

# **A PLAN TO STRENGTHEN REGIONAL TRADE COOPERATION IN SOUTH ASIA**

*A Study prepared for the SANEI-I Project*

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*August 2000*

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## **CHAPTER I**

### **I.1. INTRODUCTION**

Even though South Asian economies are bound in the SAARC for the last 15 years, intra-regional trade continues to be minimal; it does not exceed 2 percent of their total trade. The SAARC summit declarations have promised the Free Trade Area (SAFTA) over not very distant future and a South Asian Preferential Trade Agreement (SAPTA) has even been signed with a view to providing preferences to intra-regional trade but the share of intra-regional trade in total trade has hardly shown any increase. The reluctance to enhance trade is manifested in the fact that most of the products of export interest to the countries in the region are denied the preferential treatment. Probably it is a reflection of their mistrust and countries are unwilling to increase their interdependencies by increasing trade. One can though argue that the inter-dependencies may promote political and economic cohesion.

The South Asian nations have probably the maximum incidence of poverty and any effort to promote growth can help in resolution of the problem. Trade can play an important role in raising the welfare and if the potential beneficiaries include labour, it may help in reducing the poverty. Accordingly, trade amongst SAARC, especially in view of the increasing regionalism despite WTO, is absolutely crucial if the region has to gain advantages of freer trade. An increased international trade promises an improved resource allocation, higher levels of technical and X-efficiency, wider options for consumers and exposure of new ideas, technologies and products.

This study undertakes a detailed analysis of various aspects of intra-regional trade in the South Asian region, with a view to identifying avenues for trade and economic cooperation in the region. The plan of the paper is as follows: After this introductory section, an overview of the South Asian economies is provided in section I.2. Chapter II discusses liberalization policies in South Asian economies, while Chapter III examines trends in intra-regional trade flows. The pattern of revealed comparative advantage and the degree of trade complementarity in South Asia is examined in Chapter IV. Intra-industry trade in the South Asian region is discussed in Chapter V. The factors that have inhibited intra-regional trade are highlighted and measures to strengthen trade and economic relations in South Asia are suggested in Chapter VI. Major conclusions are included in Chapter VII.

### **I.2. AN OVERVIEW OF SOUTH ASIAN ECONOMIES**

South Asia with a population of 1.28 billion accounts for 22.0 percent of the world population. However, regional GDP of \$510 billion is only 1.8 percent of the world GDP indicating the low levels of per capita incomes; per capita incomes, on average, in the region do not exceed \$400 and almost every country houses large number of poor.

The South Asian economies differ rather significantly in size. For example, India accounts for more than three-fourth of the region's GDP while Sri Lanka and Nepal have only 3.0 and 0.9 percent of the regional GDP respectively. Pakistan and Bangladesh with medium sized economies account for 12.5 and 8.4 percent respectively of the regional GDP. There are also sharp variations in per capita incomes across the countries; Sri Lanka's per capita income is four times that of Nepal. (See Table I.1).

**TABLE I.1: POPULATION AND GROSS DOMESTIC PRODUCT**

COUNTRY	POPULATION			GDP			PER CAPITA INCOME (US \$)		
	(Percent of Region)			(Percent of Region)					
	1981	1995	1998	1981	1995	1998	1981	1995	1998
Bangladesh	10.1	9.8	9.8	6.4	6.8	8.4	131	243	340
India	77.1	76.3	76.6	76.5	75.2	75.2	206	349	391
Nepal	1.7	1.8	1.8	1.3	1.0	0.9	161	197	195
Pakistan	9.4	10.7	10.3	13.6	14.1	12.5	298	467	484
Sri Lanka	1.7	1.5	1.4	2.2	3.0	3.0	275	713	794

Source: *World Development Report, 1983, 1997, 1999.*

The reliance of SAARC countries on agriculture is manifested in the fact that despite sharp structural changes agriculture still accounts for about 25 percent of GDP. Nevertheless, a decline in the share of agriculture from 37.8 percent to 24.8 percent and increases in the shares of industry and services from 25.0 and 37.2 percent to 30.2 and 45.0 percent respectively over the 1980-97 period do indicate a sharp transformation of the regional economies. There has been a gain in the share of industry in almost every country of the region except Pakistan though the decline in the share of agriculture and gain in the services sector is quite visible across all the countries (Table I.2).

**TABLE I.2: SECTORAL COMPOSITION OF NATIONAL INCOME**

REGION/COUNTRY	<i>(as % of GDP)</i>					
	AGRICULTURE		INDUSTRY		SERVICES	
	1980	1997	1980	1997	1980	1997
SAARC	37.8	24.8	25	30.2	37.2	45
Bangladesh	49.4	32.4	14.8	19.2	35.8	48.4
India	38.1	24.3	25.9	31.9	36	43.8
Nepal	61.8	41	11.9	19.1	26.3	39.8

Pakistan	30.6	24.2	25.6	26.4	43.8	49.4
Sri Lanka	26.6	18.3	27.2	32.3	46.2	49.4

Source: RIS SAARC Survey of Development and Cooperation 1998/99.

The industrial sector in the SAARC countries has shown a very healthy growth rate of 6.5 percent in 1991-97 compared to 5.7 percent in the 1981-90 period. The growth rate ranged between 5.2 percent in case of Pakistan to 8.0 percent in Nepal. While the average growth rates have been high, they show fluctuations over time and there seems to be a declining trend (see Table 1.3). Despite high growth rates of the industrial sector in Bangladesh and Nepal, its contribution to GDP is still less than 20 percent compared to India's 30.2 percent, Sri Lanka's 32.3 percent and Pakistan's 26.4 percent (see Table 1.2).

**TABLE 1.3: GROWTH PERFORMANCE OF INDUSTRIAL SECTOR**

REGION/COUNTRY	(% per annum)					
	Average Growth Rate during		1994	1995	1996	1997
	1981-90	1991-97				
SAARC	5.7	6.5	8.6	12.2	6.5	5.5
Bangladesh	7.1	6.4	7.8	8.4	5.3	3.6
India	5.4	6.5	9.4	14.1	7.2	6.0
Nepal	9.0	8.0	9.0	3.9	5.9	3.2
Pakistan	5.9	5.2	4.5	4.8	3.6	3.3
Sri Lanka	7.4	7.2	8.1	7.8	5.6	7.9

Source: RIS SAARC Survey of Development and Cooperation 1998/99.

While the manufacturing sector has grown sharply at the rate of around 7 percent in the SAARC region, it is not much diversified. Reliance on food and textile products in almost every country except India has been quite high: these two industries accounted for 62.0, 68.5, 46.1 and 73.9 percent respectively of the value added in manufacturing sectors of Bangladesh, Nepal, Pakistan and Sri Lanka in 1995 (Table 1.4). In India these two industrial sectors accounted for 27.3 percent of manufacturing value added. On the other hand, the share of engineering sector is negligible except India and to some extent Pakistan where it contributed 24.9 and 11.4 percent respectively, indicating different levels of technological industrial development in different countries. While this points to

the vast potential for trade diversion it also indicates that if relatively less industrialized countries want to have an engineering base they would not be very willing to open up trade unless a program of subsidies for such industries is put in place.

**TABLE I.4: SECTORAL COMPOSITION OF VALUE ADDED IN MANUFACTURING**

SECTOR	<i>(percent)</i>									
	BANGLADESH		INDIA		NEPAL		PAKISTAN		SRI LANKA	
	1985	1995	1985	1995	1985	1995	1985	1995	1985	1995
Food Products	24.7	25.4	11.6	11.9	50.0	34.6	31.7	23.6	62.6	43.6
Textiles And Apparel	30.3	36.6	16.0	15.4	19.0	33.9	19.1	22.5	15.2	30.3
Wood Products	1.4	1.0	0.5	1.0	3.0	2.8	0.5	1.0	1.8	1.0
Paper Products	3.1	4.4	3.3	3.7	3.0	2.6	2.1	3.5	3.1	3.3
Chemical And Allied	27.2	17.4	21.7	27.3	6.0	7.8	19.6	22.4	6.1	6.5
Non-Metallic Mineral Products	1.7	2.8	5.8	4.1	12.0	8.3	6.9	9.3	6.1	5.2
Metals	4.1	4.0	12.3	10.9	2.0	2.1	10.6	6.5	1.0	1.5
Engineering Products	6.7	8.1	28.9	24.9	4.0	7.3	9.3	11.4	3.4	6.1
Other Manufactures	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0	2.6
Total	100	100	100	100	100	100	100	100	100	100

*Source: RIS SAARC Survey of Development and Cooperation 1998/99.*

Significance of trade is inversely proportional to the size of the country because of relatively less diversified output. Trade allows smaller countries to produce even the commodities that are subject to increasing returns to scale. The inverse relationship of exports and imports with the size of the country (as measured by GDP) is quite evident from Table I.5.

**TABLE I.5: COUNTRY SHARES IN REGIONAL AGGREGATES: 1998**

COUNTRY	<i>(percent)</i>		
	GDP	EXPORTS	IMPORTS
Bangladesh	8.4	7.48	10.10
India	75.2	65.7	64.52
Nepal	0.90	0.79	2.58

Pakistan	12.50	16.56	13.81
Sri Lanka	3.0	9.44	8.99

*Source: World Development Report, 1999-2000.*

The exports of South Asia increased from \$28.3 billion in 1991 to \$51.0 billion in 1997, indicating a growth rate of 10.3 percent but the imports increased at a more rapid rate of 10.5 percent. Imports increased from \$34.9 billion in 1991 to \$63.6 billion in 1997. Consequently, trade deficit widened further from \$6.6 billion to 12.6 billion resulting in an even greater dependence on the external resources to finance the trade deficit (Table 1.6).

The structure of trade is reflective of a country's production structure and its trade policies. Exports of agricultural products have generally in all the five countries declined. Exports of minerals, except in India where they were 3.13 percent of total exports in 1998, are negligible in all the countries of the region. While manufacturing accounted for more than 70 percent of total exports in 1998, most of the manufacturing goods consisted of textiles products. In 1998, machinery and transport equipment accounted for only 1.1, 8.0, 0.2, 0.4 and 2.3 percent of the exports in Bangladesh, India, Nepal, Pakistan and Sri Lanka respectively. (See Table I.7).

A major proportion of total imports of each country have generally consisted of manufactured goods, followed by fuels and food items (see Table I.8).

**TABLE I.6: PATTERNS OF TRADE FLOWS**

<b>COUNTRY</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
<b>BANGLADESH</b>													
EXPORTS	998.8	888.9	1076.8	1291.1	1304.9	1671.8	1,687.5	2,037.0	2,277.0	2,650.0	3,129.0	3,297.0	4,076.0
	(7.2)	(-10.9)	(21.1)	(19.9)	(1.1)	(28.1)	(0.9)	(20.7)	(11.8)	(16.3)	(18.1)	(5.4)	(23.6)
IMPORTS	2526.2	2550.4	2730.3	3034.1	3617.6	3656.1	3,421.0	3,731.0	4,015.0	4,584.0	6,496.0	6,898.0	6,857.0
	(-6.1)	(1)	(7.1)	(11.1)	(19.2)	(1.1)	(-6.3)	(9.1)	(7.6)	(14.2)	(41.7)	(6.2)	(-0.5)
TRADE BALANCE							-1,733.5	-1,694.0	-1,738.0	-1,934.0	-3,367.0	-3,601.0	-2,781.0
<b>INDIA</b>													
EXPORTS	8265	9135	10798	12981	15365	17814	17,873.0	18,500.0	20,259.0	24,196.0	30,537.0	32,325.0	33,289.0
	0.4	10.5	18.2	20.2	18.4	15.9	(0.3)	(3.5)	(9.5)	(19.4)	(26.2)	(5.9)	(3.0)
IMPORTS	16329	15051	16841	19130	19239	23529	19,509.0	23,227.0	21,225.0	25,477.0	34,484.0	36,055.0	38,911.0
	8	-7.7	11.9	13.6	0.6	22.3	(-18.6)	(19.1)	(-8.5)	(20.0)	(35.3)	(4.6)	(7.9)
TRADE BALANCE							-1,636.0	-4,727.0	-966.0	-1,281.0	-3,947.0	-3,730.0	-5,622.0
<b>NEPAL</b>													
EXPORTS	134.81	134.29	147.64	234.58	183.39	216.2	256.1	352.0	367.0	351.0	324.0	358.0	394.0
	61.9	-0.3	9.9	58.9	-21.7	17.9	(18.4)	(37.0)	(4.0)	(-4.1)	(-7.7)	(10.6)	(9.9)
IMPORTS	295.17	313.98	466	534.03	421.36	452.45	455.3	477.0	528.0	615.0	753.0	634.0	624.0
	10.7	6.4	48.4	14.6	-21	7.4	(0.6)	(-4.6)	(10.7)	(16.7)	(22.3)	(-15.7)	(-1.4)
TRADE BALANCE							-199.3	-125.0	-161.0	-264.0	-429.0	-276.0	-230.0
<b>PAKISTAN</b>													
EXPORTS	2738.4	3383	4168.3	4509.3	4660.1	5587.2	6,494.2	7,269.0	6,701.0	7,332.0	7,991.0	9,299.0	8,632.0
	7	23.5	23.2	8.2	3.3	19.9	(16.2)	(11.9)	(-7.7)	(9.4)	(9.0)	(16.4)	(-7.1)
IMPORTS	5888.5	5367.2	5818.7	6588.4	7107	7383	8,431.5	9,375.0	9,492.0	8,884.0	11,460.0	12,150.0	11,595.0
	0.6	-8.8	8.4	13.2	7.9	3.9	(14.2)	(11.2)	(1.3)	(-6.3)	(29.0)	(6.0)	(-4.5)
TRADE BALANCE							-1,937.3	-2,106.0	-2,791.0	-1,552.0	-3,469.0	-2,851.0	-2,963.0
<b>SRI LANKA</b>													
EXPORTS	1292.7	1215	1368.1	1478.7	1544.5	1983.5	1,987.0	2,488.0	2,859.0	3,210.0	3,810.0	4,097.0	4,652.0
	-11.8	-8	14.8	9.5	5.4	23.1	(4.9)	(25.2)	(14.9)	(12.3)	(18.7)	(7.5)	(13.5)
IMPORTS	1831.8	1829.4	2056.4	2278.8	2087.5	2636.4	3,061.0	3,473.0	4,005.0	4,482.0	4,767.0	5,028.0	5,654.0
	-0.6...		12.4	10.8	-8.3	26.3	(16.1)	(13.4)	(15.3)	(11.9)	(6.4)	(5.5)	(12.5)
TRADE BALANCE							-1,074.0	-985.0	-1,146.0	-1,272.0	-957.0	-931.0	-1,002.0

Source: IMF, Direction of Trade Statistics Yearbook, 1992, 1998.

Note: Figures in parentheses indicate percentage change over the previous year.

TABLE I.7: EXPORT STRUCTURE BY MAJOR PRODUCT CATEGORIES

(percent)

COUNTRY	YEAR	TOTAL VALUE (MILLION US \$)	ALL FOOD ITEMS	AGRICULTURAL RAW MATERIALS	FUELS	ORES AND MINERALS	UN- SPECIFIED	MANUFACTURED GOODS	OF WHICH		
									CHEMICAL PRODUCTS	OTHER MANUFACTURED GOODS	MACHINERY & TRANSPORT EQUIPMENT
SITC CODE			0+1+22+4	2 less (22+27+28)	3	27+28+68	9	5 to 8 less 68	5	(6+8) less 68	7
<b>BANGLADESH</b>											
	1985	974	17.92	13.29	2.55	0.00	0.45	65.80	0.15	64.06	1.58
	1990	1,556	14.31	6.81	1.28	0.00	0.10	77.49	1.10	75.47	0.92
	1995	3,407	10.45	2.65	0.45	0.00	1.30	85.15	3.03	80.52	1.60
	1998	5,057	7.23	1.70	0.22	0.00	0.16	90.68	0.86	88.77	1.05
<b>INDIA</b>											
	1985	8,950	25.35	2.84	6.04	7.64	0.10	58.03	3.60	48.19	6.24
	1990	17,859	15.58	3.09	3.88	5.77	1.60	70.08	7.42	55.26	7.41
	1995	31,650	18.68	0.45	2.51	3.58	1.53	73.25	8.10	57.69	7.46
	1998	34,721	17.76	0.93	2.22	3.13	1.92	74.04	9.79	56.27	7.97
<b>NEPAL</b>											
	1985	129	35.08	5.60	0.00	0.19	0.04	59.09	3.52	55.56	0.01
	1990	180	13.20	3.01	0.00	0.27	0.26	83.26	0.47	82.79	0.00
	1995	359	7.81	1.12	0.00	0.13	7.21	83.73	1.21	82.37	0.14
	1998	405	9.96	0.56	0.00	0.12	12.68	76.68	1.99	74.54	0.16
<b>PAKISTAN</b>											
	1985	27,076	17.31	17.95	1.44	0.45	0.91	61.93	3.40	57.52	1.01
	1990	55,221	9.30	10.21	1.28	0.30	0.21	78.68	0.40	77.97	0.31
	1995	81,249	11.78	3.85	0.98	0.16	0.26	82.96	0.67	82.11	0.18
	1998	84,372	13.54	1.91	0.32	0.19	0.14	83.91	0.71	82.76	0.43
<b>SRI LANKA</b>											
	1985	1,246	47.43	9.78	10.96	1.06	0.13	30.64	0.79	29.27	0.58
	1990	1,894	34.25	5.80	1.47	1.57	4.17	52.74	1.02	49.77	1.94
	1994	3,192	21.23	3.52	0.70	0.64	1.88	72.02	0.87	68.88	2.28

Source: UNCOMTRADE Database.

TABLE I.8: IMPORT STRUCTURE BY MAJOR PRODUCT CATEGORIES

(percent)

COUNTRY	YEAR	TOTAL VALUE (MILLION US \$)	ALL FOOD ITEMS	AGRICULTURAL		FUELS	ORES AND MINERALS	UN- SPECIFIED	MANUFACTURED GOODS	OF WHICH		
				RAW MATERIALS						CHEMICAL PRODUCTS	OTHER MANUFACTURED GOODS	MACHINERY & TRANSPORT EQUIPMENT
SITC CODE			0+1+22+4	2 less (22+27+28)	3	27+28+68	9	5 to 8 less 68	5	(6+8) less 68	7	
<b>BANGLADESH</b>												
	1985	2,421	24.25	5.12	16.58	3.19	0.17	49.93	11.78	20.60	17.55	
	1990	3,432	18.95	5.36	16.55	3.13	0.19	55.01	8.15	29.10	17.76	
	1995	5,438	17.30	3.37	7.76	2.28	0.18	68.04	9.82	44.66	13.56	
	1998	7,018	15.29	5.39	7.51	2.22	0.16	68.52	8.75	41.11	18.66	
<b>INDIA</b>												
	1985	16,224	8.41	3.41	26.52	6.97	0.26	54.41	14.61	19.03	20.78	
	1990	23,799	3.24	3.97	27.34	8.05	6.20	51.20	12.85	20.78	17.57	
	1995	36,592	4.24	3.92	23.71	6.84	8.49	52.78	15.25	17.40	20.13	
	1998	41,429	5.25	3.33	24.33	6.00	11.11	49.98	13.08	18.97	17.93	
<b>NEPAL</b>												
	1985	442	13.98	2.21	11.57	1.53	0.02	70.70	13.43	37.63	19.64	
	1990	611	13.95	6.62	8.25	1.91	5.91	63.37	16.82	28.54	18.01	
	1995	1,292	9.80	2.34	9.52	2.65	38.81	36.88	8.63	13.26	15.00	
	1998	1,647	7.99	3.61	8.23	2.09	45.02	33.08	6.68	12.14	14.26	
<b>PAKISTAN</b>												
	1985	5,891	18.89	3.81	24.34	2.43	0.11	50.76	11.52	12.35	26.89	
	1990	7,356	17.35	4.17	20.91	3.56	0.13	54.09	16.27	12.26	25.56	
	1995	11,704	17.48	5.60	16.25	2.61	1.62	56.58	16.80	10.90	28.89	
	1998	9,313	20.28	4.85	16.05	2.17	2.66	53.24	20.13	10.31	22.80	
<b>SRI LANKA</b>												
	1985	1,786	19.96	1.88	21.79	1.37	0.37	54.63	9.15	24.85	20.63	
	1990	2,634	19.05	1.80	12.66	1.49	0.16	64.84	11.72	33.94	19.18	
	1994	4,483	15.78	1.94	6.23	1.10	0.70	74.25	8.52	42.38	23.34	

Source: UNCOMTRADE Database.

## CHAPTER II

### LIBERALIZATION POLICIES IN SOUTH ASIAN ECONOMIES

WTO provides a framework for further integration of the world economy and the countries have to ease the protection levels. While all the SAARC countries are signatory to the WTO, liberalisation of trade in South Asia started much earlier as a result of the structural adjustment programs of IMF and World Bank. No doubt, dismantling of tariffs and non-tariff barriers can trigger production towards labour-intensive activities leading to rising share of labour in GDP in the long run, unless this is done in an orderly way production process may be disrupted and unemployment and poverty may rise. Liberal trade policies have already led to closure of large number of firms especially in the manufacturing sector.

Almost all the countries of the region have pursued import substitution industrialization policies and over the last decade serious attempts have been made to reduce the anti-export bias. The quantitative restrictions have been removed, and negative and restricted lists have virtually been eliminated with the possible exception of India, where these still exist. In the following we trace out the liberalisation attempts made in each of the country over the 90s.

#### BANGLADESH

In Bangladesh maximum tariff rate has been slashed from 300 percent in 1992-93 to 37.5 percent in 1999-00<sup>1</sup> and there is no duty on the import of cotton, textile machinery, equipment used in agriculture and irrigation, animal feed, and certain pharmaceuticals and medical equipment. The tariff rates have fallen from an average of 58 percent in 1992-93 to 22 percent in 1999-00.<sup>2</sup> Currently, the average tariffs on capital goods, intermediate goods, and consumer goods are 8.9, 15.5, and 29.2 percent respectively. Bangladesh has also progressively eliminated quantitative restrictions on imports and curtailed the number of banned or restricted items: only 2 percent of the items are subject to quantitative restrictions, and products that are either banned or restricted account for 11.7 percent of tariff lines.

Along with tariff rationalization, a number of measures have been taken to boost exports. The 'Special Bonded Warehouse (SBW)' and 'Duty Drawback System' aim at providing exporters access to duty free inputs. Exporters are allowed access to financial resources through the 'Export Development Fund' and the 'Export Credit Guarantee Scheme'. Export processing zones have been set up in Dhaka and Chittagong to encourage export-related investment. These zones are characterized by better infrastructure and other support facilities, and enterprises located in these zones are provided preferential access to imported inputs and other financial incentives. In 1996, the Government of Bangladesh granted

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<sup>1</sup> Supplemental duties are levied on imports of luxury items.

<sup>2</sup> The trade-weighted average import tariff came down from 40 percent in 1992-93 to 25 percent in 1997-98.

permission for the establishment of private export processing zones. Nevertheless, exports of some agricultural commodities (wheat, pulses, onions, jute seeds, prawns, and unfrozen shrimps) are prohibited.

## **INDIA**

The import-weighted tariff of India has fallen from 87 percent in 1990-91 to 22.4 percent in 1996-97 and to 20.3 percent in 1997-98. The maximum tariff at present is 35 percent (though for a few products it exceeds this limit). Quantitative restrictions on 714 tariff lines have been removed, the licensing system for imports of intermediates and capital goods has been abolished, and the licensing requirements for about a third of consumer goods have been dismantled. Recently 340 items have been removed from the restricted and special import license lists to the open general list. Despite these attempts, Indian import regime is still restrictive as is evident from the number of commodities either subject to quantitative restrictions or regulated by other means such as canalized imports.<sup>3</sup> For example, India currently maintains quantitative restrictions on 715 tariff line items on balance of payments grounds. It is, however, expected that India will accelerate the pace of trade policy reforms and move towards greater openness by further deepening the import liberalization measures.

The successive export policies of India have relied on various export incentives with a view to sustaining high growth rates through the expansion of exports. Export promotion measures include exemptions or concessional tariffs on raw materials and capital inputs, and access to Special Import Licenses (SIL) for restricted inputs. Concessional income tax provisions apply to exports and commercial banks provide export financing on soft terms. For exporters who need to import specific items on which the incidence of customs duty is very high, the actual user advanced licensing scheme provides exemptions from all kinds of duties like basic customs duty, countervailing duty, special additional duty, anti-dumping duty, and safeguard duty. Replenishment licenses allow exporters to import certain raw materials that are normally banned or restricted. The duty drawback facility reimburses the exporters for tariffs paid on imported raw materials and intermediates and for the central excise duties paid on domestically produced inputs.

## **NEPAL**

The unweighted average tariff in Nepal declined by almost 50 percent, from 15.4 percent in 1981-82 to 8.2 percent in 1994-95. The basic customs tariff rates range from 0 to 40 percent, whereas a few items including passenger vehicles, firearms, and liquor and tobacco are subject to higher tariff rates. Most of the import items fall into the custom duty slab of 10-20 percent, with a significant number of tariff lines free. The government has removed quantitative restrictions

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<sup>3</sup> Canalized items can be imported only by the state trading enterprises.

on a wide-range of products and a few quantitatively restricted products (firearms, wireless transmitters, and precious metals and jewelry) are subject to import licensing. Goods imported from India and Tibet are granted a 20 percent (10 percent) rebate in the rate of customs duty if the chargeable tariff is 40 percent (higher than 40 percent).

The export policy of Nepal emphasizes the enhancement of the contribution of the export sector in the national economy through the creation of an open and liberal economic environment, promotion of export-oriented activities with strong backward linkages, and simplified administrative procedures for export marketing. Export-related industries enjoy many concessions in respect of income tax and sales tax, and are entitled to refund of customs duty on imported inputs via the duty drawback scheme. Industries exporting at least 90 percent of their products are accorded special treatment in the country's industrial policy. These industries are provided bonded warehouse facilities and can import raw materials, machinery, and other inputs without payment of customs duty.

## **PAKISTAN**

The maximum tariff of Pakistan came down from 225 percent in 1986-87 to 70 percent in 1994-95 and to 35 percent in 1997-98. It is expected to go down to 30 percent in 2001. There are four non-zero tariff slabs i.e. 10, 15, 25, and 35 percent. Pakistan has made substantial progress in eliminating or reducing non-tariff barriers to trade: at present, there were only 32 products (HS 4-digit level) on the negative list, and import of 28 products was restricted for health and safety reasons. The government has abolished the restricted list, which enlisted products that could only be imported through designated importers, and has lifted the licensing requirements for goods outside the negative list.

To stimulate export-oriented industries, Pakistan provides a variety of incentives including income and sales tax concessions, exemption from customs duty on imported intermediate inputs and capital goods, and easy access to credit facilities. While income from a wide range of export products is entitled to income tax concessions. The duty drawback rates are standardized as a percentage of the free on board value of exports or a specific amount per unit of goods exported. All direct and indirect exporters are allowed the facility to import inputs through no duty no drawback scheme, bonded warehousing facilities, export processing unit scheme, and other temporary import schemes without payment of customs duty, sales tax, and withholding of income tax. Other export promotion measures include provision of loans to exporters at concessional rates of interest through the export finance scheme, and financial assistance to export-oriented industrial units seeking quality certification in respect of ISO 9000 and 14000 series certification. With a view to promoting foreign investment in the export sector, Pakistan has established export processing zones at Karachi and Lahore. These zones offer better infrastructure facilities as well as various other

incentives including tax holidays, and unrestricted repatriation of capital and profits.

## **SRI LANKA**

Sri Lanka was the first to liberalise its trade regime in South Asia. There are three rates of tariffs, viz. 10, 20 and 35 percent. The unweighted average tariff is around 20 percent. The maximum tariff rate is primarily levied on consumer goods, whereas intermediate goods, and capital goods and raw materials are subject to tariff rates of 20 percent and 10 percent respectively. Over the years, the government has liberalized except for a few items that require a license for health or religious reasons. Import licensing on potatoes, onions, and chilies was removed in July 1996. Import of other 'reserved items' (wheat, arms, and some chemicals) is restricted to government or state corporations.

Sri Lanka provides a host of incentives to exporters including easy financing, unrestricted and duty-free access to imported inputs, and official assistance in identifying export markets. Export-oriented projects which export 90 percent of the output are permitted to import machinery and equipment free of import and excise duties for the life of the project. In addition to these incentives, companies that export 90 percent of their output and use advanced technology in manufacturing are allowed tax exemptions on profits and dividends for 5 years. Sri Lanka has established six export processing zones which offer a full range of incentives including exemptions from taxes and customs duty, quality infrastructure, and simplified administrative procedures. There are no export controls except for products in the categories of coral chunk and shells, wood and articles of wood, ivory, and antiquities.

**Table II.1: Import Policies**

	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>	<b>Sri Lanka</b>
<ul style="list-style-type: none"> <li>Policy Objectives</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of tariffs.</li> <li>Elimination of quantitative restrictions on imports.</li> </ul>	<ul style="list-style-type: none"> <li>Maximizing the benefits from expanding global market opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Enhancing contribution of the trade sector to national economy by promoting international trade.</li> <li>Creation of an open and liberal economic environment.</li> </ul>	<ul style="list-style-type: none"> <li>Rationalization of the tariff structure.</li> <li>Reduction of non-tariff barriers.</li> <li>Simplification of import procedures.</li> </ul>	<ul style="list-style-type: none"> <li>Tariff reductions.</li> <li>Harmonization of tariff structure.</li> <li>Tariffication of quantitative restrictions.</li> </ul>
<ul style="list-style-type: none"> <li>Tariffs</li> </ul>	<ul style="list-style-type: none"> <li>Custom duty rates range (1997): 7.5 to 45 %.</li> <li>No. of Custom duties brackets:                             <ul style="list-style-type: none"> <li>1992-93: 15</li> <li>1999-00: 4.</li> </ul> </li> <li>Maximum tariffs reduced from 300 to 37.5 %.</li> </ul>	<ul style="list-style-type: none"> <li>Peak tariff rate: 35%</li> <li>4 non-zero tariff rates: 5, 15, 25 &amp; 35%</li> <li>Import weighted average tariff rate:                             <ul style="list-style-type: none"> <li>1997-98: 20.3 %</li> <li>1990-91: 87 %.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Unweighted average tariff rate:                             <ul style="list-style-type: none"> <li>1981-82: 15.4 %</li> <li>1994-95: 8.2 %.</li> </ul> </li> <li>The basic tariff rates: 5, 10, 20, 30 and 80 %.</li> </ul>	<ul style="list-style-type: none"> <li>Maximum tariff:                             <ul style="list-style-type: none"> <li>1986-87: 225 %</li> <li>1994-95: 70 %</li> <li>1999-00: 35 %.</li> </ul> </li> <li>4 tariff slabs: 10, 15, 25, and 35 %.</li> </ul>	<ul style="list-style-type: none"> <li>3 pronged tariff structure.</li> <li>Tariff rates: 10, 20 and 35 %.</li> </ul>
<ul style="list-style-type: none"> <li>Import Licensing</li> </ul>		<ul style="list-style-type: none"> <li>Licensing requirements dismantled for about a third of consumer goods. 340 items have been removed from the negative list.</li> </ul>	<ul style="list-style-type: none"> <li>A few quantitative restricted products are subject to import licensing.</li> </ul>	<ul style="list-style-type: none"> <li>Restricted list has been abolished.</li> <li>Licensing requirements for items outside the negative list has been removed.</li> </ul>	<ul style="list-style-type: none"> <li>Licensing required only for:                             <ul style="list-style-type: none"> <li>Some agricultural products</li> <li>A few items requiring license for health or religious reasons.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Banned Items</li> </ul>	<ul style="list-style-type: none"> <li>11.7 % items subject to import ban or restrictions.</li> </ul>	<ul style="list-style-type: none"> <li>As of April 1998:                             <ul style="list-style-type: none"> <li>import of 58 items completely prohibited.</li> <li>2714 items were on the restricted list and 168 importables were canalized.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Quantitative restriction removed on a wide range of products.</li> </ul>	<ul style="list-style-type: none"> <li>As of 1999, 28 items banned for religious, health and security reasons.</li> </ul>	<ul style="list-style-type: none"> <li>Import of 'reserved items' restricted to government or state corporations.</li> </ul>
<ul style="list-style-type: none"> <li>Quantitative Restrictions</li> </ul>	<ul style="list-style-type: none"> <li>QRs have been progressively removed.</li> <li>At 8-digit HS level, only 2 % of items are subject to quantitative restrictions.</li> </ul>	<ul style="list-style-type: none"> <li>QRs on 714 tariff lines have been removed.</li> </ul>	<ul style="list-style-type: none"> <li>QRs removed on a wide-range of products</li> <li>Products subject to QRs: firearms, wireless transmitters and precious metals and jewellery.</li> </ul>	<ul style="list-style-type: none"> <li>In 1999, only 32 products on the Negative List.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

**Table II.2 Export Policies**

	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>	<b>Sri Lanka</b>
<ul style="list-style-type: none"> <li>• Export Promotion Zones</li> </ul>	<ul style="list-style-type: none"> <li>• Export Processing Zones set up in Dhaka and Chittagong.</li> <li>• Private export processing zones allowed in 1996.</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial units located in special economic zones are treated outside customs territory of the country, not subjected any pre-determined conditions on value addition, export performance, and local content.</li> <li>• Foreign investment on full ownership basis permitted in units set up in special economic zones.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Export processing zones established at Karachi and Lahore.</li> <li>• These zones offer better infrastructure facilities as well as various other incentives including tax holidays, and unrestricted repatriation of capital and profits.</li> </ul>	<ul style="list-style-type: none"> <li>• 6 export processing zones established to offer a full range of incentives including exemptions from taxes and customs duty, quality infrastructure, and simplified administrative procedures.</li> </ul>
<ul style="list-style-type: none"> <li>• Duty Draw Back</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• The facility reimburses exporters for tariffs paid on imported raw materials and intermediates and for the central excise duties paid on domestically produced inputs.</li> </ul>	<ul style="list-style-type: none"> <li>• Exporters are entitled to duty drawback facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Exporters are allowed rebates on customs duty, sales tax, and surcharges.</li> <li>• Rates are standardized as percentage of f.o.b. value of exports or specific amount per unit of goods exported.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<ul style="list-style-type: none"> <li>• Duty Free Exports</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Free exportation of all goods allowed, except for some items subject to certain restrictions.</li> <li>• Replenishment licenses allow exporters to import certain raw materials that are normally banned or restricted.</li> </ul>	<ul style="list-style-type: none"> <li>• All products other than banned ones or those under quantitative restrictions can be exported freely.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• No export controls except on products in the categories of coral chunk and shells, wood and articles of wood, ivory, and antiquities.</li> </ul>

## CHAPTER III

### INTRA-REGIONAL TRADE FLOWS

Three aspects of intra-regional trade are worth underscoring. First, the intra-regional trade on average is rather low accounting for only 2 percent of the total trade. Second, the shares of intra-regional trade in imports and exports are quite different. Third, the shares of each country in intra-regional imports and exports vary significantly across different countries. While Bangladesh, Nepal and Sri Lanka met 12.9, 26.8 and 10.7 percent of their import requirements from the region, Pakistan and India met only 2.0 and 0.5 percent respectively of their requirements from the region in 1997. Moreover, while the share of the regional imports in case of Bangladesh increased by 4 times and that of Sri Lanka by almost one half over the 1985-97 period, that of India seems to have declined. Share of Pakistan shows fluctuations but there seems to be a somewhat increasing trend. In case of Nepal the share first declined but then recovered though it is still less than that of 1985 (Table III.1).

**Table III.1** Percentage Shares of Intra-Regional Imports in Total Imports

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1985	3.46	0.69	32.43	1.59	6.17
1986	3.57	0.49	32.44	1.75	7.64
1987	4.28	0.50	18.80	1.61	6.49
1988	5.28	0.48	18.09	1.86	7.79
1989	4.48	0.28	12.11	1.75	5.79
1990	6.84	0.41	11.70	1.64	6.74
1991	7.47	0.54	13.76	1.42	6.88
1992	10.13	0.83	17.40	1.48	11.89
1993	11.88	0.45	17.23	1.55	10.11
1994	12.76	0.49	18.37	1.55	10.58
1995	17.66	0.53	17.53	1.46	11.08
1996	16.29	0.50	28.55	2.41	12.59
1997	12.91	0.45	26.76	1.96	10.70

Source: Direction of Trade Statistics Yearbook, 1992, 1998.

As regards exports to the region exactly opposite trend is observed. Share of Bangladesh has gone down from 7.7 percent in 1985 to 2.1 percent in 1997, of Nepal from 38.3 percent in 1985 to 13.0 percent in 1996, of Sri Lanka from 3.8 to 2.0 percent and of Pakistan from 5.3 percent to 2.6 percent over the 1985 to 1997 period. However, India has been able to increase its share from 3.3 percent in 1985 to 4.2 percent in 1997 (see Table III.2).

**Table III.2: Percentage Shares of Intra-Regional Exports in Total Exports**

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1985	7.65	3.25	38.32	5.28	3.80
1986	6.06	3.01	38.11	3.20	4.52
1987	4.10	2.82	27.84	3.92	3.58
1988	5.00	2.78	17.63	5.04	5.76
1989	3.90	2.43	2.69	3.51	5.21
1990	3.62	2.71	7.19	3.97	3.30
1991	4.70	1.78	7.86	3.33	2.60
1992	2.21	3.83	13.07	4.93	1.97
1993	2.42	4.00	4.69	3.21	2.17
1994	2.30	4.13	3.87	3.25	2.37
1995	2.65	4.98	8.70	3.13	2.28
1996	1.82	4.92	12.99	2.54	2.27
1997	2.11	4.18		2.63	2.04

Source: Direction of Trade Statistics Yearbook, 1992, 1998.

Since trade varies with the size of the economy, share in trade would not be a proper measure to indicate the importance a country attaches to the regional trade. Accordingly an index of anti-regional bias (ARB) defined below has been reported in Table III.3<sup>4</sup>.

$$ARB = \frac{\text{Share of a country in total trade of region}}{\text{Share of a country in intra - regional trade}} - 1$$

The table shows quite clearly that relatively smaller countries have the pro-regional bias in their trade structure while larger countries, both Pakistan and India, have an anti-regional bias in their trade structure. Unless the benefits of trade liberalisation accrue to all the trade partners' possibilities of trade expansion in SAARC would be rather limited. The index of trade balances (TB) defined below is reported in Table III.4.

$$TB = \frac{\text{Share of the country in intra - regional Imports}}{\text{Share of the country in intra - regional Exports}}$$

If TB exceeds unity, the country runs deficits;

If TB is equal to unity, trade is balance; and

If TB is less than unity, the country runs surpluses.

<sup>4</sup> Higher Value of ARB indicates anti-regional bias.

**Table III.3 Magnitude of Anti-Regional Bias Index**

Year	Exports					Imports				
	Bangla- desh	India	Nepal	Pakistan	Sri Lanka	Bangla- desh	India	Nepal	Pakistan	Sri Lanka
1985	-0.42	0.35	-0.89	-0.17	0.16	-0.29	0.49	-0.92	0.54	-0.60
1986	-0.39	0.22	-0.90	0.15	-0.19	-0.22	0.53	-0.91	0.60	-0.63
1987	-0.17	0.22	-0.88	-0.13	-0.04	-0.38	0.46	-0.86	0.63	-0.59
1988	-0.24	0.37	-0.78	-0.25	-0.34	-0.45	0.54	-0.84	0.57	-0.63
1989	-0.25	0.20	0.08	-0.17	-0.44	-0.43	0.32	-0.79	0.46	-0.56
1990	-0.14	0.15	-0.57	-0.22	-0.06	-0.58	0.40	-0.75	0.75	-0.57
1991	-0.50	0.33	-0.70	-0.29	-0.09	-0.63	0.63	-0.80	0.93	-0.60
1992	0.78	0.03	-0.70	-0.20	1.00	-0.58	0.40	-0.75	1.88	-0.64
1993	0.48	-0.11	-0.24	0.11	0.65	-0.59	0.29	-0.71	2.17	-0.51
1994	0.60	-0.11	-0.05	0.13	0.55	-0.59	0.34	-0.71	2.38	-0.50
1995	0.62	-0.14	-0.51	0.37	0.88	-0.66	0.37	-0.66	3.14	-0.46
1996	1.26	-0.16	-0.68	0.62	0.81	-0.61	0.43	-0.78	1.61	-0.50
1997	0.76	-0.11	-1.00	0.41	0.82	-0.60	0.44	-0.81	1.63	-0.52

Source: Based on Direction of Trade Statistics Year Book 1992, 1998

The table depicts interesting patterns. It shows that India's trade has not only an anti-region bias, the index of trade balance for India falls short of unity; her exports to region have invariably been higher than her imports. On average, Indian imports from SAARC countries have been less than one half of her exports to the region. Pakistan, on average, has TB=1, while other countries, in general have TB less than one.

**Table III.4 Trade Balance Index**

Years	Bangladesh	India	Nepal	Pakistan	Sri Lanka	
1985		1.02	0.90	1.66	0.58	2.10
1986		1.30	0.77	1.54	0.67	2.05
1987		2.16	0.82	1.74	0.47	2.28
1988		2.10	0.85	1.98	0.46	1.79
1989		2.58	0.81	8.36	0.62	1.22
1990		3.21	0.78	2.65	0.43	2.21
1991		2.31	0.72	2.25	0.40	2.76
1992		5.89	0.70	1.26	0.27	5.91
1993		5.21	0.60	3.04	0.41	3.93
1994		5.76	0.60	4.85	0.35	3.75
1995		7.79	0.56	2.48	0.38	3.42
1996		9.95	0.53	1.92	0.66	3.61
1997		5.91	0.57	1.18	0.57	3.66

Source: Based on Direction of Trade Statistics Year Book 1992, 1998.

## CHAPTER IV

### REVEALED COMPARATIVE ADVANTAGE AND TRADE COMPLEMENTARITY

#### IV.1 INTRODUCTION

The success of regional integration schemes hinges on a number of factors, prominent among them being the pattern of comparative advantage and extent of trade complementarity. For example, prospects of regional trade expansion are likely to be weak for countries that either have comparative advantage in similar products, or have trade structures that exhibit low trade complementarity.<sup>5</sup> This chapter examines the pattern of "revealed" comparative advantage and the degree of trade complementarity in South Asia, with a view to ascertaining the extent to which the existing trade structures of individual countries can support immediately the regional economic cooperation initiatives.

#### IV.2 REVEALED COMPARATIVE ADVANTAGE

Revealed comparative advantage ratios, developed by Balassa (1965), have been widely used to study profiles of revealed comparative advantage in various export products. The ratio is defined as:

$$R_{ih} = \frac{X_{ih} / X_{it}}{X_{wh} / X_{wt}} \quad (IV.1)$$

where

$R_{ih}$  = Revealed comparative advantage ratio for country  $i$  in product  $h$ .

$X_{ih}$  = Country  $i$ 's exports of product  $h$ .

$X_{it}$  = Total exports of country  $i$ .

$X_{wh}$  = World exports of product  $h$ .

$X_{wt}$  = Total World exports.

It is evident from the above equation that revealed comparative advantage is simply a ratio of the share of a given product in a country's exports to its share in world exports, and a country is said to have a revealed comparative advantage (disadvantage) in product  $h$  if  $R_{ih} > (<) 1$ . It must, however, be cautioned here that the export shares that underlie the revealed comparative advantage ratios are influenced by external and internal trade policy distortions such as protectionist barriers in export markets and anti-export bias in domestic trade policy. Therefore, to the extent that these distortions may be present, the pattern

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<sup>5</sup> Obviously if trade is opened up, there are possibilities of changes in comparative advantage and a large number of products not traded now would become a part of trade.

of "true" comparative advantage may differ from the one suggested by the revealed comparative advantage ratios.

The revealed comparative advantage ratios can be computed at various levels of commodity aggregation according to the SITC classification. The finer the disaggregation, the better the identification of the products in which potential for exports exists. Accordingly, the three digit SITC commodity classification on which we had the data are used for identification of products of export interest to each country. Nevertheless, 1 and 2-digit SITC classifications may provide a broad picture of the pattern of comparative advantage and have been used by researchers as well.

The revealed comparative advantage ratios at 1-digit SITC classification for the period 1985 to 1995 (see Table IV.1) indicate that Bangladesh has comparative advantage in food and live animals, basic manufactures, and miscellaneous goods. In the last category, it has acquired comparative advantage over time, as indicated by the significantly high ratios after 1987. Disaggregation at the 2-digit SITC classification shows a rather interesting picture. In the category of food and live animals, the country seems to have lost comparative advantage in meat and meat preparations. However, in fish crustaceans and molluscs, and coffee, tea, cocoa, and spices it continues to have the advantage though it is losing share in the world market. Other items in which Bangladesh has revealed comparative advantage include textile fibers, leather and leather goods, textile yarn and fabrics, clothing, and fertilizer. In the last two items, the country has gained comparative advantage after 1988. The 3-digit classification indicates that though Bangladesh lost advantage in meat of bovine animals, it continues to have an advantage in fish, vegetables, and tea. As expected, the revealed comparative advantage ratio for Jute is very high. In the category of basic and miscellaneous manufactured goods, Bangladesh has comparative advantage in leather, textile yarn, made-up articles of textile material, clothing, and woven cotton fabrics. In the last category, however, the country has gained a slight advantage only after 1992.

India has revealed comparative advantage in food and live animals, basic manufactures, miscellaneous manufactured goods, and crude materials excluding fuels at the 1-digit commodity classification (Table IV.2). At the next level of disaggregation (2-digit SITC), it has revealed comparative advantage in 5 out of 10 sub-categories of 'food and live animals', including fish, cereals, vegetables and fruits, tea, and feeding stuff for animals. India's comparative advantage in 'crude materials' is confined to tobacco and tobacco manufactures, textile fibers, crude fertilizer, ores, and crude animal and vegetable material. After 1993, the country lost its comparative advantage in tobacco and tobacco manufactures, and gained some advantage in oilseeds. In the category of 'chemicals and related products', India's comparative advantage lies in exports of dyes and coloring materials, medicinal and pharmaceutical products, and essential oils and perfumes. Revealed comparative advantage is also indicated

in the export of 'basic manufactures' such as leather and leather goods, textile yarn and fabrics, and non-metal mineral manufactures. Among the miscellaneous manufactured goods, India has comparative advantage in travel goods, and handbags, clothing and accessories, and footwear. At the 3-digit SITC classification, India has comparative advantage in a wide-range of food, beverages and tobacco products including meat, fish, crustaceans, rice, fruits and nuts, tea and coffee, spices, feeding stuff for animals, and tobacco and tobacco products. The country, however, acquired comparative advantage in fish only after 1991 and lost its edge in tobacco manufactures after 1986. A number of items in the category of 'crude materials' appear in the revealed comparative advantage profile of India. These items include oilseeds, cotton, stone, sand and gravel, Iron ore, ores and concentrates of basic metals, and crude animal and vegetable materials. The country, however lost its advantage in cotton after 1993. In some years, India also enjoyed comparative advantage in petroleum, oils and preparations, and fixed vegetable oils. The country's comparative advantage in 'chemicals and related products' lies in nitrogen-function compounds, other organic chemicals, synthetic organic coloring material, medicinal and pharmaceutical products, perfumery, cosmetic and soaps, and insecticides and herbicides. In the category of basic and miscellaneous manufactured goods, India's comparative advantage is indicated in a wide-range of products, prominent among them being machine tools, household equipment, and steel products, besides leather and articles of textile and clothing. It is noteworthy that India also enjoys revealed comparative advantage in transport equipment such as motor vehicles, motor cycles, and cycles.

At the 1-digit SITC classification, Nepal has revealed comparative advantage in food and live animals, basic manufactures, miscellaneous manufactured goods, crude materials excluding fuels, and animal and vegetable oils and fat (Table IV.3). In the last two categories, the country lost its comparative advantage in the 1990s. There are only 7 out of the 71 product categories under the 2-digit SITC classification in which Nepal maintained its comparative advantage during most of the period under consideration: these are live animals for food, vegetables and fruits, coffee, tea and spices, oilseeds and oleaginous fruit, leather and leather goods, textile yarn and fabrics, and clothing and accessories. For some years during the period under consideration, there is evidence of comparative advantage in dairy products, hides and skins, textile fibers, crude animal and vegetable material, vegetable fats and oil, and dyes and coloring materials. Further disaggregation (3-digit SITC) shows Nepal has lost ground in terms of its revealed comparative advantage in many export products during the period 1985 to 1995. For example, the number of commodities in which Nepal had revealed comparative advantage declined from 20 in 1985 to only 11 in 1995. The most recent export profile of Nepal (1995) indicates the country's revealed comparative advantage in oilseeds and oleaginous fruits, leather, made-up articles of textile material, floor coverings, household equipment of base metal, clothing, and articles of jewelry.

Pakistan's comparative advantage at the highest level of commodity aggregation (1-digit SITC) is indicated in food and live animals, basic manufactures, miscellaneous manufactured goods, and crude materials excluding fuels (Table IV.4). In the last category, it lost its advantage after 1992. At the next level of disaggregation, the country consistently maintained its comparative advantage in only 8 product categories, including fish, cereals, sugar, textile fibers, crude animal and vegetable material, leather and leather products, textile yarn and fabrics, and clothing and accessories. Pakistan enjoyed comparative advantage in a number of other commodity groups in 1985, but this advantage vanished in the later years. For example, the number of commodities in which it had comparative advantage declined from 23 in 1985 to only 8 in 1995. Pakistan's revealed comparative advantage in food products at the 3-digit SITC classification is mainly indicated in fish and crustaceans, rice, fresh and dried fruits, sugar, molasses and honey, and spices. The comparative advantage in fruits and spices was, however, lost respectively after 1990 and 1993. In the category of 'crude materials except fuels', Pakistan enjoys substantial revealed comparative advantage in cotton, besides crude animal and vegetable materials. As in the case of other countries in the region, the textile and clothing group dominates in the revealed comparative advantage profile of Pakistan. Other products in which Pakistan has revealed comparative advantage include leather, floor coverings, medical instruments, and baby carriages and toys.

Sri Lanka has comparative advantage in food and live animals, crude materials excluding fuels, animal and vegetable oils, and miscellaneous manufactured goods at the 1-digit SITC classification (Table IV.5). Its comparative advantage in animal and vegetable oils has, however, eroded after 1990. The pattern of revealed comparative advantage of Sri Lanka at the 2-digit SITC classification indicates that it has mostly maintained its comparative advantage in only 9 commodity groups, including fish, crustaceans and mollusc, vegetables and fruits, coffee, tea, cocoa and spices, crude rubber, textile fibers, crude animal and vegetable materials, rubber manufactures, non-metal mineral manufactures, and clothing and accessories. After 1991, the country also gained comparative advantage in tobacco and tobacco products, and textile yarn and fabrics. At a further level of disaggregation (3-digit SITC), the country's comparative advantage in 'food products' lies in crustaceans, fruits and nuts, tea, and spices. The country gained comparative advantage in rice after 1993, and in tobacco after 1992. Revealed comparative advantage is also indicated in a number of items in the category of crude materials, such as synthetic rubber, fuel wood, vegetable textile fibers, and crude vegetable materials. In the categories of 'mineral fuels, and 'animal and vegetable oils', the country lost its comparative advantage in petroleum oils and preparations, and fixed vegetable oil respectively after 1987 and 1990, whereas it maintained its comparative advantage in residual petroleum products. Sri Lanka's revealed comparative advantage in basic manufactures lies mainly in rubber tyres and articles, wood manufactures, made-up articles of textile materials, pottery, and pearls and precious stones. In addition, the country gained comparative advantage in textile

yarn, and woven fabrics of textile materials respectively after 1991 and 1993. In the category of miscellaneous manufactured goods, Sri Lanka enjoys revealed comparative advantage predominantly in textile fabrics and clothing. Electric power machinery is a relatively recent addition to the list of export products in which Sri Lanka's comparative advantage is indicated.

The above discussion provides useful insights into the nature and extent of revealed comparative advantage of the South Asian economies. First, it is evident that the pattern of revealed comparative advantage is quite similar across the South Asian countries. For example, the export structures of Bangladesh, India, Nepal, and Pakistan indicate that these countries have comparative advantage in food and live animals, basic manufactures, and miscellaneous manufactured goods. Except for basic manufactures, Sri Lanka too has comparative advantage in food and live animals, and miscellaneous products. Furthermore, 'crude materials except fuels' is a common product category in the revealed comparative advantage profiles of India, Pakistan, and Sri Lanka. Second, with the exception of India, the South Asian countries enjoy comparative advantage in a relatively narrow range of products. For example, export structures of Bangladesh, Nepal, Pakistan and Sri Lanka show that, out of 71 commodity groups at the 2-digit SITC classification, these countries respectively have revealed comparative advantage in only 5, 7, and 8 commodity groups. The range of products in which India has comparative advantage is somewhat broad, as is evident from its comparative advantage in 17 product categories at the 2-digit SITC commodity classification. Third, though not surprising, none of the countries has comparative advantage in capital intensive and high value-added products.

Despite the fact that the export interests of South Asian countries mostly lie in similar commodities, there is some potential for increasing intra-regional trade, as shown in Table IV.6. The Table focuses on the last year of analysis (1995) and pinpoints products in which at most four countries have revealed comparative advantage. The second and third columns of the Table indicate the potential exporters (countries with RCA) and importers (countries lacking RCA). For example, there are 4 items — fish products, vegetables, jute, and fertilizers — that can be imported from Bangladesh by the other South Asian countries. On the other hand, a variety of products (total 19) can be exported by India to its trading partners in South Asia, ranging from various food items to machinery and transport equipment. Whereas Nepal can be an exporter of oilseeds and oleaginous fruits, Pakistan's potential exports to South Asian countries consist of sugar, molasses and honey, cotton, and surgical instruments. Sri Lanka's potential exports to the region include synthetic rubber, raw or processed textile fibers, residual petroleum products, rubber articles, wood manufactures, pottery, and electric power machinery and parts.

It needs to be emphasized that the potential for intra-regional trade in products in which revealed comparative advantage is indicated crucially depends on the

importance of such products in total imports of the region. For example, the prospects for intra-regional trade are generally believed to be strong in situations where the regional countries have comparative advantage in products that figure prominently in the regional import structure. Table IV.7 sheds light on the share in regional imports of products (3-digit SITC) in which South Asian countries have revealed comparative advantage. In 1995, the share of such products in total regional imports was 21.66 percent for Bangladesh, 45.64 percent for India, 2.97 percent for Nepal, 36.59 percent for Pakistan, and 25.17 percent for Sri Lanka.<sup>6</sup> It is evident that both India and Pakistan have a reasonable potential to meet the import needs of countries in the South Asian region. On the other hand, roughly more than 75 percent of total regional imports consist of products in which both Bangladesh and Sri Lanka lack revealed comparative advantage. Nepal's revealed comparative advantage lies in products that constitute only about 3 percent of total regional imports.

The above analysis provides an assessment of the extent to which exports of South Asian countries can match the regional import structure. But this analysis focuses only on commodities in which revealed comparative advantage is indicated, and ignores all other commodities that are exported by the individual countries. An alternative is to investigate trade complementarity at the bilateral level in terms of the overall export and import structures of the trading partners. We turn to this issue in the next section.

**TABLE IV.7: NUMBER OF COMMODITIES WITH RCA > 1 AND THEIR IMPORT SHARES: SELECTED YEARS**

COUNTRY	NO OF COMMODITIES			SHARE IN REGION IMPORTS (%)		
	1985	1990	1995	1985	1990	1995
BANGLADESH	14	17	19	20.98	20.37	21.66
INDIA	46	46	49	46.19	52.39	45.64
NEPAL	20	9	11	15.85	15.27	2.97
PAKISTAN	26	28	25	30.64	37.24	36.59
SRI LANKA	28	33	33	27.02	22.90	25.17

Source: Based on UNCOMTRADE Database

Note: Bangladesh figures are for the years 1985, 1990 and 1994.

<sup>6</sup> Notice that the regional import shares may be quite insignificant for individual commodities at the 3-digit SITC classification.

### IV.3 TRADE COMPLEMENTARITY

The success of regional integration schemes depends largely on the extent of trade complementarity in a regional trading bloc. For example, regional trading arrangements are likely to succeed in strengthening intra-regional trade if the trade structures of member countries exhibit strong complementarities. This section explores the extent of trade complementarity in South Asia in terms of trade complementarity index, which measures the compatibility of imports of country  $i$  with exports of country  $j$ , as defined below.

$$C_{ij} = 1 - \left( \sum |m_{hi} - x_{hj}| \right) \div 2 \quad (IV.2)$$

where

$C_{ij}$  = Trade Complementarity index for trade between countries  $i$  and  $j$ .

$m_{hi}$  = Share of good  $h$  in total imports of country  $i$ .

$x_{hj}$  = Share of good  $h$  in total exports of country  $j$ .

The trade complementarity index is zero when no good exported by one country is imported by the other, and equals one when the shares of one country's imports correspond exactly to those of the other's exports.<sup>7</sup>

Table IV.8 reports trade complementarity indices for Bangladesh's trade with India, Nepal, Pakistan and Sri Lanka. The low values of the indices highlight the absence of strong complementarity in Bangladesh's trade with its trading partners in South Asia. It is noteworthy that the degree of trade complementarity between Bangladesh and India has increased over time, and is higher as compared to other countries in the region. The pattern of complementarity between India's imports and its trading partners' exports is shown in Table IV.9, according to which there is clearly a lack of trade complementarity in exports of South Asian countries to India. Except for Sri Lanka, the index is around 10 percent.

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<sup>7</sup> It is worth emphasizing that the trade complementarity index can provide meaningful information only if the structure of bilateral trade is not heavily distorted.

**TABLE IV.8: TRADE COMPLEMENTARITY INDICES: BANGLADESH**

<b>YEAR</b>	<b>INDIA</b>	<b>NEPAL</b>	<b>PAKISTAN</b>	<b>SRI LANKA</b>
<b>1985</b>	0.349	0.254	0.326	0.252
<b>1986</b>	0.346	0.201	0.243	0.234
<b>1987</b>	0.378	0.181	0.279	0.097
<b>1988</b>	0.062	0.061	0.008	0.040
<b>1989</b>	0.412	0.201	0.291	0.194
<b>1990</b>	0.468	0.247	0.312	0.202
<b>1991</b>	0.490	0.236	0.349	0.209
<b>1992</b>	0.475	0.262	0.354	0.199
<b>1993</b>	0.503	0.258	0.357	0.209
<b>1994</b>				
<b>1995</b>	0.531	0.356	0.467	
<b>1996</b>	0.547	0.209	0.411	
<b>1997</b>	0.511	0.233	0.284	
<b>1998</b>			0.370	
<b>Average</b>	0.423	0.225	0.312	0.182

Source: Computed from UNCOMTRADE Database

**TABLE IV.9: TRADE COMPLEMENTARITY INDICES: INDIA**

<b>YEAR</b>	<b>BANGLADESH</b>	<b>NEPAL</b>	<b>PAKISTAN</b>	<b>SRI LANKA</b>
<b>1985</b>	0.098	0.080	0.155	0.250
<b>1986</b>	0.082	0.096	0.122	0.257
<b>1987</b>	0.079	0.159	0.099	0.101
<b>1988</b>	0.075	0.138	0.121	0.249
<b>1989</b>	0.123	0.120	0.108	0.255
<b>1990</b>	0.071	0.072	0.099	0.264
<b>1991</b>	0.091	0.082	0.091	0.195
<b>1992</b>	0.098	0.072	0.107	0.198
<b>1993</b>	0.089	0.094	0.099	0.216
<b>1994</b>		0.123	0.111	0.196
<b>1995</b>	0.124	0.141	0.099	
<b>1996</b>	0.072	0.091	0.086	
<b>1997</b>	0.052	0.112	0.105	
<b>Average</b>	0.088	0.106	0.108	0.218

Source: Computed from UNCOMTRADE Database.

The structure of Nepal's imports exhibits some compatibility with the exports of Bangladesh, India, and Pakistan (Table IV.10). While the degree of trade complementarity between Nepal and Bangladesh has improved over time, it has weakened in the case of Nepal's trade with India. On average, Nepal's import structure exhibits the lowest complementarity with exports of Sri Lanka. The degree of complementarity is higher for trade between Pakistan and India relative to other countries in the region (Table IV.11). Exports of Bangladesh, Nepal and

Sri Lanka depict weak compatibility with imports of Pakistan. Table IV.12 reports trade complementarity indices for Sri Lanka. Whereas a reasonable compatibility is indicated between trade structures of Sri Lanka and India, exports of Nepal and Bangladesh do not show a significant match with imports of Sri Lanka. The degree of trade complementarity between Sri Lanka and Pakistan, though not substantial, has strengthened during the period under consideration.

In summary, the foregoing discussion points out that the South Asian region is characterized by an almost identical pattern of comparative advantage in a relatively narrow range of products, and that there is a lack of strong complementarity in the bilateral trade structures of South Asian countries. Similarities in the trade structures, together with absence of comparative advantage in capital intensive and high value-added products — i.e. the products that are normally imported by countries in the region — may have played a role in constraining the growth of intra regional trade in South Asia.

**TABLE IV.10: TRADE COMPLEMENTARITY INDICES: NEPAL**

<b>YEAR</b>	<b>BANGLADESH</b>	<b>INDIA</b>	<b>PAKISTAN</b>	<b>SRI LANKA</b>
<b>1985</b>	0.241	0.472	0.323	0.268
<b>1986</b>	0.227	0.448	0.282	0.266
<b>1987</b>	0.153	0.350	0.172	0.110
<b>1988</b>	0.062	0.061	0.008	0.040
<b>1989</b>	0.412	0.201	0.291	0.194
<b>1990</b>	0.468	0.247	0.312	0.202
<b>1991</b>	0.490	0.236	0.349	0.209
<b>1992</b>	0.475	0.262	0.354	0.199
<b>1993</b>	0.503	0.258	0.357	0.209
<b>1994</b>		0.343	0.188	0.198
<b>1995</b>	0.531	0.356	0.467	
<b>1996</b>	0.547	0.209	0.411	
<b>1997</b>	0.511	0.233	0.284	
<b>Average</b>	0.385	0.283	0.292	0.189

Source: Computed from UNCOMTRADE Database.

**TABLE IV.11: TRADE COMPLEMENTARITY INDICES: PAKISTAN**

<b>YEAR</b>	<b>BANGLADESH</b>	<b>INDIA</b>	<b>NEPAL</b>	<b>SRI LANKA</b>
1985	0.153	0.323	0.152	0.271
1986	0.134	0.309	0.175	0.242
1987	0.142	0.317	0.129	0.110
1988	0.122	0.324	0.122	0.177
1989	0.166	0.340	0.114	0.186
1990	0.113	0.351	0.112	0.172
1991	0.133	0.346	0.099	0.162
1992	0.127	0.340	0.085	0.142
1993	0.111	0.340	0.069	0.142
1994		0.343	0.073	0.148
1995	0.114	0.367	0.091	
1996	0.102	0.393	0.081	
1997	0.057	0.361	0.091	
1998	0.084			
<b>Average</b>	0.120	0.343	0.107	0.175

Source: Computed from UNCOMTRADE Database

**TABLE IV.12: TRADE COMPLEMENTARITY INDICES: SRI LANKA**

<b>YEAR</b>	<b>BANGLADESH</b>	<b>INDIA</b>	<b>NEPAL</b>	<b>PAKISTAN</b>
1985	0.212	0.426	0.271	0.358
1986	0.242	0.430	0.295	0.346
1987	0.114	0.249	0.097	0.133
1988	0.237	0.450	0.237	0.343
1989	0.273	0.474	0.232	0.341
1990	0.240	0.486	0.242	0.321
1991	0.297	0.525	0.284	0.376
1992	0.288	0.538	0.291	0.392
1993	0.247	0.526	0.291	0.383
1994	-	0.531	0.301	0.406
<b>Average</b>	0.239	0.463	0.254	0.340

Source: Computed from UNCOMTRADE Database

## CHAPTER V

### INTRA-INDUSTRY TRADE IN SOUTH ASIA

#### V.1. INTRODUCTION

Recent decades have witnessed an upsurge in intra-industry trade i.e. trade in similar but differentiated products. Various theoretical arguments have been advanced for explaining this phenomenon. According to Grubel-Lloyd (1975), differences in the level of technology and human capital can lead to intra-industry trade even in products with identical factor input requirements. Krugman (1981) emphasizes the role of monopolistic competition and increasing returns to scale in generating intra-industry trade. More precisely, Krugman argues that industries in which increasing returns are achieved at a fairly low level of output can accommodate many producers, with each producing a different brand. Under these circumstances, each country will specialize in different varieties of the product and engage in intra-industry trade. Another major reason for increased intra-industry trade is considered to be the growth of regional integration schemes involving cross-country production sharing arrangements.<sup>8</sup> According to Yeats (1998), production sharing has become a major factor in regional trading arrangements, accounting for approximately 30 percent of the world trade in manufactured goods that is largely of intra-industry variety.

Given the importance of intra-industry trade in the context of regional economic co-operation initiatives, it is worthwhile to investigate as to how far the South Asian countries have engaged in intra-industry trade. This chapter focuses on this question, and examines the extent of intra-industry trade amongst Bangladesh, India, Nepal, Pakistan, and Sri Lanka. The following section discusses the Grubel-Lloyd indices of intra-industry trade at the bilateral level. These indices have been computed for manufactured goods (SITC 5 to 8) at the 3-digit level.

#### V.2. GRUBEL-LLOYD INDICES

The Grubel-Lloyd index to measure two-way trade in similar products may be defined as:

$$G_h = \frac{(X_h + M_h) - |X_h - M_h|}{(X_h + M_h)} \quad (V.1)$$

where

$G_h$  = Grubel-Lloyd index of intra-industry trade in industry  $h$ .

$X_h$  = Exports of industry  $h$ .

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<sup>8</sup> Under the production sharing arrangements, various stages of the production process for a specific product are undertaken in different countries, giving rise to intra-industry trade.

$M_h$  = Imports of industry  $h$ .

The intra-industry trade index ranges between 0 and 1 with larger values indicating a greater degree of intra-industry trade. For ease of exposition, only summary Tables based on the latest year are provided in the text, and the detailed Tables are relegated to the appendix. Table V.1 reports the Grubel-Lloyd indices of intra-industry trade, based on industry-wise exports and imports of Bangladesh to and from India, Nepal, Pakistan and Sri Lanka<sup>9</sup> (also see appendix Tables A.1 to A.4). In the chemicals and related products category, the bilateral intra-industry trade between Bangladesh and India largely consisted of inorganic chemical elements, oxides and halogen salts, fertilizers, and insecticides and herbicides. In some years, significant intra-industry trade took place in basic manufactures such as made-up articles of textile material, floor coverings, and nails and screws. Intra-industry trade in machines and transport equipment is hardly noticeable, except for some trade in ships, boats and floating structures in the year 1995. On the other hand, intra-industry trade has strengthened over time in such miscellaneous manufactured goods as clothing, knitted or crocheted women's clothing, articles of apparel and textile fabrics and clothing accessories of textile fabrics.

It is noteworthy that no intra-industry trade took place between Bangladesh and Nepal during the period under consideration. In the case of trade between Bangladesh and Pakistan, a very low level of intra-industry trade occurred in chemical and related products consisting of dyeing, tanning extracts and synthetic tanning materials, medicinal and pharmaceutical products, and monofilament rods etc. A moderate to high degree of intra-industry trade was indicated in textile yarn, woven textile fabrics, special yarns, made-up articles of textile materials, and manufactures of base metals. In 1998, Bangladesh and Pakistan engaged in significant intra-industry trade in several industrial products falling under the category of machinery and transport equipment, prominent among them being rotating electrical plants and parts, agricultural machinery excluding tractors, and pumps for liquids. In the category of miscellaneous manufactured goods, intra-industry trade was confined to knitted and crocheted women's clothing, and articles of plastic. There are only a few products in which the Grubel-Lloyd indices show a reasonable intensity of intra-industry trade between Bangladesh and Sri Lanka. These products include textile yarn, woven fabrics, special yarns, and printed matter. In addition, some intra-industry trade is discernible in soap and cleansing preparations, monofilament rods, cotton fabrics, and made-up articles of textile materials.

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<sup>9</sup> There are two ways of looking at the Grubel-Lloyd indices of bilateral intra-industry trade between countries A and B: either by using exports and imports of country A to and from country B or vice versa. While the two indices provide information on the same aspect, these would generally differ owing to both differences in the valuation of exports and imports and mismatch in the time of reporting. In this study, the bilateral GL indices of intra-industry trade between countries A and B are computed on the basis of exports and imports of country A to and from country B.

Table V.2 reports the Grubel-Lloyd indices of intra-industry trade, based on industry-wise exports and imports of India to and from Nepal, Pakistan and Sri Lanka (see also appendix Tables A.5 to A.7). In the case of trade between India and Nepal, there is a wide range of products in which intra-industry trade occurred in varying degrees. In the chemicals and related products group, the Grubel Lloyd index indicated some intra-industry trade in nitrogen compounds, inorganic chemical elements, perfumery and cosmetics, and a moderate degree of intra-industry trade in monofilament rods, and miscellaneous chemical products. In some years, intra-industry trade was significant in a number of basic manufactures such as articles of textile and clothing, leather, rubber tyres, plywood, floor coverings, mineral manufactures, rails and railway track construction materials, copper, aluminium, metal containers, wire products, and equipment of base metal. In the category of machinery and transport equipment, no significant intra-industry trade occurred except in heating and cooling equipment. Other miscellaneous manufactured goods in which intra-industry trade was indicated in some of the years were mainly women's clothing, footwear, road motor vehicles, articles of plastic, and works of art.

There are 9 items in the category of chemicals and related products in which intra-industry trade took place between India and Pakistan, the prominent among them being medicinal and pharmaceutical products and soap and cleansing preparations. The Grubel-Lloyd indices show some intra-industry trade in basic manufactures such as leather, articles of paper and paperboard, embroidery, made-up articles of textile materials, floor coverings, lime, cement and fabricated construction materials, nails and screws, and manufactures of base metal. Interestingly, there are a number of products in the category of machinery and transport equipment in which intra-industry trade occurred between the two countries. These products range from textile and leather machinery and parts to heating and cooling equipment, and from data-processing machines, to medical apparatus. In the category of miscellaneous manufactured goods, intra-industry trade mainly consisted of medical and measuring instruments, photographic supplies and musical instruments.

Intra-industry trade between India and Sri Lanka in chemicals and related products was confined mainly to carboxylic acids and nitrated derivatives, other organic chemicals, dyeing, tanning extracts and synthetic tanning materials, and essential oils. In the category of basic manufactures, leather and leather products, pottery, pearls and precious stones, construction material of rails, and metal containers figured prominently in intra-industry trade between the two countries. In some years, there was significant intra-industry trade in non-electric engines and motors, paper and pulp machinery, and electric power machinery. Other major products in which the GL indices indicated a somewhat high degree of intra-industry trade were articles of apparel, motor cars and other motor vehicles, and photographic supplies.

According to Table V.3, intra-industry between Nepal and Pakistan was confined only to metal salts, while intra-industry trade between Nepal and Sri Lanka consisted of trade in rubber tyres and textile yarn.

Pakistan and Sri Lanka traded a variety of products on an intra-industry basis (Table V.4 and appendix Table A.10). In the category of chemicals and related products, the GL index indicated some intra-industry trade in inorganic chemical elements, metal salts, and medicinal and pharmaceutical products. In some years, intra-industry trade appeared significant in a number of basic manufactures such as leather, articles of textile and clothing, rubber tyres, floor coverings, wire of iron or steel, and manufactures of base metal. In the category of machinery and transport equipment, intra-industry trade was indicated mainly in textile and leather machinery and parts, printing and bookbinding machinery, pumps, non-electrical parts, equipment for electricity distribution, electrical machinery and apparatus, and motor cycles and cycles. Other miscellaneous manufactured goods in which intra-industry trade occurred in some of the years were furniture, bedding and mattresses, articles of apparel, medical instruments, printed matter, and articles of plastic.

Based on the foregoing discussion, following observations can be made regarding the nature and extent of intra-industry trade in the South Asian region. First, the historical pattern of intra-industry trade amongst the South Asian countries is highly erratic, and there are only a few products in which intra-industry trade has occurred on a sustained basis. Second, with few exceptions, leather products, textiles and clothing, and some basic machinery and tools dominate the intra-industry trade profiles of the South Asian countries. Third, the proportion of intra-industry trade in total trade has been very low for most of the products, implying a low intensity of intra-industry trade in the region. This is also reflected in the average bilateral Grubel-Lloyd indices of intra-industry trade, presented in Table V.5. In 1995, intra-industry trade of Bangladesh was only 1.0, 0.08, and 0.01 percent of its bilateral trade with India, Pakistan, and Sri Lanka respectively. Whereas intra-industry trade between India and Nepal was 14 percent of their total bilateral trade, India's trade with Pakistan and Sri Lanka was only 8.3, and 1.7 percent of its bilateral trade with these countries in that order. On average, intra-industry trade between Nepal and Pakistan was almost non-existent. However, about 40 percent of Nepal's trade with Sri Lanka was of intra-industry variety. Finally, intra-industry trade of Pakistan with Sri Lanka constituted 6.8 percent of the total bilateral trade between the two countries.

**TABLE V.5: AVERAGE BILATERAL GRUBEL LLOYD INDICES OF INTRA INDUSTRY TRADE: 1995**

	<b>BANGLADESH</b>	<b>INDIA</b>	<b>NEPAL</b>	<b>PAKISTAN</b>	<b>SRI LANKA</b>
<b>BANGLADESH</b>	-	0.010	0.000	0.008	0.001
<b>INDIA</b>	-	-	0.140	0.083	0.017
<b>NEPAL</b>	-	-	-	0.000	0.393
<b>PAKISTAN</b>	-	-	-	-	0.068
<b>SRI LANKA</b>	-	-	-	-	-

Source: Indices have been computed from UNCOMTRADE Database

Note: Figures of Sri Lanka are for the year 1994

It needs to be emphasized here that intra-industry trade can play a pivotal role in promoting regional integration in South Asia. This is because this type of trade can flourish even in situations where the trade and production structures of the trading partners lack strong complementarities, as has been observed in the case of South Asian countries. Even more importantly, this leads to trade expansion and dynamics scales of economy. In this scenario, the South Asian countries can strengthen their trade linkages by devising mechanisms to promote intra-industry trade within the region. One way to accomplish this is through regional production sharing arrangements that involve the initiation of part of a manufacturing process for a specific good in one country and the transfer of the activity to another for further processing.<sup>10</sup> According to Yeats (1998), production sharing arrangements have contributed to a high level of intra-industry trade within various regional trade blocs. In the same manner, the South Asian countries can achieve greater economic cooperation and integration by evolving a vertically integrated regional production structure in sectors that are of economic significance in the regional context.<sup>11</sup> This would allow the South Asian economies to specialize in different lines of production within a particular industry and thus achieve benefits of specialization and scale economies. It must, however, be pointed out here that the regional production sharing arrangements generally emerge in response to a combination of factors including low tariffs, wage differentials, low transportation costs, and favorable government policies, and, needless to say, these arrangements are unlikely to succeed in the absence of such an environment.

<sup>10</sup> For instance, electronic components may be produced in country A, shipped to country B for assembly, and then re-exported back to country A.

<sup>11</sup> Some of the potential areas where regional production sharing systems can be developed are leather products, textiles and clothing, and basic machinery.

## CHAPTER VI

### STRENGTHENING ECONOMIC COOPERATION IN SOUTH ASIA

There have been various attempts to foster mutually beneficial economic relations in the South Asian region, as manifested in South Asian Preferential Trading Arrangement (SAPTA) and the declaration of South Asian Free Trade (SAFTA). However, as noted above, despite these efforts trade linkages among the South Asian economies continue to be weak, and no tangible progress has been made towards promoting regional economic cooperation in South Asia. This chapter draws on the analyses of the previous chapters to highlight the factors that have inhibited intra-regional trade and suggests measures to strengthen trade and economic relations in South Asia.

#### VI.1 CONSTRAINTS IN INTRA-REGIONAL TRADE

The weak trade linkages in the South Asian region can be attributed to several structural as well as policy-induced factors. These include identical comparative advantage, lack of exportable surpluses, lack of communication link, restrictive trade policies, lack of finances and political problems.

##### **Identical Comparative Advantage**

The South Asian region is characterized by an almost identical pattern of comparative advantage in a relatively narrow range of products, and there is a lack of strong complementarities in their bilateral trade structures. Similarities in the trade structure, together with absence of comparative advantage in capital intensive and high value-added products — i.e. the products that are normally imported by countries in the region — act as structural constraints in expanding intra regional trade.

South Asian countries are deficient in capital and lack well-diversified industrial bases. With the exception of India and to some extent Pakistan, these resource constraints have prevented the South Asian countries to undertake investments in high value-added exportable products, and have made these countries dependent on industrialized countries for their capital goods and technology. The regional exports largely consist of raw materials and traditional products like textiles and garments, and some regional countries are direct competitors in the world export market for these products. On the other hand, the import requirements of the region mainly consist of capital goods and high-tech products. In this scenario, the South Asian region can hardly be characterized as self-dependent and, therefore, the trade pattern of the regional countries is naturally tilted towards trade with the developed countries.

## **Exportable Surpluses**

The limited capacity to generate exportable surpluses of the product in accordance with the specifications required in the regions has marred the growth of intra-regional trade. The fact that a number of products exported by some countries to outside world and similar products imported into the country indicate that the specifications of products imported and exported are different.

## **Lack of Communication Links**

There is a general lack of communication links amongst the South Asian countries and as such the production, consumption and trade patterns of potential trading partners within South Asia may not be known. Similarly, inadequate trade facilitation mechanisms contribute to the unrealized potential of intra-regional trade in certain areas. For example, Nepal's trade with other countries in the region depends on transit facilities provided by India. It is generally recognized that these facilities often involve high handling and transportation charges and delays in delivery, thus hampering the flow of trade between Nepal and its trading partners in the region.

## **Restrictive Trade Policies**

Restrictive trade policies have also been responsible for the low level of intra-regional trade. It must, however, be mentioned here that the South Asian countries have substantially liberalized their economies during the past decade or so. Some trade liberalization has also occurred under the SAPTA regime, according to which a total of 5000 products from all SAARC member countries are entitled to preferential duty treatment. There is, however, a general perception that the trade liberalization episodes including SAPTA have not made any significant impact on intra-regional trade in South Asia. This could be due to several reasons. First, tariff concessions alone are unlikely to enhance intra-regional trade in an environment where other structural constraints continue to prevail. Second, it is generally believed that tariff concessions under SAPTA regime are mostly offered on items that are of little export interest to the member countries. Third, the stringency of the SAPTA rules of origin prevent member countries to take advantage of the tariff concessions offered under this regime.

## **Political Problems**

Apart from problems on the economic front, political differences have also undermined efforts to foster regional economic cooperation in South Asia. It is well known that India and Pakistan, the two largest economies of the region, have not been able to realize the full potential of their bilateral trade owing to various political compulsions. In addition, for better or for worse, the small South Asian countries have been generally skeptic towards regional economic cooperation initiatives, mainly because of their apprehension that a large trading

partner like India will dominate the region economically to the detriment of their domestic industries. The political conflicts as well as differences in economic outlooks have been strong impediments to intra-regional trade in South Asia.

## **VI.2. SUGGESTIONS FOR REALIZING TRADE POTENTIALS**

SAARC has a large trade potential; it exists both in terms of trade diversion from traditional sources towards SAARC countries by removing the constraints and in terms of trade creation and trade expansion by easing import restrictions on products which, are in general, not being traded amongst SAARC countries but are the major exports of South Asian Countries. It needs to be underscored, that while more than half the exports of manufactured goods from South Asia consist of textiles and leather products, they are subject to very high rates of import duties and/or quantitative restrictions and even outright bans in South Asia. Similarly rather limited trade in engineering goods is due to a number of factors including reliance on foreign aid to finance the import of capital goods, poor quality of goods and heavy import duties on capital goods even by the countries who are themselves exporters of capital goods! Therefore, until and unless import duties are lowered drastically on products, which are major exports of South Asia Countries, trade potential may not be realised. At the same time it needs to be ensured that sufficient protection or subsidy for infant industries is provided.

Products potentially tradable amongst South Asian Countries may be identified in three ways. First, a product exported to a South Asian Country at least in one year in substantial quantity may be taken as potentially tradable product. Second, products being exported by a SAARC country to rest of the world while the same products are being imported in other South Asian countries may be taken as potentially tradable amongst SAARC countries. Third, the Chambers of Commerce and Industries may identify the potentially traded products.

All the three ways to identify tradable products have their own problems. Products imported/exported once may be a reflection of acute shortages/excess production in a given year and as such may not be potentially tradable products on regular basis either because export surpluses do not exist or domestic supply does not fall below its demand on sustained basis. Similarly, import of a similar product by a SAARC country does not necessarily imply a potentially tradable product as the two may be of entirely different specifications and quality. Chambers of Commerce and Industries can be a potent source but they can provide such information only after a proper survey.

### **Broadening the Composition of Intra-Regional Trade**

Past trends indicate that intra-regional trade has been confined to a narrow range of products. There is, therefore, a need to broaden the product composition of intra-regional trade in the South Asian region. An examination of the revealed

comparative advantage profiles of the regional countries shows that there exists scope for intra-regional trade in the following products.<sup>12</sup>

1. Meat and Fish products.
2. Fruits and Vegetables.
3. Rice.
4. Sugar.
5. Coffee, Tea, and Spices.
6. Animal Feed.
7. Tobacco.
8. Oilseeds.
9. Synthetic Rubber
10. Cotton.
11. Jute and Textile Fibers.
12. Stone, Sand, and Gravel.
13. Iron and Basic Metal Ores and Concentrates.
14. Crude Vegetable Materials.
15. Residual Petroleum Products.
16. Vegetable Oil.
17. Chemicals
18. Medicinal and Pharmaceutical Products.
19. Fertilizers.
20. Insecticides and Herbicides.
21. Leather and Leather Manufactures.
22. Rubber Articles and Tyres.
23. Wood Manufactures.
24. Textile Yarn and Fabrics.
25. Floor Coverings.
26. Lime, Cement, and Fabricated Construction Materials.
27. Pottery.
28. Pearls and Precious Stones.
29. Iron and Steel Products.
30. Hand or Machine Tools.
31. Household Equipment of Base Metal.
32. Electric Power Machinery and Parts.
33. Cycles and Motor Cycles.
34. Clothing and Footwear.
35. Instruments for Medical Sciences.

### **Promotion of Intra-industry Trade**

As pointed out in chapter V, intra-industry trade can play an important role in bolstering economic and trade relations within the region. This is because intra-industry trade can take place even in situations where the trade and production

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<sup>12</sup> Recall from chapter IV that if at most four countries (out of five) enjoy comparative advantage in a given product, it is considered as potentially tradable within the region.

structures of the trading partners lack strong complementarities, as observed in the case of South Asian countries. The low intensity of intra-industry trade in the region indicates the potential for widening the scope of this type of trade within the region. It should, however, be noted that intra-industry trade is largely driven by product differentiation and increasing returns to scale. Therefore, an increased level of intra-industry trade in the region can only be achieved if the regional countries are able to develop the technological capacity to produce different product varieties at declining average cost.

### **Vertical Specialization**

A key factor that is believed to be responsible for weak trade linkages in South Asia is the lack of trade complementarities. However, trade complementarities can be developed within the region if the regional countries are able to achieve vertical specialization through production sharing arrangements. For example, there would be little or no regional trade in, say, garments if each country is a garments producer. On the other hand, trade can take place if one country specializes in yarn and fabrics while another in finished products. Vertical specialization would not only allow the regional trading partners to strengthen their trade ties, but also enable them to reap economies of scale by concentrating on a specific production process in the value-addition chain. Therefore, as in the case of various regional trading groups around the world, the South Asian countries can achieve an enhanced level of economic cooperation by developing vertically integrated production structures, thereby attaining vertical specialization.

### **Export Marketing Alliance**

Most of the South Asian countries are direct competitors in the world export market. For example, all the five countries under review compete in the international market for textile yarn, fabrics, and clothing. Similarly, Bangladesh, India and Sri Lanka are competitors in the world tea market. In this scenario, it would be in the interest of the South Asian countries to forge an alliance for the marketing of their competing export products. This would promote mutual economic cooperation in the region on the one hand, and allow regional exporters to collectively reap the benefits of improved export opportunities on the other.

### **Deepening Trade Liberalization Under SAPTA**

The SAARC Preferential Trading Arrangement (SAPTA), ratified by all the SAARC member countries, envisages tariff concessions to the member countries on a product-by-product basis. Despite a gradual increase in the number of products subject to preferential duties, there is a general perception that SAPTA has not made a significant impact on intra-regional trade in South Asia for various reasons. SAPTA can be instrumental in promoting intra-regional trade in

South Asia provided its coverage is broadened to include products that are of export interest to the member countries. Furthermore, the SAPTA rules of origin need to be made less stringent to enable the member countries to take advantage of the tariff concessions offered under the SAPTA regime.

### **Monetary Cooperation**

The South Asian countries have generally faced severe foreign exchange constraints owing to persistent imbalances in their current accounts. The paucity of foreign exchange can be an impediment to intra-regional trade — as also to any other international transaction — if these trade flows are transacted in terms of international currencies. Monetary cooperation among the South Asian countries, such as the Asian Clearing Union (ACU), can facilitate intra-regional trade by obviating the need for hard currencies for settling regional trade balances. The ACU came into operation in 1974 with the objective to expand trade among member countries through the use of national currencies, and it has played an important role in facilitating intra-regional trade since then. However, not all regional trade transactions are carried through the ACU and there is room for strengthening this important instrument of regional trade cooperation. In particular, there is a need to expand its coverage to include all SAARC member countries as well as to settle all intra-regional trade transactions through its clearing mechanism.

### **Joint Ventures**

Joint ventures can be important instruments for pooling regional resources to promote industrialization and economic growth in the South Asian region. In view of the fact that the South Asian countries have collectively gained substantial experience in agro-based industries, textiles and clothing, paper and pulp, and light engineering, there seems to be scope for joint ventures in these areas. It may be pointed out that the establishment of joint ventures will particularly benefit the small South Asian countries because they generally lack the resources to undertake industrial investment on an efficient scale.

## **VI.3 AGREEMENTS FOR ENHANCEMENT OF TRADE**

SAARC summit has declared formation of SAFTA to maximise benefits from economic cooperation. However, both the political considerations as well as economic realities including vast differences in the levels of economic development and trade regimes of SAARC Countries preclude such ambitious economic integration programs at least in the medium and short run. In the absence of Free Trade Area, the three possibilities to expand trade agreements, include Bilateral Trade Agreements, Multilateral trade Agreements and Preferential Treatment to the SAARC countries.

### **Bilateral Trade:**

Under bilateral trade, each country negotiates level and composition of trade with her trade partner. Therefore, enhancement of trade would not necessarily involve any tariff cuts or changes in import regime. However, the condition implicit in such trade agreements that each country must balance her trade with the partner unnecessarily restricts trade. Moreover, if such an option is even to be considered, SAARC becomes redundant. This is not in the WTO spirit as well.

India and Sri Lanka have such an agreement though when it comes to the identification of the products very few products are given concessions to the region especially to the products which are of export interest between the two countries.

### **Multilateral Trade Agreements:**

Countries of the region may negotiate level and composition of imports from and exports to all the countries of the region. It would be more difficult to ensure balanced trade in a multilateral framework than it is under bilateral trade. However, it promotes trade without necessarily going through any tariff negotiations.

### **Preferential Treatment:**

SAPTA provides tariff concessions to the regional countries. It obviously involves tariff negotiations and selection of the products and these can run into snags. What should be the basis of the tariff: a percentage reduction in tariffs if imported from the region or an agreed level of tariff. SAPTA so far provides for the former but such a procedure favours those who have maximum tariff and is unfair and not conducive for promotion.

The size of tariffs would be crucial. Obviously tariff rate should be sufficiently low to expose domestic industries in the region to some competition but at the same time sufficiently high that the domestic industries are not unfairly exposed to competitive imports. Accordingly, the height of tariff may be guided by three principles. First, all the countries may apply uniform rate of duty on the import of a product from other SAARC trade partners. Second, rates of duties should be no higher than the fixed cost as percentage of the f.o.b. values. Third, countervailing duties on imports may be imposed to the extent exporting countries subsidise their exports.

## CHAPTER VII

### SUMMARY AND CONCLUDING REMARKS

Recent decades have witnessed a proliferation of regional integration schemes around the world involving both developed and developing countries alike. In the context of developing economies, the promotion of intra-regional trade — a key element of regional economic cooperation and integration schemes — is increasingly being viewed as an important instrument for expediting the process of economic development, mainly because of the problems in global market access and the higher transaction costs of producing for the world market. It is widely believed that the expansion of trade on a regional level yields gains in production specialization, efficiency and improved quality of exports, all of which benefit the countries participating in the regional co-operation effort. In view of these considerations, there has been a growing interest in promoting intra-regional trade in South Asia as well. Against this backdrop, the objective of this study has been to examine various aspects of intra-regional trade in South Asia with a view to highlighting the problems in and prospects of strengthening trade and economic relations within the region. The major findings of the study are summarized below.

The shares of intra-regional trade in the total trade of South Asian countries have been quite low. In 1997, exports of Bangladesh, India, Nepal, and Pakistan to South Asian countries constituted respectively 1.7, 4.0, 20.0, and 2.7 percent of these countries' total exports. Similarly, Bangladesh, India, Nepal and Pakistan respectively imported 12.6, 0.4, 10.1 and 2.4 percent of their total imports from the South Asian countries. Industrial countries are the major trading partners of the South Asian economies: 79.7, 54.1, 74.6, and 59.6 percent of total exports of Bangladesh, India, Nepal, and Pakistan were destined to industrial countries in 1997, whereas 29.1, 48.4, 34.1, and 47.7 percent of these countries' total imports in that order originated in the industrial countries.

Since trade varies with the size of the economy, share in trade would not be a proper measure to indicate the importance a country attaches to the regional trade. Accordingly, an index of anti-regional bias has been computed which clearly demonstrates that relatively smaller countries have the pro-regional bias in their trade structure while larger countries, both Pakistan and India, have an anti-regional bias in their trade structure. The index of trade balance falls short of unity in the case of India, indicating that its exports to the region have invariably been higher than its imports. Pakistan, on average, has a unit trade balance index whereas this index is generally less than one for other countries.

The analysis points out that the South Asian region is characterized by an almost identical pattern of comparative advantage in a relatively narrow range of products. For example, the export structures of Bangladesh, India, Nepal, and

Pakistan indicate that these countries have comparative advantage in food and live animals, basic manufactures, and miscellaneous manufactured goods. Except for basic manufactures, Sri Lanka too has comparative advantage in food and live animals, and miscellaneous products. Furthermore, 'crude materials except fuels' is a common product category in the revealed comparative advantage profiles of India, Pakistan, and Sri Lanka. On the other hand, the export structures of Bangladesh, Nepal, Pakistan and Sri Lanka show that, out of 71 commodity groups at the 2-digit SITC classification, these countries respectively have revealed comparative advantage in only 5, 7, and 8 commodity groups. The range of products in which India has comparative advantage is somewhat broad, as is evident from its comparative advantage in 17 product categories at the 2-digit SITC commodity classification.

The low values of trade complementarity indices underscore the lack of strong complementarities in the bilateral trade structures of South Asian countries. More specifically, exports of Bangladesh, Nepal, Pakistan, and Sri Lanka depict weak compatibility with Indian imports. Though there is an absence of strong complementarity in Bangladesh's trade with its trading partners in South Asia, the degree of trade complementarity between Bangladesh and India has increased over time, and is higher as compared to other countries in the region. The structure of Nepal's imports exhibits some compatibility with the exports of Bangladesh and India. The degree of trade complementarity between Nepal and Bangladesh has improved over time, whereas it has weakened in the case of Nepal's trade with India. On average, Nepal's import structure exhibits the lowest complementarity with exports of Sri Lanka, and a moderate complementarity with exports of Pakistan in some years. It is interesting to note that, relative to other countries in the region, the degree of complementarity is higher for trade between Pakistan and India. However, exports of Bangladesh, Nepal and Sri Lanka depict weak compatibility with imports of Pakistan. Whereas a reasonable degree of trade compatibility is indicated between trade structures of Sri Lanka and India, exports of Nepal and Bangladesh do not show a significant match with imports of Sri Lanka. The degree of trade complementarity between Sri Lanka and Pakistan, though not substantial, has strengthened during the period under consideration.

Though similarities in the trade structure, together with absence of comparative advantage in products that are normally imported by countries in the region have hampered the growth of intra-regional trade, there are some products in which intra-regional trade can be expanded. For example, the South Asian countries can import fish products, vegetables, jute, and fertilizers from Bangladesh. On the other hand, a variety of products (total 19) can be exported by India to its trading partners in South Asia, ranging from various food items to machinery and transport equipment. Whereas Nepal can be an exporter of oilseeds and oleaginous fruits, Pakistan's potential exports to South Asian countries consist of sugar, molasses and honey, cotton, and surgical instruments. Sri Lanka's potential exports to the region include synthetic rubber, raw or processed textile

fibers, residual petroleum products, rubber articles, wood manufactures, pottery, and electric power machinery and parts.

The historical pattern of intra-industry trade amongst the South Asian countries is highly erratic, and there are only a few products in which intra-industry trade has occurred on a sustained basis. With few exceptions, leather products, textiles and clothing, and some basic machinery and tools have dominated the intra-industry trade profiles of the South Asian countries. On average, the proportion of intra-industry trade in total trade has been very low for most of the products, implying a low intensity of intra-industry trade in the region. For example, in 1995, intra-industry trade of Bangladesh was only 1.0, 0.08, and 0.01 percent of its bilateral trade with India, Pakistan, and Sri Lanka respectively. Whereas intra-industry trade between India and Nepal was 14 percent of their total bilateral trade, India's trade with Pakistan and Sri Lanka was only 8.3, and 1.7 percent of its bilateral trade with these countries in that order. While intra-industry trade between Nepal and Pakistan was almost non-existent, about 40 percent of Nepal's trade with Sri Lanka was of intra-industry variety. The intra-industry trade of Pakistan with Sri Lanka constituted 6.8 percent of the total bilateral trade between the two countries.

The study has highlighted various structural as well as policy-induced factors that may have inhibited the growth of intra-regional trade in South Asia. Prominent among these are: an almost identical pattern of comparative advantage; lack of strong complementarity in the bilateral trade structures of South Asian countries; limited capacity, especially of small South Asian countries, to generate exportable surpluses; restrictive trade policies; and political differences. It is emphasized that although various economic and political factors have contributed to a low level of intra-regional trade in South Asia, there exists potential for economic cooperation in some areas. In this respect, the study has spelled out various measures to improve trade and economic ties in the region. These include broadening the composition of intra-regional trade with a major focus on trade of intra-industry variety, achieving vertical specialization, joint export marketing of competing regional export products, deepening trade liberalization under SAPTA, promoting monetary cooperation, and encouraging joint industrial ventures. It is, however, stressed that efforts to promote regional economic cooperation are unlikely to succeed without political harmony and convergence in economic perceptions, which are essential pre-requisites for forging an economic and trade alliance in the South Asian region.

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