

The ASEAN-India Free Trade Agreement: A sectoral impact analysis of increased trade integration in goods*

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Abstract

Under the ASEAN-India FTA, the trade bloc's members will have increased access to the Indian market for semi-processed and processed agricultural products and close substitutes, which could adversely impact the Indian agricultural sector. Indian small and medium enterprises in food and other agriculture-related products, some intermediate goods and light manufacturing products are also likely to suffer. But import liberalisation in intermediate goods will encourage multinational corporations to undertake production rationalisation across the region in the transport equipment, machinery, chemicals and iron & steel sectors. This could lead to India's deeper integration in production networks in such sectors. There are no major immediate market access benefits for other Indian producers, as average percentage tariff drops in Malaysia, Indonesia and Thailand's Normal Track products are much lower than India's. The neglect of the development needs of the domestic agricultural sector and manufacturing base in the present FTA for expected gains in service sector liberalisation with ASEAN, together with the known problems in service sector liberalisation, are likely make India's employment and livelihood issues even more challenging.

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I. Introduction

India's economic relations with the member countries of the Association of Southeast Asian Nations (ASEAN) are set to undergo major changes as the ASEAN-India Free Trade Agreement (AIFTA) has come into force since 1 January 2010. Until the early 2000s, India and the Southeast Asian countries were not significant trade partners for each other except for Singapore. This has been fundamentally due to the fact that all the bigger Southeast Asian economies had been following a foreign direct investment (FDI)-driven export-led growth strategy since the mid-1980s, while India's trade and investment policies remained quite conservative in comparison. Consequently, the de facto market-driven trade integration that ensued in East Asia because of the multinational corporations (MNCs)' production network strategies meant that ASEAN countries' trade links have been the greatest with the other countries in the East Asian region that drove or have been part of production sharing arrangements, or with the developed countries that had been their major markets in prominent export sectors. India did not attempt to follow production network-driven export growth strategies, at least until recently.

Industries involved in international fragmentation of production processes typically exhibit high shares of intra-industry trade. With the steady liberalization of trade and investment rules in many sectors by India unilaterally or under regional trade agreements such as the Comprehensive Economic cooperation Agreement (CECA), recent trends in India's export and import structure do point towards an increase in two-way trade² in some sectors. It is

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² Note that not all simultaneous bilateral exchange of exports and imports at the 2-digit HS level necessarily classifies as intra-industry trade (IIT) as often considered in the literature, since some

against this backdrop that the implications of the tariff reduction commitments under the ASEAN-India Free Trade Agreement (AIFTA) for India's agricultural and non-agricultural sectors are analysed.

This paper is organised as follows. In the following second section, we present an overview of the pattern and composition of India's trade in the context of India's growing integration with Asia. The third section looks at India's increasing trade with the ASEAN countries in detail. The fourth section examines the tariff reduction commitments under ASEAN-India Free Trade Agreement (AIFTA) and analyses the extent of potential market access that will be gained by ASEAN countries in India's agricultural and non-agricultural sectors. The fifth section examines the potential market access scenario for India in some of the major ASEAN countries. The last section makes some concluding observations.

II. India's Overall Trade Patterns

One of the most striking aspects of India's expanding presence in global trade is related to India's increased integration with Asian countries (IDEAs 2009). While the dominance of developed countries in India's trade has reduced since the late 1990s, the shares of Asian developing countries in India's exports and imports have gone up significantly. Although developed countries, despite a decline in their share over time, continue to remain more important as destinations of India's exports, the gap between the shares of developed countries and Asian developing countries in India's imports has reduced more sharply.³ That is, Asian developing countries have increasingly become nearly as important as developed countries as sources of India's imports. Along with increased trade with East Asia including China and South Korea, followed by the United Arab Emirates (UAE) and Saudi Arabia, Southeast Asia has played a major role in this changing trade pattern.

It is important to understand if these directional changes have been accompanied by any compositional changes. A comparison of the commodity composition of India's imports at the 2-digit Harmonised System (HS) level between 1995 and 2008 (using UN Commodity

part of the two-way trade may be inter-industry trade. Also, IIT itself can be divided into two parts: IIT in horizontally differentiated products and IIT in vertically differentiated products, accounting for specialisation along ranges of quality within industries. These distinctions are important to understand the nature of production specialisation between countries and this can be explored only using data at the 6-digit HS level. For a detailed discussion on this, see, See 'Impact of China and India's Emergence on Developing Asia: A case study of Thailand' in IDEAs Report (2009).

³ In 2006, while the shares of developed and developing countries in India's exports were 43% and 28% respectively, their shares in India's imports were 33% and 26% respectively. See IDEAs (2009).

trade statistics) does not show much change among the top 6 rankers. India's global imports in 1995 as well as during 2007-08 were dominated by petroleum & petroleum products, followed by: pearls, precious stones, metals, coins etc. (referred to as gems and jewellery hereafter); non-electrical machinery; electrical machinery & parts; iron and steel; and organic chemicals. Their cumulative share, which constituted about 63% of India's global imports in 1995, went up to 71% in 2008. The increase in concentration was because of the increased shares of the petroleum sector, followed by gems & jewellery and electrical machinery. Four sectors that have become increasingly significant in India's global imports are: ores, slag & ash; optical, photo, technical, medical etc. apparatus; articles of iron & steel; and ships, boats & other floating structures. Apart from fertilizers and plastics & plastic products, animal and vegetable fats & oils, inorganic chemicals and automobiles also remain significant among India's global imports even though their relative shares have come down.

But there are more discernible changes when it comes to the composition of India's global exports. The gems & jewellery sector, which was previously the largest export sector, was pushed down to the second rank by the dramatic rise in India's exports of petroleum & petroleum products after 2002. More importantly, the shares of traditional labour-intensive and natural resource-based sectors such as apparels, cotton, cereals, fish & crustaceans, coffee, tea & spices, etc., as well as automobiles, which were dominating India's exports during 1995-2002, declined subsequently. The major sectors that have become increasingly more significant in India's exports to the world are: iron and steel; organic chemicals; non-electrical machinery, ores, slag & ash; electrical machinery & parts; and articles of iron & steel.

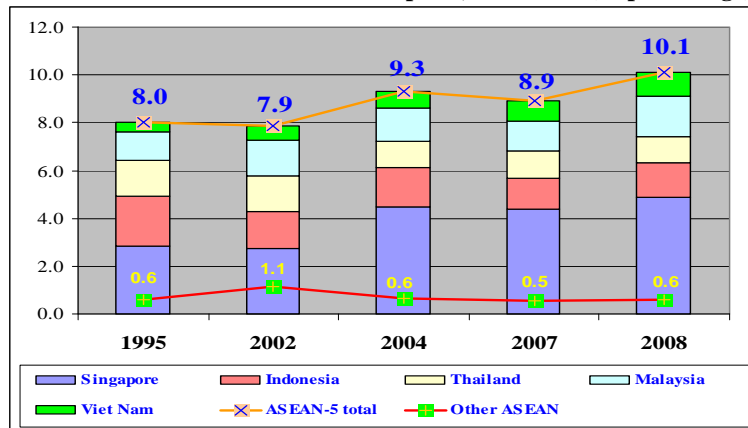
It is thus observed that there is a significant increase in two-way trade in several sectors. While in 2007, petroleum & products topped this list with a share of 50% in India's total trade in that year, the gems & jewellery sector continued to be the most significant non-oil sector with two-way trade. However, four other non-oil sectors namely, organic chemicals, electrical machinery, ores, slag & ash, and articles of iron & steel show significant increase in two-way trade. Other sectors that remain important participants in two-way trade are non-electrical machinery, iron & steel, automobiles and plastics & plastic products.

In the next section, we examine whether and to what extent growing trade with ASEAN has contributed to the increase in two-way trade in India's global trade.

III. India's Trade with ASEAN Countries

While in 1995, Singapore followed by Indonesia were the most important markets for India within ASEAN, Malaysia and Thailand also became more important later on. But by 2004, Singapore's shares in Indian exports increased much faster and following the signing of the CECA in 2005, this increased to nearly 5% in 2008. On the other hand, the share of India's exports going to Thailand declined after 2002 and has hovered around 1.1% despite the coming into force of the Early Harvest Program (EHP) of the India-Thai FTA in 2004. In 2008, a total 10% of India's exports were absorbed by the ASEAN-5 countries (Singapore, Indonesia, Malaysia, Thailand and Vietnam).

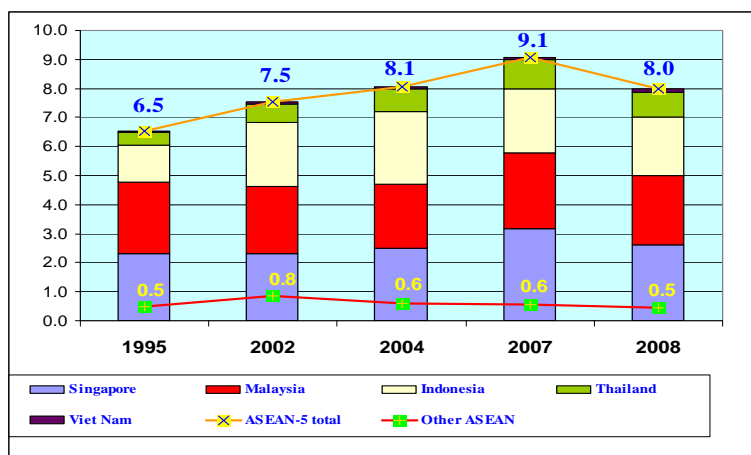
Chart 1. ASEAN's share in Indian Exports, 1995-2008 (In percentage)



Source: Based on UN Comtrade Database.

When it comes to imports, India's total imports from ASEAN showed a steady rise until 2007. Singapore followed by Malaysia were the most important sources within ASEAN in 1995. But, by 2002, Indonesia too had become equally important, followed by Thailand. In 2008, however, it is interesting to note that there is a significant drop in the share of ASEAN in India's total imports under the impact of the global recession that had hit India's exports too. (There is a hint here that India's global export growth is linked to the import supply from ASEAN).

Chart 2. ASEAN's Share in Indian Imports, 1995-2008 (In percentage)



Source: Based on UN Comtrade Database.

Thus, neither the Philippines nor the newer ASEAN members (Cambodia, Laos, Myanmar and Brunei Darussalam) have accounted for even a one per cent share in India's exports or imports until now. Given that Vietnam's share in India's total trade with ASEAN also remains very low, we focus the rest of the detailed analysis in this paper to the four ASEAN countries namely, Singapore, Malaysia, Indonesia and Thailand.

Composition of India-ASEAN Bilateral Trade

A country-by-country analysis of the bilateral trade between India and the four ASEAN countries shows that two-way trade between India and ASEAN has increased in 13 sectors. These are:

- Mineral fuels, oils, distillation products, etc.;
- Organic chemicals;
- Miscellaneous chemical products;
- Plastics & articles thereof;
- Rubber & articles thereof;
- Pearls, precious stones, metals, coins, etc.;
- Iron & steel;
- Articles of Iron & steel;
- Copper & articles thereof;
- Nuclear reactors, boilers, machinery, etc.;
- Electrical, electronic equipment;
- Vehicles other than railway, tramway (transport equipment); and
- Optical, photo, technical, medical, etc. apparatus

While a detailed analysis of India's bilateral trade with each of these four countries at the 6-digit product level is called for to understand the dynamics of this increased two-way trade,

there is preliminary evidence pointing towards India's increased integration with the regional and global production networks centred on ASEAN.

Integration in global production networks driven by FDI is the manner in which most ASEAN-5 countries have achieved export-led growth. The patterns of manufacturing sector production in most of these countries has been highly dependent on the networks put in place by multinational corporations, which have been able to place parts of their production processes in different countries across the region based on the availability of skills and resources required for particular stages of production along the value chain. ASEAN has been the most important production base for not only Japanese but also American and European multinational firms, which have invested and organized production and procurement networks in ASEAN for half a century. Firms from South Korea and Taiwan Province of China too have built production networks across the region at least since the late 1980s. But, liberalization of trade and investment regimes as part of regional trade agreements (RTAs) removes the need for multinational corporations (MNCs) to maintain horizontal national operations. That is, RTAs enable MNCs to restructure their operations by assigning the responsibility for serving specific regional or even global markets in particular product lines to certain affiliates in particular countries.

It has been observed that the implementation of the Indo-Thai bilateral FTA in terms of the Early Harvest Program (EHP)⁴ led to significant industrial restructuring in the operations of not only Japanese corporations, but also South Korean and Indian MNCs. For instance, Toyota was reportedly restructuring its operations in Thailand and India, under which some models of vehicles would be sourced from Thailand for the Indian market and gearboxes exported to Thailand from India. A similar restructuring was on in Sony's operations in India and Thailand. On the other hand, Hyundai was making India a regional and global hub for compact cars and was to source them from India. Other MNCs like Honda which have built up sizeable capacities in India for two wheeler production might use it as a regional base for

⁴ The Early Harvest Program (EHP) agreed under the framework agreement to establish the Thailand-India Free Trade Agreement signed on 9 October 2003, reduced tariffs on 84 agricultural and industrial items (HS 6-digit level) by 50 per cent immediately in the first year on 1 September 2004, 75 per cent in the second year (1 September 2005), with tariffs eliminated completely by 1 September 2006. The 84 items under the EHP included, for example, fruits (fresh mangosteens, mangoes, durian, rambutans, longans); fishery products (salmon, sardines, mackerel); electrical appliances (window/wall air-conditioners, colour TVs, ball bearings); precious metal and jewellery; polycarbonates, and more.

them while sourcing some models of cars from Thailand.⁵ Some Indian companies are also developing their regional production networks across the region. Indian companies are looking at Thailand as an important investment destination both for its domestic market and as a gateway to the other ASEAN countries. Tata Motors, Tata Consultancy, Mittal Group, Tata Steel and Satyam Computers are among major Indian players in Thailand.

Thus there is evidence that the bilateral FTA between India and Thailand has led to some production restructuring by both Indian and East Asian MNCs. As a result, FDI-led trade integration is emerging between India and Thailand. The India-Thai FTA's EHP has thus had a major impact in changing the composition of bilateral trade between India and Thailand.⁶ While India had maintained trade surplus vis-à-vis Thailand continuously during 1995-2004, with the higher growth in Thailand's exports to India, this turned into a trade deficit in 2005.

Table 1. India's Balance of Trade with ASEAN Countries, 1995-2008

(In Million USD)

	1995	2002	2005	2007	2008
Singapore	45.5	46.7	2268.1	-511.5	549.1
Indonesia	200.3	-493.6	-1628.9	-2962.2	-3772.0
Thailand	302.2	376.1	-137.3	-519.0	-659.5
Malaysia	-504.9	-587.7	-1292.2	-3875.3	-4427.0
Viet Nam	108.5	276.4	506.1	1088.3	1441.0
ASEAN-5	151.7	-382.2	-284.2	-6779.7	-6868.4
Philippines	122.4	334.5	278.9	397.9	527.4
Myanmar	-131.9	-278.9	-371.9	-646.3	-668.9
Cambodia	1.8	16.3	20.9	43.6	49.6
Brunei Darussalam	7.2	4.3	3.6	-225.3	-308.7
Lao People's DR.	na	na	na	na	na
Other ASEAN	-0.6	76.2	-68.5	-430.1	-400.7

Source: Based on UN Comtrade Database.

Among the ASEAN countries, India has maintained a trade deficit in most years with Indonesia, Malaysia and Myanmar, and with Thailand more recently. India has run a trade surplus with Singapore, Vietnam, Cambodia and the Philippines. However, India's overall trade balance with ASEAN-10 countries is significantly negative. Given this backdrop, we examine the implications of India's tariff reduction commitments under AIFTA in the following section.

⁵ See Kumar (2007).

⁶ See 'Impact of China and India's Emergence on Developing Asia: A case study of Thailand' in IDEAs Report (2009), *opcit.*

IV. The ASEAN-India FTA in Goods

Main Features of Tariff Reduction Commitments

- AIFTA provides for a phased reduction of import duties on Indian and ASEAN member countries' agricultural and non-agricultural goods between January 2010 and January 2016. These duties will come down from their 2007 applied most favoured nation (MFN) tariff levels.
- India, Indonesia, Malaysia, Singapore, Thailand and Brunei Darussalam have to eliminate tariffs by 2013 for the products listed under Normal Track-1 (NT-1) and by 2016 for Normal Track-2 (NT-2) products. The deadlines for bilateral duty elimination for India and the Philippines are 2018 and 2019 respectively.
- Apart from a Sensitive Track, there is a list of Special Products, for which tariffs will be reduced at a much lower pace than the Normal Track and Sensitive Track. There is also an Exclusion List of products for which no tariff reduction commitments have been made.

With the signing of AIFTA, India has made commitments to reduce or eliminate tariffs for over 89% of all of its agriculture, marine and manufactured goods by 2016. Nearly 70% of India's tariff lines fall under Normal Track-1, for which tariffs reduce to zero by 2013. The remaining nearly 9% tariff lines fall under Normal Track-2, for which tariffs reduce to zero by 2016. The 496 products excluded from tariff reduction commitments and kept under the Exclusion List constitute 9.8% of India's total tariff lines, while India has kept 11.1% of its total tariff lines under the Sensitive Track. Special Products constitute just 0.1% of its total tariff lines. Evidently, the vast majority of products come under the lists for tariff rate eliminations by 2013 or 2016.

In the following sections, we examine the implications of the tariff reduction commitments undertaken by India on its agriculture and the manufacturing sectors through an analysis of the nature of tariff reductions under the different categories.

Impact on the Agricultural Sector

We can observe that out of the 722 6-digit tariff lines coming under the agricultural sector (HS 1-24 including fisheries), 402 products fall under the Normal track with tariffs to be

reduced to zero by 2013 or 2016; while 14 are in the Sensitive Track; five are Special Products; and 301 products are in the Exclusion List.

Analysis of India's Sensitive Track, Special Products and Exclusion List

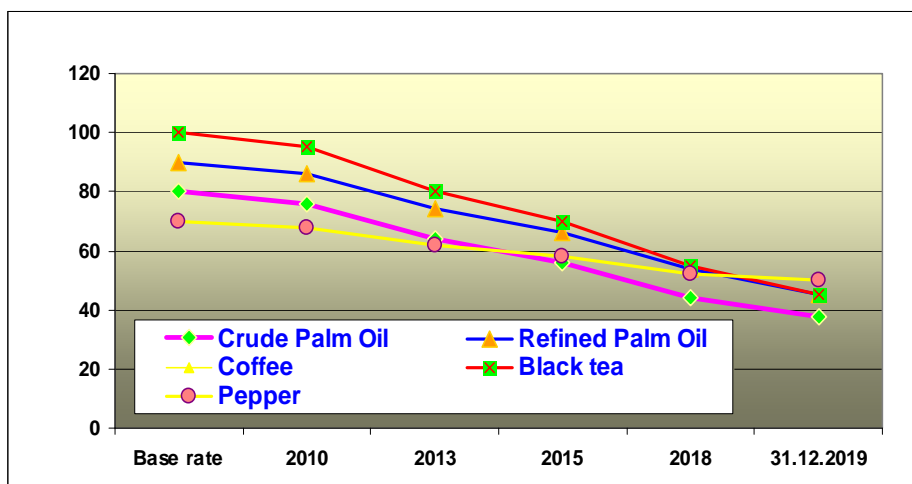
Under the Sensitive Track, India has to bring down tariffs on products with applied MFN tariffs above 5% to 5% by 2016. Applied MFN tariffs can be maintained at 5% for only 50 tariff lines. Tariffs for the remaining products with applied MFN at 5% had to be reduced to 4.5% in January 2010, which will be reduced further to 4% by 2016. Applied MFN tariffs on another 4% of the products placed in the Sensitive Track will drop to zero by 2019.

It is observed that out of the 14 agricultural products (HS 1-24), as many as 13 products had their 2007 MFN applied rates at an average of 30%. Even if the government plans to maintain the tariffs on all products falling under the agricultural sector (HS 1-24) at 5% or 4%, it is clear that AIFTA involves high tariff reductions given that their applied MFN level in 2007 averaged about 30%.

It is also relevant to consider the non-agricultural products under the Sensitive Track. Apart from product lines under the automobiles sector with the highest 2007 applied tariff of 32.5%, there are several other manufactured sectors, including organic chemicals, plastic products, rubber products, machinery and electrical machineries, textiles and footwear & parts, whose 2007 applied MFN rates ranged from 7% to 25%. In the entire Sensitive List, only 'residue of food and animal fodder' (HS 23) had its 2007 applied MFN tariff at 5%. Thus, all the remaining tariffs have to be brought down to 5% by 2016. It is clear that out of the 563 tariff lines under the Sensitive Track, this implies quite significant tariff reduction across a wide range of products. Many of these will be further brought down to zero by 2019 and tariffs on only 50 lines will be maintained at 5%.

Next we consider India's Special Products, which are: crude palm oil (CPO; Applied MFN - 80%); refined palm oil (RPO; 90%); coffee (100%); black tea (100%); and pepper (70%). The initial tariff drops for these five products were in the range of only 3% to 5% in January 2010. However, by 2014, these will drop by 20%, 20%, 25%, 25% and 10% respectively. By 31 December 2019, the rates will be 37.5%, 45%, 45%, 45% and 50%.

Chart 3. Trends in Tariff Reduction for India's Special Products under AIFTA



Note: Coffee and Black tea have exactly the same 2007 base tariff rates (100%) and the same tariff reduction schedule, with the result that the final 2019 tariff rates for both stand at 45%. The two lines therefore merge.
 Source: Based on India's schedule of commitments to ASEAN 5 + CLMV.

It is evident that this involves significant tariff reduction and implies a significant increase in market access in animal and vegetable oils and fats (HS 15) and coffee, tea, mate and spices (HS 9), where ASEAN countries such as Indonesia, Malaysia and Vietnam are already significant exporters to India. In 2008, India imported 67% of its total global imports of animal and vegetable oils and fats from Indonesia, followed by about 15% from Malaysia. When it comes to coffee, tea, mate and spices, Indonesia provided nearly 21% and Vietnam 13% of India's total imports in these two segments in 2008. Thus, under AIFTA, Indian farmers are likely to encounter significantly increased volumes of imports in the domestic markets. It should also be noted that whenever applied tariff rates in a particular year are lower than the preferential tariffs under AIFTA, the lower tariffs will apply. So having these products listed as Special Products under AIFTA will not be sufficient to protect them in the future, if India chooses to reduce such tariff rates at the MFN level.

India's Exclusion List contains some of the agricultural products of livelihood concern. These are coconut, cotton, milk/dairy products, wheat, paddy/rice, sugarcane, apples, etc. However, as is known, having a product on the Exclusion List does not mean that they will be protected effectively from all competition. Local producers of the agricultural and other products listed in the Exclusion List could face increased competition from imports of cheaper substitutes whose tariffs are being reduced under different tracks in the FTA, as we will discuss below.

Further, the exclusion list itself is subject to an annual tariff review with a view to improving market access.⁷

Several agriculture crops could face increased demand and price uncertainties also because many semi-processed or processed versions of these crops are not included in the Exclusion List. Tariffs for many agricultural products (listed under HS 1-24) do drop to zero under the Normal Track by 2013 or 2016, as we will see in the following section. The reduced demand for local agricultural produce that all these imply will hit domestic farmers.

Thus, tariff reduction and elimination under AIFTA will not only directly disrupt farmers' domestic markets, but also reduce farmers' bargaining power and lead to a fall in domestic prices because of the increased supply of agricultural and related semi-processed (and processed) products. Further, it should be noted that even while utilising safeguard provisions under the FTA, tariffs cannot be raised above the levels scheduled in the Agreement. This means that India will have the right to raise those tariffs with ASEAN only to the highest level that we have committed in this agreement. With tariffs dropping to zero in most cases, this becomes meaningless. Therefore India's commitments under AIFTA are likely to cause significant negative impact on livelihoods and food security across several segments of the rural population in the country.

According to Viswanathan and Shah (2008),⁸ the launching of trade reforms and liberalisation policies in the post-WTO context has already seriously affected the Indian plantation sector in general and the tea and rubber production sectors in particular. One of the most explicit impacts of the trade reforms has been the emergence of market uncertainties, which lead to high volatility or a steep fall in the international and domestic prices of these commodities due to the removal or dilution in tariff and non-tariff trade barriers. The extent of decline in prices and the instability in prices have both been the highest for rubber and tea, which have had adverse effects on tea and rubber production. In the case of rubber, the liberal trade policies have resulted in the removal of quantitative restrictions (QRs), which in turn enabled manufacturers of rubber products to directly import rubber through duty free channels (as an incentive for export of rubber products). The coping mechanisms adopted by the tea and rubber planting communities (medium and large tea planters and small rubber producers) in response to the crisis have included: cost saving and labour displacing measures such as dilution and even discarding of scientifically recommended agro-management

⁷ For a detailed analysis of the Exclusion List under AIFTA, see Pal and Dasgupta (2009).

⁸ Viswanathan and Shah (2008).

practices; labour retrenchment; lockouts and resistance to routine tripartite wage negotiations; etc. A large number of medium and small-scale tea estates were closed in the major tea growing regions in India due to the crisis and troubled labour relations. This has severely affected the livelihoods of labourers and the dependent communities, as there has been a slump in employment, non-payment of wage and non-wage benefits and the disappearance of other social security measures.

Experiences from other countries too point to the fact that adjustment of farmers to trade liberalisation has had a negative impact on their livelihoods and income levels. It is believed that agricultural trade liberalization will help boost international agricultural trade and automatically pressure farmers and entrepreneurs to adjust themselves more efficiently to international competition. But, as Sajin Prachason (2009) has argued in the case of Thailand, in reality, adjustment often means continuing to grow the same crops at a disadvantage because they are a part of farmers' lives and these very crops provided them and their families with basic needs and some level of luxury for years. For other farmers, adjustment means joining companies in contract farming. Livelihood concerns could drive farmers towards becoming a part of vertically integrated agri-commodity value chains through contract farming. Contract farming may be favourable for farmers if contracts are negotiated on equal footing and there is a mechanism to regulate and control unfair practices. But experiences in developed and developing countries have shown that farmers are usually put in a disadvantageous position on both the production and marketing sides.⁹

Further, as Francis and Kallummal (2008) have argued, financial liberalisation is already impacting the agricultural sector in developing countries through three different channels- the direct channel on cost of capital and its availability for farmers; the macroeconomic channel, and the indirect channel through the impact of financial liberalisation on the various links in the agri-product value chain. The adverse impacts of domestic financial deregulation and the overall reduced role of government financing (which is well researched) get further vitiated by the constraints imposed by external financial liberalisation, through its interactions with monetary and fiscal policies as well as through the liberalisation of FDI and foreign portfolio investment policies. The liberalisation of FDI norms, which brings in the presence of multinational companies (MNCs) into the value chain of food products (including distribution services), serve to exacerbate the difficulties faced by small farmers in developing countries. It has been observed that foreign investment and trade liberalisation

⁹ See also Ghosh (2003).

together with technological changes have led to multinational companies becoming dominant in the entire chain of agricultural production and distribution, comprising of farmers, fuel companies, fertilisers and chemical companies, seed companies, machinery companies, grain companies, packers and processors, and retailers. It is therefore the balance of market power between farmers and corporations that is the primary determinant of the distribution of profits within the agri-food production chain. This leads to disconnect between the gross farm revenue and net farm income.¹⁰

The various channels of interaction between financial liberalisation and trade liberalisation in the agricultural sector and the current trends in change of ownership patterns in farm input industries and related service sectors such as wholesale and retail distribution, combined with the drift towards heightened integration in the agricultural products value chain could lead to significant loss of income for the farmers as well as a decline in their food security. The integration of India's urban and even small town food markets, which are already linked to the international economy through the ongoing process of TNC (global or regional) penetration with the liberalisation of the multi-brand retail sector, will increase further with trade liberalization under the AIFTA. This will be enabled by the processes of consolidation and multinationalisation occurring in the case of fast-food chains as well as in second stage processing (defined as processed food products for final consumers, such as yogurts and cheese, breads and noodles), facilitated through liberalized trade in food products through ASEAN countries. It is important to note that apart from being integrated with Japanese and American food producing MNCs by hosting their production facilities, ASEAN has also signed FTAs with Australia and New Zealand, who are major producers and exporters of milk products. Thus, AIFTA will push India into getting deeply integrated into the international food production and marketing chains. Drawing from experiences in other countries (Francis and Kallummal, 2009), this portends adverse consequences for many segments of the Indian farming community.

Increased Market Access for ASEAN's Manufacturing Sector

In this section, we examine the extent of India's tariff reductions under Normal Track-1 and Normal Track-2. We first consider all those sectors in which India's imports from any of the ASEAN-5 countries contributed to at least a 5 per cent share in India's total imports in those sectors in that year.

¹⁰ See Francis and Kallummal (2009).

India typically maintained relatively high tariff rates in agricultural products listed under HS 1-24 (see Table 2). An analysis of India's tariff reduction commitments under Normal Track-1 shows that the immediate drop in tariffs (that is, in January 2010) across the nine agricultural sectors is on average only 5 percentage points. However, by January 2013 (that is, in just three years), average tariffs in all these sectors will drop to zero, from as high an average as 29%.

Table 2. India's Tariff Reduction Scenario of Major Agricultural Sectors under Normal Track-1*

HS Chapter Description	2007 Aver. MFN (%)	Average Preferential Tariff in 2010 (%)	Average Preferential Tariff in 2013 (%)
Meat and edible meat offal	30.0	25.0	0.0
Products of animal origin, nes	28.7	23.8	0.0
Edible fruit, nuts, peel of citrus fruit, melons	27.4	22.9	0.0
Coffee, tea, mate and spices	30.0	25.0	0.0
Lac, gums, resins, vegetable saps and extracts nes	27.0	22.5	0.0
Vegetable planting materials, vegetable products nes	30.0	25.0	0.0
Animal, vegetable fats and oils, cleavage products, etc.	31.0	24.8	0.0
Miscellaneous edible preparations	30.0	25.0	0.0
Residues, wastes of food industry, animal fodder	29.1	24.1	0.0
Average for the above nine agricultural sectors	29.2	24.2	0.0

Note: * These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5 per cent share in India's total imports from the world in 2007.

Source: Author's calculation based on India's AIFTA Tariff Reduction Schedule to ASEAN-5 + CLMV

Given that ASEAN countries are already significant exporters to India in several of these sectors, AIFTA will increase their market access in India significantly for agricultural products, as well as in semi-processed and processed agricultural products in these sectors. This is true of:

- meat and edible meat offal;
- edible fruits and nuts (such as pears, plums, peaches, strawberries, kiwi fruits, pomogranates, avacados, etc; citrus fruits peels, and walnuts, hazel nuts, pistachios, etc);
- mate, cinnamon, cassia, etc.
- lac, gums, vegetable extracts;
- olive oil as well as animal fats & oils;
- miscellaneous edible preparations (such as yeasts, baking powders, soya sauce, tomato ketchup, mustard flour, curry paste, ice creams, protein concentrates, etc); and
- Meat meals & pellets, maize bran, wheat bran, residues of starch, dog or cat food, etc.

Tables 3 and 5 provide the tariff reduction scenarios for major agricultural and non-agricultural sectors whose tariffs will drop to zero by 2016 under Normal Track-2 (from an average 30% in 2007). It is seen in Table 3 that under Normal Track-2, tariff rates on a set of 10 agricultural products namely, apples, cardamom and saffron, rye flour, fractions of animal fats & oils and waxes, etc. will drop significantly by 2013 and become zero by 2016.

Table 3: India's Tariff Reduction Scenario of Major Agricultural Sectors under Normal Track-2*

HS Chapter Description	2007 Aver. MFN (%)	Average preferential tariff in 2010 (%)	Average pref. tariff in 2013 (%)
Edible fruit, nuts, peel of citrus fruit, melons (Apples)	30.0	25.0	11.0
Coffee, tea, mate and spices (Cardamom and Saffron)	30.0	25.0	11.0
Milling products, malt, starches, insulin, wheat gluten (Rye flour)	30.0	25.0	11.0
Animal, vegetable fats and oils, cleavage products, etc. (Fractions of animal fats & oils and animal waxes)	37.0	23.6	10.0
Average for the above four sectors	31.8	24.7	10.8

Note: * These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5 per cent share in India's total imports from the world in 2007.

Source: Author's calculation based on India's AIFTA Tariff Reduction Schedule to ASEAN-5 + CLMV

There are other food products-related sectors such as sugars and sugar confectionaries; cocoa and cocoa preparations; as well as cereal, flour, starch, milk preparations and products, which might witness a surge in imports under Normal Track-1 liberalisation, even though they are not currently imported by India in a major way from ASEAN. Food preparations out of cucumbers & gherkins, olives, mangoes, groundnuts, cashew nuts (roasted, salted, etc.), fruit juices out of grapes, mangoes, pineapples, apples, etc. (all coming under HS 20) are another set of agricultural-related products that are likely to witness an increase in imports from ASEAN.

As already argued, duty-free trade in these semi-processed products (by either 2013 or 2016) will give a major incentive for agro-processing units to import them directly from ASEAN than to source them locally. Additionally, there will be increased supply of processed foods also. This is likely to have some impact on the small and medium enterprises (SMEs) in the Indian food products industry. Further, the reduced demand for local agricultural products because of the availability of imported semi-processed products and the increased imports of close substitutes to domestic produce may lead to a fall in the prices of local crops and other produce, including livestock. This will have negative impacts on farm employment and livelihoods.

Next we consider the non-agricultural sectors under Normal Track-1, in which imports from any of the ASEAN-5 countries constituted at least a 5 per cent share in India's total imports from the world in 2007. It is observed that manmade staple fibres, furniture, lighting and prefabricated buildings; musical instruments and parts; rubber and rubber products; wood and wood products were the sectors with the highest average MFN tariff rates in 2007 (10%). As seen in Table 8, once again, while the immediate drops in tariffs with the entry into force of AIFTA in January 2010 was not drastic, by 2013 all these tariffs will become zero.

Table 4. India's Tariff Reduction Scenario of Major Non-Agricultural Sectors under Normal Track-1*

HS Chapter Description	2007 Aver. MFN (%)	Average prefer. tariff in 2010 (%)	Average pref. tariff in 2013 (%)
Ores, slag and ash	3.3	2.8	0.0
Rubber and articles thereof	9.4	7.1	0.0
Wood and articles of wood, wood charcoal	9.0	6.8	0.0
Pulp of wood, fibrous cellulose material, waste etc.	5.5	4.4	0.0
Printed books, newspapers, pictures etc	4.7	3.5	0.0
Manmade staple fibres	10.0	7.5	0.0
Tin and articles thereof	6.0	4.7	0.0
Musical instruments, parts and accessories	10.0	7.5	0.0
Furniture, lighting, signs, prefabricated buildings	10.0	7.5	0.0
Average for the above nine non-agricultural sectors	7.5	5.7	0.0

Note: * These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5 per cent share in India's total imports from the world in 2007.

Source: Author's calculation based on India's AIFTA Tariff Reduction Schedule to ASEAN-5 + CLMV

In addition, sectors such as: pulp of wood, fibrous cellulose material, etc; tin & articles thereof; printed books, newspapers, etc., ores, slag & ash are also likely to witness an increase in imports from ASEAN.

Table 5. India's Tariff Reduction Scenario of Major Non-Agricultural Sectors under Normal Track-2*

HS Chapter Description	2007 Aver. MFN (%)	Average Preferential tariff in 2010 (%)	Average Preferential tariff in 2013 (%)
Rubber and articles thereof	10.0	7.5	3.0
Wood and articles of wood, wood charcoal	10.0	7.5	3.0
Pulp of wood, fibrous cellulose material, waste, etc.	10.0	7.5	3.0
Manmade staple fibres	10.0	7.5	3.0
Furniture, lighting, signs, prefabricated buildings	10.0	7.5	3.0
Average for the above five sectors	10.0	7.5	3.0

Note: * These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5 per cent share in India's total imports from the world in 2007.

Source: Author's calculation based on India's AIFTA Tariff Reduction Schedule to ASEAN-5 + CLMV

Therefore, Indian SMEs in agriculture-related products and food products; intermediate goods such as manmade staple fibres; and light manufacturing products such as: furniture, lighting and prefabricated buildings; musical instruments and parts; rubber and rubber products; and wood and wood products are likely to be adversely affected by the much greater market access the ASEAN economies will gain due to tariff liberalisation under Normal Tracks 1 and 2.

Let us now consider the sectors that are significant in two-way trade between India and individual ASEAN-5 countries.

Table 6. India's Tariff Reduction Scenario in Major Sectors involved in Two-way Trade with ASEAN

Sector	NT-1 products			NT-2 products		
	Avg. 2007 MFN	Avg. pref. tariff in 2010	Avg. pref. tariff in 2013	Avg. 2007 MFN	Avg. pref. tariff in 2010	Avg. pref. tariff in 2013
Mineral fuels, oils, distillation products, etc	8.5	6.4	0	-	-	-
Organic chemicals	7.1	4.9	0	7.5	5.0	2.0
Miscellaneous chemical products	8.8	6.3	0	10.0	7.5	3.0
Plastics and articles thereof	7.5	5.0	0	8.5	6.2	2.5
Rubber and articles thereof	9.4	7.1	0	10.0	7.5	3.0
Pearls, precious stones, metals, coins, etc	9.2	6.9	0	-	-	-
Iron and steel	10.0	7.5	0	-	-	-
Articles of iron or steel	10.0	7.5	0	--	-	-
Copper and articles thereof	6.5	5.0	0	7.5	5.8	2.5
Nuclear reactors, boilers, machinery, etc	7.0	4.8	0	7.5	5.0	2.0
Electrical, electronic equipment	6.1	4.4	0	9.2	6.7	2.7
Vehicles other than railway, tramway	17.0	9.1	0	10.0	7.5	3.0
Optical, photo, technical, medical, etc apparatus	7.3	5.1	0	8.0	5.5	2.2

Note: The blank cells denote that there were no products listed under that category (NT-2) in those particular sectors.

Source: Author's calculation based on India's AIFTA Tariff Reduction Schedule to ASEAN-5 + CLMV

It is evident from the above table that India's tariff reductions under Normal Track-1 and Normal Track-2 will be the most significant in the case of automobiles. From an average MFN rate of 17% in 2007, NT-1 tariffs will drop significantly by 2010 and subsequently to zero by 2013, and NT-2 tariffs also drop significantly by 2013. The other sectors with significant tariff reductions include: electrical machinery; nuclear reactors & machinery etc.; optical, photo, medical etc. apparatus; rubber & articles; miscellaneous chemical products; organic chemicals; plastics & articles; copper & articles; etc. Such tariff reductions are likely

to lead to an increase in the recent trends witnessed in India's two-way trade with ASEAN countries. In particular, import liberalisation in intermediate goods will greatly help MNCs undertake production rationalisation across the region, particularly in the transport equipment and machinery sectors. This will also benefit the Indian MNCs that are active in the region, especially in the chemicals and, to a lesser extent, the iron & steel sectors. Thus, it can be envisaged that the AIFTA will lead to India's deeper integration in the production networks in industries such as transport equipment, machinery and chemicals.

This is supported by JETRO surveys on Japanese manufacturers operating in ASEAN and in India quoted by Sukegawa (2009).¹¹ These surveys showed that Japanese affiliates intend to reinforce their operations in ASEAN as a base to enter other major markets and are working their way into the dynamics of ASEAN+1 FTAs. It should be noted that under the rules of origin criteria of AIFTA, a product is deemed to be originating in the region and will be eligible for preferential market access if they follow two criteria:

- (i) the AIFTA content is not less than 35 per cent of the FOB value; and
- (ii) the non-originating materials have undergone at least a change in tariff sub-heading (CTSH) level of the Harmonized System.

It is also required that the final process of the manufacture be performed within the territory of the exporting Party.

According to Sukegawa (2009), the procurement ratio of Japanese firms in ASEAN exceeds 40%, except in the Philippines. Thus Japanese firms are qualified to utilize the AIFTA. A JETRO survey of Japanese firms in Asia and Oceania has established that Japanese firms intend to use Thailand as a production base to export to the Indian market utilising the ASEAN-India FTA. Sukegawa (2009) confirms that since 2004, when Thailand started the Indo-Thai FTA's Early Harvest Program (EHP) with India, Japanese manufacturers have shifted production base to Thailand for exporting to India, especially for air conditioners, televisions and other machinery equipment. Sony, which had television factories in both countries, stopped production in India and started importing from Thailand.¹²

Clearly, such production restructuring by MNCs across the region under the AIFTA has adverse implications for employment generation and technological capability building in India, especially if the country is unable to move up the value chain of industrial production. Further, greater trade integration with Asia built through production chains will increase the

¹¹ See Sukegawa (2009).

¹² In November 2009, Sony announced that it would cease TV production in Thailand also as it became certain that the ASEAN-India FTA would come into effect in January 2010. Malaysia will now be Sony's only global production base for television.

country's vulnerability to external shocks further, as was seen in the global crisis during 2008-09.

V. India's Market Access Scenario in ASEAN-5 Countries

In this section we examine how much margin of preference will be gained by India in its important export sectors in ASEAN. Given that India already had significantly tariff-free trade with Singapore and that it will eliminate customs duties on all originating goods under this Agreement, our focus is on Indonesia, Malaysia and Thailand, the other three major ASEAN trading partners.

As seen in Table 7, the 2007 average applied MFN tariff rates in Malaysia and Indonesia were already relatively low for Normal Track-1 products (when compared to India's). Further, even though all NT-1 tariffs will drop to zero by 2013, there are unlikely to be any major immediate benefits for India in the Malaysian and Indonesian markets, as average tariff drop by 2010 in Malaysia's and Indonesia's NT-1 products are quite low.

Table 7. India's Market Access scenario in ASEAN for Normal Track Products

	Normal Track-1			Normal Track-2		
	Avg. 2007 MFN	Avg. pref. tariff in 2010	Avg. pref. tariff in 2013	Avg. 2007 MFN	Avg. pref. tariff in 2010	Avg. pref. tariff in 2013
India	12.9	10.1	0	9.5	6.4	0
Malaysia	1.9	1.5	0	19	15.8	6.9
Indonesia	2.6	2.1	0	4.7	3.8	1.9
Thailand	6.5	5.2	0	18	14	5.7

Source: Author's calculation based on AIFTA Tariff Reduction Schedules.

In Thailand's case, the average drop in tariffs of 6.5 percentage points by 2013 is significant and we need to examine the Indian sectors that may be able to gain from this increase in market access there.

When it comes to NT-2 products, Malaysia and Thailand had significantly higher 2007 MFN tariffs than India and the reductions in them in 2010 were comparable to those of India's. However, the preferential tariffs offered by both Malaysia and Thailand in 2010 are still significantly high (15.8% and 14% respectively). On the other hand, the tariff reductions to be carried out by Malaysia and Thailand by 2013 are significantly larger for NT-2 products, when compared to India's NT-2 reductions. So we examine the different sectors in Indonesia, Malaysia and Thailand, which offer the greatest tariff reductions for Indian products.

Table 8. Indonesian Sectors with Significant* Tariff Reduction by 2013
(Percentage)

Sector	Avg. 2007 MFN for NT-1	Avg.pref. tariff in 2013 for NT-1 products	Avg. 2007 MFN for NT-2 products	Avg.pref. tariff in 2013 for NT-2 products
Cocoa and cocoa preparations	12.8	0.0	-	-
Cereal, flour, starch, milk preparations and products	6.5	0.0	-	-
Beverages, spirits and vinegar	6.3	0.0	-	-
Vegetable, fruit, nut, etc food preparations	6.0	0.0	-	-
Meat, fish and seafood food preparations nes	5.9	0.0	7.5	2.5
Sugars and sugar confectionery	5.9	0.0	-	-
Dairy products, eggs, honey, edible animal product nes	5.6	0.0	-	-
Meat and edible meat offal	5.0	0.0	5.0	2.0
Edible fruit, nuts, peel of citrus fruit, melons	5.0	0.0	5.0	2.0
Coffee, tea, mate and spices	5.0	0.0	-	-
Milling products, malt, starches, inulin, wheat glute	5.0	0.0	-	-
Lac, gums, resins, vegetable saps and extracts nes	5.0	0.0	5.0	2.0
Miscellaneous edible preparations	5.0	0.0	5.0	2.0
Tobacco and manufactured tobacco substitutes	5.0	0.0	-	-
Explosives, pyrotechnics, matches, pyrophorics, etc	5.0	0.0	-	-
Articles of leather, animal gut, harness, travel good	5.0	0.0	-	-
Furskins and artificial fur, manufactures thereof	5.0	0.0	-	-
Cork and articles of cork	5.0	0.0	-	-
Silk	5.0	0.0	-	-
Wool, animal hair, horsehair yarn and fabric thereof	5.0	0.0	-	-
Other made textile articles, sets, worn clothing etc	5.0	0.0	-	-
Miscellaneous articles of base metal	5.0	0.0	-	-
Musical instruments, parts and accessories	5.0	0.0	-	-
Toys, games, sports requisites	5.0	0.0	-	-

Note: The Table considers only those sectors with five percent or more average tariff reduction for NT-1 products. Blank cells denote that there were no products listed under that category in those particular sectors.

Source: Author's calculation based on AIFTA Tariff Reduction Schedules

Table 8 lists the Indonesian sectors that offer the largest tariff reduction to India under AIFTA's Normal Tracks 1 and 2. Comparing these with India's major export sectors to Indonesia (Table 9), it can be observed that India is currently not a significant exporter to Indonesia in any of the sectors with significant tariff reductions by 2013.

Table 9. India's Exports to Indonesia, 1995-2008 (Percentage share)

S.no.	Sector	1995	2002	2007	2008	2008 Rank
1	Organic chemicals	3.9	8.0	20.7	15.5	2
2	Mineral fuels, oils, distillation products, etc	0.2	17.5	12.1	23.1	1
3	Iron and steel	8.6	5.9	11.9	6.8	4
4	Residues, wastes of food industry, animal fodder	15.4	8.3	8.5	9.8	3

5	Oil seed, oleagic fruits, grain, fruit, etc. nes	5.1	3.6	6.7	5.5	5
6	Cotton	1.3	2.3	4.8	4.7	6
7	Sugars and sugar confectionery	5.3	2.6	3.5	1.2	16
8	Nuclear reactors, boilers, machinery, etc	5.6	3.7	3.2	3.7	8
9	Copper and articles thereof	0.0	0.1	3.0	2.2	11
10	Miscellaneous chemical products	0.4	0.4	2.5	2.3	10
11	Vehicles other than railway, tramway	1.2	2.5	2.3	3.3	9
12	manmade staple fibres	0.1	0.4	2.2	1.4	15
13	Plastics and articles thereof	0.6	2.2	1.6	1.0	17
14	Inorganic chemicals	1.7	2.0	1.6	1.4	14
15	Electrical, electronic equipment	2.2	2.3	1.5	1.5	12
16	Tanning, dyeing extracts, etc.	1.3	1.9	1.5	1.5	13
17	Zinc and articles thereof	0.0	0.0	1.3	0.8	19
	Cumulative total	53.0	63.9	88.8	85.6	

Source: Author's calculation based on UN Comtrade database.

In the case of Malaysia's tariff reductions under AIFTA, it is seen that India is likely to benefit significantly from the increase in market access for cotton, rubber & rubber articles as well as manmade filaments, given that these are already among India's exports to Malaysia (see Tables 10 and 11).

Table 10. Malaysian Sectors with Significant Tariff Reduction by 2013

(Percentage)

Sector	Avg. 2007 MFN for NT-1 products	Avg. pref. tariff in 2013 for NT-1 products	Avg. 2007 MFN for NT-2 products	Avg. pref. tariff in 2013 for NT-2 products
Bird skin, feathers, artificial flowers, human hair	20.0	0	20.0	7.3
Cocoa and cocoa preparations	13.0	0	-	-
Beverages, spirits and vinegar	13.0	0	-	-
Miscellaneous manufactured articles	10.8	0	21.3	8.0
Cotton	9.5	0	-	-
Miscellaneous edible preparations	7.8	0	-	-
Manmade staple fibres	7.4	0	-	-
Manmade filaments	7.0	0	-	-
Tools, implements, cutlery, etc of base metal	6.5	0	25.0	10.0
Rubber and articles thereof	6.4	0	20.9	7.9
Paper & paperboard, articles of pulp, paper and board	6.1	0	20.0	7.3

Note: The Table considers only those sectors with five percent or more average tariff reduction for NT-1 products. Blank cells denote that there were no products listed under that category in those particular sectors. ST columns show the average tariff rates for the Special Track products in these sectors.

Source: Author's calculation based on AIFTA Tariff Reduction Schedules.

Table 11. India's Exports to Malaysia, 1995-2008 (Percentage share)

S.no.	Sector	1995	2002	2007	2008	2008 Rank
1	Copper and articles thereof	0.8	0.9	12.5	11.6	2
2	Cereals	0.6	10.6	10.0	11.0	3
3	Mineral fuels, oils, distillation products, etc.	0.1	3.4	8.7	13.3	1
4	Organic chemicals	2.2	2.7	6.2	7.7	4

5	Nuclear reactors, boilers, machinery, etc.	12.7	5.7	5.9	4.0	6
6	Coffee, tea, mate and spices	1.5	1.6	5.8	2.9	9
7	Iron and steel	7.2	3.2	5.3	2.2	15
8	Meat and edible meat offal	13.9	10.7	4.7	3.8	7
9	Electrical, electronic equipment	5.4	4.1	3.4	2.9	10
10	Articles of iron or steel	3.6	2.0	3.1	2.9	8
11	Edible vegetables and certain roots and tubers	5.9	3.6	3.0	2.3	14
12	Aluminium and articles thereof	0.4	2.1	2.9	4.1	5
13	Oil seed, oleagic fruits, grain, seed, fruit, etc, nec.	1.6	1.6	2.3	1.7	17
14	Articles of apparel, accessories, not knit or crochet	1.5	3.8	1.8	1.4	18
15	Cotton	7.4	4.9	1.7	1.4	19
16	Miscellaneous chemical products	1.8	1.7	1.5	1.3	20
17	Raw hides and skins (other than furskins) and leather	0.5	0.7	1.5	1.3	21
18	Rubber and articles thereof	0.5	1.1	1.3	2.0	16
19	Manmade filaments	1.4	2.5	1.2	0.8	23
20	Pearls, precious stones, metals, coins, etc	1.2	2.1	1.2	0.7	28
21	Residues, wastes of food industry, animal fodder	9.3	0.1	1.1	2.4	13
22	Fish, crustaceans, molluscs, aquatic invertebrates nec	4.0	1.7	1.0	0.5	32
23	Animal, vegetable fats and oils, cleavage products, etc.	0.3	0.4	1.0	1.3	22
	Cumulative total	83.9	71.2	87.1	83.7	

Source: Author's calculation based on UN Comtrade database.

In the case of Thailand (Tables 12 and 13), it is clear that vehicles other than railway and tramway (that is, automobiles) is an important sector of Indian exports to Thailand, which will gain from significant tariff reductions under AIFTA.

Table 12. Thailand's Sectors with Significant Tariff Reduction by 2013

(Percentage)

Sector	Avg. 2007 MFN for NT-1 products	Avg. pref. tariff in 2013 for NT-1 products	Avg. 2007 MFN for NT-2	Avg. pref. tariff in 2013 for NT-2 products
Articles of apparel, accessories, not knit or crochet	32.5	0.0	-	-
Meat and edible meat offal	30.0	0.0	47.5	12.0
Live trees, plants, bulbs, roots, cut flowers etc	30.0	0.0	-	-
Edible vegetables and certain roots and tubers	30.0	0.0	39. - 75	11.9
Manufactures of plaiting material, basketwork, etc.	30.0	0.0	-	-
Articles of apparel, accessories, knit or crochet	30.0	0.0	-	-
Footwear, gaiters and the like, parts thereof	30.0	0.0	3 -	11.0
Coffee, tea, mate and spices	27.0	0.0	23.9	8.9
Dairy products, eggs, honey, edible animal products	26.7	0.0	-	-
Bird skin, feathers, artificial flowers, human hair	25.8	0.0	-	-
Vegetable, fruit, nut, etc food preparations	25.7	0.0	-	-
Meat, fish and seafood food preparations	24.7	0.0	25.0	9.0
Miscellaneous edible preparations	24.4	0.0	2 -	7.0
Cereal, flour, starch, milk preparations and products	24.3	0.0	-	-
Arms and ammunition, parts and accessories thereof	24.0	0.0	-	-
Other made textile articles, sets, worn clothing etc	23.4	0.0	1 -	3.0
Headgear and parts thereof	22.5	0.0	-	-
Umbrellas, walking-sticks, seat-sticks, whips, etc	22.0	0.0	3 -	11.0
Edible fruit, nuts, peel of citrus fruit, melons	21.1	0.0	4 -	12.0
Sugars and sugar confectionery	21.0	0.0	-	-
Explosives, pyrotechnics, matches, pyrophorics, etc	20.0	0.0	15.0	5.0

Articles of leather, animal gut, harness, travel good	20.0	0.0	25.0	9.0
Ceramic products	19.8	0.0	1 -	3.0
Milling products, malt, starches, inulin, wheat glute	19.3	0.0		
Furniture, lighting, signs, prefabricated buildings	18.4	0.0	17.1	5.9
Animal,vegetable fats and oils, cleavage products, et	17.5	0.0	2 - .5	7.8
Works of art, collectors pieces and antiques	17.1	0.0	-	-
Essential oils, perfumes, cosmetics, toileteries	15.7	0.0	15.0	5.0
Miscellaneous manufactured articles	15.2	0.0	17.5	6.0
Beverages, spirits and vinegar	15.0	0.0		
Vehicles other than railway, tramway	14.2	0.0	11.4	3.6
Toys, games, sports requisites	13.8	0.0	13.6	4.5
Cocoa and cocoa preparations	12.9	0.0	-	-
Live animals	12.1	0.0	3 -	11.0
Miscellaneous articles of base metal	12.0	0.0	12.5	4.0
Tools, implements, cutlery, etc of base metal	11.9	0.0	15.4	5.1
Products of animal origin, nes	10.4	0.0	-	-
Musical instruments, parts and accessories	10.0	0.0	14.0	4.6

Note: The Table considers only those sectors with ten percent or more average tariff reduction for NT-1 products. Blank cells denote that there were no products listed under that category in those particular sectors. ST columns show the average tariff rates for the Special Track products in these sectors.

Source: Author's calculation based on AIFTA Tariff Reduction Schedules.

Table 13. India's Exports to Thailand, 1995-2008 (Percentage share)

S. no.	Sector	1990	1995	2002	2007	2008	2008 Rank
1	Pearls, precious stones, metals, coins, etc	50.7	48.6	35.9	23.1	17.8	1
2	Mineral fuels, oils, distillation products, etc	0.0	0.2	7.1	11.1	2.5	11
3	Copper and articles thereof	0.1	0.0	7.3	10.7	9.8	4
4	Iron and steel	3.0	5.7	6.7	7.5	14.7	2
5	Organic chemicals	4.4	5.0	6.6	7.2	6.6	5
6	Residues, wastes of food industry, animal fodder	7.2	13.7	4.5	7.1	10.8	3
7	Nuclear reactors, boilers, machinery, etc	7.0	3.4	4.7	5.8	5.4	6
8	Cotton	13.9	3.2	1.0	4.0	3.2	8
9	Vehicles other than railway, tramway	1.3	0.5	0.8	3.0	3.6	7
10	Miscellaneous chemical products	0.6	1.2	2.9	2.8	2.7	9
11	#N/A	0.5	3.3	5.4	1.6	1.9	12
12	Pharmaceutical products	2.1	1.1	1.1	1.6	1.8	14
13	Tanning, dyeing extracts, tannins, derivs., pigments etc.	2.4	1.7	1.6	1.5	1.8	13
14	Plastics and articles thereof	0.1	0.5	0.5	1.5	1.5	15
15	Electrical, electronic equipment	0.8	1.0	1.0	1.3	2.6	10
	Cumulative total	94.2	89.1	87.1	89.8	86.6	

Source: Author's calculation based on UN Comtrade database.

It is observed that the Indonesia's, Malaysia's and Thailand's largest tariff reductions under the AIFTA will occur in sectors consisting largely of agriculture and food products as well as a range of light manufacturing products, in which they are leading exporters. While some Indian firms might be able to make a presence in ASEAN markets (say, for Indian food products), it is overall unlikely that Indian companies, in particular SMEs will be able to gain significantly out of this preferential access. In the case of light manufactured goods, Indian

companies will also be competing with China and South Korea in the ASEAN market, which have already signed FTAs with ASEAN.

VI. Concluding Observations

Presenting an overview of the pattern and composition of India's global trade as well as its trade with the major ASEAN countries, this paper argues that the recent trends in India's export and import structures point to its increasing participation in FDI-driven production networks centred on ASEAN. The implications of India's tariff reduction commitments under the AIFTA for India's agricultural and non-agricultural sectors were analysed against this backdrop.

It is established that ASEAN countries will gain significantly increased market access in India in several semi-processed or processed agricultural products. Both the reduced demand for local agricultural products because of this and the increased imports of close substitutes could lead to a fall in the prices of local crops and thus adversely affecting the domestic agricultural sector. Further, Indian SMEs in agriculture-related products and food products, as well as in some intermediate goods and light manufacturing products are also likely to be negatively affected by due to the drastic tariff liberalisation under the AIFTA.

However, import liberalisation in intermediate goods will impel multinational corporations (MNCs) to undertake production rationalisation across the region, particularly in the transport equipment and machinery sectors. This might also help the Indian MNCs active in the region, especially in the chemicals and the iron and steel sectors. The paper argues that this will lead to India's deeper integration in the production networks for some industries such as machinery, chemicals and transport equipment. On the other hand, there are hardly any immediate benefits for Indian producers as average percentage tariff drops in Malaysia, Indonesia and Thailand's Normal Track products are much lower than India's. Further, the ASEAN-5 economies are leading exporters of light manufacturing products. India will also be competing with China and South Korea in the ASEAN market, which have already signed FTAs with ASEAN. Thus Indian SMEs will find it difficult to compete with these countries in such sectors.

Apart from China and South Korea, ASEAN has also signed FTAs with a number of other major countries such as Australia and New Zealand. While India has signed a Comprehensive Economic Partnership Agreement (CECA) with South Korea, other countries could make use of the AIFTA to route their products through ASEAN into the Indian market. China is a

major producer of agricultural goods and a variety of manufactured goods. Meanwhile, the fall in Japan's share in India's imports is linked to the fact that Japanese MNCs have been reorganising their production networks in Asia since the progress of bilateral FTAs in the region. It should also be noted that Australia and New Zealand are major producers of milk products. So the rise in India's imports could be much more than is currently possible to envisage. There is also little doubt that firms across these countries will reorganise their production and procurement strategies, as we saw in the case of the Japanese firms. The consequent decline in the need for setting up production facilities in India in favour of imports from any of these countries is also likely to have significant adverse effect on employment and livelihoods.

In conclusion, neglect of the development needs of the domestic agricultural sector and manufacturing base for expected gains from service sector liberalisation with ASEAN, together with the known problems in service sector liberalisation, are likely make India's employment and livelihood issues even more challenging.

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