A Sectoral Impact Analysis of the ASEAN-India Free Trade Agreement

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Under the ASEAN-India Free Trade Agreement, 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 affect the country's 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 and steel sectors. This could lead to India's deeper integration in production networks in such sectors. All this, combined with the neglect of the development needs of domestic agriculture and a manufacturing base for the expected gains in service sector liberalisation with ASEAN, is likely to make India's employment and livelihood issues even more challenging.

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1 Introduction

India's economic relations with the member countries of the Association of Southeast Asian Nations (ASEAN) are set to undergo major changes with the ASEAN-India Free Trade Agreement (AIFTA) coming into force on 1 January 2010. Until the early 2000s, India and the south-east Asian countries were not significant trade partners, except for Singapore. This was fundamentally because all the bigger south-east 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. The de facto market-driven trade integration that ensued in east Asia because of the production network strategies of multinational corporations (MNCs) meant that ASEAN countries' trade links have been the strongest with other countries in the East Asian region that drove or have been part of production-sharing arrangements, or with developed countries that have 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 India steadily liberalising trade and investment rules in many sectors, unilaterally or under regional trade agreements (RTAs) such as the Comprehensive Economic Cooperation Agreement (CECA), recent trends in the country's export and import structure do point towards an increase in two-way trade[1] in some sectors. It is against this backdrop that the implications of the tariff reduction commitments under the AIFTA for India's agricultural and non-agricultural sectors are analysed.

This paper is organised as follows. In the following section, we present an overview of the pattern and composition of India's trade in the context of its growing integration with Asia. The third section looks at India's increasing trade with ASEAN countries in detail. The fourth section examines the tariff reduction commitments under the 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.

2 India's Trade Patterns

One of the most striking aspects of India's expanding presence in global trade is related to its increased integration with Asian countries (IDEAS 2009). Since the late 1990s, the dominance of developed countries in India's trade has slightly declined, but the share of Asian developing countries in its exports and imports has gone up significantly. However, this shift has been more marked in the case of imports. While the developed countries, despite a decline in their share over time, continue to remain more important as destinations for India's exports, the Asian developing countries have become increasingly important as sources of India's imports.[2] Along with increased trade with east Asia, including China and South Korea, followed by the United Arab Emirates (UAE) and Saudi Arabia, south-east 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 two-digit Harmonised System (HS) level between 1995 and 2008 (using United Nations Commodity trade statistics) does not show much change in the top six ranks. India's global imports in 1995 as well as during 2007-08 were dominated by petroleum and petroleum products; followed by pearls, precious stones, metals and coins (all referred to as gems and jewellery hereafter); non-electrical machinery; electrical machinery and 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 and jewellery and electrical machinery. Four sectors that have become increasingly significant in India's global imports are ores, slag and ash; optical, photo, technical, and medical apparatus; articles of iron and steel; and ships, boats and other floating structures. Fertilisers; plastics and plastic products; animal and vegetable fats and oils; inorganic chemicals; and automobiles have continued to be important imports even though their relative shares have come down.

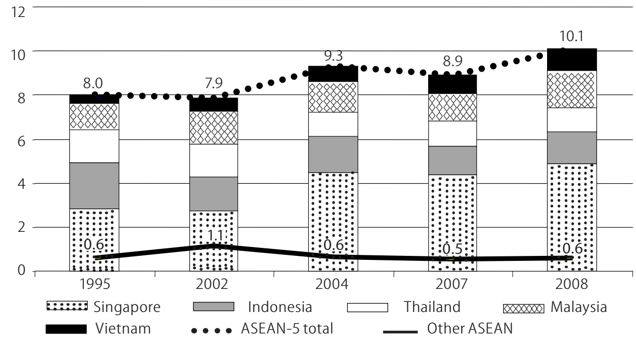
But there are more discernible changes when it comes to the composition of India's global exports. The gems and jewellery sector, which was earlier the largest exporter, has been pushed to the second rank by the dramatic rise in India's exports of petroleum and petroleum products after 2002. More importantly,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

It is thus observed that there is a significant increase in two-way trade in several sectors. While in 2007 petroleum and products topped this list with a share of 50% in India's total trade in that year, the gems and jewellery sector continued to be the most significant non-oil sector with two-way trade. However, four other non-oil sectors – organic chemicals; electrical machinery; ores, slag and ash; and articles of iron and steel – show significant increases in two-way trade. Other sectors that remain important participants in two-way trade are non-electrical machinery; iron and steel; automobiles; and plastics and plastic products. In the next section, we examine whether and to what extent growing trade with ASEAN has contributed to the increase in India's two-way global trade.

3 India's Trade with ASEAN

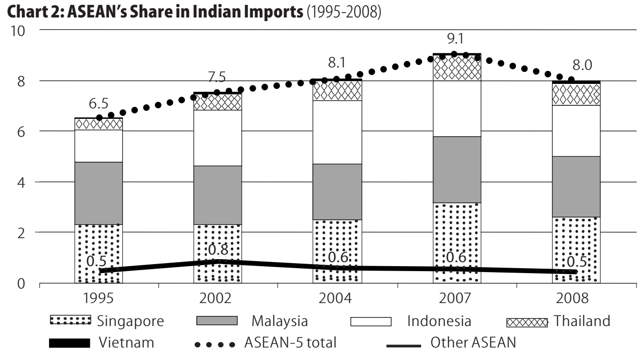
While Singapore and Indonesia were the most important markets for India within ASEAN in 1995, Malaysia and Thailand became more relevant later on. But, by 2004, Singapore's share in Indian exports increased much faster and following the signing of the CECA in 2005, it increased to nearly 5% in 2008.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



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 was a significant drop in the share of ASEAN in total imports because of the global recession that hit India's exports too. (There is a hint here that India's export growth is linked to the import supply from ASEAN.)

Chart 2: ASEAN's Share in Indian Imports (1995-2008)



Thus neither the Philippines nor the newer ASEAN members (Cambodia, Laos, Myanmar and Brunei Darussalam) have accounted for even a 1% 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 on four ASEAN countries, 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 has increased in 13 sectors. These are

- Mineral fuels, oils, distillation products, and the like
- Organic chemicals
- Miscellaneous chemical products
- Plastics and articles thereof
- Rubber and articles thereof
- Gems and jewellery
- Iron and steel
- Articles of iron and steel
- Copper and articles thereof
- Nuclear reactors, boilers, machinery, and the like
- Electrical, electronic equipment
- Vehicles other than railway, tramway (transport equipment)
- Optical, photo, technical, medical apparatus, and the like.

While a detailed analysis of India's bilateral trade with each of these four countries at the six-digit product level is called for to understand the dynamics of this increased two-way trade, there is preliminary evidence pointing to the country's increased integration in the regional and global production networks centred on ASEAN.

The most fundamental aspect about ASEAN-5's export growth has been integration in global production networks driven by FDI, which has led to most of these developing countries achieving export-led growth. The patterns of manufacturing sector production in most of these countries have been highly dependent on the networks put in place by MNCs, which have been able to base 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 US and European multinational firms, which have invested and organised production and procurement networks in ASEAN for half a century. Firms from South Korea and Taiwan have also built production networks across the region since the late 1980s. But liberalisation of trade and investment regimes as part of RTAs obviates the need for 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 EHP[3] 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 gear boxes exported to Thailand from India. A similar restructuring was on in Sony's operations in India and Thailand. On the other side, Hyundai was making India a regional and global hub for compact cars and was to source them from here. Honda, which has built up a sizeable capacity in India for two-wheeler production, might use it as a regional base for them while sourcing some models of cars from Thailand.[4] 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 the 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.[5] While India had maintained a trade surplus vis-à-vis Thailand continuously during 1995-2004, with the 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)

	1995	2002	2005	2007	2008
Singapore	45539648	46702802	2268138861	-511539121	549148919
Indonesia	200309632	-493638139	-1628883124	-2962150526	-3772023546
Thailand	302173888	376096016	-137330317	-519030433	-659510877
Malaysia	-504867872	-587717021	-1292221631	-3875304111	-4426981879
Vietnam	108531524	276387711	506087181	1088343224	1441001979
ASEAN-5 total	151686820	-382168631	-284209030	-6779680967	-6868365404
Philippines	122372084	334534384	278913633	397876338	527385929
Myanmar	-131904784	-278917149	-371915476	-646309902	-668933953
Cambodia	1790727	16285468	20925586	43581583	49583266
Brunei Darussalam	7184134	4334774	3562881	-225279286	-308706847
Lao People's DR	Na	Na	Na	Na	Na
Other ASEAN	-557839	76237477	-68513376	-430131267	-400671605

Na = not applicable.

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 the ASEAN-10 is significantly negative. Given this backdrop, we examine the implications of India's tariff reduction commitments under the AIFTA in the following section.

4 The ASEAN-India FTA in Goods

Main Features of Tariff Reduction Commitments

The 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 the most favoured nation (MFN) tariff rates applied in 2007. 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 slower 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 the AIFTA, India is committed to reduce or eliminate tariffs on more than 89% of all its agricultural, marine and manufactured goods. Nearly 70% of India's tariff lines fall under Normal Track-1, for which tariffs decline to zero by 2013. Nearly 9% of India's tariff lines fall under Normal Track-2, for which tariffs drop to zero by 2016. The 496 products excluded from tariff reduction commitments and included in the Exclusion List constitute 9.8% of India's total tariff lines, while 11.1% of its total tariff lines come 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 agricultural and manufacturing sectors by analysing the nature of tariff reductions under different categories.

Impact on the Agricultural Sector

Of the 722 six-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; 14 are in the Sensitive Track; five are Special Products; and 301 are in the Exclusion List.

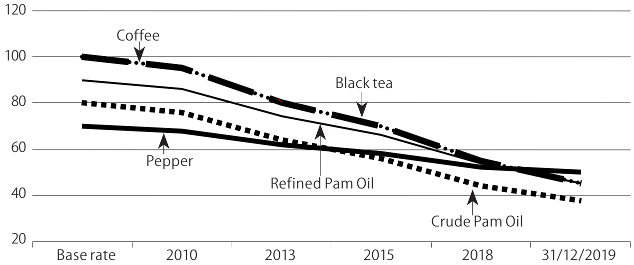
Analysis of India's Sensitive Track, Special Products and Exclusion List

In 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 further reduced to 4% by 2016. Applied MFN tariffs on 4% of the products in the Sensitive Track will drop to zero by 2019.

It is observed that of the 14 agricultural products (HS 1-24) in the Sensitive Track, as many as 13 had 2007 MFN applied rates at an average of 30%. Even if the government plans to maintain the tariffs on all 14 products at 5% or 4%, it is clear that the 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 in the automobile sector with the highest 2007 applied tariff of 32.5%, there are several other manufacturing sectors, including organic chemicals; plastic products; rubber products; machinery and electrical machineries; textiles; and footwear and 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%. So all the remaining tariffs have to be brought down to 5% by 2016. It is clear that with 563 tariff lines under the Sensitive Track, this implies quite a 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 drop for these five products was in the range of only 3% to 5% in January 2010. However, by 2014, they will fall 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



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-4 and Cambodia, Laos, Myanmar and Vietnam (CLMV).

It is evident that this involves significant tariff reduction and implies a significant increase in market access for animal and vegetable oils and fats (HS 15) and coffee, tea, maté and spices (HS 9), of which 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. As for coffee, tea, maté and spices, Indonesia provided nearly 21% and Vietnam 13% of India's total imports in these two segments in 2008. Thus, under the AIFTA, Indian farmers are likely to encounter significantly increased volumes of imports in the domestic market. It should also be noted that whenever applied tariff rates in a particular year are lower than the preferential tariffs under the AIFTA, the lower tariffs will apply. So having these products listed as Special Products under the AIFTA will not be sufficient to protect them in the future if India chooses to reduce 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; sugar cane; apples; and the like. However, as is known, having a product on the Exclusion List does not mean that it will be protected. Local producers could face increased competition from cheaper imports that substitute for locally grown agricultural products and other products included in the Exclusion List. Several agricultural crops could also face increased demand and price uncertainties because many semi-processed or processed versions of these crops are not on 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.

Bad News for Farmers

Tariff reduction and its elimination under the AIFTA will not only disrupt farmers' domestic markets, but also reduce their 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 it. This means that India will have the right to raise tariffs with ASEAN only to the highest level that it is committed to in the agreement. With tariffs dropping to zero in most cases, this becomes meaningless. Therefore India's commitments under the AIFTA are likely to have a significant negative impact on livelihoods and food security across several segments of the rural population in the country.

According to Viswanathan and Shah (2008),[6] the launching of trade reforms and liberalisation policies in the post-World Trade Organisation (WTO) context has already seriously affected the Indian plantation sector in general and tea and rubber production in particular. One of the most explicit effects of the trade reforms has been the emergence of market uncertainties, leading to high volatility or a steep fall in the international and domestic prices of commodities due to the removal or dilution in tariff and non-tariff trade barriers. The extent of decline in prices and their instability have both been the highest for rubber and tea, which have had adverse effects on production. In the case of rubber, 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 exporting rubber products). The coping mechanisms adopted by the tea and rubber planting communities (medium and large tea planters and small rubber producers) have included cost-saving and labour-displacing measures such as diluting or even discarding scientifically recommended agro-management practices; labour retrenchments; lockouts; and resistance to routine tripartite wage negotiations. A large number of medium- and small-scale tea estates have closed in the major tea-growing regions of India due to the crisis and troubled labour relations. This has severely affected the livelihoods of labourers and their 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.

The experiences of other countries indicate that the adjustment of farmers to trade liberalisation has had a negative impact on their livelihoods and income levels. It is believed that trade liberalisation will help boost international agricultural trade and automatically pressure farmers and entrepreneurs to adjust themselves more efficiently to international competition. But, as 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 an equal footing and there is a mechanism to regulate and control unfair practices. But experiences in developed and developing countries have shown that farmers usually end up in a disadvantageous position on both the production and marketing sides.[7]

Further, as Francis and Kallummal (2009) have argued, liberalisation of FDI norms, which brings in MNCs into the value chain of food products (including distribution services), may serve to exacerbate the difficulties faced by small farmers in developing countries. It has been observed that foreign investment and trade liberalisation, together with technological changes, have led to MNCs becoming dominant in the entire chain of agricultural production and distribution, comprising farmers, fuel companies, fertiliser 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 a disconnect between gross farm revenue and net farm income.[8]

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 are disturbing. Combined with the drift towards heightened integration in the agricultural products value chain, all this could lead to significant loss of income for 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 penetration of transnational companies (global or regional) with the liberalisation of multi-brand retail, will further increase with trade liberalisation 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 liberalised trade in food products through ASEAN countries. It is important to note that apart from being integrated with Japanese and US 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. The AIFTA will push India into getting deeply integrated in the international food production and marketing chains. Drawing from the 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% share in total imports in those sectors in that year. India typically maintained relatively high tariff rates in agricultural products listed under HS 1-24 (Table 2, p 51). 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 was on average only 5 percentage points. However, by January 2013, which is just three years away, average tariffs in all these sectors will drop to zero, from as high an average as 29%.

Given that ASEAN countries are already significant exporters to India in several of these sectors, the AIFTA will increase their market access in India significantly for agricultural products, as

Table 2: India's Tariff Reduction Scenario in Major Agricultural Sectors under Normal Track-1

HS Chapter Description	2007 Average MFN (%)	Drop in Tariff by 2010 (% Point)	Average Preferential Tariff in 2013 (%)
Meat and edible meat offal	30.0	5.0	0.0
Products of animal origin, nesoi	28.7	4.8	0.0
Edible fruit, nuts, peel of citrus fruit, melons	27.4	4.5	0.0
Coffee, tea, mate and spices	30.0	5.0	0.0
Lac, gums, resins, vegetable saps and extracts, nesoi	27.0	4.5	0.0
Vegetable plaiting materials, vegetable products, nesoi	30.0	5.0	0.0
Animal, vegetable fats and oils, cleavage products, etc	31.0	6.3	0.0
Miscellaneous edible preparations	30.0	5.0	0.0
Residues, wastes of food industry, animal fodder	29.1	5.0	0.0
Average for the above nine agricultural sectors	29.2	5.0	0.0

These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5% share in total imports from the world in 2007.
Nesoi = Not elsewhere specified or included.
Source: Author's calculation based on India's AIFTA tariff reduction schedule to ASEAN-5 and CLMV.

well as semi-processed and processed agricultural products. This is true of

- Meat and edible meat offal.
- Edible fruits and nuts (such as pears, plums, peaches, strawberries, kiwi fruits, pomegranates, and avocados; citrus fruit peels, and walnuts, hazel nuts, pistachios, and so on).
- Maté, cinnamon, cassia, and the like.
- Lac, gums, vegetable extracts.
- Olive oil, as well as animal fats and oils.
- Miscellaneous edible preparations (such as yeasts, baking powders, soya sauce, tomato ketchup, mustard flour, curry paste, ice creams, protein concentrates, and the like).
- Meat meals and pellets, maize bran, wheat bran, residues of starch, and dog or cat food, and the like.

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

There are other food products-related sectors such as sugars and sugar confectionaries; cocoa and cocoa preparations; cereal; flour; starch; and milk preparations and products that 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 using cucumbers and gherkins; olives; mangoes; groundnuts; and cashew nuts (roasted, salted, and the like), and fruit juices from grapes; mangoes; pineapples; apples, and the like (all coming under HS 20) are another set of agricultural-related products that is likely to see an increase in imports from ASEAN.

As already argued, duty-free trade in these semi-processed products (by either 2013 or 2016) will serve as a major incentive for agro-processing units to import them directly from ASEAN than to source them locally. In addition, there will be an increased supply of processed foods. This is likely to have some impact on small and medium enterprises (SMEs) in the Indian food products industry. Further, both the reduced demand for local agricultural products because of the availability of imported semi-processed products and the increase in 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% 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; and wood and wood products were the sectors with the highest average MFN tariff rates in 2007 (10%). As seen in Table 4, once again, while the immediate drop in tariffs with the AIFTA coming into force in January 2010 was not drastic, by 2013 all these tariffs will become zero.

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

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

HS Chapter Description	2007 Average MFN (%)	Drop in Tariff by 2010 (% Point)	Drop in Tariff by 2013 (% Point)
Edible fruit, nuts, peel of citrus fruit, melons (apples)	30.0	5.0	19.0
Coffee, tea, mate and spices (cardamom and saffron)	30.0	5.0	19.0
Milling products, malt, starches, insulin, wheat gluten (rye flour)	30.0	5.0	19.0
Animal, vegetable fats and oils, cleavage products (Fractions of animal fats and oils and animal waxes)	37.0	13.4	27.0
Average for the above four sectors	31.8	7.1	21.0

These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5% share in total imports from the world in 2007.
Source: Author's calculation based on India's AIFTA tariff reduction schedule to ASEAN-5 and CLMV.

Table 4: India's Tariff Reduction Scenario in Major Non-Agricultural Sectors under Normal Track-1

HS Chapter Description	2007 Average MFN (%)	Drop in Tariff by 2010 (% Point)	Average Preferential Tariff in 2013 (%)
Ores, slag and ash	3.3	0.5	0.0
Rubber and articles thereof	9.4	2.3	0.0
Wood and articles of wood, wood charcoal	9.0	2.2	0.0
Pulp of wood, fibrous cellulose material, waste, etc	5.5	1.2	0.0
Printed books, newspapers, pictures, etc	4.7	1.2	0.0
Manmade staple fibres	10.0	2.5	0.0
Tin and articles thereof	6.0	1.3	0.0
Musical instruments, parts and accessories	10.0	2.5	0.0
Furniture, lighting, signs, prefabricated buildings	10.0	2.5	0.0
Average for the above nine non-agricultural sectors	7.5	1.8	0.0

These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5% share in total imports from the world in 2007.
Source: Author's calculation based on India's AIFTA tariff reduction schedule to ASEAN-5 and CLMV.

Table 5: India's Tariff Reduction Scenario in Major Non-Agricultural Sectors under Normal Track-2

HS Chapter Description	2007 Average MFN (%)	Drop in Tariff by 2010 (% Point)	Drop in Tariff by 2013 (% Point)
Rubber and articles thereof	10.0	2.5	7.0
Wood and articles of wood, wood charcoal	10.0	2.5	7.0
Pulp of wood, fibrous cellulose material, waste, etc	10.0	2.5	7.0
Manmade staple fibres	10.0	2.5	7.0
Furniture, lighting, signs, prefabricated buildings	10.0	2.5	7.0
Average for the above five sectors	10.0	2.5	7.0

These are sectors in which India's imports from any of the ASEAN-5 countries constituted at least a 5% share in total imports from the world in 2007.
Source: Author's calculation based on India's AIFTA tariff reduction schedule to ASEAN-5 and CLMV.

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

Sector	MFN 2007	Drop by 2010		Drop by 2013
		NT-I	NT-II	NT-2
Mineral fuels, oils, distillation products, etc	8.5	2.1		
Organic chemicals	7.1	2.3	2.5	5.5
Miscellaneous chemical products	8.8	2.5	2.5	7.0
Plastics and articles thereof	7.5	2.5	2.3	5.9
Rubber and articles thereof	9.4	2.3	2.5	7.0
Gems and jewellery	9.2	2.3		
Iron and steel	10.0	2.5		
Articles of iron or steel	10.0	2.5		
Copper and articles thereof	6.5	1.5	1.8	5.0
Nuclear reactors, boilers, machinery, etc	7.0	2.3	2.4	5.5
Electrical, electronic equipment	6.1	1.7	2.5	6.5
Vehicles other than railway, tramway	17.0	7.9	2.5	7.0
Optical, photo, technical, medical apparatus, etc	7.3	2.1	2.5	5.8

Source: Author's calculation based on India's AIFTA tariff reduction schedule to ASEAN-5 and CLMV.

It can be seen from Table 6 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 dropped significantly in 2010 and will fall to zero by 2013, and NT-2 tariffs also drop a far way by 2013. The other sectors with significant tariff reductions include electrical machinery; nuclear reactors and machinery, and the like; optical, photo, and medical apparatus, and the like; rubber and articles; miscellaneous chemical products; organic chemicals; plastics and articles; and copper and articles. Such tariff reductions are likely to lead to an increase in the recent trends seen 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, especially in the transport equipment and machinery sectors. This will also benefit Indian MNCs that are active in the region, particularly in the chemicals and, to a lesser extent, the iron and steel sectors. So it can be envisaged that the AIFTA will lead to India's deeper integration in production networks in industries such as transport equipment, machinery and chemicals.

This is supported by Japan External Trade Organisation (JETRO) surveys on Japanese manufacturers operating in ASEAN and India, as cited by Sukegawa (2009).[9] They 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 the AIFTA, a product is deemed to be originating in the region and will be eligible for preferential market access if two norms are met.
(i) The AIFTA content is not less than 35% of the freight on board (FOB) value; and (ii) The non-originating materials have undergone at least a change in the tariff sub-heading (CTSH) level of the HS.

It is also required that the final process of the manufacture be done in 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 utilise the AIFTA. And a JETRO survey of Japanese firms in Asia and Oceania has established that they intend to use Thailand as a production base to export to the Indian market utilising the AIFTA. Sukegawa (2009) confirms that since 2004, when Thailand started the Indo-Thai FTA's EHP with India, Japanese manufacturers have shifted production bases 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 began importing from Thailand.[10]

Clearly, such production restructuring by MNCs across the region under the AIFTA has adverse implications for employment generation and technological capability building in India,

Table 7: India's Market Access Scenario in ASEAN for Normal Track Products

	Normal Track-1			Normal Track-2		
	Average 2007 MFN	Drop by 2010	Drop by 2013	Average 2007 MFN	Drop by 2010	Drop by 2013
India	12.9	2.8	12.9	9.5	3.1	9.5
Malaysia	1.9	0.4	1.9	19.0	3.2	12.1
Indonesia	2.6	0.5	2.6	4.7	0.9	2.8
Thailand	6.5	1.3	6.5	18.0	4.0	12.3

Source: Author's calculation based on AIFTA tariff reduction schedules.

Table 8: Indonesian Sectors with Significant Tariff Reduction by 2013 (Percentage point)

Sector	NT-1	NT-2
Cocoa and cocoa preparations	12.8	
Cereal, flour, starch, milk preparations and products	6.5	
Beverages, spirits and vinegar	6.3	
Vegetable, fruit, nut, etc, food preparations	6.0	
Meat, fish and seafood food preparations, nesoi	5.9	5.0
Sugars and sugar confectionery	5.9	
Dairy products, eggs, honey, edible animal product, nesoi	5.6	
Meat and edible meat offal	5.0	3.0
Edible fruit, nuts, peel of citrus fruit, melons	5.0	3.0
Coffee, tea, mate and spices	5.0	
Milling products, malt, starches, insulin, wheat gluten	5.0	
Lac, gums, resins, vegetable saps and extracts, nesoi	5.0	3.0
Miscellaneous edible preparations	5.0	3.0
Tobacco and manufactured tobacco substitutes	5.0	
Explosives, pyrotechnics, matches, pyrophorics, etc	5.0	
Articles of leather, animal gut, harness, travel goods	5.0	
Fur skins and artificial fur, manufactures thereof	5.0	
Cork and articles of cork	5.0	
Silk	5.0	
Wool, animal hair, horsehair yarn and fabric thereof	5.0	
Other made textile articles, sets, worn clothing, etc	5.0	
Miscellaneous articles of base metal	5.0	
Musical instruments, parts and accessories	5.0	
Toys, games, sports requisites	5.0	

Nesoi = Not elsewhere specified or included.
Source: Author's calculation based on AIFTA tariff reduction schedules.

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

	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	13
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, nesoi	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	

Nesoi = Not elsewhere specified or included.
Source: Author's calculation based on UN Comtrade database.

especially if the country is unable to move up the value chain of industrial production. Further, greater trade integration with Asia through production chains will increase the country's vulnerability to external shocks, as was seen in the global crisis during 2008-09.

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

In this section we examine how much margin of preference India will gain 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 three other major ASEAN trading partners.

As seen in Table 7 (p 52), 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 drops in 2010 in Malaysia's and Indonesia's NT-1 products are quite low.

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. But 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 that offer the greatest tariff reductions for Indian products.

Table 8 (p 52) lists the Indonesian sectors that offer the largest tariff reduction to India under the AIFTA's Normal Tracks 1 and 2. Comparing these with India's major export sectors to Indonesia (Table 9), it can be observed that we are currently not a significant exporter to Indonesia in any of the sectors with significant tariff reductions by 2013.

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

In the case of Thailand (Tables 12 and 13, p 54), 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 the AIFTA.

It is observed that 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

Table 10: Malaysian Sectors with Significant Tariff Reduction by 2013 (Percentage point)

Sector	NT-1	NT-2	ST
Bird skin, feathers, artificial flowers, human hair	20.0	12.7	
Cocoa and cocoa preparations	13.0		
Beverages, spirits and vinegar	13.0		
Miscellaneous manufactured articles	10.8	13.3	34.0
Cotton	9.5		4.2
Miscellaneous edible preparations	7.8		
Manmade staple fibres	7.4		4.5
Manmade filaments	7.0		4.7
Tools, implements, cutlery, etc of base metal	6.5	15.0	13.0
Rubber and articles thereof	6.4	13.0	12.2
Paper and paperboard, articles of pulp, paper and board	6.1	12.7	

Source: Author's calculation based on AIFTA tariff reduction schedules.

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

	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, maté 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, nesoi	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 fur skins) 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	Gems and jewellery, 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, nesoi	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	

Nesoi = Not elsewhere specified or included.
Source: Author's calculation based on UN Comtrade database.

Table 12: Thailand's Sectors with Significant Tariff Reduction by 2013 (Percentage point)

Sector	NT-1	NT-2	ST
Articles of apparel, accessories, not knit or crochet	32.5		15.4
Meat and edible meat offal	30.0	35.5	19.2
Live trees, plants, bulbs, roots, cut flowers, etc	30.0		18.3
Edible vegetables and certain roots and tubers	30.0	27.2	21.0
Manufactures of plaiting material, basketwork, etc	30.0		
Articles of apparel, accessories, knit or crochet	30.0		15.0
Footwear, gaiters and the like, parts thereof	30.0	19.0	11.3
Coffee, tea, maté and spices	27.0	15.0	15.0
Dairy products, eggs, honey, edible animal products, nesoi	26.7		15.0
Bird skin, feathers, artificial flowers, human hair	25.8		15.0
Vegetable, fruit, nut, etc, food preparations	25.7		15.0
Meat, fish and seafood food preparations, nesoi	24.7	16.0	15.0
Miscellaneous edible preparations	24.4	13.0	15.0
Cereal, flour, starch, milk preparations and products	24.3		15.0
Arms and ammunition, parts and accessories thereof	24.0		
Other made textile articles, sets, worn clothing, etc	23.4	7.0	14.6
Headgear and parts thereof	22.5		15.0
Umbrellas, walking-sticks, seat-sticks, whips, etc	22.0	19.0	
Edible fruit, nuts, peel of citrus fruit, melons	21.1	28.0	10.7
Sugars and sugar confectionery	21.0		24.0
Explosives, pyrotechnics, matches, pyrophorics, etc	20.0	10.0	
Articles of leather, animal gut, harness, travel goods	20.0	16.0	13.2
Ceramic products	19.8	7.0	7.5
Milling products, malt, starches, insulin, wheat gluten	19.3		15.7
Furniture, lighting, signs, prefabricated buildings	18.4	11.3	
Animal, vegetable fats and oils, cleavage products, etc	17.5	12.8	12.8
Works of art, collectors pieces and antiques	17.1		
Essential oils, perfumes, cosmetics, toiletries	15.7	10.0	10.0
Miscellaneous manufactured articles	15.2	11.5	0.0
Beverages, spirits and vinegar	15.0		43.5
Vehicles other than railway, tramway	14.2	7.9	19.1
Toys, games, sports requisites	13.8	9.2	4.0
Cocoa and cocoa preparations	12.9		4.0
Live animals	12.1	19.0	
Miscellaneous articles of base metal	12.0	8.5	15.0
Tools, implements, cutlery, etc of base metal	11.9	10.2	15.0
Products of animal origin, nesoi	10.4		
Musical instruments, parts and accessories	10.0	9.4	

Nesoi = Not elsewhere specified or included.
Source: Author's calculation based on AIFTA tariff reduction schedules.

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

	Sector	1990	1995	2002	2007	2008	2008 Rank
1	Gems and jewellery, 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, derivatives, 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.

unlikely that Indian companies, in particular SMEs, will be able to gain significantly from this preferential access. In the case of light manufactured goods, Indian companies will also be competing with China, which already has an FTA with ASEAN.

6 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 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 its 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 increased imports of close substitutes could lead to a fall in the prices of local crops, 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 likely to be negatively affected by the drastic tariff liberalisation under the AIFTA.

However, import liberalisation in intermediate goods will impel MNCs to undertake production rationalisation across the region, particularly in the transport equipment and machinery sectors. This might also help Indian MNCs that are active in the region, especially in the chemicals and iron and steel sectors. The paper argues that this will lead to India's deeper integration in production networks in 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 already have FTAs with ASEAN. Thus Indian SMEs will find it difficult to hold their own against 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 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 other manufactured goods. Meanwhile, the fall in Japan's share in India's imports is linked to Japanese MNCs reorganising their production networks in Asia after 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 companies across these countries will reorganise their production and procurement strategies, following the Japanese example. 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 a significant negative effect on employment and livelihoods.

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

NOTES

1 Some part of the two-way trade may be inter-industry trade. So not all simultaneous bilateral exchange of exports and imports at the two-digit HS level necessarily qualify as intra-industry trade (IIT), as often considered in the literature. 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 six-digit HS level. For a detailed discussion, see "Impact of China and India's Emergence on Developing Asia: A Case Study of Thailand" in IDEAs Report (2009).

2 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 Report (2009).

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

4 See Kumar (2007).

5 See "Impact of China and India's Emergence on Developing Asia: A Case Study of Thailand" in IDEAs Report (2009).

6 Viswanathan and Shah (2008).

7 See also Ghosh (2003).

8 See Francis and Kallummal (2009).

9 See Sukegawa (2009).

10 But, in November 2009, Sony announced that it would cease TV production in Thailand as it became certain that the AIFTA would come into effect in January 2010. Malaysia will now be Sony's only global production base for TVs.

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