previous rule.

In its submission, India contends that the majority of India's exports are in greige fabric. India exports its greige fabrics to other countries where they are further processed and then exported to the US. Under the old rules these finished products were not deemed to originate in India. But, according to Section 334, the same finished products would be counted as India's exports to the US and hence subject to quantitative restrictions (QRs) established for textiles.

It further argued that the rules of origin amendments made by the US in 2000 only provide that certain products would be conferred origin based on where they are dyed, printed and subject to two further finishing operations. The products that were chosen for specific exemptions and, hence, special treatment were those of EU textile and apparel exports to the US. These products which traditionally had been dyed and printed and subject to two further operations in the EU could now continue to be exported to the US, without being conferred the origin of country where the greige fabric was woven, and without being subject to the QRs imposed on those countries which made the greige fabric. The advantage to the EU is that these products are not conferred the origin of where the fabric is formed — usually a developing country under restraints — but are instead allowed unrestricted access to the US market.

Hence, India argued that the complexity and arbitrary criteria, which are used in Section 334 and Section 405 make it nearly impossible to administer these legislative provisions in a consistent, uniform, impartial and reasonable manner. Their complexity is such that traders have to regularly seek rulings from the US Customs so as to determine of origin for a particular product.

The status of this dispute is that the Report of the Panel was released on June 30, 2003 (WT/DS243/R) and the Dispute Settlement Body has adopted the Report (WT/DS243/8).

Other Barriers

An important factor reinforcing and accelerating the reorganization of apparel commodity chains is the U.S. and EU tariff provisions relating to "offshore

assembly processing" (OAP). The effect of OAP provisions, combined with the enactment of NAFTA (North American Free Trade Agreement) in 1994, is that the market shares in the U.S. textile and apparel market have shifted in favor of Mexico, Canada, and the Caribbean Basin Initiative (CBI) countries. In Europe OAP is known as "outward processing trade" (OPT). EU tariff schedules contain provisions similar to those of the United States and allow components made in European countries to be exported for further processing or assembly. Upon reimport, products are partially or totally exempted from duties. So far developing countries like the ones belonging to the SAARC region have been benefiting from Business Process Outsourcing in the textiles and clothing sector. However, there have been attempts especially in the US to introduce a clause whereby only the US citizens can perform contracts or subcontracts of various services. This has been deemed as curtailing the BPO contracts that were being awarded to the South Asian and other developing countries (Bhargava, 2002).

It has been argued by the developing countries that the developed countries have so far failed to progressively increase growth rates for quotas to allow for any meaningful access to their markets of textiles and clothing products, despite the fact that quota growth has been mandated by paragraphs 4.4 and 4.5 of the Doha Decision on Implementation and also by the WTO ATC of 1995 (Bridges, 2002). Developing countries have to make representations at the WTO due to the denial by the developed countries of the facility of "carry forward" of quotas after termination of the ATC from January 1, 2005 (*Financial Express,* 2003).

Environmental barriers affecting the textile and clothing products' entry into the developed markets are rather well known. The issue of azo-dyes is a case in point.

The basic issue highlighted above is that even in the post MFA regime, market access to developing countries might not be available to the fullest extent due to increasing use of non-tariff barriers, thus the impact in terms of prices have been limited, as analysed in the earlier section. Nevertheless, this is not to deny that quota-removal would certainly expand market access for developing countries. But for this to happen it is imperative to take into account the nature of structural transformation that textiles and clothing sector has been undergoing in the South Asian Region as reflected in factor intensity reversal.

Section IV

Structural Transformation in the Textiles and Clothing Sector: Implications of Factor Intensity Reversal for Competitiveness

Traditionally, textiles and clothing industry has been considered as one of the relatively more labour-intensive manufacturing industries in which developing countries have had comparative advantage mainly on account of cheap labour. Going by this notion, developing countries should be the leading exporters of textiles and clothing products. However, some of the major countries in the global textiles and clothing market are from among the developed countries (Tables 5 and 6). It is also discernible from these tables that developing countries including those belonging to the SAARC region have been able to increase their shares in the global exports market of textiles and clothing items since 1980. This corroborates the argument that in some sense MFA has also helped some of the developing countries due to assured markets available in the developed region (Kumar 2000). Moreover, due to China's accession to WTO the competitive pressures on SAARC countries would be enormous (Spinanger and Verma, 2003).

Table 5: Leading Exporters of Textiles: Share in World Exports

(%)

EXPORTS	1973	1980	1990	2001
European Union	68.1	49.4	48.7	34.4
China		4.6	6.9	11.4
Korea, Rep. of	2.7	4.0	5.8	7.4
United States	7.4	6.8	4.8	7.1
Taipei, Chinese		3.2	5.9	6.7
Japan	14.95	9.3	5.6	4.2
India	4.2	2.1	2.1	3.8
Pakistan	2.7	1.6	2.6	3.1
Turkey	0.61	0.6	1.4	2.7
Indonesia		0.1	1.2	2.2
Canada	0.9	0.6	0.7	1.5
Mexico	0.79	0.2	0.7	1.4
Thailand		0.6	0.9	1.3
Switzerland	3.90	2.8	2.5	1.0

Source: WTO, *International Trade Statistics 2002* and GATT, *International Trade 1982-83*.

Table 6: Leading Exporters of Clothing: Share in World Exports

(%)

EXPORTS	1973	1980	1990	2001
European Union	77.5	42.0	37.7	24.1
China		4.0	8.9	18.8
Mexico	1.09	0.0	0.5	4.1
United States	4.5	3.1	2.4	3.6
Turkey	0.8	0.3	3.1	3.4
India	1.6	1.5	2.3	3.1
Bangladesh		0.0	0.6	2.6
Indonesia		0.2	1.5	2.3
Korea, Rep. of	11.7	7.3	7.3	2.2
Thailand		0.7	2.6	1.8
Romania	3.9		0.3	1.4
Dominican Republic		0.0	0.7	1.4
Tunisia		0.8	1.0	1.3
Taipei, Chinese		6.0	3.7	1.3

Source: WTO, *International Trade Statistics 2002* and GATT, *International Trade 1982-83*.

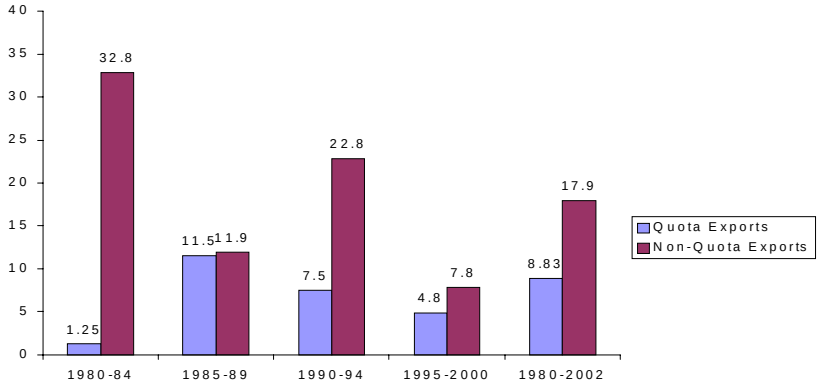
Exports to Quota and Non-Quota Countries

Against this background there is a general apprehension that the SAARC countries might not be able to take advantage of the post-MFA regime unless they are competitive. One way to find out whether they are competitive or not is by analyzing their performance of non-quota exports vis-à-vis quota exports. To illustrate, one can take the Indian case as demonstrated in Fig. 3., from which it is clear that the rate of growth of non-quota exports is higher than quota exports. This only supports the hypothesis that the products are competitive, however, merely on the basis of these trends it is difficult to decipher the situation for the entire South Asian region. Thus, further analysis is undertaken later to gauge the situation for the region by analyzing, at a more disaggregated level, the distribution of exports to major markets like the US and EU as for the South Asian countries are concerned.

Distribution of exports from SAARC region to US market

While analyzing the distribution of export to US market from SAARC member countries, it has been observed that in the case of most of the SAARC countries, more than 50 per cent of total number of products exported to US showed an increasing trend (Table 7) in their export shares RIS (2002b). It is worth noting, however, that Bangladesh and Sri Lanka have relatively fewer numbers of

Figure 3: India's Quota and Non-Quota Exports



Source: AEPC, as cited in *Business World,* April 28, 2003.

products in their export baskets as compared to India and Pakistan, suggesting limited export supply capabilities in Bangladesh and Sri Lanka. A more disaggregated country-wise analysis is presented below.

In the case of Bangladesh it is observed that 13 out of 15 products, which showed an increasing trend in exports share in US market, showed steady/sharp increase (Table 8). China and India have been the major competitors. From the trends in trade between Bangladesh and US, it is observed that 10-13 items account for less than 10 percent product-specific share in US imports and 6 of the items show steady or sharp decline (Table 9). Overall, it can be said that the pattern of decline is quite comparable with the rest of SAARC countries. The major competitors for many of the items as captured in Table 9 are India, Italy, China and Hong Kong.

Table 7: Distribution of Export Items to US from SAARC Region (1990s)

	Increased		*Decreased*		
	No.	**Percent Share to Total No.**	**No.**	**Percent Share to Total No.**	**Total items (Number)**
India	54	51.92	50	48.08	104
Pakistan	63	73.26	23	26.74	86
Bangladesh	15	53.57	13	46.43	28
Sri Lanka	16	59.26	11	40.74	27

Source: RIS (2002b).

Table 8: Nature of Increasing Shares of Bangladesh's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation		
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total
>50	3	0	3	0	0	0	0	0	0
40-50	-	-	-	-	-	-	-	-	-
30-40	0	0	0	0	0	0	0	1	1
20-30	-	-	-	-	-	-	-	-	-
10-20	1	3	4	1	4	5	0	1	1
0-10	0	0	0	0	1	1	0	0	0
Total	4	3	7	1	5	6	0	2	2

Source: RIS (2002b)

Table 9: Nature of Decreasing Shares of Bangladesh's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	1	0	1	0	0	0	0	0	0	1
40-50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30-40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20-30	0	0	0	1	0	1	0	0	0	1
10-20	1	0	1	0	0	0	0	0	0	1
0-10	3	1	4	0	2	2	0	4	4	10
Total	5	1	6	1	2	3	0	4	4	13

Source: RIS (2002b).

In the Indian case, out of a total of 59 commodities which showed an increasing trend in India's export share in the US market, 53 showed steady or sharp increase (Table 10). Almost 50 per cent of the total items occupied less than 20 percent product-specific share in the US market. The bulk of these items fall under the textile category, which shows India's growing competitiveness in the sector. China and Japan are the two major competitors for Indian items in the US market.

Majority of the imported items from India to the US, which showed a declining trend fall under the range of 0-20 percent share in US market (Table 11). China, Taiwan, Japan and Hong Kong are the main competitors for those items.

It has been observed that 52 out of 63 items showed a steady/sharp increase in their export shares in the US market over the 1990s as for as Pakistan is concerned. The increase is also seen in case of the textile industry. Around 34 out of 63 items occupy 10-30 per cent product-specific share in US import basket (Table 12). Japan, China, Canada and India were some of the competitors for Pakistan in the US market. For Pakistan, 15 out of 23 products showed a sharp declining trend and a large number of items fall in the range of 0-10 percent share in the US market (Table 13). India, Mexico, China and Canada were major competitors for majority of these items.

In the case of Sri Lanka, out of the total 16 items, which showed an increasing trend in the exports share in the US, the majority showed a sharp or steady increase in shares (Table 14). It is noticed that 12 out of 16 items captured up to 20 per cent share of total US imports. Out of 16 items, 12 fall under the category of clothing. India, China and Mexico are the major competitors for many items, which showed an increasing trend.

For Sri Lanka, out of a total of 11 products, 8 occupy less than 10 per cent share in the US market. 10 items showed a steady or sharp decline (Table 15). Nature of commodity composition is different from India or Pakistan as 6 out of 11 products fall under the clothing category. India, Italy, China and Hong Kong are the major competitors for those items, which registered an export share of 0-10 percent in US market and also showed decreasing trend.

Table 10: Nature of Increasing Shares of India's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	5	0	5	4	0	4	0	0	0	9
30-40	8	1	9	1	1	2	1	0	1	12
20-30	4	0	4	2	1	3	1	0	1	8
10-20	2	2	4	12	1	13	2	1	3	20
0-10	0	0	0	3	1	4	1	0	1	5
Total	19	3	22	22	4	26	5	1	5	54

Source: RIS (2002b)

Table 11: Nature of Decrease in Shares of India's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
50-60	0	0	0	1	0	1	0	0	0	1
40-50	1	0	1	0	0	0	0	0	0	1
30-40	1	1	2	1	0	1	1	0	1	4
20-30	2	1	3	1	0	1	2	0	2	6
10-20	3	4	7	3	2	5	5	1	6	18
0-10	9	3	12	1	1	2	3	3	6	20
Total	16	9	25	7	3	10	11	4	15	50

Source: RIS (2002b)

Table 12: Nature of Increasing Shares of Pakistan's Exports to US (1990s)

(Numbers)

Range of Export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	11	0	11	1	0	1	1	1	2	14
40-50	2	0	2	1	1	2	2	0	2	6
30-40	4	0	4	0	1	1	1	0	1	6
20-30	8	0	8	4	1	5	0	1	1	14
10-20	7	0	7	8	1	9	4	0	4	20
0-10	0	0	0	2	0	2	1	0	1	3
Total Number	32	0	32	16	4	20	9	2	11	63

Source: RIS (2002b)

Table 13: Nature of Decrease in Shares of Pakistan's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
40-50	1	0	1	0	0	0	1	0	1	2
30-40	0	0	0	1	0	1	1	0	1	2
20-30	1	0	1	1	0	1	0	0	0	2
10-20	2	0	2	0	0	0	0	0	0	2
0-10	10	1	11	1	0	1	3	0	3	15
Total	14	1	15	3	0	3	5	0	5	23

Source: RIS (2002b)

Table 14: Nature of Increasing Shares of Sri Lanka's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	0	0	0	1	0	1	1	0	1	2
40-50	-	-	-	-	-	-	-	-	-	-
30-40	-	-	-	-	-	-	-	-	-	-
20-30	1	1	2	0	0	0	0	0	0	2
10-20	1	2	3	0	5	5	0	0	0	8
0-10	0	0	0	3	0	3	0	1	1	4
Total	2	3	5	1	8	9	1	1	2	16

Source: RIS (2002b)

Table 15: Nature of Decreasing Shares of Sri Lanka's Exports to US (1990s)

(Numbers)

Range of export shares	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	1	0	1	0	0	0	0	0	0	1
40-50	0	0	0	0	1	1	0	0	0	1
30-40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20-30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10-20	1	0	1	0	0	0	0	0	0	1
0-10	2	3	5	0	2	2	1	0	1	8
Total	4	3	7	0	3	3	1	0	1	11

Source: RIS (2002b)

Distribution of exports from SAARC region to the EU market

As similar to the US case, more than 50 per cent of the items exported from SAARC member countries to the EU showed an increasing trend. Further, it is noticed that a relatively large share of these items in India and Pakistan had more than 10 percent market share in EU market as compared to Bangladesh and Sri Lanka (Table 16). The country-wise analysis of the distribution pattern of exported items to the EU market reveals interesting patterns.

It is very clear that half of Bangladesh's exports occupy 10-20 per cent product-specific share in the EU market. All the products show steady or sharp increase in export shares and a significant number of items fall under the category of clothing (Table 17). China, Hong Kong and India are the major competitors for Bangladesh. Around 50 percent (i.e. 3 out of 6 items) occupy less than 10 per cent share in EU and show a sharp declining trend. It may be mentioned that 5 out of the listed 6 items are from the textile sector (Table 18).

It is observable that out of a total of 138 items showing increasing trend in EU import shares from India, the number of items falling under sharp, steady or fluctuating trends are almost equal, and this may not be so encouraging because several items show fluctuations (Table 19). However, unlike the US market, India seems to occupy a bigger share in the import-basket of EU. Though a chunk of the products (47 out of 138) occupy a share of 10-20 per cent, a large number (49 out of 138) has a 20-50 per cent share and 17 items have a share of above 50 per cent. Further, it is observed that only negligible amount i.e. 22 items out of 138 fall under the clothing sector. But in terms of value, this sector is more significant in India's exports. China, Indonesia, US, Thailand, Korea and Egypt are the major competitors for many of the items exported to EU from

Table 16: Distribution of Imported Items in EU from SAARC Region (1990s)

Country	*Increased*		*Decreased*		*Total*
	No of Items	per cent Share to Total No	No of Items	per cent Share to Total No	Total Items (Number)
India	138	63.89	78	36.11	216
Pakistan	61	57.55	45	42.55	106
Bangladesh	16	72.73	6	27.27	22
Sri Lanka	9	47.37	10	52.63	19

Source: RIS (2002b)

Table 17: Nature of Increasing Shares of Bangladesh's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	0	1	1	0	1	1	0	0	0	2
40-50	0	1	1	0	1	1	0	0	0	2
30-40	1	0	1	0	0	0	0	0	0	1
20-30	0	1	1	0	1	1	0	0	0	2
10-20	0	0	0	8	0	8	0	0	0	8
0-10	-	-	-	1	0	1	-	-	-	1
Total	1	3	4	9	3	12	0	0	0	16

Source: RIS (2002b).

Table 18: Nature of Decreasing Shares of Bangladesh's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
20-30	1	0	1	0	0	0	1	0	1	2
10-20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0-10	2	1	3	0	0	0	1	0	1	4
Total	3	1	4	0	0	0	2	0	2	6

Source: RIS (2002b).

Table 19: Nature of Increasing Shares of India's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	10	0	10	4	1			5	2	02
17										
40-50	10	0	10	2	0	2	3*	0	3	15
30-40	4	1	5	1	0	1	3	0	3	9
20-30	11	3	14	6	1	7	3	1	4	25
10-20	10	3	13	18*	5	23	5	6	11	47
0-10	0	0	0	3	0	3	21*	1	22	25
Total Numbers	45	7	52	34	7	41	37	8	45	138

Source: RIS (2002b).

Table 20: Nature of Decreasing Shares of India's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	0	0	0	2	0	2	1	0	1	3
40-50	4	0	4	0	0	0	1	1	2	6
30-40	3	0	3	1	0	1	0	1	1	5
20-30	3	0	3	2	1	3	0	1	1	7
10-20	4	0	4	7	2	9	5	3	8	21
0-10	16	10	26	4	04	4	3	3	6	36
Total	30	10	40	16	3	19	10	9	19	78

Source: RIS (2002b)

India**.** It can also be noticed that the total number of items, which showed a declining trend in EU import market, is 78. Most of these (i.e. 57 out of 78) occupy a 0-20 percent share in EU imports (Table 20). Out of the 78 items, 56 fall in the category of textiles.

For Pakistan, 50 per cent of the products occupy 10-30 per cent product-specific share in the EU market. Majority of the products showed steady or sharp increases and place Pakistan in a better position as compared to India (Table 21). Only 1 out of 61 item falls under the clothing category. Turkey, US, China, India, Indonesia and Egypt are the major competitors for a majority of the items exported from Pakistan to the EU market. 31 out of the 45 items listed fall in the category of 0-10 percent share in the EU market. The trend is almost the same as for India in the sense that almost 50 per cent (23 out of 45) of the items show a sharp decline (Table 22). Most of these (36 out of 45) come from the textile sector.

Two-Thirds of the total products exported to EU from Sri Lanka occupy 10-20 per cent product-specific share in the EU market. Most of the items showed steady or sharp increase in export shares (Table 23). It may be mentioned that 6 out of 9 fall under clothing. China, Hong Kong and US are the major competitors for many of the exported items from Sri Lanka to EU. In the trade between Sri Lanka and EU, 2 items out of 10 falling within the (above 50 per cent) category show a steady decline. This could have some impact on Sri Lanka's export earnings. The remaining 8 items occupy 0-20 percent share in the EU import basket (Table 24). However, unlike India and Pakistan a substantial number (5 out of 10) fall under the clothing category.

Explaining Export Performance in Terms of Structural Change in the Textiles and Clothing Sector

One of the factors which affected developing countries' attempts at expanding their global shares of exports to sufficiently high levels compared to those of the developed countries is the restrictiveness of the MFA. It was possible for the developed countries to expand textiles and clothing exports, because MFA was not applied on the intra-trade of developed countries in textiles and clothing. It is well known that intra-regional trade in North America and West Europe in textiles and clothing items is very high.

Another factor which could have contributed towards developed countries' the high shares of export competitiveness in world is technology. As this labour-

Table 21: Nature of Increasing Shares of Pakistan's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	9	0	9	3	0	3	1	0	1	13
40-50	1	0	1	1	0	1	0	0	0	0
30-40	4	0	4	1	0	1	3	0	3	8
20-30	10	0	10	2	1	3	2	0	2	15
10-20	6	0	6	9	0	9	1	0	1	16
0-10	0	0	0	2	0	2	5	0	5	7
Total Numbers	30	0	30	18	1	19	12	0	12	61

Source: RIS (2002b)

Table 22: Nature of Decreasing Shares of Pakistan's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
30-40	1	0	1	0	1	1	0	0	0	2
20-30	1	0	1	4	0	4	0	0	0	5
10-20	2	2	4	2	0	2	1	0	1	7
0-10	14	3	17	4	2	6	7	1	8	31
Total	18	5	23	10	3	13	8	1	9	45

Source: RIS (2002b)

Table 23: Nature of Increasing Shares of Sri Lanka's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	1	0	1	0	0	0	0	0	0	1
40-50	-	-	-	-	-	-	-	-	-	-
30-40	0	0	0	1	0	1	0	0	0	1
20-30	-	-	-	-	-	-	-	-	-	-
10-20	1	3	4	1	0	1	1	0	1	6
0-10	0	0	0	1	0	1	0	0	0	1
Total	2	3	5	3	0	3	1	0	1	9

Source: RIS (2002b).

Table 24: Nature of Decreasing Shares of Sri Lanka's Exports to EU (1990s)

(Numbers)

Range of export share	Sharp			Steady			Fluctuation			Total
	Text.	Clot.	Total	Text.	Clot.	Total	Text.	Clot.	Total	
>50	0	0	0	2	0	2	0	0	0	2
40-50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30-40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20-30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10-20	0	0	0	1	1	2	0	1	1	3
0-10	2	2	4	0	1	1	0	0	0	5
Total	2	2	4	3	2	5	0	1	1	10

Source: RIS (2002b)

intensive industry has been increasingly becoming a capital and knowledge-intensive one, it would have had its impact on productivity gains and in turn on exports. Therefore, developed countries, as also some of the NIEs have been able to maintain or improve competitiveness by sustaining wage increases through technological innovations.

This kind of a situation is one of factor intensity reversal in developing countries necessitated by structural transformation within the industry at the global level due to more and more use of the abundant factor of the developed countries. Intuitively, implementing such a change in the production process in the developing countries would not be easy due to the scarcity of the new factor. This would give the developed countries an added competitive advantage and an additional time-period to reign on the global market of the products of that sector.

It was observed by Kell and Richtering (1991) that in the textiles sector, "the automation of production erodes developing countries" major factor advantage of cheap labour. In addition, firms in developed countries appear to be in a better position to face the growing importance of market responsiveness and quality requirements due to their closer proximity to consumer markets and technology suppliers and because of their accumulated production know-how". Similar observations have been made by another study (UNIDO, 1990).

The textiles and clothing sectors appear to be experiencing the kind of trends described above. Traditionally, a labour intensive sector, it is increasingly getting transformed into a technology intensive one. Developed countries have been gaining competitive edge in these sectors by applying technology-intensive production techniques, which has been outweighing the labour cost advantage of the developing countries. The question then would be to find out whether the factor intensity reversal has arrived in developing countries or not especially in the SAARC countries, as this would be crucial for them in sustaining and enhancing their shares in the global market for these products. An answer to this question is important from a policy perspective as well. Therefore, an empirical analysis is carried out below on this question.

An attempt has been made to analyse the determinants of export performance in terms of not only cheap labour but also technology for our sample countries. Where some of the studies analysing the role of technology have mainly

concentrated on the textiles segment and only one study has tried to contrast the role of technology vis-à-vis wages and that too only in the textiles sector (see, Kell and Richtering, 1991) we have tried to do it by considering the clothing segment as well.

The independent variables taken into consideration are those capturing labour cost, technology and world demand in the two segments. This helps in including both the demand and supply factors. By adjusting wages for labour productivity the aspect of labour cost is captured. The resultant unit labour cost has been used as the variable unlike Kell and Richtering (1991) who have used wage rates only. Since low wage rates might also be accompanied by low productivity, merely using wage rates would not be sufficient. Hence, adjusting wage rates to labour productivity was important. We have taken world demand in textiles and clothing sector as a factor that could have influenced the exports of individual countries. Thus, as an 'activity variable', we have chosen world exports to indicate world demand.

Despite the fact that technology is important in contributing to production and trade it is difficult to single out its impact on trade due to the complex nature of technology acquisition and transfer which poses definitional and measurement problems.

However, considering the developments in the nature of technological evolution in the spinning and weaving sections of the textile segment and stitching and sewing sections of the clothing segment reflected in the form of imports of technologically-advanced machineries such as open-end spinning rotors for spinning activity, shuttleless looms for weaving activity; and improved sewing machines for clothing, we have taken imports of these machines over the years, separately for both textiles and clothing segments as indicators for technology-upgradation. In so doing, we are aware of the limitations of the use of such an indicator as a proxy-variable for technology. For example, as with all technology indicators the imports of such machineries give only a partial picture of the actual role of technology. Another concern arises due to the efficiency differences of installed equipments/machineries. It has been observed that efficiency of machinery varies across countries and across companies within a country depending upon firm level capabilities and also depending upon the availability of supporting services (Kell and Richtering, 1991).

These four variables have been chosen to see how export performance depends on them over time in different countries of our sample. The contribution of this exercise lies in the fact that it is a time-series analysis (1980-1997) and it is applied to textiles and clothing segments separately. It tries to contrast technology factor with the labour-cost advantage by taking individual country experiences.

As evident from Table 25, in the textiles segment, world exports have a positive sign and it is significant in the case of all developing countries of the sample including India except Bangladesh. The variable textile machinery

Table 25: Determinants of Textiles and Clothing Exports: labour cost advantage vs. technology

$$\text{Log (X)} = \alpha + \beta_1 \text{ Log (WE)} + \beta_2 \text{ Log (MI)}_{t-1} + \beta_3 \text{ Log ULC} + \mu$$

Period: 1980-1997

Countries	β_1	β_2	β_3	R^2
Textiles				
Germany	-0.07(-1.40)	25.86(7.13)	-1.07(-2.26)	0.92
Hong Kong	-0.04(-0.73)	26.87(6.38)	0.57(1.84)	0.93
Italy	-0.06(-0.73)	9.13(2.96)	0.81(1.02)	0.84
Bangladesh	1.22(1.87)	-0.66(-0.07)	-0.06(-0.11)	0.31
India	1.00(6.11)	0.03(0.22)	-0.66(-2.23)	0.91
Sri Lanka	1.21(2.92)	1.47(1.78)	-0.59(-2.83)	0.79
Indonesia	3.29(3.23)	1.53(0.49)	-0.32(-2.67)	0.87
Malaysia	1.15(2.40)	-0.01(-0.18)	-0.001(-0.001)	0.78
S. Korea	1.44(12.56)	0.01(1.42)	-0.77(-1.85)	0.95
Clothing				
Germany	0.04(0.86)	33.93(2.60)	-1.55(-0.93)	0.90
Hong Kong	0.14(3.33)	32.24(9.70)	0.78(3.87)	0.98
Italy	0.21(2.43)	10.57(2.41)	1.64(2.85)	0.87
Bangladesh	3.88(4.36)	-0.13(-0.82)	-3.42(-1.17)	0.81
India	2.41(4.29)	0.09(0.54)	-0.67(-2.17)	0.97
Sri Lanka	3.11(3.24)	0.17(0.21)	-1.89(-2.86)	0.92
Indonesia	1.39(5.76)	2.37(3.80)	-0.15(-2.51)	0.91
Malaysia	1.67(7.10)	0.05(1.45)	2.37(1.71)	0.96
S. Korea	0.96(6.77)	0.03(2.82)	1.84(3.61)	0.94

Source: UN, *PCTAS* CD-ROM 2002, UN. *International Trade Statistics* Yearbook, various issues and UN, *Industrial Statistics Yearbook*, various issues. **Note:** Figures in parentheses are t-values. X= Exports of Textiles or Clothing, WE= World exports of Textiles or Clothing, MI=Machinery for Textiles or Clothing Manufacture, ULC=Unit Labour Cost

imports - the technology indicator - is positive and significant only in the case of all the developed countries and it is positive in the case of India, Indonesia, South Korea and Sri Lanka, though it is insignificant. In the case of Bangladesh and Malaysia it is insignificant with negative sign. The unit labour cost has turned out be negative and significant in the case of Germany, India, Indonesia and Sri Lanka. In the case of Bangladesh, Malaysia and South Korea it is with negative sign but not significant. In the case of Hong Kong and Italy it is with positive sign but insignificant. Except for Bangladesh, all other countries have a high R^2 value.

In the clothing segment, R^2 is high for all the countries. World clothing exports have emerged as a significant determinant with a positive sign except Germany. The technology factor has a positive sign except Bangladesh and it is significant in the case of Germany, Hong Kong, Italy, Indonesia and South Korea. In the case of India, Malaysia and Sri Lanka it is with positive sign but insignificant. Expectedly, the unit labour cost is negative and significant in the case of India, Indonesia and Sri Lanka but in the case of Germany and Bangladesh it is not significant though it is negative. In the case of Hong Kong, Italy and South Korea it is significant with a positive sign although it is insignificant with the positive sign in the case of Malaysia.

The following broad inferences could be drawn on the basis of the above results: (a) The external demand factor emerges as one of the determinants of export performance in both textiles and clothing segments along with the supply-side factors of technology and labour cost advantage, (b) Technology factor is also appearing to be important in developing countries of our sample, at least in terms of the positive sign of its coefficient. This is more apparent in the clothing segment, quite expectedly, as it is this segment which is generally, more technology-intensive due to the fact that it consists of higher value-added items, for instance, fashion and luxury garments, (c) The labour cost advantage has remained an important determinant in many countries due to its negative sign and significance. However, its positive sign with significance in the case of some countries in both the textiles and clothing segments suggests that in these countries high-skilled labour with higher salary profiles have been used to compete in the global markets. Perhaps, technological innovations have helped these countries in sustaining upward movements in unit labour costs.

In nutshell, there seems to be evidence of structural transformation in these sectors in the developing countries of our sample. Labour cost advantage is being combined with efforts to achieve technological advantage. However, such tendencies are significant only in few cases of developing countries more importantly SAARC members. Other countries need to gear up to face the challenges of global competition in the wake of MFA phasing out by adopting more sophisticated technologies and manufacturing process such as computer-aided manufacturing (CAM) and computer-aided designing (CAD). Otherwise, the labour cost advantages in these countries would be wiped out by technological advantages in developed and more developed developing countries.

One point of analytical relevance is that the fact that developed countries are major players in the textiles and clothing sectors that have been regarded as the forte of developing countries due to their labour intensive characteristics is no longer true. This is an evidence of factor intensity reversal in the developing countries, as developed countries become more efficient in the use of their most abundant factor of production.

Against this background, it may be fair to say that the MFA phasing out has several challenging implications for the developing countries as a whole and SAARC countries in particular. While on one hand the WTO ATC process has become more stringent in terms of arbitrary use of anti-dumping and rules of origin provisions and the integration schemes are characterized by lack of implementation, developing countries like SAARC members would have to face additional challenges of improving their export competitiveness with the help of technological modernization. The last dimension is particularly important due to the phenomenon known as factor intensity reversal whereby the traditional labour cost advantage appears to be withering away and a special policy focus is required for modern techniques of production, designing, marketing, etc.

In the wake of such challenges the level of preparedness in the SAARC region to take advantage of a freer global textiles and clothing regime can be expected to be very high. In order to explore into this dimension on an illustrative basis a field survey of textiles and clothing manufacturers in India was conducted. The results of the field survey are presented in the next section.

Section V

Level of Preparedness: A Field Survey of Indian Textiles and Clothing Manufacturers

As highlighted above the challenges posed by the post-MFA regime in terms of heightened competition in the global textiles and clothing market necessitates a high degree of preparedness at both policy and business levels. Suitable commercial strategies both at the macro and micro levels are the imperatives that cannot be overlooked, given the fact that the textiles and clothing sector has provided livelihoods to a vast majority of populace in the SAARC countries.

Keeping this in mind a questionnaire-based survey was conducted for the Indian textiles and clothing manufacturers. It is worth mentioning that a comprehensive survey conducted by Kelegama and Epaarachchi (2002) comes out with similar analysis and findings in the Sri Lankan textiles and clothing sector as found out by the survey conducted for the present study.

The 100 firms included in the sample from Indian textiles and clothing sector were from different parts of the country, of varied sizes and involved in the production of a diverse range of products. They have been categorized on the basis of their size viz. big and small firms (divided on the basis of number of employees). Some of the results that have emerged from the field survey are summarized in Annexure I.

It was observed that some exporters are not even aware of the most basic change they are going to face in their business operation in 2005 in terms of MFA Phasing out. The Technological Upgradation Fund (TUF) Scheme in India is aimed to promote modernization of production processes but more than half of the exporters are not even aware of such schemes.

This is a major observation because unless information about such policy measures finds adequate dissemination, the exporters they would be ill-equipped to face the challenges of competition in the post-MFA scenario especially when the sector is getting characterized by the phenomenon of factor intensity reversal as analyzed in the paper.

It was also observed that efforts to build technological capability building through training were also insufficient. This fact needs a special mention because it has been found in a detailed study that inadequate training of managers and

workers alike is one of the most important factors constraining productivity and competitiveness in Sri Lanka (Kelegama and Epaarachchi, 2002).

Quality is one area which has emerged as the most important concern vis-à-vis competitors for the industry as a whole. It is also observed that small size exporters view government support as an important criterion for improving competitiveness. At this stage it may be mentioned that an analysis of the Pakistan's textiles and clothing sector suggest that competitiveness in this sector for Pakistan's exports could be achieved by emphasizing upon product quality, efficiency of resource use and productivity (Musleh-Ud Din and Abbas, 2000).

Labour problems, fabric supply and its quality as well as infrastructural problems emerged as biggest domestic constraints. Therefore adequate policy attention is needed in these areas so as to help prepare the exporters facing the global challenges of competition in the post-MFA situation. In fact more concerted efforts are required on the front of infrastructure to make the exports more competitive (Spinanger and Verma, 2003).

Overall, it has been observed that the level of preparedness in India to face global competition in post-MFA scenario is inadequate and it faces several bottlenecks vis-à-vis its competitors. Some of the characteristics have been found to be similar in other South Asian countries also. However, it must be mentioned that the level of preparedness among the bigger entities is much higher than smaller manufacturers. Moreover, it needs to be highlighted that preparedness on behalf of the government in terms of information dissemination, infrastructure availability, supply of intermediates etc. also need to be improved considerably so as to improve export competitiveness.

Section VI

Analyzing Cooperation Prospects for Regional Industrial Restructuring

It has been observed that while the WTO Agreement on Textiles and Clothing aims at MFA phasing out, its implementation process so far has not resulted in adequate integration of products belonging to this sector. Moreover, the ATC is back loaded and this puts the entire integration process under serious doubts. Even if the phasing out schedule is met adequately it is apprehended that due to non-availability of an assured market in developed countries through quotas, the South Asian countries would have to take concerted policy and business

decisions so as to meet the global competition from other developing as well as developed countries since this is one of the most important sectors of the South Asian countries. On the other hand, the level of preparedness to meet the post-MFA challenges has remained inadequate. Thus, concerted efforts are required to institute certain policy mechanisms to improve regional competitiveness in this sector. Some of the measures to achieve this objective are analysed especially in the domains of regional trade and investment with a special emphasis on efficiency seeking regional industrial restructuring in this sector. Focus has been given in this context on quantity and quality aspects of FDI as well as entering into global supply chains and multi-skilling of human resources. This has been done to evolve a comprehensive policy package for achieving export competitiveness in the textiles and clothing sector.

Competitiveness Profile in Post-MFA Scenario

Any cooperation among the South Asian countries would not only depend on their competitiveness profile but also would be geared towards enhancing the competitiveness level through industrial restructuring which is efficient. As per the assessment by the USITC (2004) of the key changes those are likely to occur in the global pattern of textile and apparel production and trade following quota elimination in 2005, China is expected to become the "supplier of choice" for most U.S. importers because of 'its ability to make almost any type of textile and apparel product at any quality level at competitive prices'. However, in order to reduce the risk of sourcing from only one country, U.S. importers also plan to expand trade relationships with other low-cost countries as alternatives to China, particularly with India, which also, like China, has "a very large manufacturing base to produce a wide range of textile and apparel goods at competitive prices and a large supply of relatively low-cost, skilled labor. Moreover, one or two other low-cost exporting countries in South Asia–Bangladesh or Pakistan–are expected to emerge as major suppliers of a narrower but still significant range of goods, such as mass-produced basic knit cotton tops and woven cotton shirts and pants (Bangladesh) or men's and boys' cotton apparel (Pakistan). Some firms indicated they also would consider CBERA countries, particularly those located in Central America, as a major source of supply if a Central American or western hemisphere free-trade agreement is negotiated that permits the use of regional (e.g., Mexican) fabrics or third-country (e.g., Asian) fabrics. In the ASEAN region, the only countries considered competitive as major alternate suppliers to China or India are Vietnam and, to a lesser extent, Indonesia" (Table 26). It is in this context of competitive levels in the South Asian region in the textile and clothing sector that prospects for horizontal specialization and industrial restructuring are explored below.

Table 26: Summary of anticipated effects of quota elimination in 2005 and key competitive factors, by selected regions and countries

Region or country	Anticipated effects of quota removal	Key competitive factors
EAST ASIA	**Summary**: U.S. apparel companies and retailers are likely to expand sourcingfrom the region and continue close relationships with suppliers inthe region, who are major sources of textile and apparel investment worldwide.	**Summary**: Labor - Sewing skills considered among the best in the world.Inputs - Substantial manufacturing base for raw materials.Transportation - Best shipping times to the U.S. west coast withinAsia.
	China: Likely to be supplier of choice for most large U.S. apparelcompanies and retailers; uncertainty regarding textile-specificsafeguards may temper export growth. Over the long term,competitiveness may diminish as strong economic growth leads togreater domestic demand for textiles and apparel, and for the laborand capital to make these goods. Showed tremendous growth in export of goods for which it becameeligible for quota-free entry in 2002.	**China:** Labor - Per-unit labor costs very low due to low wages and highproductivity.Inputs - Produces fabrics, trim, packaging, and most othercomponents used to make apparel and made-up textile articles.Products - Considered by industry among the best in making mostgarments and made-up textile articles at any quality or price level.World's largest producer and exporter of textiles and apparel,notwithstanding tight quotas in major world import markets.
	Hong Kong and Macau: Initially, may continue to be suppliers of some apparel underoutward processing arrangements (OPAs) with China because ofuncertainty regarding textile-specific safeguards with China. Thereare no other compelling reasons to source most apparel from theserelatively high-cost suppliers.	**Hong Kong and Macau**: Labor - High-cost suppliers compared with China.Special arrangements - OPAs allow for some of the labor intensiveproduction steps to take place in China, but remain a product ofHong Kong or Macau for trade purposes. Will not be subject toChina-specific safeguards after quotas are removed.

Table 26 continued

Table 26 continued

Region or country	Anticipated effects of quota removal	Key competitive factors
	Korea and Taiwan: Likely to continue as major suppliers of fabrics to global industry,including to China. However, U.S. firms are likely to move sourcingof apparel to lower-cost countries, particularly China; may continueto source certain garments from these suppliers (e.g., men's dressshirts, dresses, and other fashion apparel).	**Korea and Taiwan**: Labor - High per-unit labor costs; high labor productivity.Products - Small, flexible sewing lines advantageous for fashionapparel; highly automated sewing lines for dress shirts; offer fullpackageservices.
SOUTH ASIA	**Summary** U.S. firms will likely expand sourcing from South Asia with theremoval of quotas in 2005.	**Summary**: Inputs - Huge manufacturing base for yarns and fabrics.Competitive position - Most competitive alternative to China as asupplier, but competitiveness of each country varies widely.
	India: Likely to remain a competitive supplier to the United States whenquotas are removed in 2005. Considered by many U.S. firms theprimary alternative to China. Over the long term, competitiveness may diminish as strongeconomic growth leads to greater domestic demand for textiles andapparel, and for the labor and capital to make these goods.	**India:** Labor - Huge, relatively inexpensive, skilled workforce; has designexpertise.Inputs - Among the world's largest producers of yarns and fabrics;Products - Wide range of apparel; considered a competitive sourcefor home textiles (e.g., bed linens and towels).Business climate - Personal safety, security of shipments betweenfactories and ports and bureaucratic red tape and infrastructure areissues, with many U.S. firms using agents in lieu of dealing directlywith producers.

Table 26 continued

Table 26 continued

Region or country	Anticipated effects of quota removal	Key competitive factors
`	**Pakistan**: Likely to continue as a supplier to the U.S. market. Considered bymany U.S. firms as a competitive alternative to China, particularlyfor men's apparel. May continue to be a global supplier of cotton yarns and fabrics.	**Pakistan** Labor - Large, relatively inexpensive labor supply.Inputs - Access to local supplies of raw cotton.Business climate - The Government is taking steps to ensure theglobal competitiveness of the textile and apparel sector; personalsafety and security of shipments between factories and ports areissues.
	Bangladesh: The status of Bangladesh as an overall supplier to U.S. market isuncertain. Considered by some U.S. firms to be competitivealternative to China for mass-produced, low-end apparel.	**Bangladesh**: Labor - Very low wage rates; productivity improving, but lagsChina; government is working to improve labor standards.Inputs - Relies heavily on imports for woven fabric requirements;becoming increasingly self-sufficient in knit fabrics.Special arrangements - Duty-free access to major world importmarkets, including the EU, Canada, and Norway.Products - Mass-produced basic garments, including knit cottontops and woven cotton pants.
	Sri Lanka: Likely to see its share of U.S. apparel imports fall, but expected tobe a niche supplier for specialty or fashion goods, hosiery, andwomen's intimate apparel such as bras and underwear.	**Sri Lanka:** Labor - Relatively small labor pool; relatively high wage rates.Inputs - Relies heavily on imported yarn and fabric.

Table 26 continued

Table 26 continued

Region or country	Anticipated effects of quota removal	Key competitive factors
	ASEAN Overall share of U.S. textile and apparel imports is likely to declineas U.S. firms reduce sourcing in all but a few countries.	**Summary**: **Summary**: Labor - Costs relatively high in all ASEAN countries exceptIndonesia and non-WTO members Vietnam and Cambodia, whichare ineligible for quota liberalization.Transportation - Shipping times to the U.S. west coast average 45days, compared with 12 to 18 days from China.
	Indonesia: Future status as a supplier to the U.S. market uncertain. Many U.S.firms consider Indonesia to be a competitive supplier, but indicatedits political and social unrest may discourage future sourcing.	**Indonesia**: Labor - Abundant supply of low-cost, skilled labor.Inputs - Huge manufacturing base for raw materials, especiallysynthetic fibers, yarns, and fabrics.Business Climate - Frequent political and social unrest likely todeter growth in sourcing in the short term.
	Philippines: Share of U.S. apparel imports is likely to decline, as has alreadyoccurred in goods for which quotas were eliminated (e.g., babies'apparel).	**Philippines**: Labor - English-speaking, skilled labor force; high wage rates.Inputs - Relies heavily on imported yarn and fabric.Special arrangements - Foreign-trade zones on former U.S.military bases provide established modern infrastructure.Business Climate - Political and social unrest.
	Thailand: Share of U.S. imports is likely to decline, as has already occurred ingoods for which quotas were eliminated (e.g., babies' apparel andluggage); may become a niche supplier of garments having complexconstruction or detailed sewing requirements.	**Thailand**: Labor - Highly-skilled workforce; high wages, partly because of alabor shortage.Inputs - Domestic supply of yarns and fabrics.Products - Strong needlework skills and small-scale factoriesenable intricately designed garments and flexibility in sourcingfashion apparel.

Table 26 continued

Region or country	Anticipated effects of quota removal	Key competitive factors
	Malaysia: Share of U.S. apparel imports is likely to decline significantly.	**Malaysia**: Labor - Labor shortage; wages second-highest in the region afterSingapore.Business climate - Although Government highlights importance oftextile and apparel sector, investment is largely directed to otherindustries.
MEXICO	**MEXICO** Share of U.S. apparel imports is likely to decline further, even withNAFTA preferences. May continue to be a niche supply for somebasic apparel, particularly for goods needed on short-turnaroundbasis. Has the potential to expand yarn and fabric exports to othercountries in the western hemisphere under a proposed Free TradeArea of the Americas or to Central America if the proposed U.S.-Central America FTA permits the use of Mexican inputs.	Labor - Costs are relatively high; product quality and productionreliability problematic; middle management responsible for runningthe factories is considered weak; product design expertise limited.Inputs - Produces knit and woven fabrics. Cost is reportedly lessthan that for similar U.S.-produced fabrics, but higher than similarAsian fabrics.Products - Concentrates on mass-producing basic garments,particularly 5-pocket denim jeans, knit tops, and undergarments; limited capability for fashion apparel. Limited ability to offer fullpackageservices.Business climate - Additional overhead costs in providing securityfor shipments from factories to the U.S. border and complying withpaperwork requirements for preferential treatment under NAFTA.

Source: USITC (2004), *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the US Market*, Vol. 1, January, Washington D. C.

Scope for Horizontal Specialization and Industrial Restructuring

One of the ways to improve competitiveness and level of preparedness in the textile and clothing sector to meet the challenges in the post-MFA regime would be to identify the scope for horizontal specialization within the region and subsequently facilitate industrial restructuring to meet this objective. This dimension is explored below by first extending the economic rationale for such possibilities and subsequently identifying the items amenable to horizontal specialization.

Economic Rationale for Industrial Restructuring

In order to help the South Asian countries meet the global challenges of competition in this sector, it is suggested that they aim for regional integration of this sector, especially with the help of strengthening trade-investment linkages. Since such mechanisms involve exchange of technological expertise too, it may be reiterated that there is strong empirical evidence about the transfer of resources and technology through joint ventures among the developing countries being more appropriate and cost effective for the recipient country than similar transfers emanating from multinationals belonging to the developed countries. To elucidate, the technology transferred to joint ventures has been found to have been appropriately scaled down to smaller size, made more appropriate to factor endowments of developing countries, and adapted to local raw materials and conditions. They have also been found to depend less on imported capital goods and raw materials and result in significantly lower foreign exchange outgo on account of servicing (Kumar, 1986).

Moreover, one may argue for inducting horizontal integration, i.e. cooperation in the same or similar lines of production and exports, among the South Asian countries. As per the industrial restructuring on a pan-South Asian basis, a particular South Asian country which has gained export specialization in certain textiles and clothing product lines in recent times, could become the host of relocated plants of the other South Asian countries. In this manner, the textiles and clothing sector could become a regional integrated sector as countries would vacate certain lines of production and gain in other lines of production according to their relative comparative advantage in the global market. Such a restructuring would engender intra-South Asian investment flows that would be trade-creating vis-à-vis the global and regional markets. So that South Asian countries do not lose out on the value-addition chain, focus has to be given on horizontal specialization to begin with. In subsequent phases, vertical integration in this sector could also be contemplated.

Further, it has been observed that in regional economic integration arrangements there is a tendency to do internal restructuring within enterprises by removing the need to maintain horizontal national operations. Hence, multinationals restructure their operations by assigning the responsibility for serving specific regional or even global markets in particular product lines to certain affiliates – called as *product mandating*, which emanates from efficiency seeking restructuring or specialization within the multinational (Kumar, 1998). Such a strategy may help a South Asian enterprise to internalize the economics of specialization and scale by focusing on the production of a specific product line in the textiles and garments sector, which in turn may help evolving South Asian multinationals whose operations could expand in different parts of the globe in subsequent phases.

One of the ways in which horizontal specialization could be achieved is through creation of regional textiles and clothing clusters. This helps not only technological diffusion in the region, specific to the sector, by way of spillover effects often arising out of informal and social contacts among employees but also facilitate exploiting the economies of scale, scope and specialization.

Scope for Horizontal Specialization: An Empirical Exploration

In order to find out the possibilities of efficiency-seeking industrial restructuring in this sector (RIS, 2003a) an attempt is made to identify products for this purpose. The products amenable for horizontal specialization in different lines of production and exports from one South Asian country to other partners of the region are identified by analyzing the trends in the revealed comparative advantage of each country at the SITC 4-digit level during 1996-2000. In so doing, different stages of processing were kept in mind i.e. from raw cotton and fibres to yarn and fabrics; and further to clothing. The analysis has been undertaken at a three-dimensional level. First, products were identified where a particular South Asian country has gained comparative advantage during the period under consideration. Second, products were identified where a particular South Asian country has lost comparative advantage in the global market for the same period. And third, products were identified where major other developing country-competitors have also gained comparative advantage during the same period. This included countries like China, Hong Kong, Indonesia, Thailand, Turkey, Mexico, Tunisia etc.

Finally, a matching of three vectors of products for each South Asian country was undertaken and the possible direction of industrial relocation from one

country of the region to other partners was identified. The results are summarized in Table 27. It is discernible from the table that each South Asian country is amenable for such a restructuring in terms of horizontal specialization. Each country can become a host of industrial relocation as well as it is also required to shift some of its manufacturing bases to other partners. While the focus of analysis has been to identify products for horizontal specialization, an overall impression can also be had from the same table about the possibilities of vertical integration as well – from one stage of processing to another according to comparative advantage in the value-addition chain.

This is not totally a hypothetical possibility as it is evident from the fact that in several sectors such industrial restructuring is already underway in South Asia (Kumar, 2001) including consumer goods, processed food, medicinal preparations, tyres, tea, light engineering goods, etc. In the textiles and clothing sector too, Indian companies have shifted production in order to take advantage of Nepal's unutilized MFA quotas. As many as 14 of 72 ventures operated by Indian companies in Nepal are engaged in textiles and readymade garment exports (RIS, 2002a).

The upshot of the above is that regional cooperation for bringing trade-investment linkages into the policy-focus can induct a spate of efficiency-seeking industrial restructuring through intra-South Asian FDI flows in the textiles and clothing sector. Resultantly, the overall competitiveness of this sector would be enhanced to meet the challenges of MFA-phasing out. Not only that this would help augmenting intra-South Asian trade and investments flows but also increase their global presence in this sector.

Trade Complementarity

The product categories identified for cooperation through the above analysis do not give the entire picture as RCA analysis by its very nature reveals opportunities based on the past export performance of countries. There may be a number of new areas of possible future cooperation that may be emerging due to a number of reasons. For instance, a gradual rise in wages may cause a country that is internationally competitive in the more labour intensive item lose its comparative advantage over time. If trade among a pair of countries is competitive today there may be factors in play that are working to make bilateral trade complementary in the future. On the other hand other factors may be working in the reverse direction i.e. making the trade relationship between two countries less complementary and more competitive. A way of measuring the

Table 27: Scope for Horizontal Integration in Textiles and Clothing Products in South Asia
Some Illustrations

From Bangladesh to:		
	India	Cotton gauze, etc.woven (6521); Blankets, traveling rugs (6583); Made-up articles, txtl. nes (6589); Carpets etc. tufted (6594); Overcoats, outwear,etc. (8411); Suits and ensembles (8412); Brassieres, corsets, etc. (8455).
	Nepal	Yarn, textile fibers, nes (6519); Overcoats, outwear,etc. (8411); Shirts, mens boys, knit (8437).
	Pakistan	Fabric woven. Jute oth. txtl (6545); Twine cordgage, etc. products (6575); Tarpaulins, sails, awnings (6582); Household linens (6584); Underwear, nightwear etc. (8416); Overcoats, oth.coats etc. (8421); Underwear, nightwear etc. (8428); Suits, jackts, trousrs. etc (8432); Shirts, mens boys, knit (8437); Suits, dresses skirts etc (8442); Babies' garmnts, clths acc (8451); Garment, felt, txtl fabric (8452).
	Sri Lanka	Tarpaulins, sails, awnings (6582); Made-up articles, txtl. nes (6589); Suits and ensembles (8412); Jackets (8423).
From India to:		
	Bangladesh	Cotton, not carded, combed (2631); Cotton waste (2633); Cotton yarn, excl. thread (6513); Cotton fabric, wvn, unblch (6522); Oth85%+cottn. fabric<200g (6523); Oth<85%+cottn. fabric200g (6526); Fabric, synth.filmnt.yarn (6531); Fabrc<85%syn.stp.fbr+ctn (6533); Coated,imprgtd txtls.nes (6573); Curtains,oth.furnishings (6585); Accessories, notknitted (8461); Oth.made-up cloth.access (8469); Leather apparel, accessrs (8481).
	Nepal	Oth85%+cottn. fabric<200g (6523); Fabric, synth.filmnt.yarn (6531); Household linens (6584); Curtains,oth.furnishings (6585); Suits, jackts, trousrs. etc (8432); Accessories, notknitted (8461).
	Pakistan	Cotton linters (2632); Cotton sewing thread (6512); Yarn, staple fibres, etc. (6518); Oth<85%+cottn. fabric<200g (6525); Fabric,of silk,silk wste (6541); Fabric,wvn.jute,oth.txtl (6545); Twine, cordage, etc.prdcts (6575); Tarpaulins, sails, awnings (6582);

Table 27 continued

Table 27 continued

From India to:		
		Household linens (6584); Curtains,oth.furnishings (6585); Carpets etc.knotted (6592); Underwear, nightwear etc. (8416); Overcoats, oth.coats etc. (8421); Underwear, nightwear etc. (8428); Suits, jackts, trousrs. etc (8432); Shirts, mens boys, knit (8437); Suits, dresses skirts etc (8442); Babies' garmnts, clths acc (8451); Garment, felt, txtl fabric (8452).
	Sri Lanka	Yarn, staple fibres, etc. (6518); Pile fabric, knit, crochet (6551); Narrow fabric, woven, othr. (6561); Coated,imprgtd txtls.nes (6573); Twine, cordage, etc.prdcts (6575); Suits and ensembles (8412); Oth.made-up cloth.access (8469).
From Nepal to:		
	Bangladesh	Carpets etc.knotted (6592); Shirts (8415).
	Sri Lanka	Carpets etc.knotted (6592).
From Pakistan to:		
	Bangladesh	Cotton, not carded, combed (2631); Cotton yarn, excl. thread (6513); Cotton fabric, wvn, unblch (6522); Oth85%+cottn. fabric<200g (6523); Oth85%+cottn.fabric200g+ (6524); Oth.woven fabrics, cotton (6529); Oth.knit.crochet.fabrics (6552); Labels, badge etc.not emb (6562); Hosiery,etc.knitted (8462); Oth. made-up cloth.access (8469).
	India	Cotton, carded or combed (2634); Other wool, unprocessed (2682); Waste wool, animal hair (2686); Cotton gauze, etc.woven (6521); Narrow fabric, woven, other (6561); Labels, badge etc.not emb (6562); Brassieres, corsets, etc. (8455).
From Sri Lanka to		
	Bangladesh	Blouses, shirt blouse, etc. (8427); Plastc rubber, apparel etc. (8482).
	India	Trousers, breeches etc. (8426); T-shirts, other.vests knit (8454).
	Nepal	T-shirts, other.vests knit (8454), Blouses, shirt blouse etc. (8447).
	Pakistan	Trousers, etc. (8414); Blouses, shirt blouse, etc. (8427).

Note: Figures in parentheses are SITC 4-digit Codes.

complementarity of the export and import structures of countries is by using the Cosine Measure (Linneman, 1992).

The analysis suggests that there is ample scope for expanding exports of textiles from Bangladesh to India; Exports of textiles from Bangladesh to Pakistan; Exports of clothing from India to Pakistan; Exports of clothing from Pakistan to India; Exports of clothing from Pakistan to Sri Lanka; Exports of textiles from Sri Lanka to Pakistan (Ratnayak, 2001).

Prospects for enhancing Quantity and Quality of intra-South Asian FDI

In order to effect industrial restructuring and horizontal specialization as well as tapped the trade complementarities in the textiles and clothing sector in the South Asian region, intra-South Asian FDI would have to be used as a vehicle hence, the determinants of both quantity and quality of FDI need to be tackled at the policy level. In recent times, an understanding has been emerging that in the era of WTO and globalization, tariff-jumping FDI inflows have been losing significance (Nunnenkamp, 2002). Thus, structural factors and policy factors in an economy would have to be addressed in order to attract FDI, as FDI would not flow in just for the sake of circumventing trade barriers.

The analytical framework developed by Dunning (1993), in terms of the eclectic theory, which emphasizes on three major determining factors of FDI-volumes viz. ownership, location and internalization (OLI), is rather well known. However, Velde (2001) categorized policies and factors influencing FDI inflows as *determinants* (affecting potential foreign investors), *upgrading* (affecting established foreign investors) and *linkages* (affecting the response of domestic firms).

Further, in an interesting departure from the conventional literature on FDI, emphasis has recently been laid on the quality of FDI inflows (Kumar, 2002). Unless a country receives *good-quality* FDI, the developmental role of FDI would be rather limited. On the basis of econometric explorations with respect to the overseas production by the US and Japanese multinationals in 7 branches of manufacturing in 74 host countries at three points of time it has been found by Kumar (2002) that in general, activities of the multinationals are unevenly located across countries and those in technology intensive industries are generally distributed even more asymmetrically than overall FDI. This is also true of the distribution of value-added as compared to output and of export-

oriented production. Overseas R & D activity is most unevenly spread across countries. It seems to suggest that the benefits of FDI in terms of access to new technologies, creation of employment and value-added, export expansion and contribution to R&D capability have been shared by fewer countries than those receiving FDI inflows. Alternatively, the quality of FDI inflows received by different countries has varied widely in terms of different criteria.

The upshot of the above is that the canvas of policies and structural factors that determined the quantity and quality aspects of FDI inflows is quite wide and unless intra-South Asian FDI promotion policies are in tune with such analytical understandings and empirical findings, the scope for industrial restructuring in the textiles and clothing sector in the region may remain limited.

Global Chains and Joint Marketing

It is a well-established fact that the main drivers of the apparel production are the global chains and retail networks. The concept of commodity chains has gained currency in recent times which is primarily a network-centered view of the world economy. It recognizes that in the global economy, economic activity is not only international in scope but also global in its organization. "Internationalization" refers to the geographic spread of economic activity across national boundaries. "Globalization" implies the functional integration of internationally dispersed activities. This approach emphasizes on the global coordination system that integrates the organization of international production networks (Gereffi 1995). In this context, commodity chains are considered as networks of business units involved from the stage of supplying raw materials to production, exporting, and finally marketing and retailing - including both forward as well as backward linkages. In this framework, the importance of building brand names is also highlighted. Thus, the South Asian countries, in order to tap trade complementarities and initiate more intensive industrial restructuring need also to simultaneously integrate themselves to the global chains, especially through brand creation and brand-marketing. This would give them an opportunity to regionalize and globalize the sector at the same time.

Training/Skilling

An important dimension for improving competitiveness in the clothing and textile sectors is that of training and skills. Training and skill development have emerged as a crucial determinant of export competitiveness. In globally successful firms, a period of in-house training follows initial hiring, with a close link between the intensity and length of this training and the type and

range of garments being produced. Hence, it has been found that producers of high-quality garments offer a longer period of in-house training than producers of low-quality or relatively basic garments. However, training is considered as a risky investment because a skilled worker can easily move to a competing firm on higher wages. In this context, efforts are often made on the front of multi-skilling, i.e. qualifying an employee to handle multiple operations within the firm. This is achieved with tasks rotated regularly, which fosters the multi-skilling. The experiment thus far has often yielded a performance on par with the firm's upper average production levels.

Thus, in order to enhance the competitiveness levels, the South Asian countries need also to complement their efforts of efficiency-seeking industrial relocation and horizontal specialization with mechanisms devised for training and multi-skilling.

In nutshell, there is immense scope for regional cooperation in the South Asian region for effecting efficiency seeking industrial restructuring in the textiles and clothing sector. For this purpose emphasis needs to be laid upon tapping trade complementarities, focusing horizontal specialization, exchanging regional technologies, augmenting quantity and quality of intra-regional FDI, entering into global supply chains, technological capability building through training etc.

Section VII

Summing up and Policy Recommendations

Taking note of the fact that there exist a plethora of studies with respect to the textiles and clothing sector in the context of individual countries and global trends, the present paper categorized them in the following groups in terms of their focus on: (a) domestic industrial structural changes/policies and domestic policies for increasing competitiveness in post-MFA phase (b) changing global industrial patterns and impact of MFA phasing-out (c) cooperation framework for increasing competitiveness in post-MFA phase. Of these, there are only a few studies that have focused on the last category especially vis-à-vis the South Asian countries, thus the present study attempts at filling this gap in the existing literature on some dimensions.

The present study analysed the mechanism of the effect of MFA protection on import prices in terms of increasing demand for timely delivery that gives a

competitive edge to a geographically proximate exporter. It has been observed that imposition of MFA quotas raises import prices. The effect of protection on import prices of items sourced from the SAARC region was analysed and it was observed that in recent times, there has been decline in the import prices of the EU in the textiles and clothing segments vis-à-vis SAARC countries. However, in the case of the US the decline is somewhat visible in the clothing segment only. One may argue that this is the effect of QR removal in the developed region. However, since the phasing out has not been substantial the effect appears to be marginal. At this stage the present study posed the question as to what is the status of MFA phase-out schedule, as an understanding of this would clarify further as to why the impact on prices is not substantial. The paper argued that to some extent, the impact of quota removal is offset by creation of other barriers to trade in these products in the domains of anti-dumping, rules of origin etc.

Nevertheless, this is not to deny that quota-removal would certainly expand market access for developing countries. But for this to happen it is imperative to take into account the nature of structural transformation that textiles and clothing sector has been undergoing in the South Asian Region as reflected in factor intensity reversal. The paper goes into these issues in greater depth and details so as to bring out the policy implication for enhancing competitiveness in this sector in the backdrop of structural transformation with respect to this sector.

Traditionally, textiles and clothing industry has been considered as one of the relatively more labour-intensive manufacturing industries in which developing countries have had comparative advantage mainly on account of cheap labour. Going by this notion, developing countries should be the leading exporters of textiles and clothing products. However, the paper highlighted that some of the major countries in the global textiles and clothing market are from among the developed countries. On the other hand, an analysis of exports from the SAARC region to the principle markets of the US and EU suggests that their distribution in these markets have been disparate across the SAARC countries.

Against this background there is a general apprehension that the SAARC countries might not be able to take advantage of the post-MFA regime unless they are competitive. The issue of competitiveness has been analysed in the present study with respect to the structural transformation that the textiles and clothing sector has been undergoing in the South Asian countries. As this labour-intensive industry has been increasingly becoming a capital and knowledge-

intensive one, it would have had its impact on productivity gains and in turn on exports. Therefore, developed countries, as also some of the NIEs have been able to maintain or improve competitiveness by sustaining wage increases through technological innovations.

Through econometric explorations the present paper observes a situation characterized as factor intensity reversal in South Asian countries necessitated by structural transformation within the industry due to more and more use of the abundant factor of the developed countries. Intuitively, implementing such a change in the production process in the South Asian countries would not be easy due to the scarcity of the new factor. This would give the developed countries an added competitive advantage and an additional time-period to reign on the global market of the products of that sector.

Against this background, it may be fair to say that the MFA phasing out has several challenging implications for the SAARC countries. While on one hand the WTO ATC process has become more stringent in terms of arbitrary use of anti-dumping and rules of origin provisions and the integration schemes are characterized by lack of implementation, developing countries like SAARC members would have to face additional challenges of improving their export competitiveness with the help of technological modernization. The last dimension is particularly important due to the phenomenon known as factor intensity reversal whereby the traditional labour cost advantage appears to be withering away and a special policy focus is required for modern techniques of production, designing, marketing, etc.

In the wake of such challenges the level of preparedness in the SAARC region to take advantage of a freer global textiles and clothing regime can be expected to be very high. In order to explore into this dimension on an illustrative basis a field survey of textiles and clothing manufacturers in India was conducted. It was observed that the level of preparedness in India to face global competition in post-MFA scenario is inadequate and it faces several bottlenecks vis-à-vis its competitors. Nevertheless, it must be mentioned that the bigger firms in India are relatively more prepared to face the post-MFA challenges as compared to the smaller firms. It was also observed that the level of preparedness with respect to efforts from the government also needs to be stepped up.

To meet the challenges of post-MFA regime and to enhance preparedness regional cooperation becomes imperative. Any cooperation among the South

Asian countries would not only depend on their competitiveness profile but also would be geared towards enhancing the competitiveness level through industrial restructuring which is efficient.

It is in this context of competitive levels in the South Asian region in the textile and clothing sector that prospects for horizontal specialization and industrial restructuring are explored in the present paper. In order to help the South Asian countries meet the global challenges of competition in this sector, it is suggested that they aim for regional integration of this sector, especially with the help of strengthening trade-investment linkages. Since such mechanisms involve exchange of technological expertise too, the paper reiterated that there is strong empirical evidence about the transfer of resources and technology through joint ventures among the developing countries being more appropriate and cost effective for the recipient country than similar transfers emanating from multinationals belonging to the developed countries. To elucidate, the paper recalled the literature which found that the technology transferred to joint ventures was appropriately scaled down to smaller size, made more appropriate to factor endowments of developing countries, and adapted to local raw materials and conditions. Such technologies were also found to depend less on imported capital goods and raw materials and result in significantly lower foreign exchange outgo on account of servicing.

Moreover, the paper argues for inducting horizontal integration, i.e. cooperation in the same or similar lines of production and exports, among the South Asian countries. As per the industrial restructuring on a pan-South Asian basis, a particular South Asian country which has gained export specialization in certain textiles and clothing product lines in recent times, could become the host of relocated plants of the other South Asian countries. In this manner, the textiles and clothing sector could become a regional integrated sector as countries would vacate certain lines of production and gain in other lines of production according to their relative comparative advantage in the global market. Such a restructuring would engender intra-South Asian investment flows that would be trade-creating vis-à-vis the global and regional markets. So that South Asian countries do not lose out on the value-addition chain, focus has to be given on horizontal specialization to begin with. In subsequent phases, vertical integration in this sector could also be contemplated.

Further, the paper referred to literature analyzing trends in regional economic integration arrangements whereby there is a tendency to do internal restructuring

within enterprises by removing the need to maintain horizontal national operations. Hence, multinationals restructure their operations by assigning the responsibility for serving specific regional or even global markets in particular product lines to certain affiliates – called as *product mandating*, which emanates from efficiency seeking restructuring or specialization within the multinational. Such a strategy may help a South Asian enterprise to internalize the economics of specialization and scale by focusing on the production of a specific product line in the textiles and garments sector, which in turn may help evolving South Asian multinationals whose operations could expand in different parts of the globe in subsequent phases.

With the help of an empirical exercise based on comparative advantage the paper observed that each South Asian country is amenable for industrial a restructuring in terms of horizontal specialization. Each country can become a host of industrial relocation as well as it is also required to shift some of its manufacturing bases to other partners. This is not totally a hypothetical possibility as it is evident from the fact that in several sectors such industrial restructuring is already underway in South Asia including consumer goods, processed food, medicinal preparations, tyres, tea, light engineering goods, etc. In the textiles and clothing sector too, Indian companies have shifted production in order to take advantage of Nepal's unutilized MFA quotas. As many as 14 out of 72 ventures operated by Indian companies in Nepal are engaged in textiles and readymade garment exports. In order to reinforce the argument the paper highlighted studies that have also found existence of trade complementarities in these sectors in the region.

In order to facilitate efficiency seeking industrial restructuring to enhance product competitiveness meeting the post-MFA challenges the paper turns its attention towards the issue of augmenting intra-South Asian FDI and strengthening trade and investment linkages. In so doing, the paper explored briefly the canvas of policies and structural factors that determined the quantity and quality aspects of FDI inflows which is quite wide and emphasized that unless intra-South Asian FDI promotion policies are in tune with the analytical understandings and empirical findings, the scope for industrial restructuring in the textiles and clothing sector in the region may remain limited.

Furthermore, the paper argued that the South Asian countries, in order to tap trade complementarities and initiate more intensive industrial restructuring need also to simultaneously integrate themselves to the global supply chains,

especially through brand-marketing. This would give them an opportunity to regionalize and globalize the sector at the same time. In addition, in order to enhance the competitiveness levels, the South Asian countries need also to complement their efforts of efficiency-seeking industrial relocation and horizontal specialization with mechanisms devised for training and multi-skilling.

Against this backdrop, the following policy suggestions may be considered to strengthen the competitiveness and preparedness of the SAARC textiles and clothing exporters in the post-MFA regime with the help of pan-South Asian efficiency seeking industrial restructuring.

Policy Suggestions

- ***SAARC Textiles and Clothing Sector Restructuring Plan***

The study concludes that exploring into the possibilities of horizontal specialization in production activities in the textiles and clothing sector in the SAARC region to promote efficiency-seeking industrial restructuring would bring about the necessary preparedness for meeting the challenges of post-MFA regime. For this purpose, a SAARC Textiles and Clothing Sector Restructuring Plan may be devised. This may aim at evolving production-sharing mechanisms in the region. Such a plan may focus on identifying the nature of participation that could be rendered by each South Asian country on dimension such as outward investment; location of investment; R&D centre; sources of technology, human resources and raw materials; designing, packaging and branding; supply and marketing chain etc.

- ***SAARC Investment Promotion and Facilitation***

In order to execute such a plan steps aiming at augmenting intra-South Asian FDI both in terms of quantity and quality need to be taken. To this end, policies pertaining to investment facilitation, guarantees, repatriation, benefit/profit sharing etc. need to be worked out. It is imperative that information exchange in the area of setting up joint ventures and wholly owned subsidiaries is also given an added thrust. As brought out by the paper, such policies would facilitate the process of horizontal specialization in the textiles and clothing sector.

- ***Regional Textiles and Clothing Clusters***

One of the ways in which horizontal specialization could be effected within a policy framework of regional investment is through creation of sub-regional textiles and clothing clusters. This would help technological diffusion in the

region, specific to the sector, by way of spillover effects often arising out of informal and social contacts among employees in addition to buyer-seller links. A policy commitment to this end would help exploiting the economies of scale, scope and specialization, as argued in the paper.

- ***Evolving Regional Marketing Networks and Entering Global Supply Chains***

It is amply clear from the present study that for improving the prospects for exports in the post-MFA regime the South Asian countries need to take advantage of the existing global supply chains and also create their own marketing networks. To galvanize efforts for evolving supply chains and marketing networks both at the regional and global levels a specific cell may be set up in the SAARC Secretariat. Entering into bilateral trade agreements between SAARC countries and developed countries for increased market access designed especially for Outward Processing Trade Arrangements may also be considered. In addition, special arrangements should be made to promote FDI from developed to SAARC countries in OPT-related activities.

- ***Regional Multi-purpose Technology Modernization Fund***

The results of the study suggest that firms belonging to the textiles and clothing sector need to embark upon technological upgradation initiatives due to the structural transformation that this sector has been undergoing. Creation of a regional multi-purpose technology modernization fund for enhancing R & D activities in the region with special emphasis on quality and branding focusing especially on regional technologies needs to be explored within the regional cooperation policy framework. For this purpose, extra-regional and multilateral sources of funding may be tapped.

- ***Setting up an Expert Group on Balancing labour and Technology Issues***

The study has emphasized on devising a policy mix to achieve the twin objectives of sustaining labour cost advantage and technological modernization for improving competitiveness of SAARC exports of textiles and clothing items. An Expert Group may be set up to examine different dimensions of such issues. The Expert Group may get a study conducted on the subject and the findings of the study may be assessed in a Regional Workshop.

- ***Capacity-building/Training Programmes***

As highlighted in the study, the task of imparting training to the private sector to understand WTO issues, as also to enhance productivity levels for making

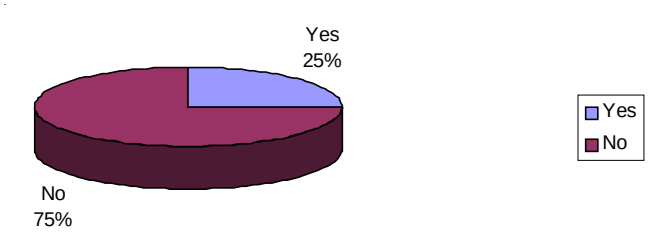
exports more competitive through multi-skilling needs to be undertaken. To this end, the technical assistance provisions of the WTO may be utilized for regional benefits.

Annexure I

A Field Survey of Indian Textile and Clothing Firms: Some Illustrative Results

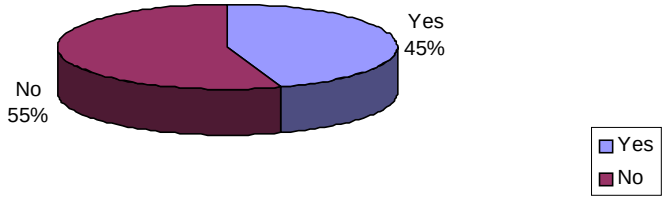
On an illustrative basis, a field survey of firms belonging to the textile and clothing sector was undertaken in order to find out as to what is the level of preparedness among them to face post-MFA challenges. The basic objective was also to evolve a policy framework to improve export competitiveness in the backdrop of the insight that could be gathered from the field survey. The survey was conducted on the basis of questionnaires. The 100 firms included in the sample from Indian textiles and clothing sector were from different parts of the country, of varied sizes and involved in the production of a diverse range of products. They have been categorized on the basis of their size viz. big and small firms (divided on the basis of number of employees).

Figure 1: Awareness of MFA Phase-out



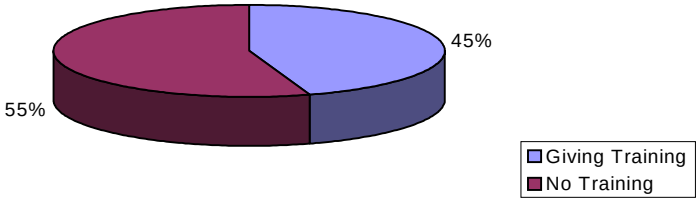
It is worrying to note that some exporters are not even aware of the most basic change they are going to face in their business operation in 2005 in terms of MFA Phasing out (Figure 1). Increasing awareness about the world trading regime as a whole is probably the first step towards any kind of preparations.

Figure 2: Awareness of TUF Scheme



The Technological Upgradation Fund (TUF) Scheme in India is aimed to promote modernization of production processes but more than half of the exporters are not even aware of such schemes (Figure 2). This is a major observation that emerges out of the field survey because unless information about such policy measures reaches the exporters they would be ill-equipped to face the challenges of competition in the post-MFA scenario especially when the sector is getting characterized by the phenomenon of factor intensity reversal as analyzed in the paper.

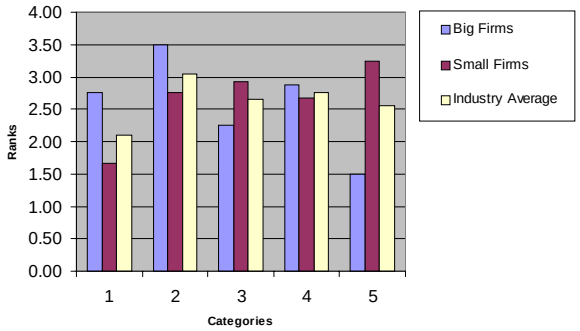
Figure 3: Proportion of firms giving training to workers



The previous observation is further supported by the fact that there is lack of preparedness among Indian exporters to meet the global challenges of competition through adequate training for the use of new technologies. More than half of the exporters of the sample provided no direct training to their workforce (Figure 3). This fact needs to be highlighted because it has been found in a detailed study that inadequate training of managers and workers alike is one of the most important factors constraining productivity and competitiveness in Sri Lanka (Kelegama and Epaarachchi, 2002).

It was observed in the survey that the perceptions, in terms of their competitors, of the bigger firms differ substantially for categories 1 and 2, possibly because the smaller exporters specialize in niche product segments and markets and therefore do not face stiff competition on the price and quality fronts in their segments (Figure 4). Quality is one area which has emerged as the most important concern vis-à-vis competitors for the industry as a whole. It is also observed that small size exporters view government support as an important criterion for improving competitiveness. At this stage it may be mentioned that an analysis of the Pakistan's textiles and clothing sector suggest that competitiveness in this sector for Pakistan's exports could be achieved by emphasizing upon product quality, efficiency of resource use and productivity (Musleh-Ud Din and Abbas, 2000).

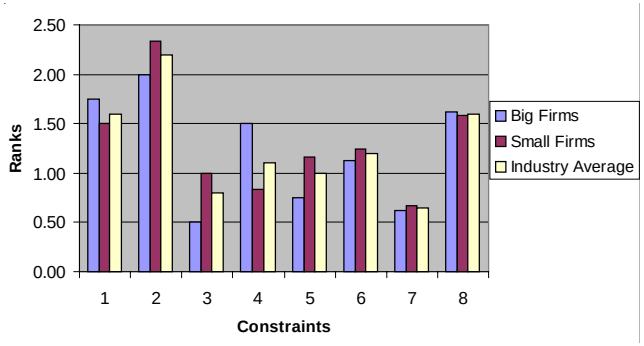
Figure 4: Perceived Strengths of Competitors



Rank: 1 = greatest strength, 5 = least important
Categories: 1 = Price Competitiveness, 2 = Superior Quality, 3 = Better Marketing, 4 = Better Order Servicing, 5 = Strong Government Support

The survey also revealed that except for constraint numbers 3, 4, and 5 the views of the small and big firms coincide with respect to domestic constraints (Figure 5). This result is not surprising because bigger firms having economies of scale consider machinery problems and input supplies less important compared to smaller firms. Similarly, probably due to greater volumes the bigger firms face more procedural delays in certain areas of bureaucratic intervention than smaller firms and hence they think category 4 to be more important.

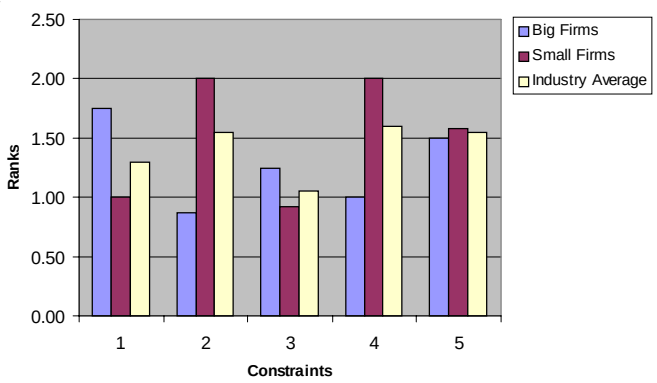
Figure 5: Domestic Constraints in Meeting Order Deadlines



Rank: 0 = not important, 3 = most important
Constraints: 1 = Labor Problems, 2 = Fabric Supply / Quality, 3 = Machinery Problems, 4 = Procedural Delays (Customs, Getting Quotas, etc.), 5 = Other Input Supplies, 6 = Delay by Fabricators, 7 = Credit Availability, 8 = Infrastructural Problems

Labour problems, fabric supply and its quality as well as infrastructural problems have emerged as biggest domestic constraints. Therefore adequate policy attention is needed in these areas so as to help prepare the exporters facing the global challenges of competition in the post-MFA situation. In fact more concerted efforts are required on the front of infrastructure to make the exports more competitive (Spinanger and Verma, 2003).

Figure 6: International Constraints

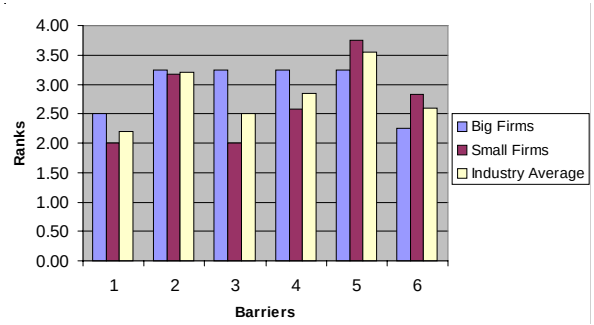


Rank: 0 = not important, 3 = most important
Constraints: 1 = Inadequate Marketing infrastructure, 2 = Quality Standards, 3 = Environmental Standards, 4 = Lack of Brand Presence, 5 = Consumer Awareness of Indian clothing

Quite interestingly, it is discernible from Figure 6 that smaller firms rate quality standards and lack of brand presence as quite major impediments for their exports in the international markets. It may be mentioned that both aspects reinforce each other and that quality and brand presence are easy to come by as production scale is expanded and greater attention is given to non-price methods of competition. Such strategies and capabilities are developed more easily by bigger sized firms as compared to the smaller ones. On the other hand, large scale firms perceive that better marketing infrastructure is needed to export larger volumes in the global market with increased competition. This is an area wherein if mechanisms need to be developed for forging tie-ups with domestic retailers and departmental stores in the importing countries through entering into global marketing networks.

Production and marketing restructuring is required to tackle the international constraints that are faced by both small and large firms.

Figure 7: Perceived Threats: Post-MFA Trade Barriers



Rank: 1 = most dangerous, 6 = least dangerous
Barriers: 1 = Environment / Labor Standards, 2 = Anti-Dumping Complaints, 3 = Product Standards, 4 = Transitional Safeguards, 5 = Rules of Origin, 6 = Trade Diversion effects (due to NAFTA, expansion of EU).

On the issue of the perceived threats in terms of different trade barriers getting erected in the developed countries under the post-MFA regime some interesting results have emerged (Figure 7). For the industry as a whole the threats perceived by the respondents are in the following sequence, starting with the maximum threat: environment/labour standards, trade diversion effects, product standards, transitional safeguards, anti-dumping complaints, rules of origin. Quite interestingly and contrary to the discussions contained in Section III in the paper, despite the intensity of use by the developed countries of anti-dumping and rules of origin measures in an WTO- inconsistent manner, the Indian industry appears to be almost ignorant about the effects of such measures on their export prospects in future.

At this stage it is worth mentioning that in another study Gherzi Consultants (2003) have found that the Indian textiles sector is characterized by several bottlenecks vis-à-vis countries like China, Pakistan, Indonesia, Bangladesh and Sri Lanka in terms of low productivity in raw cotton, cost of electricity, inadequate investment across value chain restricting capacity and technological upgradation, etc. that contribute to lack of cost competitiveness.

Overall, it may be summed up that the level of preparedness in India to face global competition in post-MFA scenario is inadequate and it faces several bottlenecks vis-à-vis its competitors. Some of the characteristics have been found to be similar in other South Asian countries also.

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