

Boosting Competitiveness of India's Food Processing Industry *Challenges and Opportunities'*

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Contents

Abstract.....	2
1. Background and Context	3
2. Current State of India's Food Processing Industry.....	3
3. Domestic Constraints Development of Food Processing Industry in India	4
<i>Future Potential of India's Food Processing Industry</i>	<i>7</i>
4. External Constraints and Market Access Related Issues of India's Food Processing Industry.....	9
<i>Tariff Rates and Market Access</i>	<i>15</i>
<i>Export Measures</i>	<i>16</i>
<i>Non-Tariff Measures</i>	<i>16</i>
<i>Intellectual Property Rights</i>	<i>16</i>
<i>Investment.....</i>	<i>17</i>
5. Rajasthan Food Processing Industry	17
6. Make in India and food processing sector.....	19
7. Way Forward	19
References	21

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Abstract

Indian Food Processing Industry (FPI) is one of the most untapped industries with abundant raw material to grow at higher rate. FPI has been identified as a priority list in “MAKE IN INDIA” programme by the Government of India to boost its domestic manufacturing and export share. In the last few years, FPI has emerged as a high-growth and high-profit sector due to its immense potential for value addition while processing of food products at various stages. The degree of processing of value addition to agricultural produce in India (20 per cent) is very low as compared to other countries, such as China (40 per cent), Brazil (70 per cent) and Malaysia (80 per cent). In India, the degree of processed food products range between 2 per cent (fruits and vegetables) and 35 per cent (milk) for various agriculture products. Hence there exist huge potential of growth of this sector in India. The export value of FPI was US\$29.12bn in 2016 and its share in world import was 2.18 per cent.

However, despite the huge untapped potential with strong agricultural base to grow, the FPI in India faces massive domestic challenges. It includes low level of quality and safety standards in processing, inadequate infrastructure, lack of skilled manpower, fragmented structure of the industry and consumer perception. Due to its lower standard and quality of food, India’s food export to its trading partner faces massive challenges to meet the standard quality required by its trading partner. Addressing these challenges is of high importance to face global competition with enhanced product acceptance overseas.

In a developing country like India, not only prices but also infrastructure and technological factors play a major role in augmenting aggregate agricultural output and FPI. Factors, such as tariff rates and market access, export measures, non-tariff measures (NTMs), intellectual property rights (IPRs), investment, etc., also influence exports of processed food products. Recognising the potential of the FPI in driving economic growth, these challenges need to be addressed with its each trading partner by improving quality standard to get market access.

Among the Indian states, Rajasthan is the largest producer of herbs and second largest producer of milk. The food processing sector of this state contributes around 25 per cent in the total State Gross Domestic Product (SGDP). In order to promote competitiveness of the FPI, the State Government has undertaken a number of policy initiatives to improve Agri-marketing infrastructure, such as Mega Food Park Scheme, Rajasthan Investment Promotion Scheme, Rajasthan Agro-Processing and Agri-Marketing Promotion, etc. Around 62 per cent of the State’s working population depends on this sector for their livelihood, thus making the FPI one of the most important sectors for Rajasthan.

The FPI has been recognised as one of the most investment-oriented industry. This Discussion Paper tries to bring insights about the FPI of India and its challenges in view of changing global economic environment, at the conduit of its growth. This study also outlines policies and programmes of the Central as well as the State Government to overcome challenges and boost the overall competitiveness of the sector.

1. Background and Context

The FPI is one of the most promising sectors in India and plays an important role in terms of production, growth, consumption, and export of the country.¹ The sector covers both food and agro-processing industries, which include a number of sectors, such as dairy products, alcoholic beverages, fisheries, grain processing, fruit and vegetables; spices; meat and poultry; consumer product groups like confectionery, chocolates cocoa product soya-based products, mineral water and high protein foods.

The growth of FPI in India is further augmented by partial liberalisation of organised retail sector, which led to entry of private players and boosted competitiveness of the sector. At present, the Indian FPI is one of the leading contributors in the growth of Indian economy. The sector “contributes around 14 per cent to manufacturing GDP, 30 per cent to India’s exports and 6 percent to total industrial investment”(IBEF, 2016).

The FPI holds tremendous economic potential in terms of generating employment opportunities for semi-skilled and unskilled workers. It can also play an important role in providing guaranteed food to millions of people living below the abject poverty lines. Recognising the importance of the sector, the Government of India has given it ‘priority status’ and several policy initiatives have been announced to boost the overall competitiveness. Key policy measures include de-licencing, automatic approvals of foreign direct investment (FDI), tax exemptions for exports, processing and technology transfer. Moreover, a number of schemes have been proposed to enhance post-harvest infrastructure – processing and packing, modern abattoirs, creation of agro food parks, value added centres and irradiation facilities. Furthermore, the government has also given special attention to increase the role of private players by reforming the existing Agriculture Produce Market Committees (APMC) Act. This is largely done with a motive to “allow the private players to

procure agricultural products directly from farmers, streamlining the food quality and safety regulation for easier compliance”.

2. Current State of India’s Food Processing Industry

India is the largest producer of Milk, Ghee, Ginger, Bananas, Guavas, Papayas and Mangoes in the world. Further, India ranks no 2 in the world in the production of Rice, Wheat and several other vegetables and fruits. India’s export value of FPI was US\$29.12bn in 2016 (ITC Trade Map) and its share in world import was 2.18 per cent. The FPI in India is recognised as a high-growth and high-profit orientate industry sector due to its immense potential for value addition in the processed of food products. Agriculture and food processing sector are inter-linked and intertwined.² The sector includes a number of value addition activities at different stages of processing which include sorting, grading, processing packaging, branding, etc. The fact of the matter is that in 2014-15, gross value addition in food processing witnessed a growth by 5.78 per cent.³

Though, the Indian food Industry is at nascent stage but its importance is increasing continuously with increase in global food trade. The degree of processing in India ranges between 2 to 35 per cent for different food products. Processing of fruits and vegetables is found to be low (2 per cent) and high in milk products (35 per cent) while 21 per cent in meats and 6 per cent in poultry products. Agricultural and Processed Food Products Export Development Authority (APEDA) has predicted that the volume of FPI is expected to be increased by US\$78bn in 2018, alongside with proliferation in India’s organic food market, which is expected to get triple by 2020 (APEDA).

The FPI of India has largest number of factories and engages largest number of employees (11.69 per cent, in 2013-14), as the sector is highly labour-intensive. According to the Annual Survey in 2013-14, conducted by Ministry of Food Processing Industries (MoFPI), the total number

of registered FPIs in the country is 37,445, while

in Rajasthan they are 795 units, in 2012-13.

Table 1: Food Processed Products, Production with World Ranking and Value Addition

Commodity	Production (in million tonnes) 2014-15	World Rank	Per cent Processed
Milk	135.6	1	8.96
Fruits and Vegetables	994.25	2	29.33
Meat and Poultry	6.235	1	9.11
Cereals and Pulses	297.77	2	10.17
Fisheries	7.8 (in 2009-10)	3	10.10
Beverages	Alcohol – 3000 million litre Soft drinks – 1406 million bottles Beer – 101,000 KL		29.77 - 64.90 (soft drinks to malt liquors)

Source:

1) Final Annual Report 2015-16, Ministry of Food Processing Industry, GoI

2) Directorate of Economics and Statistics, http://eands.dacnet.nic.in/latest_20011.htm

3) Indiatat, as on January 2017

A significant share of the industry is concentrated in rural and semi-urban areas, which developed strong backward and forward linkages. It has also created strong positive spillover effects of inter-linked sectors and boosted the growth of the local economy. The Federation of Indian Chambers of Commerce and Industry (FICCI) report states, “the food processing industry has tremendous impact on the growth of other sectors in the economy given its deeper backward and forward linkages. It is noted that an US\$1bn growth of food processing sector could contribute into additional GDP growth ranging between US\$2-4bn in other sectors associated with agro and food processing value chains. This will have significant impact on the larger ecosystem of the economy. This suggests that the growth of food processing industry in India can bolster the growth of semi-rural economy (FICCI, 2013).

3. Domestic Constraints in the Development of Food Processing Industry in India

Despite the significant economic potential of the FPI in India, it still faces massive domestic challenges, which include low level of processing, fragmented structure of the industry, consumer

perception and lack of skilled manpower. Firstly, low level of processing means that at industrial level, less food is processed, as compared to household level. Most of the traditional food items like jams, jellies, pickles etc. are prepared at small manufacturing units or by households. Secondly, consumer perception with regard to processed food in India is not very optimistic and they consider that packaged food is not fresh, thus, leading to low consumption of processed food. Thirdly, food processing sector is still highly fragmented and unorganised. This led to the inefficiencies in the sector and has failed to achieve the economies of scale.

In addition, the online food ordering business, an organised subsector of food processing, is at a nascent stage in India. However, the sector is witnessing exponential growth in its sales and boom of online food retailers/delivery players, which, in turn, shows that there is huge potential and a promising future of this industry.⁴ Most of the challenges of food processing in India are typical in nature to that of other developing countries, like those related to inadequate infrastructure, especially for post-harvest management, value addition and processing activities, fragmented agriculture markets and

socio economic environment etc. (Meeta Punjab, 2007).

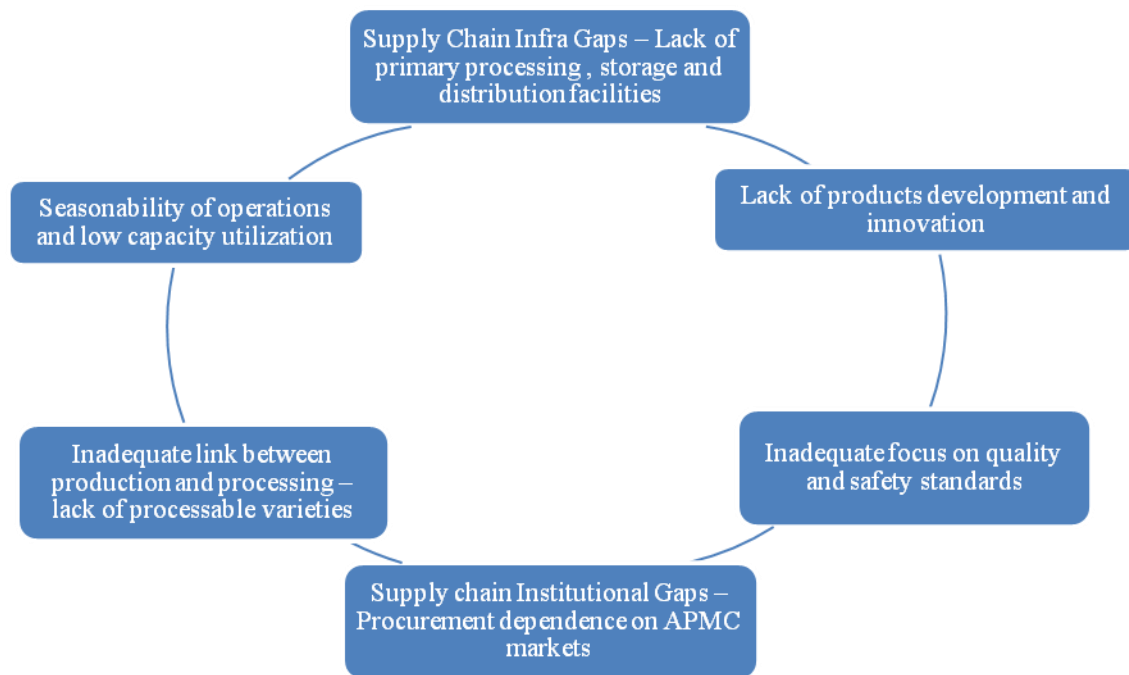
- ***Socio-Economic Environment and Demand for Processed Foods:*** As highlighted in the vision of the MoFPI, sub-optimal growth of the FPI is caused by low level of demand, low capacity utilisation again leading to high unit cost. In addition, other factors, such as price difference between fresh and processed food is very high and it becomes out of reach of common man (Meeta Punjab, 2007).
- ***Essential Commodities Act (ECA):*** The Essential Commodities Act (ECA) 1955 was enforced in place after independence to control production, supply and distribution of essential agricultural commodities. It is also recognised that controlling the movement of products by licensing of dealers, limits on stocks and control on movements would not only hamper the growth of agricultural sector but also the promotion of FPIs. The Act has been amended in 2003 to encourage free movement of agricultural commodities across region. But, it needs to more change of this Act (Meeta Punjab, 2007).
- ***Food Quality Regulation:*** There are several norms, laws and regulations, which suggest various standards regarding food additives, contaminants, food colours, preservatives and labelling (Meeta Punjab, 2007).
 - The ***Prevention of Food Adulteration Act (PFA)***, 1954 implemented primarily on the establishment of regulatory standards for primary food products, which constitute the bulk of the Indian diet.⁵
 - The ***Standards of Weights and Measures Act, 1976*** and standards of Weights and Measures (Packaged commodities) Rules, 1977 are legislative measures designed to establish fair trade practices with respect to packaged commodities.
 - The fruit and vegetable processing sector is regulated by the ***fruit products order, 1955 (FPO)***, which is implemented by the Department of Food Processing Industry.
 - ***Meat Food Products Order, 1992*** administers the permissible quantity of heavy metals, preservatives, and insecticide residues for meat products.
 - ***Milk and Milk Products Order, 1992*** order regulates the production, distribution and supply of milk products; establishes sanitary requirement for dairies, machinery, premises; and sets quantity control standards for milk and milk products.
 - ***The destructive Insects and Pests Act, 1914***, and Plants, Fruits, and Seeds (Regulation of Import in India) Order 1989 regulate imports of planting seeds into India, and prohibit imports seeds for sowing and planting materials without a valid permit.
- ***Taxes on Processed Food:*** There are two key issues with food taxation -- high level and multiplicity of taxes. A study by Meeta Punjab pointed out that the food taxation is highest in India among Asian countries, such as Indonesia, Philippines, Malaysia, Sri Lanka, China and Thailand. She further reiterated that the excise duty on processed food is not levied in any of the other Asian countries except for Thailand. In India, excise duty ranges from 8-18 per cent on processed food and 40 per cent on carbonated drinks. Sales tax in India averages second behind that China (Meeta Punjab, 2007).
- ***Credit Supply:*** The agricultural supply chains in India are very fragmented with a large number of intermediaries. This structure of chain leads to limited scale of financing as well as higher risk, given the lack of control each of the players has on supply chain (Reference). At the farm level, financing is

largely dependent on unorganised sources of credit due to bottlenecks in access, timeliness in availability and adequacy of credit from organised sources. The key hurdles faced by bank in financing farmers are their inability to provide adequate collateral as security, and potential for default, in the absence of an assured market for their produce.

- **Traditional and subsistence Farming, Market Linkage and infrastructure:** Similar to the situation in many developing countries, most of the farming in India is at subsistence level, which leaves limited produce for marketable surplus. Post management and infrastructure has not received much

attention, which limits the availability of storage of raw materials for processing. The market size is continuously expanding day-to-day. The farmers’ market linkage (both backward and forward) have also increased manifold, but the marketing system has not kept pace. Due to lack of proper handling (cleaning, sorting, grading and packaging) at the farm gate or village level, about 7 per cent of grains, 30 per cent of fruits and vegetables and 10 per cent of seed spices are lost before reaching the market. A huge amount of money is lost every year in the marketing chain due to inadequate development of marketing infrastructure and inefficient system of marketing activities.

Figure 1: Major Challenges Faced by Food Processing Industry in India



- **Institutional:** Traditionally, the government has been dominant player in the agricultural sector, especially in the areas of marketing and infrastructure development. The involvement of private sector has limited to marketing of inputs and undertaking of some basic items. The linkage between private and public sector have been very poor. The FPI has a high multiplier effect on income and

employment potential. Thus, due to limited FDI allowed in food processing in the past, the sector has not expanded as much as it should be despite having abundant raw material and strong agricultural base. In view of that, there is a need for radical policy reforms and removal of physical constraint. Moreover, active participation of civil society

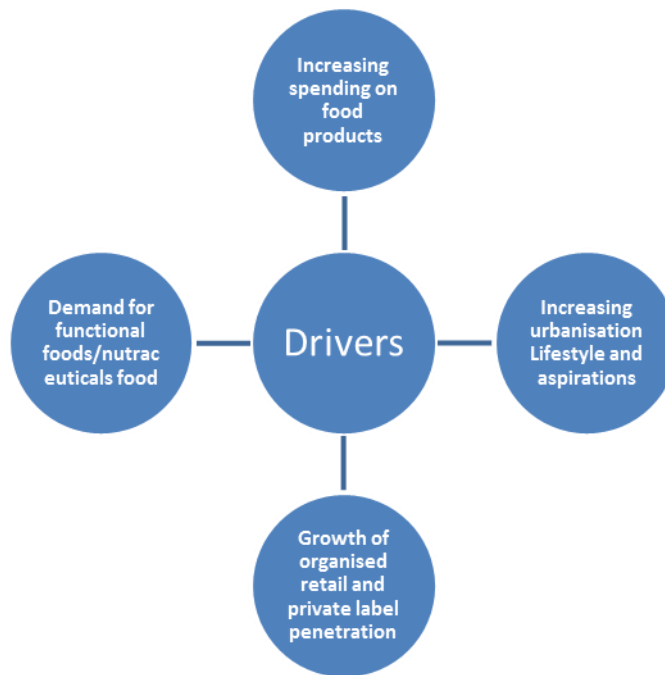
organisations (CSOs) and private sector is very well required.

Future Potential of India’s Food Processing Industry

The Indian FPI is one of the unexploited sectors and has intrinsic potential to grow. The sector is likely to grow over the period of time, as there is raising number of youth population, which are expected to increase the food consumption. Also,

increased level of living standard, income, urbanisation, desire to consume branded food, etc. demonstrates to be the potential drivers towards the growth of this sector in India. There has been a steady growing trend witnessed under the exports of food items from India, also posing to be a driver towards the development of food processing sector. The key potential drivers for the growth of the Indian FPI are shown in Figure 2.

Figure 2: Key Potential Drivers in the Growth of Indian Food Processing Industry



In order to enhance the domestic and global competitiveness of FPI of India, the MoFPI has come up with a Vision Document-2015. It underscores the importance of private investment in the sector thereby improving the level of processing of perishables from 6 per cent to 20 per cent, value addition from 20 per cent to 35 per

cent and share in global food trade from 1.5 per cent to 3 per cent (IBEF, 2016) respectively. The Government of India has significantly liberalised the FDI policy and allowed up to 100 per cent FDI in food product e-commerce through automatic route (DIPP, 2015). Other policy initiatives are summarised in Box 1.

Box 1: Recent Initiatives in Food Processing Sector⁶

1. “The Government of India allocated Rs 1,500 crore (US\$225.7mn) and announced various measures under the Merchandise Exports from India Scheme (MEIS), including setting up of agencies for aquaculture and fisheries in coastal states and export incentives for marine products.
2. All of the ration cards in India have been digitised and 42 per cent of the digitised ration cards are presently

linked to Unique Identification (UID) or *Aadhaar* cards.

3. The Government of India plans to allow two Indian dairy companies, Parag Milk Foods and Schreiber Dynamix Dairies, to export milk products to Russia for six months, after these companies got approval for their products by Russian inspection authorities.
4. Harsimrat Kaur Badal, Union Minister for Food Processing Industries, Government of India inaugurated the first of its kind Rs 136crore (US\$20mn) mega international food park at Dabwala Kalan, Punjab. She has also expressed confidence that the decision to allow 100 per cent FDI in multi-brand retail with 100 per cent local sourcing condition, will act as a catalyst for the food processing sector, thereby controlling inflation, uplifting the condition of farmers, and creating more jobs in the country.
5. The Food Safety and Standards Authority of India (FSSAI) has issued new rules for importing products, to address concerns over the entry of sub-standard items and simplify the process by setting shelf-life norms and relaxing labelling guidelines.
6. The MoFPI announced a scheme for Human Resource Development (HRD) in the food processing sector. The HRD scheme is being implemented through state governments under the National Mission on Food Processing. The scheme has the following four components:
 - Creation of infrastructure facilities for degree/diploma courses in food processing sector
 - Entrepreneurship Development Programme (EDP)
 - Food Processing Training Centres (FPTC)
 - Training at recognised institutions at State/National level
7. The FSSAI under the Ministry of Health and Family Welfare has issued the Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011 and the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 which prescribe the quality and safety standards, respectively for food products.
8. The MoFPI has taken some new initiatives to develop the food processing sector which will also help enhance incomes of farmers and export of agro and processed foods, among others.
9. Spices Board, set up by the Ministry of Commerce to develop and promote Indian spices worldwide, aims spice exports of US\$3bn by 2017.
10. The Government of India has approved the setting up of five numbers of Mega Food Parks in the states of Bihar, Maharashtra, Himachal Pradesh and Chhattisgarh. The government plans to set up 42 such mega food parks across the country in the following three to four years.
11. In the Budget 2015-16, a corpus of Rs 2,000 crore (US\$ 293.44mn) was created under National Bank for Agriculture and Rural Development (NABARD) to provide cheaper credit to FPI. Excise duty on plant and machinery for packaging and processing has been brought down to 6 per cent from 10 per cent.

Source: India Brand Equity Foundation, accessible at <http://www.ibef.org/industry/indian-food-industry.aspx>

4. External Constraints and Market Access Related Issues of India's Food Processing Industry

In a developing country like India infrastructure and technological factors also play a major role in

augmenting aggregate agricultural output and food processing sector. A list of processed food products covered by MoFPI is classified under Harmonised System 2011 (HS) chapters, at 2 digit level given in Table 2.

Table 2: HS Codes of Processed Food Products (at 2 Digit Level)

Meat and edible meat offal (02)	Fish and crustaceans, molluscs and other aquatic invertebrates (03)	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere (04)
Edible vegetables and certain roots and tubers (07)	Edible fruit and nuts; peel of citrus fruit or melons (08)	Coffee, tea, maté and spices (09)
Cereals (10)	Products of the milling industry; malt; starches; inulin; wheat gluten (11)	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal (12)
Lac; gums, resins and other vegetable saps and extracts (13)	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal (15)	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (16)
Sugars and sugar confectionery (17)	Cocoa and cocoa preparations (18)	Preparations of cereals, flour, starch or milk; pastrycooks' products (19)
Preparations of vegetables, fruit, nuts or other parts of plants (20)	Miscellaneous edible preparations (21)	Beverages, spirits and vinegar (22)
Residues and waste from the food industries; prepared animal fodder (23)		

Source: ITC Trade Map, 2017

Note: () indicates HS code at 2 digit level

Further, the analysis of processed food products can be done at four and six digit level of HS Code as per the country specific data availability.

processing items in the world. The purpose of this data is to show the broader perspective of India's trade with top five trading partners at 2 digit HS code.

Table 3 shows the share of top five countries in India's total exports and imports of food

Table 3: Top Five Partner Countries in India's Exports and Imports of Processed Food Products (2016)

HS Code 10, Cereals				HS Code 03, Fish and crustaceans, molluscs and other aquatic invertebrates			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
Saudi Arabia	12.8	Ukraine	50.3	United States of America	28.0	Viet Nam	26.1
United Arab Emirates	11.8	Australia	33.7	Viet Nam	24.3	United States of America	20.6
Iran, Islamic Republic of	9.1	France	7.5	Japan	7.3	Bangladesh	20.1
Iraq	7.4	Argentina	4.0	Spain	4.2	Myanmar	6.1
Nepal	5.2	Russian Federation	2.3	Thailand	3.7	Oman	5.6

Total	46.2		97.8		67.5		78.5
HS Code 02, Meat and edible meat offal				HS Code 09, Coffee, tea, maté and spices			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
Viet Nam	48.1	Belgium	32.6	United States of America	10.5	Viet Nam	27.9
Malaysia	9.1	New Zealand	29.8	Viet Nam	9.4	Indonesia	14.0
Egypt	8.6	Australia	10.8	Italy	6.2	Madagascar	9.7
Saudi Arabia	5.2	Germany	6.4	United Arab Emirates	4.9	Sri Lanka	9.4
Indonesia	5.1	UK	5.1	Germany	4.9	Nepal	7.0
Total	76.1		84.6		35.8		68.0
HS Code 17, Sugars and sugar confectionery				HS Code 12, Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
Myanmar	29.6	Brazil	91.6	Indonesia	13.8	Sudan	12.7
Somalia	11.5	Germany	1.8	Viet Nam	12.5	Turkey	11.1
Sudan	10.6	United States of America	1.5	United States of America	12.0	Ethiopia	8.3
Djibouti	6.8	Netherlands	1.1	Malaysia	5.6	Thailand	5.7
Tanzania, United Republic of	5.5	China	0.7	Thailand	4.7	Australia	5.1
Total	63.9		96.6		48.5		42.9
HS Code 08, Edible fruit and nuts; peel of citrus fruit or melons				HS Code 07, Edible vegetables and certain roots and tubers			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
United Arab Emirates	22.8	United States of America	23.0	United Arab Emirates	12.7	Canada	28.1
Netherlands	10.1	Côte d'Ivoire	11.6	Malaysia	8.1	Myanmar	20.6
United States of America	9.9	Guinea-Bissau	7.5	Pakistan	8.0	Australia	16.2
Saudi Arabia	9.8	Tanzania, United	7.1	Sri Lanka	7.2	Russian Federation	5.5

		Republic of					
United Kingdom	4.8	Afghanistan	5.8	Bangladesh	6.0	Tanzania, United Republic of	5.2
Total	57.3		55.0		42.0		75.5
HS Code 15, Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...				HS Code 13, Lac; gums, resins and other vegetable saps and extracts			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
China	32.0	Indonesia	35.2	United States of America	46.7	Afghanistan	32.6
Netherlands	10.4	Argentina	23.2	China	8.3	Sudan	11.6
United States of America	10.0	Malaysia	19.1	Germany	5.2	China	9.0
France	9.8	Ukraine	11.9	Japan	3.9	United States of America	7.7
Japan	4.5	Brazil	4.6	Russian Federation	3.5	Indonesia	4.7
Total	66.7		94.1		67.7		65.5
HS Code 23, Residues and waste from the food industries; prepared animal fodder				HS Code 21, Miscellaneous edible preparations			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
Viet Nam	18.1	Ukraine	15.0	United States of America	16.7	United States of America	36.7
Bangladesh	12.6	Sri Lanka	10.8	Russian Federation	10.6	China	10.3
Korea, Republic of	11.5	Thailand	9.3	Turkey	6.5	Indonesia	7.0
Nepal	9.5	China	8.1	United Arab Emirates	4.6	Viet Nam	5.4
Japan	6.5	Viet Nam	7.3	Bangladesh	4.4	Bulgaria	3.9
Total	58.2		50.5		42.7		63.4
HS Code 19, Preparations of cereals, flour, starch or milk; pastrycooks' products				HS Code 20, Preparations of vegetables, fruit, nuts or other parts of plants			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
United States of America	19.0	Thailand	17.5	United States of America	19.5	China	18.0
Nepal	7.4	Nepal	13.2	United	9.2	United States of	16.0

				Kingdom		America	
United Arab Emirates	7.1	Singapore	12.8	Netherlands	9.2	Thailand	11.5
United Kingdom	6.9	Italy	10.3	United Arab Emirates	5.9	Spain	7.1
Bangladesh	6.9	Malaysia	9.9	Saudi Arabia	5.1	Brazil	4.5
Total	47.3		63.7		49.0		57.1
HS Code 22, Beverages, spirits and vinegar				HS Code 16, Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
United Arab Emirates	28.2	United Kingdom	33.8	United States of America	62.0	Sri Lanka	40.2
Ghana	9.5	United States of America	24.8	Canada	9.1	China	16.1
Singapore	7.4	Nepal	15.3	Belgium	6.4	Spain	14.5
Nigeria	6.5	Brazil	5.8	France	3.0	Thailand	10.3
Netherlands	5.2	France	4.8	Italy	2.9	Belgium	5.6
Total	56.9		84.5		83.4		86.7
HS Code 04, Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...				HS Code 11, Products of the milling industry; malt; starches; inulin; wheat gluten			
Country	Export (in %)	Country	Import (in %)	Country	Export (in %)	Country	Import (in %)
United States of America	21.0	France	30.7	United States of America	16.5	China	26.7
United Arab Emirates	12.3	New Zealand	16.7	United Arab Emirates	15.5	Australia	25.9
Oman	10.1	Uganda	10.0	Malaysia	5.6	United Arab Emirates	8.5
Bangladesh	6.6	Denmark	9.5	Saudi Arabia	4.8	Sri Lanka	7.6
Pakistan	6.3	Italy	5.5	United Kingdom	4.2	France	5.8
Total	56.4		72.5		46.6		74.6
HS Code 18, Cocoa and cocoa preparations							
Country	Export (in %)	Country	Import (in %)				
United States of America	19.5	Ecuador	17.7				

Saudi Arabia	7.9	Indonesia	16.0				
United Arab Emirates	7.5	Singapore	9.4				
Singapore	6.9	Ghana	6.6				
Netherlands	6.3	Dominican Republic	5.1				
Total	48.1		54.8				

Source: ITC Trade Map, 2017

Bound and Applied Tariff: India has several agricultural products (i.e. almost 700) which includes primary agricultural as well as processed food products. It has comparatively high maximum (called bound) and applied duties on most of its agricultural products as it has a general

policy of protecting agricultural products from international competition. Bound duties on agricultural products are 113.5 per cent and the average 2014-15 applied duty was 32.7 per cent (World Tariff Profiles 2016).

Table 4: Bound and Applied Tariff Rates in India for Processed Food Products (%)

HS 2012 Code (2 digit)	Product Description	Bound	MFN Applied tariff
2	Meat and edible meat offal	105	32.1
3	Fish and crustaceans, molluscs and other aquatic invertebrates	150	30
4	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...	83.3	33.2
7	Edible vegetables and certain roots and tubers	101.9	27.6
8	Edible fruit and nuts; peel of citrus fruit or melons	97	32.2
9	Coffee, tea, maté and spices	129.4	52.5
10	Cereals	86.3	27.3
11	Products of the milling industry; malt; starches; inulin; wheat gluten	127.1	31.5
12	Oil seeds and oleaginous	10	25.9

HS 2012 Code (2 digit)	Product Description	Bound	MFN Applied tariff
	fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	0.4	
13	Lac; gums, resins and other vegetable saps and extracts	102.5	26.9
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...	212.4	44
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	115.5	33.4
17	Sugars and sugar confectionery	124.7	35.9
18	Cocoa and cocoa preparations	119.9	30
19	Preparations of cereals, flour, starch or milk; pastry cooks' products	111.2	30
20	Preparations of vegetables, fruit, nuts or other parts of plants	97.6	29.2
21	Miscellaneous edible	13	37.5

HS 2012 Code (2 digit)	Product Description	Bound	MFN Applied tariff
	preparations	6.9	
22	Beverages, spirits and vinegar	150	113.9
23	Residues and waste from the food industries; prepared animal fodder	101.5	20.8

Note: Bound and MFN Applied tariff are the simple average of N number of products, whereas N equals to products which are doing trade with other products
Source: WTO Tariff profile, <http://tariffdata.wto.org>

The highest applied duties are on beverages, spirits and vinegar. The highest bound rate tariff in India is on oilseeds, fat and oils. Sometimes, India also uses tariff rate quotes, i.e. certain quantity of imports are allowed at certain level of tariff rates. The banded structure offers scopes to exporters to export certain limited volumes at relatively low tariffs to India.

Tariff rates and market access

India offers zero duty on around 90 per cent of food processing products under the free trade agreements (FTAs). On some of the products, depending on their sensitivity, duties can be cut for a longer period of time but not fully to zero, while the other products can be kept under negative lists where duties can stay at current applied levels and do not have to be reduced at all.

India has focussed more in import substitution rather than export promotion in this segment. In sectors like agriculture and food processing duty cuts have often led to large imports into the country. India is currently negotiating FTA with many developed countries to explore the market opportunities of food products in its trading partner to penetrate its products. The European Union (EU) and many other developed countries are much more advanced in the production of food products.

According to “Global Economic Prospects and Developing Countries: Making Trade Work for World’s Poor” and “Faster integration through lowering barriers to merchandise trade would increase growth” (World Bank, 2002), the EU wants to access more and more dairy, poultry, fisheries, other processed food products and wine, spirit market in India. Though production facilities in India cannot yet cater to the growing demand, opening up segments also run the risk of destroying the growth potential in these segments. On the other hand, Indian products are facing a huge pressure of non-tariff barriers by its trading partner especially from the EU. Total number of Technical Barriers to Trade (TBT) notification issued by WTOs in 2016 was 2327 including of previous notification also, out of this, 1893 is related to India and out of India’s total, 683 are related to food products. India’s export of food products are largely rejected or ban by its many trading partners. The highest number of TBTs notification was issued by US to India in processed food products.

Export Measures

Due to increasing demand of food products by government for procurement to supply for Public Distribution System and also increasing import demand of world for food products so India’s untapped potential of food products must grow to tap growing domestic as well as world demand of food products. India uses export cess and quantitative restriction (quotas) on some agricultural goods, which are already being gradually eased in terms of export restrictions. India also uses temporary export bans and quotas to control the domestic supply, like onions, pulses, sugar, wheat, rice, etc. The developed countries, such as the EU want export measures to be completely removed in partner countries under FTAs. They want not only the export taxes but also lifting of export bans. Not only will this jeopardise the food security of the country especially in times of food crisis, but also reduce supply and raise prices of essential raw material for the industry. On contrary, APEDA is giving

some concession on this account to exporter of processed agricultural commodities.⁷

Non-Tariff Measures

Food is directly connected to health-related issues, and standards are one of the major NTMs. Every country, under the WTO framework, lays down food safety standards for its consumers. The WTO has given every member country the right to use its own standards and even allow export prohibitions or restrictions necessary to the application of standards or international trade regulation, which is known as Sanitary and Phyto-Sanitary (SPS) Measures.

India has its own its domestic standards for food products. The Indian government has introduced the new Food Safety and Standards Act, 2006 (34 of 2006) that overrides all other food laws. However, Indian food standards are much lower compared to those in developed countries.

Indian products often get rejected on health and sanitary grounds in European countries and exports are often limited to developing countries, apart from the US. Countries like Australia and New Zealand impose ban on import of Indian mangoes and other fruits due to presence of fruit flies and weevil. The government needs to significantly strengthen testing laboratories and other infrastructure for producers to meet domestic and international standards.

Intellectual Property Rights

India's agricultural intellectual property (IP) system is not developed and food processing sector is lagging behind in registering Intellectual Property Rights (IPRs), such as Patents, Trademarks, Collective Marks and Geographical Indicators (GIS). In FTAs, developed countries want to impose such IPR commitments on India that can go beyond WTO's Trade-Related Aspects of Intellectual Property Rights (TRIPs) commitment.

IPRs affect agricultural and food-related issues significantly. For example, ratifying International

Union for the Protection of new Varieties of Plants (UPOV) 1991 according to the EU's demand will prevent Indian farmers, using and freely exchanging seeds. This will prevent cultivation at low cost and may reduce supply while rising pricing of raw material for the FPIs.

Investment

In its upcoming FTAs, India needs to give access to 100 per cent FDI in sectors which were closed until now and remove performance requirements (PRs). Even, in its current FTAs, India has hold on to some existing caps, especially on MSME sector FDI and PRs, subject to domestic law, and also not given national treatment to foreign investors.

The Union Budget of 2016-17 has suggested 100 per cent FDI through Foreign Investment Promotion Board (FIPB) route for allowing the marketing of food products, which are produced and manufactured in India. FDI is permitted up to 100 per cent through the automatic route, particularly in agricultural products, such as milk and its products, and marine and meat products. But, FDI in some agricultural sectors, such as agricultural farming and plantation is totally banned. Indian producers will also look forward to investing in FTA partner countries. The government through MoFPI is making efforts to get and raise investments in the related business, in the form of joint ventures, foreign investments, industrial collaborations, providing industrial license, etc. 100 per cent FDI's are permitted under both the automatic route for FPI and government approved route for trading, including e-commerce. Table 4 gives the FDI inflows in India during the period of 2010-2016.

Table 5: Inflow of FDI in Food Processing Industries Sector in India

FDI inflows in FPI in India since 2010-2011 to 2015-2016	
Year	FDI (in INR/₹ crore)
2010-2011	858.03
2011-2012	826.16

FDI inflows in FPI in India since 2010-2011 to 2015-2016

Year	FDI (in INR/₹ crore)
2012-2013	2193.65
2013-2014	25106.78
2014-2015	3282.11
2015-2016	3404.87

Source: IndiaStat, as on January 2017

5. Rajasthan Food Processing Industry

Rajasthan is the largest State in India and is rich in production of raw material for agro-processing industries. The diverse agro-ecological conditions of the State makes it acquiescent for the production of various fruits and vegetables along with spices, flowers, root, medicinal and aromatic plants. In the year 2009-10, Rajasthan produced 676 million tonnes of fruits and 800 million tonnes of vegetables. Agriculture and allied activities make up for 24 per cent of the State's GDP, with 62 per cent of total working population of the State dependent on this for their livelihood.

Rajasthan is a leading producer of food grains such as mustard, guar seed and moth beans, coriander, cumin, fennel, gram, oil seeds, soya bean, ground nut, wheat and coarse grains. The State has largest population of cattle, sheep and camels and contributes 12 per cent of milk, 35 per cent of goat meat and 40 per cent of wool to the country's overall production.

However, it is important to note that the State lacks in large scale food processing units. At present, Rajasthan has 10,000 micro and small scale units and 75 units in the medium and large scale units located in its different parts.

Furthermore, it has 10 Agri Export Zones focussing on different food processing items, such as spices, cumin and coriander. Besides, the State has also four food parks located at Kota, Jodhpur, Sri Ganganagar and Alwar, which are managed by Rajasthan State Industrial Development and Investment Corporation (RIICO). The State is also active in the development of Cold Chain Projects with the assistance from MoFPI. Table 5 gives state-wise number of projects sanctioned for establishments and promotion of FPIs.

Table 6: State-wise Number of Projects Sanctioned for Establishment and Promotion of FPIs under Various Schemes in India (2007-2017)

States/UTs	Mega Food Park Scheme	Integrated Cold Chain, Value Addition and Preservation Infrastructure Scheme	Setting-up/Modernisation of Abattoirs Scheme	Food Testing Laboratory Scheme	Research & Development Scheme	Technology Up-gradation/Establishment/Modernisation of Food Processing Industries Scheme	National Mission on Food Processing
Rajasthan	2	4	1	1	1	482	79
Chandigarh	0	0	0	0	0	10	0
Delhi	0	0	0	6	13	39	0
Gujarat	2	10	0	9	3	517	75
Haryana	1	8	2	7	14	294	22
Himachal Pradesh	1	8	1	1	2	81	21
Kerala	2	3	1	2	2	277	23
Maharashtra	4	28	2	13	23	1107	89

States/UTs	Mega Food Park Scheme	Integrated Cold Chain, Value Addition and Preservation Infrastructure Scheme	Setting-up/ Modernisation of Abattoirs Scheme	Food Testing Laboratory Scheme	Research & Development Scheme	Technology Up-gradation/ Establishment/ Modernisation of Food Processing Industries Scheme	National Mission on Food Processing
Tamil Nadu	0	2	2	8	32	407	5
Uttar Pradesh	0	9	1	6	7	422	46
West Bengal	1	9	8	6	10	154	67

Source: IndiaStat, as on January 2017

In order to promote the competitiveness of the food processing sector, the State Government has taken a number of policy initiatives to improve Agri-marketing infrastructure.

- The **Mega Food Park Scheme** is based on ‘Cluster’ approach which foresees advanced agro/horticultural-processing zone containing state-of-the art processing facilities with support infrastructure and well established supply chain, where farmers, processors and retailers can ensure the maximisation of value addition, minimising wastages, increasing farmers’ income and creating employment opportunities particular in rural area.
- **Rajasthan Investment Promotion Scheme**, was implemented in 2014, provides exemption of electricity duty, Land Tax, Stamp Duty, conversation charges as well as Investment subsidy and Employment Generation subsidy for a period of seven years.
- **Rajasthan Agro-Processing and Agri-Marketing Promotion:** Rajasthan Government has tried to implement a two-pronged strategy for the promotion of agro-processing and agri-marketing in the state. The government also predicted that these steps would meet requirements of units and also help create a favourable environment for investments in this sector.

6. Make in India and food processing sector

The Government of India identified the food processing sector as one of the priority sector, under the “MAKE IN INDIA” initiative. The Ministry of Food Processing sector is implementing various schemes for the development of infrastructural facilities to attract investment in this sector. The Government of India has approved to build five numbers of mega food parks, which will be set up in Bihar, Maharashtra, Himachal Pradesh and Chhattisgarh. The government has planned to build 42 Mega Food Park in next two-three years with high infrastructural facilities such as road, electricity, water supply, sewage facility and common processing facilitates. The food industry, which was valued at US\$39.71bn is expected to grow at a Compound Annual Growth Rate (CAGR) of 11 per cent to US\$65.4bn by 2018. According to the Department of Industrial Policies and Promotion (DIPP), the food processing sector has received around US\$7.47bn worth of FDI during April-December 2016. The Confederation of Indian Industry (CII) estimated that the food processing sectors have the potential of attracting as much as US\$33bn of investment over the next 10 years.

7. Way Forward

The Food Processing sector offers a huge potential to growth, income and employment generation in India. It is also the largest segment of the Micro, Small and Medium Enterprises (MSME) sector. Moreover, it is a gender sensitive

segment as there is high women participation in the work force in household base enterprises. With various initiatives in the public and private domain, food processing sector in India has been developing at a steady speed, yet it needs more changes and support from the government in terms of improved infrastructure, markets, credits, suitable policy environment, etc.

In its FTAs, India is cutting duties on more than 90 per cent of processed food products, which means even if Indian agricultural products are getting protected because agricultural commodities are mostly in the negative list, duties in many food processing products will have to be cut ultimately. For that reason, the government needs to regulate its trade liberalisation policy, so that it leaves enough space for its domestic food industry to grow. Given the high demand for processed food with increasing per capita income in India, the domestic food industry needs to capture the growing opportunity of market, thus maximising their returns from it. They need to assess their own situation regarding FTAs and lobby with the government to ensure that their

interests are protected not only in the short, but also in the long run.

The move of agriculture to agribusiness can be viewed as revolution in the Indian agriculture industry. Though the share of pure agriculture in the GDP of India is not very high, it is expected that the share of agribusiness commodities will go up with high demand for value added goods increasing unceasingly. However, the agribusiness industry needs to take care of food standards, hygiene and should adopt the latest technology to produce quality goods. Safety and quality assurance mechanisms, such as Total Quality Management (TQM) including ISO 9000, ISO 22000, Hazard Analysis and Critical Control Points (HACCP), Good Manufacturing Practices (GMP) and Good Hygienic Practices (GHP), will offer several benefits to the FPI, thus taking care of consumer health. Adoption safety and quality measures would also enable the food industry to face global competition with enhanced product acceptance overseas and keep the industry technologically abreast with the international best practices.

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