

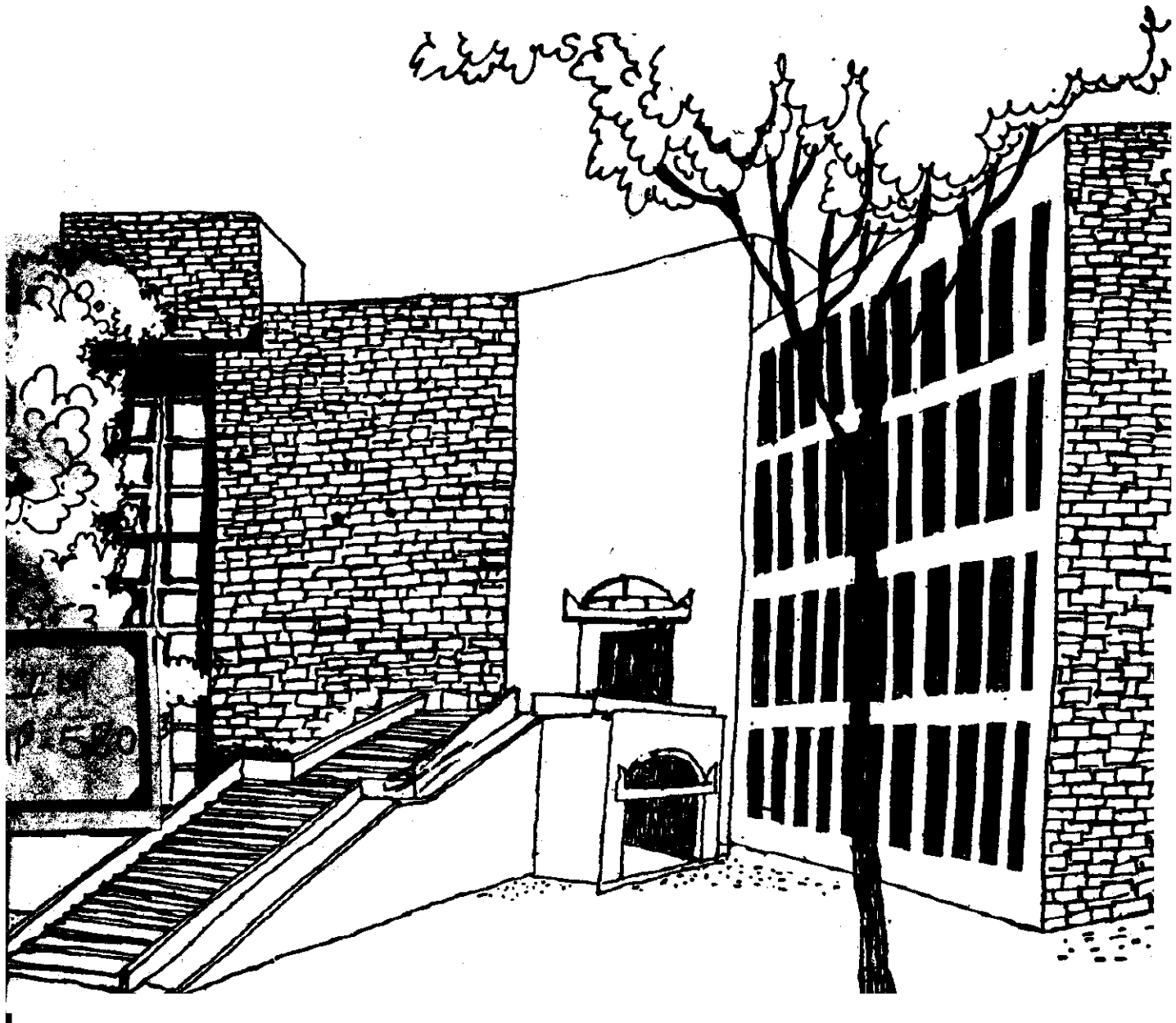


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Working Paper



INDIA'S TRADE WITH SOUTH AND SOUTHEAST ASIA:
SCOPE FOR FURTHER COOPERATION

By

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W P No. 580

September 1985

The main objective of the working paper series of the IIMA is to help faculty members to test out their research findings at the pre-publication stage.

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INDIA

INDIA'S TRADE WITH SOUTH AND SOUTHEAST ASIA :
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ABSTRACT

This paper briefly examines the current status of India's trade relations with two developing sub-regions of Asia, namely, South Asia and Southeast Asia. South Asia covers seven countries who have recently loosely grouped themselves under "South Asian Regional Cooperation" (SARC) and are likely to formally launch "South Asian Association for Regional Cooperation" (SAARC) in December 1985. These countries are : Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. Southeast Asia covers five countries belonging to the Association of Southeast Asian Nations (ASEAN), namely, Indonesia, Malaysia, Philippines, Singapore and Thailand. This paper explores the progress and prospects for "South-South" cooperation in trade and trade-related areas. For analysing trade relations, we have employed two analytical measures, namely, (i) Kojima indices of trade intensity; and (ii) Wadhva index of trade reciprocity.

This paper indicates that good scope for further cooperation in trade and trade related areas exists both between India and other South Asian Countries as well as between India and Southeast Asian countries. However, considering the geopolitical and structural economic realities, we have recommended that the multilateral approach being followed under "SARC" (where trade cooperation is not being currently considered) should be supplemented by carefully formulated moves/further moves for bilateral cooperation in trade and trade-related matters. We have also recommended taking strong diplomatic initiatives by India to strengthen trade cooperation with the fastest growing ASEAN region especially through bilateral moves. We have also pleaded for strengthening trade cooperation between India and a Newly Industrializing Country of Southeast Asia, namely, South Korea.

INDIA'S TRADE WITH SOUTH AND SOUTHEAST ASIA :
SCOPE FOR FURTHER COOPERATION*

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This paper briefly examines the current status of India's trade relations and trade cooperation with two developing sub-regions of Asia, namely, South Asia and Southeast Asia. The terms "South Asia" and "Southeast Asia" carry different connotations and varied coverage in the prevailing literature depending upon the needs and perceptions of various researchers. For the purpose of the present paper, South Asia covers a grouping of seven countries which have been loosely working for greater regional economic cooperation under the banner of "South Asian Regional Cooperation" (SARC). These countries are : (i) Bangladesh; (ii) Bhutan; (iii) India; (iv) Nepal; (v) Pakistan; (vi) Sri Lanka; and (vii) Maldives. As statistical data is not readily available, we have excluded Bhutan and Maldives from our empirical analysis. The Southeast Asian countries, for our empirical analysis

*Paper presented at the Panel Discussion on "Trade with South and Southeast Asia" organised by the India International Centre (Economic Affairs Group) at New Delhi on July 16, 1985. This paper is based upon the findings of a team of researchers from several countries who worked on a research project sponsored by the Indian Council for Research on International Economic Relations (ICRIER), New Delhi. Part of these findings have already been published in Charan D. Wadhva and Mukul G Asher (eds.), ASEAN-South Asia Economic Relations, Singapore; Institute of Southeast Asian Studies, 1985. Part of these and all other major findings of the ICRIER-sponsored project are proposed to be published in Charan D. Wadhva et. al., Regional Economic Cooperation in Asia, New Delhi : Allied Publishers (forthcoming : around December 1985).

in this paper include the five member countries of the Association of Southeast Asian Nations (ASEAN), namely, (i) Indonesia; (ii) Malaysia; (iii) Philippines; (iv) Singapore; and (v) Thailand. We also plan to indicate a few additional measures for further strengthening of trade cooperation. In doing so, we follow the approach adopted by the United Nations Conference on Trade and Development (UNCTAD) regarding the need for strengthening mutual trade and economic cooperation among the developing countries in the current world economic environment for accelerating the growth and improving the living standards of the population of these countries. Here, we reiterate that this "South-South Cooperation" is a complement (not substitute) to the existing and planned programmes of "North-South Cooperation" (i.e. cooperation between/among the developed countries and the developing countries). As the focus of this paper is on trade and directly trade-related issues, we will not discuss other forms of regional economic cooperation.

This paper is divided into the following three sections :

- (i) Trade relations and selected measures for further cooperation between India and other countries of South Asia;
- (ii) Trade relations and selected measures for further cooperation between India and other countries of Southeast Asia; and
- (iii) Concluding remarks.

I

SOUTH ASIA

India has a sizeable trade with the developing countries of Asia covered under the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). India's trade with its immediate neighbouring countries of South Asia, though dwindling in recent years, is still of some significance, particularly if economic potential is allowed to be properly exploited. As Table 1 shows, India's exports to South Asia as a proportion of India's exports to the world declined from 3.9 per cent in 1970 to 3.2 per cent in 1980 and further to 2.1 per cent in 1982. On the side of imports, Indian imports from South Asia as a proportion of its imports from the world decreased from 1.1 per cent in 1980 to 0.6 per cent in 1982. India's trade (both exports and imports) declined with all South Asian countries in 1982 compared to 1980 as can be seen from Table 1. The computations on Indices of India's export intensity in Table 2 and import intensity in Table 3 further confirm this observation. These indices are defined in Technical Appendix.

These trends are not surprising in view of the political (and structural) realities facing India with its neighbouring countries and their desire to diversify their trade relations away from India over the last few years. This is generally true for all our neighbouring countries but is far more pronounced in the case of India-Pakistan Trade (see Table 1.) The last Trade Agreement between India and Pakistan expired in 1976 and has not been renewed since then owing to the discriminatory policies adopted by the

Pakistan Government in allowing imports from India only through its State controlled trade organisation (Pakistan Trading Corporation). This unilateral restriction appears to be in violation of GATT rules to which both parties are signatories. Political relations between India and Pakistan have been going through a see-saw of deterioration and some improvement. Even the last meeting of the Indo-Pakistani Joint Commission held in New Delhi in early July 1985 failed to break the deadlock in trade relations. Despite a favourable balance of trade with India most probably by design (see Table 1), Pakistan does not appear willing to take the "risk" of substantial increase in imports from India in case freer trade between the two countries was allowed.

We have also computed indices of trade reciprocity between India and our trading partners in South Asia. The index of trade reciprocity is defined in Technical Appendix and computations are provided in Table 6. The indices of trade reciprocity which reflect the degree of balance in balance of trade over time have depicted erratic behaviour but generally shown decline for most of our South Asian trading partners in 1980 compared to 1965. These findings are generally in line with the figures on India's balance of trade with South Asian countries shown in Table 1. Except for Pakistan, India has been running favourable balance of trade with all other South Asian partners; however, the extent of such "favourableness" declined for India in 1982 with Bangladesh, Nepal and Sri Lanka compared to 1980.

The South Asian countries have been participating in two major schemes of multilateral trade cooperation under the auspices of the United Nations Economic and Social Commission for Asia and the Pacific. These are (1) The Bangkok Agreement; and (2) Asian Clearing Union. The Bangkok Agreement was signed in July 1975 for promoting mutual trade based on reduction of tariff on member countries' products in a selective manner. The South Asian signatory countries (among other Asian countries) were : (i) Bangladesh; (ii) India; and (iii) Sri Lanka. It is generally agreed that the Bangkok Agreement has made very limited impact on expanding intra-regional trade among the member countries, including the "sub-region" comprising of the three signatory South Asian countries mentioned above. The South Asian countries need to ^{further} examine the case for tariff cuts on each other's products for expanding mutual trade. Perhaps these countries would await the new multilateral tariff cuts among developing countries under the "Generalised Scheme for Tariff Preferences" ^(GSTP) being formulated at the United Nations Conference on Trade and Development (UNCTAD). The Asian Clearing Union (ACU) set up in 1975 has made some definite progress involving all South Asian countries in recent years. However, both the membership and the coverage of transactions and credit facilities of ACU need to be substantially expanded to further increase the benefits of this institution to the member countries.

Realizing the slow and tardy progress of multilateral ESCAP level trade and other forms of economic cooperation in South Asia

and realising the potential benefits of regional economic cooperation in South Asia after seeing the success of ASEAN model in recent years, seven countries of South Asia mentioned in the beginning of this paper came together under the banner of "South Asian Regional Cooperation" (SARC) for promoting mutual economic cooperation. Considering the political realities and significant differences in the degree of economic development of these countries, they have agreed to adopt a gradual step-by-step approach towards regional economic cooperation initially excluding cooperation in trade and including only those areas which have least political implications. These include examining the possibilities and devising action programmes in areas like : (i) Agriculture; (ii) Rural Development; (iii) Telecommunications; (iv) Meteorology; (v) Health and Population activities; (vi) Transport; (vii) Postal services; (viii) Scientific and technological cooperation; and (ix) Sports, Arts and culture. The seven countries of SARC met at Thimpu (Bhutan) in mid-May (1985) and despite the initial reluctance of Sri Lanka have unanimously agreed in principle to the need for establishing an institutional framework to be called "South Asian Association for Regional Cooperation" (SAARC). It will have an apex body in the Council of Foreign Ministers of the member countries for formulating policies, monitoring and reviewing the progress of the schemes adopted by SAARC. It was the late President Zia-ur-Rahman of Bangladesh who took initiative in calling South Asian countries to come closer for promoting regional economic cooperation which culminated

in the formation of SARC. It is, therefore, appropriate that the first summit of heads of State of South Asian countries would be held in Dhaka in December 1985. The forthcoming Dhaka summit is expected to formally launch SAARC and move towards the establishment of a standing institutional framework for accelerating the process of regional economic cooperation among the member countries, including trade cooperation in the near future.

Some of the measures towards mutual cooperation in trade and trade-related matters in South Asia which require research studies and detailed examination are :

- (1) Continuous exchange of lists of products and services of export and import interest based on latest market studies and evolving preferential trade arrangements for such products and facilitating interaction between exporting and importing units, including State Trading Organizations;¹
- (2) Proposals for barter trade/counter trade;
- (3) Establishments of a Payments Union to facilitate balanced incremental trade;
- (4) Setting up of Trade creating joint ventures, including common "region-wide" industries;
- (5) Coordinating marketing of agrobased exports to non-member countries, e.g. tea, fresh fruits and vegetables, for increasing unit value realisations from their exports;
- (6) Joint procurement of common bulk imports such as cement, fertiliser, edible oils etc.

1. For a recent report on this subject, see, Import Export Structure and Trade Expansion in South Asia : Trade and Investment Possibilities in Bangladesh, Nepal and Sri Lanka, New Delhi : Indian Institute of Foreign Trade, 1982.

- (7) Food security through trade/loaning of food crops by smoothening surpluses and deficits of such crops due to variations in weather;
- (8) Trade/Loan in energy products such as natural gas and processing of such products; and
- (9) Strengthening of infrastructural services for trade promotion such as (i) shipping; (ii) telecommunications; (iii) banking; and (iv) tourism/hotels.

II

SOUTHEAST ASIA

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The importance of Southeast Asian (ASEAN grouping) countries in India's trade has been increasing since 1970, both as markets for India's nontraditional exports (especially engineering goods) and more so as sources of India's imports. ASEAN countries have experienced very high rates of growth since 1970 and are expected to continue to do so in the coming years. These countries, therefore, hold immense potential for expansion of trade with India. The share of ASEAN countries in India's total exports as seen from Table 1 had risen from 2.6 per cent in 1970 to 4.2 per cent in 1982. The share of ASEAN countries in India's imports during the same period had increased even more i.e., from 0.6 per cent to 5.9 per cent. This shows growing complementarities at the margin in trade between India and ASEAN. Country-wise proportions of India's export and import trade with each of the constituents of ASEAN is also given in Table 1. It is important to observe that India has changed its position in balance of trade with ASEAN from surplus upto mid-70's to deficit in later years. India's deficit in balance of trade with ASEAN grouping was highest in 1982 at US \$ 590 million. Of this deficit, as much as

US \$ 423 million was with Singapore due to heavy imports of metal ores and scrap, petroleum products, offshore drilling equipment and edible oils among other things. Next in magnitude of deficit was with Malaysia at US Rs 214 million in 1982 dominated by imports of edible vegetable oils, rubber and other metals and chemical products.

An analysis of intensities of India's trade with ASEAN countries from Tables 4 and 5 by and large confirms the above general findings. Thus, as far as India's export intensities are concerned, Table 4 shows that despite year-to-year fluctuations during the period 1970 to 1980, the trend was upwards for India's exports to Indonesia and Malaysia (1972-80) but downwards for the Philippines (for 1970-80) and for Singapore and Thailand after 1978. On the other hand, India's import intensities definitely depicted strong upward rising trend during 1970-80 period for Indonesia and Malaysia and significant downward trend with the Philippines.

As a result of the growing imbalances in the balance of trade of India with most ASEAN countries, the index of trade reciprocity between India and the ASEAN grouping generally showed decline during the period 1965-80 (see Table 6). The indices of India's trade reciprocity with each of the ASEAN Countries are also provided in Table 6 for the reader to draw his own conclusions.

India and ASEAN grouping have not done much to come closer to each other economically or politically. In fact, further progress of the first-ever formal India-ASEAN dialogue held in 1981 was scuttled by ASEAN countries' adverse reactions to India's recognition of Kampuchea. The general reaction to this move was that it confirmed

that India is closer to the Soviet Russia than its preferred neutrality would demand. However, India has made some moves at bilateral level in recent years to strengthen its trade relations with the ASEAN. India has concluded Trade Agreements with the ASEAN countries. Of late, some of the ASEAN countries have renewed their interest in some forms of economic cooperation with India both at the official and more so at the private level. The latest illustration of this move is the statement of the Thai Foreign Minister, Air Chief Marshal Siddhi Savetsila during his visit to New Delhi/expressing Thailand's interest in establishing closer cooperation with India in multinational forums. He had also stated that Thailand was keen to expand trade and economic cooperation with India. The new liberalized industrial policies being formulated by Prime Minister Rajiv Gandhi's government should promote interest among ASEAN entrepreneurs to explore opportunities for increased trade and economic cooperation with India in future.²

At the private sector level, Indian entrepreneurs have already set up several joint ventures in all the ASEAN countries in various industries including textiles, light engineering goods and even high-tech oriented industries like computer peripherals and software in

2. A private trade team from Singapore had recently visited India this year. The Indian Minister of State for Commerce Mr P A Sangama had told the Lok Sabha recently that products like computer, software, high technology products, electronics components, heavy engineering items, scooters and construction materials are likely to be exported to Singapore. See, Times of India, May 11, 1985, p.7 (news item)

Singapore. Indian entrepreneurs have renewed interest in setting up new joint ventures in ASEAN countries including manufacture of drugs and pharmaceuticals. While the performance of Indian joint ventures has not been all that spectacular and there have been some visible failure cases, on the whole, these ventures appear to have benefitted both the host country and the recipient country and most of all the concerned India industrial groups (or entrepreneur) in achieving their business objectives. Most of these ventures have been of trade creating nature, at least of one-time nature, in the sense that Indian entrepreneurs have contributed to the equity of the joint venture companies abroad in the form of export of Indian plant and equipment and sometimes raw materials, spares and components as well. As we have pointed out in our book cited earlier, Indian entrepreneurs are likely to find their comparative advantage in Southeast Asia shifting away from the establishment of joint ventures based on Indian plant and equipment or executing turnkey projects based on so-called "appropriate technology" from India to other fields such as provision of skill or knowledge intensive services like backup support for developing software, management contracts, off shore banking etc.

One major weakness of India's export efforts in the ASEAN countries is in the area of marketing planning and publicity. Indian entrepreneurs do not spend adequately on advertising Indian capabilities or countering adverse publicity derives of our competitors including competitors from the developed countries such as Japan. The recent

Buyer-Seller Meet organized by the Indian Trade Development Authority in Malaysia is a step in the right direction. Better results can be achieved in this area through improved planning of trade fairs and exhibitions and more dynamic support from the Government of India through its Embassies in the ASEAN countries. ASEAN is perhaps the fastest growing region of the world and India should plan better to take advantage of the growing business opportunities in this region. The Government of India will have to take initiative in intensifying its efforts at commercial diplomacy to facilitate efforts of Indian exporting units to take fuller advantage of the growing business opportunities in the ASEAN region.³

Some of the new areas of cooperation in trade and trade-related matters which need to be researched for formulating concrete schemes for strengthening economic cooperation between India and each of the ASEAN countries are :

- (1) Opportunities for barter trade/counter trade, especially with Indonesia which is likely to extend its "counter-purchase" policies to India some time in the near future;
- (2) Long Term Procurement Contracts by India to products like edible oils;
- (3) Recruitment/exchange of professional manpower by the Multi-national Corporations within their operations in India and Southeast Asia as contrasted from importation of such manpower from the West;
- (4) Setting up of trade-creating joint ventures; and

3. The Engineering Export Promotion Council of India has recently identified several exportables to Southeast Asia in the areas of engineering exports, projects and services. These include :
(i) 2-wheelers and 3-wheelers; (ii) Manufacture of automotive components on a joint venture basis; (iii) Participation in power generation and other industries. See Business Standard (Calcutta), June 1, 1985 (News item).

- 5) Strengthening of infra-structural services for trade promotion between India and the Southeast Asian countries, especially in the areas of : (i) Shipping (including airfreighting); (ii) Telecommunications; (iii) Banking; and (iv) Tourism.

III

CONCLUDING REMARKS

Trade cooperation and other forms of economic cooperation bilaterally and multilaterally among any grouping of countries significantly depends upon the degree of cordiality and closeness of political relations among them - existing or potential - to be created by the exercise of political will. Mutuality of interests and feeling of equitable or fair sharing of likely gains is a pre-condition for successful operation of schemes for enhancing cooperation. Considering the geo-political realities and the alignments of the countries of Asian region with the super powers and the differences in the existing levels of economic development of these countries as well as the political differences or disputes on several bilateral issues amongst the various pairs of South Asian countries, it would be naive to conclude that much can be achieved in the short-run that would substantially change the nature of existing trade relations or suddenly forge different political alignments. However, this does not mean that efforts should not be intensified to improve trade and other forms of economic cooperation through multilateral cooperation between India and other member countries belonging to SARC (or SAARC) or ASEAN. The key thing to note is that better results can be achieved for reaping gains by India from mutual cooperation in trade and other areas through bilateral approach

supplemented by/given the achievements of the multilateral approach. The Government of India will be required to undertake a major diplomatic effort to improve both political and economic relations simultaneously with each/most of the member countries of South Asia and the ASEAN if India's gains from trade and other forms of cooperation in this region are to be maximised.

Last but not the least, it would be important for India to look at the possibilities of mutual gains from trade and other forms of economic cooperation with some other "Southeast Asian" countries, particularly three other "Newly Industrialising Countries" (NICs) besides Singapore (which is the fourth NIC in Asia). These Asian NICs are : (1) Hong Kong; (2) Taiwan; and (3) South Korea. The NICs are the world's fastest growing countries and are likely to provide ample opportunities for mutually advantageous cooperation in trade and other areas. Of particular significance for research would be the exploration of schemes for trade and other forms of economic cooperation between Indian and South Korea. It is worth noting that South Korea has already emerged as India's eighth largest trading partner. It has recently liberalised its imports of several products from the developing countries. Its interest in greater trade with India, including transfer of technology to India in selected high-tech areas has been noted more recently following the further opening up of the Indian economy since Mr Rajiv Gandhi's

government took over in January 1985 for a five year term.⁴ The Indian Government has recently renewed dialogue with the South Korean Government after two years. This is to be carried further on the proposed visit of the South Korean Foreign Minister to New Delhi on July 19, 1985. The Korean Trade Promotion Centre has also identified South-West Asia as the "best site" for joint ventures.⁵ We need to rise above any suspicions on either side and objectively examine the schemes for mutual trade and other economic cooperation between India and South Korea. This would certainly not be at the cost of cooperation between India and other countries of Asia.

4. See news items in the Financial Express, May 7, 1985; and Business Standard, July 1, 1985.

5. See news item in the Financial Express, June 21, 1985.

Table 1

India's Exports (X) to, Imports (M) from the Balance of Trade
(B/T) with South and Southeast (ASEAN) Countries
(In millions of U.S. Dollars, exports f.o.b.; imports c.i.f.)*

Region/Country	1974			1975			1980			1982		
	X	M	B/T	X	M	B/T	X	M	B/T	X	M	B/T
I. <u>South Asia</u> of which	78.0 (3.9)	18.5 (0.9)	59.5	140.4 (3.2)	57.0 (0.9)	83.4	244.0 (3.2)	138.0 (1.1)	106.0	180.0 (2.1)	98.0 (0.6)	82.0
1. Bangladesh	- (-)	- (-)	-	64.9 (1.5)	4.9 (0.1)	60.0	70.0 (0.9)	4.0 (neg1)	66.0	40.0 (0.5)	22.0 (0.1)	18.0
2. Nepal	37.8 (1.9)	14.8 (0.7)	23.0	46.6 (1.1)	29.0 (0.5)	17.6	84.0 (0.9)	23.0 (0.2)	61.0	72.0 (0.8)	20.0 (0.1)	52.0
3. Pakistan	0.5 (neg1)	- (-)	0.5	- (-)	22.7 (0.4)	-22.7	2.0 (neg1)	75.0 (0.6)	-73.0	2.0 (neg1)	33.0 (0.2)	-31.0
4. Sri Lanka	39.7 (2.0)	3.7 (0.2)	36.0	28.9 (0.7)	0.4 (neg1)	28.5	88.0 (1.0)	36.0 (0.3)	52.0	66.0 (0.8)	23.0 (0.1)	43.0
II. <u>Southeast Asia</u> (ASEAN) of which	52.5 (2.6)	12.9 (0.6)	39.6	166.1 (3.8)	54.0 (0.9)	112.1	271.0 (3.6)	807.0 (6.3)	-536.0	363.0 (4.2)	953.0 (5.9)	-590.0
1. Indonesia	5.9 (0.3)	0.3 (neg1)	5.6	53.1 (1.2)	5.6 (0.1)	47.5	41.0 (0.5)	25.0 (0.2)	16.0	68.0 (0.8)	21.0 (0.1)	47.0
2. Malaysia	15.5 (0.8)	5.4 (0.3)	10.1	35.0 (0.8)	16.8 (0.3)	18.2	81.0 (1.1)	298.0 (2.3)	-217.0	67.0 (0.8)	281.0 (1.7)	-214.0
3. Philippines	1.8 (0.1)	1.3 (0.1)	0.5	10.6 (0.2)	5.1 (0.1)	5.5	9.0 (0.1)	5.0 (neg1)	4.0	9.0 (0.1)	12.0 (neg1)	-3.0

Region/country	1970			1975			1980			1982		
	X	M	B/T	X	M	B/T	X	M	B/T	X	M	B/T
4. Singapore	21.3 (1.1)	2.0 (0.1)	19.3	53.7 (1.2)	5.7 (0.1)	48.0	102.0 (1.4)	458.0 (3.6)	-356.0	173.0 (2.0)	596.0 (3.7)	-423.0
5. Thailand	8.6 (0.4)	3.9 (0.2)	4.1	13.7 (0.3)	20.8 (0.3)	-7.1	38.0 (0.5)	21.0 (0.2)	17.0	46.0 (0.5)	43.0 (0.3)	3.0
World	2013.0	2094.0	-81.0	4335.0	6289.5	-1934.5	7584.0	12785.8	-5201.0	8559.0	16131.0	-7572.0

*Figures within parentheses indicate percentages to : "exports to" / "imports from" world.

Sources : i. U.N., Foreign Trade Statistics of Asia and the Pacific (for 1970 and 1975)

ii. I.M.F., Direction of Trade Yearbook (for 1980 and 1982)

Table 2

Intensity of India's Export Trade
With South Asian Countries*

1965 - 1980

Year	Bangla Desh	Nepal	Pakistan	Sri Lanka
1965		82.529	1.591	7.973
1970		99.150	0.059	14.723
1971		80.681	0.003	16.933
1972	38.512	110.452	0.000	7.692
1973	35.925	65.165	0.000	4.002
1974	11.276	105.280	0.000	8.880
1975	10.043	102.603	0.000	7.255
1976	11.523	111.319	0.430	10.695
1977	12.429	88.777	1.263	15.191
1978	3.876	58.635	0.826	15.918
1979	3.569	53.821	1.103	17.531
1980	3.682	51.944	0.160	9.241

* For definition of this index, see Technical Appendix.

Computed from
Source : I.M.F., Direction of Trade Year Book.

Table 3

Intensity of India's Import Trade
with South Asian Countries*

1965 - 1980

Year	Bangla Desh	Nepal	Pakistan	Sri Lanka
1965		54.777	2.975	1.363
1970		94.649	0.000	1.495
1971		24.786	0.000	0.530
1972	3.924	40.268	0.000	0.000
1973	10.278	41.231	0.000	0.598
1974	4.369	109.980	0.000	0.000
1975	1.958	92.196	2.689	0.000
1976	4.424	129.560	0.763	0.000
1977	3.248	64.376	2.627	2.049
1978	0.079	15.935	2.172	12.911
1979	0.000	53.821	2.633	1.937
1980	0.000	51.944	4.045	4.970

*For definition of this index, see Technical Appendix.

Computed from

Source : / I M F , Direction of Trade Year Book.

Table 4

Intensity of India's Export Trade With ASEAN Countries

1965-1980

<u>Year</u>	<u>Indonesia</u>	<u>Malaysia</u>	<u>Philippines</u>	<u>Singapore</u>	<u>Thailand</u>
1965	0.402	-	0.113	-	0.522
1966	-	3.775	-	1.367	-
1970	0.864	2.264	0.219	1.263	0.890
1971	0.604	2.173	0.200	1.420	0.800
1972	0.702	1.240	0.245	1.036	1.072
1973	1.160	1.443	0.241	1.505	0.796
1974	2.364	1.846	0.352	1.255	1.028
1975	2.186	1.848	0.554	1.214	0.818
1976	2.522	1.726	0.929	1.255	1.489
1977	1.685	1.436	0.845	1.265	1.155
1978	2.698	1.770	0.345	1.125	1.093
1979	2.940	1.883	0.340	0.966	0.861
1980	2.360	1.974	0.207	0.935	0.603

Computed from

Source : I M F , Direction of Trade Year Book.

Table 5

Intensity of India's Import Trade with ASEAN Countries

1965-1980

Year	Indonesia	Malaysia	Philippines	Singapore	Thailand
1965	0.385	-	0.015	--	3.493
1966	-	1.276	-	5.222	-
1970	0.036	0.524	0.169	0.135	0.732
1971	0.031	0.618	0.065	0.248	2.157
1972	0.032	0.680	0.045	0.296	1.125
1973	0.025	1.697	0.043	0.281	0.165
1974	0.041	0.826	0.039	0.288	0.187
1975	0.108	0.573	0.231	0.285	1.161
1976	0.062	0.003	0.070	0.376	0.297
1977	0.356	5.245	0.195	0.729	0.398
1978	0.325	0.237	0.000	2.228	0.529
1979	0.172	2.511	0.148	2.356	0.639
1980	0.157	3.671	0.191	3.450	0.637

Estimates are based on I M F data on Direction of Trade.

Table 6

Index of (Export) Trade Reciprocity (E) of India
With South Asian and Southeast Asian Countries*

<u>Group/Country</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>
I. <u>South Asia</u>	<u>0.896</u>	<u>0.358</u>	<u>0.450</u>	<u>0.851</u>
1. Bangladesh	-	-	0.139	0.485
2. Nepal	0.806	0.491	0.598	0.685
3. Pakistan	0.728	0.000	0.000	0.107
4. Sri Lanka	0.531	0.178	0.027	0.560
II. <u>ASEAN (Southeast Asia)</u>	<u>0.885</u>	<u>0.598</u>	<u>0.840</u>	<u>0.638</u>
1. Indonesia	0.924	0.196	0.376	0.580
2. Malaysia	0.000	0.576	0.870	0.501
3. Philippines	0.000	0.611	0.627	0.818
4. Singapore	-	0.636	0.881	0.380
5. Thailand	0.161	0.762	0.557	0.697

*For definition of this index, see Technical Appendix.

Source : Computed From : (1) UN, Foreign Trade Statistics of Asia and the Pacific Year Book (various issues).

(2) IMF, Direction of Trade Year Book (various issues).

TECHNICAL APPENDIX

The indices computed in this paper will be defined and elaborated in this appendix.

I. Trade Intensity Indices

An analysis of the bilateral trade orientation (export-intensity or import intensity) of any country (say India) with any other country (or group of countries) can be undertaken by computing intensity indices on both exports and imports side.*

I.1 Export Intensity Index

Export Intensity index (X_{ij}) can be defined as :

$$x_{ij} = \left(\frac{\frac{X_{ij}}{X_i}}{\frac{M_j}{M_w - M_i}} \right) \dots (1)$$

where,

- x_{ij} = export intensity index of trade of country i with country j.
- X_{ij} = exports of country i to trading partner j.
- X_i = total exports of country i.
- M_j = total imports of country j.
- M_w = total world imports.
- M_i = total imports of country i.

(...24)

*These indices are given in K. Kojima, "The Pattern of International Trade Among Advanced Countries," Hitotsubashi Journal of Economics, Vol. 5, No.1, June 1964. For a discussion of the limitations of these indices, see, Charan D. Wadhwa and Mukul G. Asher (eds.), ASEAN-South Asia Economic Relations, op. cit, p.16.

I.2 Import Intensity Index

Similarly, the import intensity index (m_{ij}) is defined as :

$$m_{ij} = \left(\frac{\frac{M_{ij}}{M_i}}{\frac{X_j}{X_w - X_i}} \right) \dots (2)$$

where,

m_{ij} = import intensity index of trade of country i with country j.

M_{ij} = imports of country i from trading partner j.

M_i = total imports of country i.

X_j = total exports of country j.

X_w = total world exports

X_i = total exports of country i.

(contd.. p.25)

Technical Appendix

II. Trade Reciprocity Index

In order to measure the reciprocity in the overall balance of trade of any two partner countries (or groups of countries not including all trade partners at the global level), we have devised the trade reciprocity index (θ) as follows*:

$$\theta = 1 - \frac{\sum_{j=1}^n \left(\frac{a_{ij} - a_{ji}}{a_{ij} + a_{ji}} \right) \sum_{i=1}^n a_{ij}}{(n-1) \left[\sum_{i=1}^n \sum_{j=1}^n a_{ij} \right]}$$

where, a_{ij} = exports of country i to partner j .

a_{ji} = exports of country j to partner i

n = total number of countries involved in the context of bilateral or regional grouping being considered.

The index θ will always lie between zero and one. When every pair of countries in a group tends to have a balanced bilateral trade (case of perfectly balanced two-way trade), the value of θ reaches its maximum (i.e., unity).

For further details on the scope utility and limitations of this index see Charan D. Wadhwa and Mukul G. Asher (eds.), ASEAN-South Asia Economic Relations, op. cit., pp. 17-18.

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