TechSci Research
from NOW to NEXT

FOOD VALUE CHAIN

Partnerships in India

2018

ASSOCHAM
INDIA

THE ASSOCIATED CHAMBERS OF COMMERCE AND INDUSTRY OF INDIA

FOREWORD

The agriculture sector in India remains as the main stray in the Indian economy. Almost 57 percent of the country's population is engaged in the sector, either directly or indirectly. The sector acts as a backbone to the economy as its standalone contribution stand at around 25 percent in the pie. This white paper highlights the current overview of the agricultural sector in India.

As we all know, the Indian Food & Agriculture sector is the most sensitive and most diversified sector in the country. In order to achieve a sustainable and inclusive growth of all the value chain holders, it is most important to identify the current gaps. Over the past few years, agriculture sector in India has witnessed multiple phases of sustainable growth, right from the 'zamindari pratha' to today's golden age where the productivity of land has increased manifolds. Currently, India is experiencing a major shift of accepting innovation & technology. To fast track the vision, the agriculture needs long term and specialized partnerships to widen the entire ecosystem and bring more rigorous approach to achieve efficient farming.

TechSci Research has introduced different value chains in the report including the current market size & forecast of important sectors related to different stakeholders.

Karan Chechi
Research Director
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About TechSci Research

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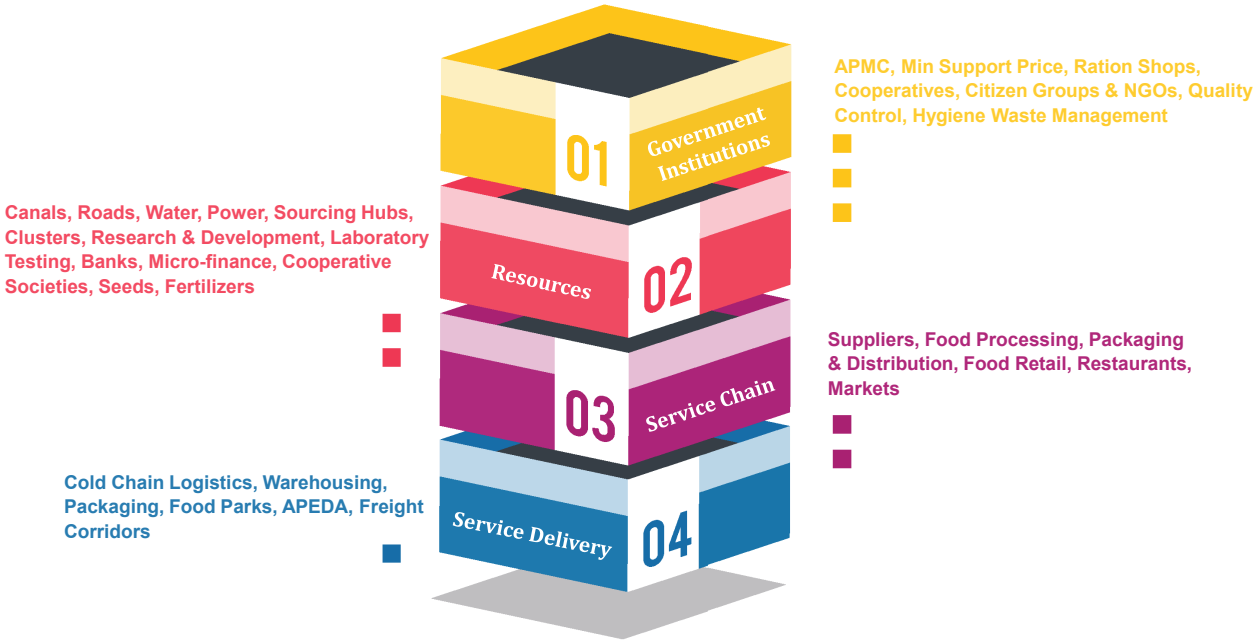
Food Value Chain –
An Introduction

Food partnerships are effective in each module of the food chain. The food supply chain ecosystem has 4 major parts:

1) Service Chain (Related to food product)
2) Service Delivery (from one source to destination, so on and so forth)
3) Resources (Integral part of Service Chain and Service Delivery, ensuring effective results)
4) Institutions (subsidies extended by the government to push the growth strategy)



FOOD SUPPLY CHAIN

Not all the crops have same food supply chain. Different models work for different crops, with India being a diverse country in terms of multiple climate zones.

2

Inclusion of Food Segments in Value Chain

FOOD MARKET DOMINANCE IN INDIA BY STATE

CROPS OF INDIA

States	Crops	Soil Used
Punjab	Wheat, Rice, Maize, Barley, Pulses, Rapeseed and Mustard, Sunflower, Oil Seeds, Sugarcane, Cotton, Fruits, Vegetables	Flood plain soil, Loamy soil, Sandy soil, Desert soil, Kandi Soil, Sierozems, Sodic and Saline soil
Haryana	Sugarcane, Barley, Jowar, Bajra, Gram, Rice, Wheat, Mustard, Cotton	Salt Affected soil, Alkali Soil, Saline soil
Rajasthan	Wheat, Sugarcane, Bajra, Barley, Jowar, Maize, Chili, Cotton, Mango, Rice, Vegetables, Groundnut, Oil seeds, Pulses	Sandy soil, Saline soil, Alkaline soil, Chalky soil, Clay soil, Loamy soil, Black Lava soil, Nitrogenous soil
Uttar Pradesh	Fruits, Vegetables, Spices, Floriculture, Medicinal/aromatic plants, others like Betel vine, Mushroom, Honey production	Alluvium soil, Sandy soil, Clayey Soil, Red & Black soil
Bihar	Rice, Wheat, Maize, Pulses, Vegetables, Fruits, Sugarcane, Jute	Sandy Loam soil, Loam soil, Clay soil, Clay Loam soil
Gujarat	Rice, Wheat, Jowar, Bajra, Maize, tur, Gram, Cotton, Groundnuts, Dates, Sugarcane	Black soil, Alluvial soil, Hill soil, Desert soil
Madhya Pradesh	Wheat, Maize, Jowar, Gram, Tur, Urad, Moong, Soybean, Groundnuts, Mustard, Cotton, Sugarcane	Black soil, Red & Yellow soil, Alluvial soil, Laterite soil, Mixed soil
Maharashtra	Rice, Jowar, Bajra, Wheat, Pulses, Cotton, Sugarcane, Several Oil Seeds, Sunflower, Groundnuts & Soybean	Black-Cotton soil, Kali soil, Morad soil, Pather soil,
Chhattisgarh	Rice, Maize, Wheat, Niger, Groundnut, Pulses	Red & Yellow soil, Red Sandy soil, Red Loam soil, Black Cotton soil, Laterite soil,
Jharkhand	Rice, Ragi, Maize, Wheat, Redgram, Niger, Fruits	Red soil, Micacious soil, Sandy soil, Black soil, Laterite soil
Himachal Pradesh	Off-season vegetables, vegetables seeds, potato & ginger besides soybean, oilseeds, pulses, fruits	Sedimentary soil, Brown soil, Brownish soil
Jammu & Kashmir	Paddy, Wheat, Maize, Barley, Bajra, Jowar, Gram, Apple, Walnuts	Brown Forest soil, Grey Brown Podzolic soil, Red & Yellow Podzolic soil, Hills Forest soil, Mountain Meadow soil, Saline Alkali soil, Alluvial soil
West Bengal	Rice, Jute, Tea, Potatoes, Oilseeds, Betel, Vine, Tobacco, Wheat, Barley, Maize	Laterite soil, Red soil, Alluvial soil, Coastal soil, Terai soil, Colluvial soil
Karnataka	Paddy, Jowar, Ragi, Maize, Sunflower, sugarcane, Cotton, Tobacco	Red soil, Lateritic soil, Black soil, Alluvio-Colluvial soil, Forest soil, Coastal soil

Source: Agriculture Statistics by Department of Commerce

Largest Crop Producing States of India

Food Grains

Crop	Rank of States
Rice	(1) West Bengal (2) U.P. (3) Andhra Pradesh
Wheat	(1) U.P. (2) Punjab (3) Haryana
Bajra	(1) Rajasthan (2) Gujarat (3) Maharashtra
Jowar	(1) Maharashtra (2) Karnataka (3) Madhya Pradesh (M.P.)
Maize	(1) Andhra Pradesh (2) Karnataka (3) Rajasthan
Pulses	(1) M.P. (2) U.P. (3) Andhra Pradesh
Overall Total Food Grains	(1) U.P. (2) Punjab (3) Madhya Pradesh

Source: Agriculture Statistics by Department of Commerce

Cash Crops

Crop	Rank of States
Sugarcane	(1) U.P. (2) Maharashtra (3) Karnataka
Cotton	(1) Gujarat (2) Maharashtra (3) Andhra Pradesh
Coffee	(1) Karnataka (2) Kerala (3) Tamil Nadu
Tea	(1) Assam (2) West Bengal (3) Himachal Pradesh
Silk	(1) Karnataka (2) Andhra Pradesh (3) West Bengal
Rubber	(1) Kerala (2) Tamil Nadu (3) Karnataka
Tobacco	(1) Andhra Pradesh (2) Karnataka (3) Gujarat

Source: Agriculture Statistics by Department of Commerce

Oil Seed

Crop	Rank of States
Groundnut	(1) West Bengal (2) U.P. (3) Andhra Pradesh
Soya bean	(1) U.P. (2) Punjab (3) Haryana
Mustard	(1) Rajasthan (2) Gujarat (3) Maharashtra
Sunflower	(1) Maharashtra (2) Karnataka (3) Madhya Pradesh (M.P.)
Overall total oil seeds	(1) Andhra Pradesh (2) Karnataka (3) Rajasthan
Pulses	(1) M.P. (2) U.P. (3) Andhra Pradesh
Overall Total Food Grains	(1) U.P. (2) Punjab (3) Madhya Pradesh

Source: Agriculture Statistics by Department of Commerce

Fruits Crops

Crop	Rank of States
Guava	Madhya Pradesh
Grapes	Maharashtra
Apple	Jammu & Kashmir
Areca Nut	Karnataka
Orange	Punjab
Litchi	Bihar
Mango	Uttar Pradesh

Source: Agriculture Statistics by Department of Commerce

3

Structure of Value Chain Partnerships

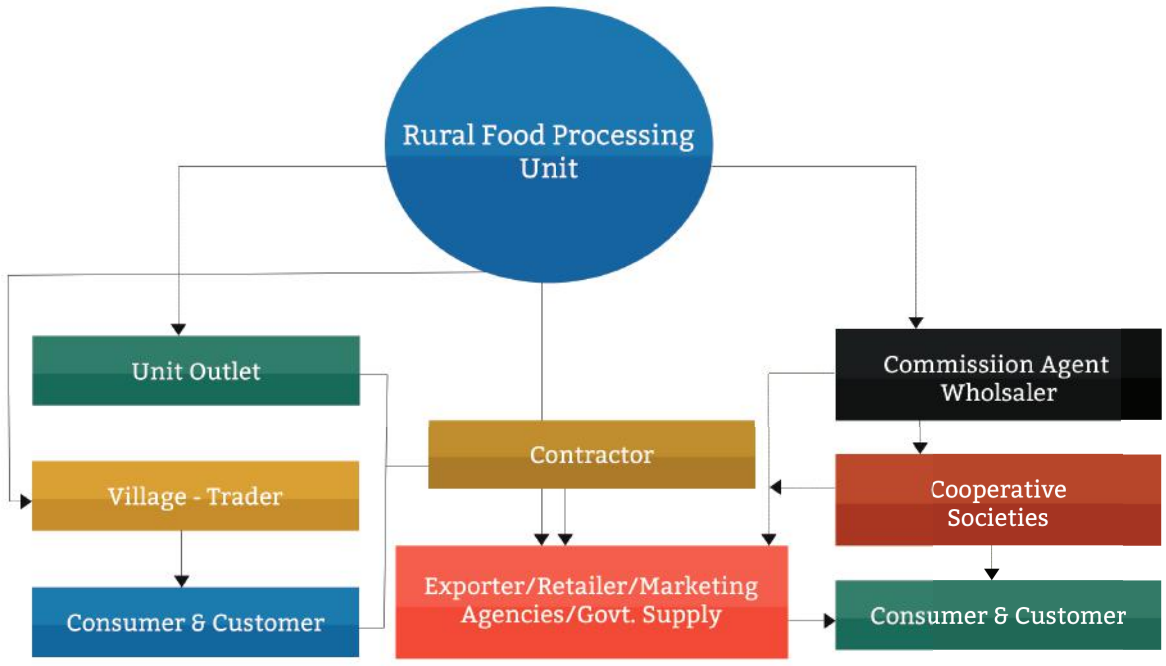
List of Value Chains

India is a logistical nightmare, as in this huge country, geography experiences a new change in every 100 kilometers. It is very difficult to maintain the supplies constant throughout the year. Thus, there must be a number of relational processes to meet the consumer demand on time. Following channels are prevalent for supply chain and agribusiness:

- Producer-End Consumer
- Producer-Retailer- End Consumer
- Producer-Wholesaler-Retailer- End Consumer
- Producer-Commission agent -Wholesaler-Retailer- End Consumer
- Producer-Village Merchant-Wholesaler-Retailer- End Consumer

List of Major Value Chain Practices and Partnerships in Rural India

1. Rural Food Processing Unit - Unit-Outlet - Consumer & Customer.
2. Rural Food Processing Unit - Village Traders/Village Retailer - Consumer & Customer.
3. Rural Food Processing Unit - Exporter/Retailer/Marketing Agencies/Govt. Supply - Consumer & Customer.
4. Rural Food Processing Unit - Contractor-Exporter/Retailer/Marketing Agencies/Govt. Supply - Consumer & Customer.
5. Rural Food Processing Unit - Commission Agent Wholesaler - Exporter/Retailer/Marketing Agencies/Govt. Supply - Consumer & Customer.
6. Rural Food Processing Unit -Commission Agent Wholesaler - Cooperative Societies - Consumer & Customer.



Source: TechSci Research

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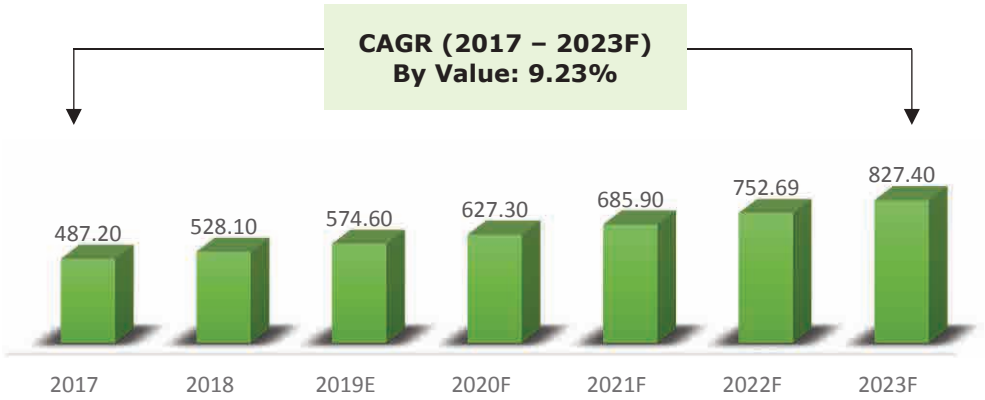
India Food Value Chain Market

India Food Retail Sector

Figure: India Food Retail Sector Market Size, By Value (USD Billion), 2017-2023F



Source: TechSci Research

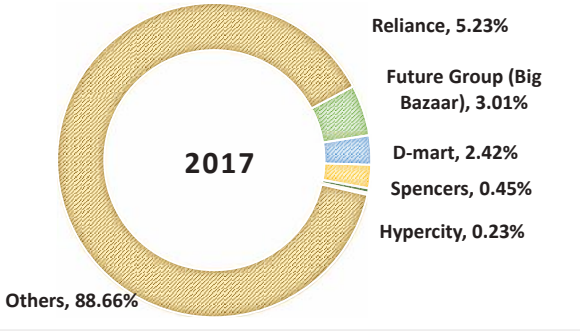
India food retail market stood at USD487 billion in 2017 and is projected to grow at a CAGR of 9.23% through 2023. The success of food chains such as Reliance and Big Bazaar lies in the adoption of innovative food value chain processes. The unorganized sector is huge in India, thus constantly satisfying the need of quick buy is the biggest challenge being faced by all the organized food retailers across the country. Consequently, companies are focusing on two major factors - price control and attracting customers with big offers.

As a matter of fact, the only way to control the price is to source the products directly from manufacturers, which builds the need for world-class logistics services including storage and warehouse facilities.

Figure: India Food Retail Sector Market Size, By Volume (Million Tons), 2017-2023F

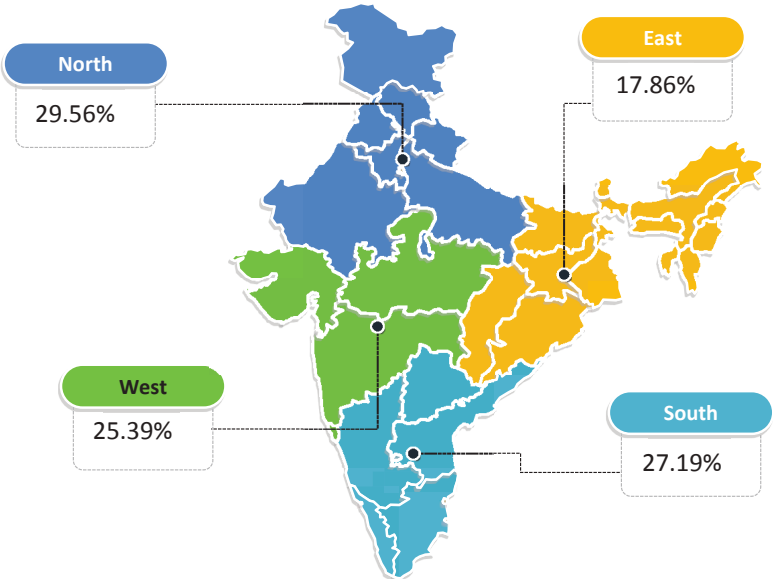
Source: TechSci Research

Figure: India Food Retail Sector Market Share, By Stakeholder (2017)



Source: TechSci Research & Company's Annual Report

Figure: India Food Retail Sector Market Share, By Region, 2017



Source: TechSci Research

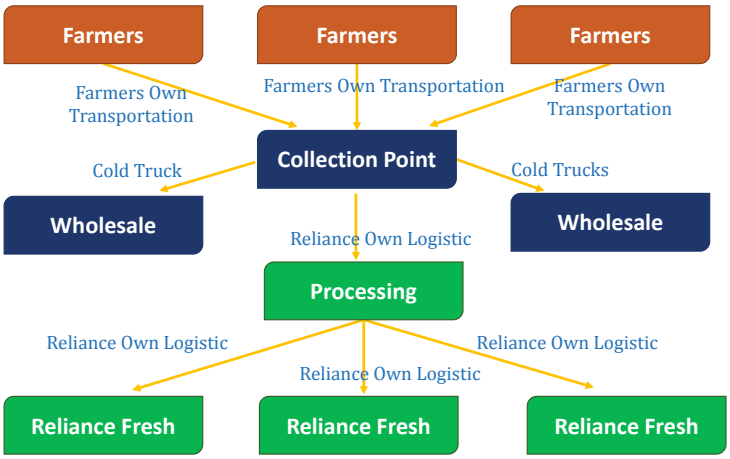
Northern, western and southern regions account for the major share in India food retail sector. Eastern region has a relatively low market share, owing to the presence of seven sister states, Bihar and Jharkhand, where the concentration of big retail companies is only limited to 4-5 cities. Rest of the cities in the region have lesser population density when compared with the other three regions.

Case Study - Reliance Fresh

Reliance Fresh has a wide presence across the country and operates 510 Reliance Fresh and Reliance Smart stores. The stores sell 200 metric tonnes of fruits and 300 metric tonnes of vegetables every day. The retail chain has created its own USP of always making available fresh fruits and vegetables at affordable prices.

Reliance Fresh sources fruits and vegetables or other raw Agri-based products directly from the farmers and never from the local mandi. This practice is not only beneficial for the farmers, but also for the company, as it saves a lot of cost that may be incurred by paying extra in the form of local aggregators. Reliance Fresh has identified and established rural hubs across different parts of the country.

Wholesale Reliance Fresh SCM Model



The practice of directly procuring from the farmers makes Reliance Fresh an effective and robust cost-effective value chain system. By directly approaching the local farmers, the procurement wastage gets reduced and leads to greater value for both, farmers and consumers.

Procurement Procedure:

The entire process involves three important persons:

Store Manager	Category Manager	Supply Chain Manager

Similar products fall in one category, which is managed by a category manager. Once the stock in the store reaches its reorder level, the SAP system automatically generates order for the procurement of those goods. This order is received by the category manager, who collects order from different Reliance Fresh stores in the city. The collective big order is then placed to the supply chain.

Sources of Supply

Vegetables: Local Farmers & Wholesalers

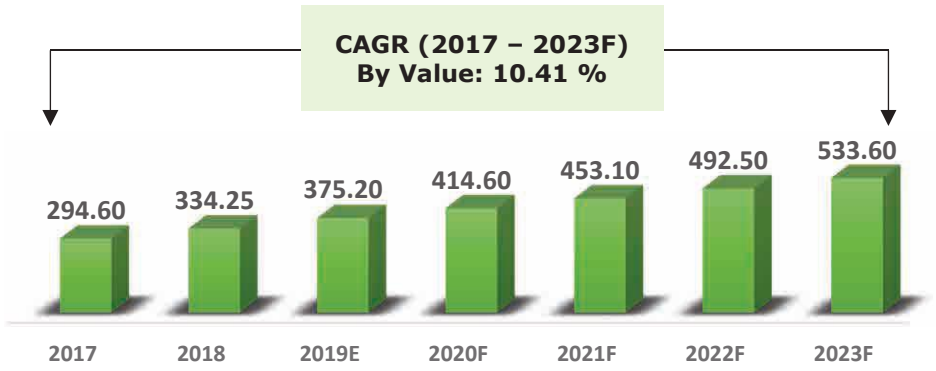
Fruits: Wholesalers

Other FMCG Products: Direct through company contracts or through the carry & forward Agents (C & F Agents)

Reliance Fresh is fully equipped with highly secured proprietary and licensed software such as SAP, Retailx, R Connect Portal and Europlex Securities.

India Food Processing Industry

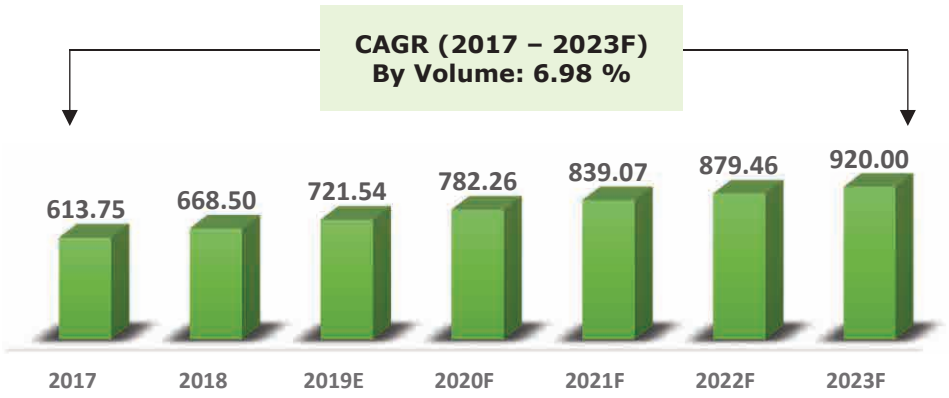
Figure: India Food Processing Market Size, By Value (USD Billion), 2017-2023F



Source: TechSci Research

Food processing industry is growing at a fast pace in India. Many specialized companies are venturing in the sector, for example, KRBL and LT Foods. These companies are only exporting packaged rice overseas, thus exports are an important revenue source for them. Companies that rose from the ground such as KRBL are a fair example of showcasing the growth of Indian farm-based produce going global.

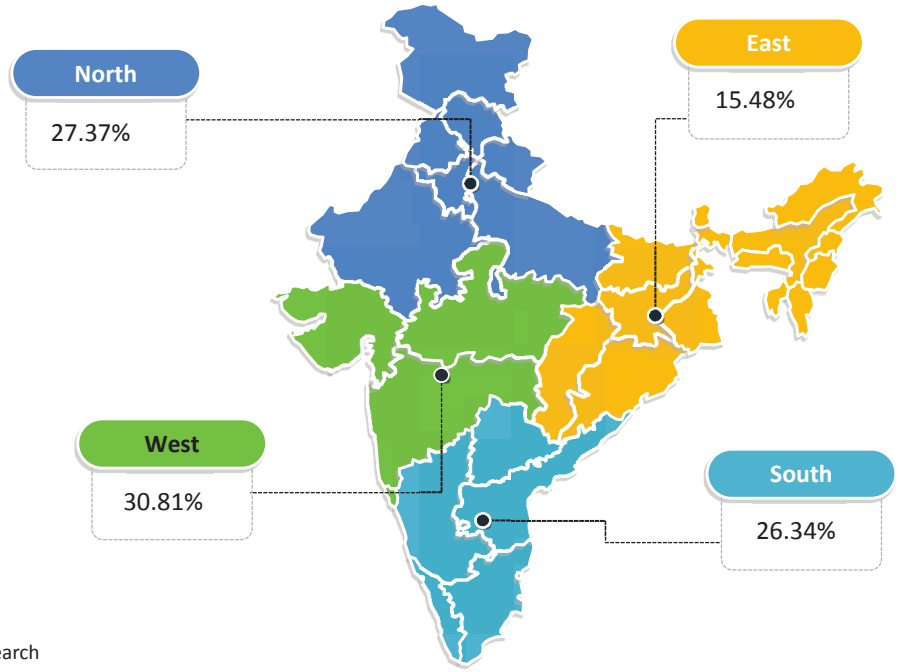
Figure: India Food Processing Market Size, By Volume (Million Tonnes), 2017-2023F



Source: TechSci Research

Growth in India food processing industry in value terms is expected to be more than in volume terms over the coming years, which clearly indicates the increase in prices for Indian commodities across the globe. This highlights a great opportunity for small-scale farmers, who can associate with the leading exporters to boost their earnings by carrying out either contract farming or increasing the production by using technologically advanced equipment.

Figure 7: India Food Processing Market Share, By Region, 2017

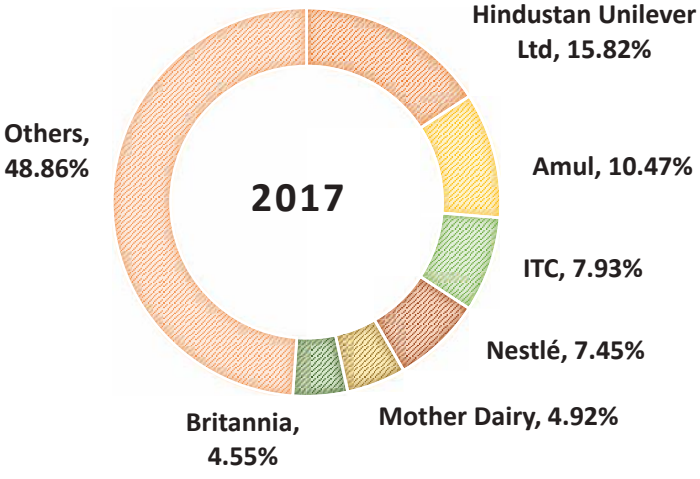


Source: TechSci Research

West India accounts for the largest share in India food processing industry, owing to massive dairy production by Amul (Anand-Gujarat), which has been vigorous in producing raw dairy locally.

The success story of Amul indeed has inspired many other players to step into this territory and start the similar business. One such example in the dairy category is of 'Mother Dairy', which started its operations in 1974. The company has made its mark in the food retail sector as well by establishing the Safal brand across 40 countries.

Figure: India Food Processing Market Share, By Stakeholder, 2017

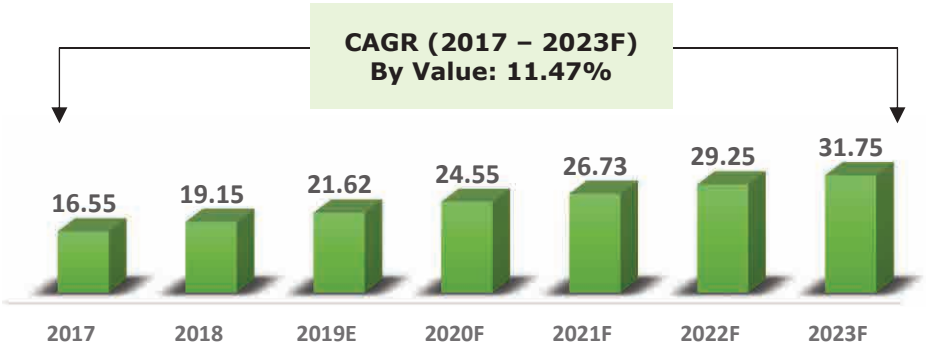


Source: TechSci Research Estimates

ITC, Nestlé and Britannia are also making their mark in India by providing daily fast-moving processed foods, for example, Atta. The astounding success of ITC's Ashirwad atta has hugely dented the practice of using chakki fresh atta. Though usage of chakki fresh atta was evident few years back, with fast moving generation, there will a need of this category, but the positioning of atta at par with chakki fresh has swept away the profits from local players. On the other hand, ITC has its own e-choupal programs to make the farmers aware about the latest farming technologies. However, according to the present Act, the processing industry cannot purchase raw materials directly from the local farmers. Moreover, farmers are restricted from engaging in direct contract with any manufacturer.

India Food Processing Technology Supplier Industry

Figure: India Food Processing Technology Supplier Market Size, By Value (USD Billion), 2017-2023F



Source: TechSci Research

This indeed is the fastest growing sector. Agri-business across the country has experienced big technological movement.

Table: India Food Processing Technology Supplier, Top Market Players, 2017

S.No	Company	Headquarters
1	GEA	Düsseldorf, Germany
2	Alfa Laval	Lund, Sweden
3	Tetra Laval International	Pully, Switzerland
4	IDMC Limited	Gujarat, India
5	Unicorn Industries Limited	Andhra Pradesh, India
6	Orbit International Technologies Pvt. Ltd.	Telangana, India
7	HRS Process	Maharashtra, India
8	Buhler Group	Uzwil, Switzerland
9	SSP Pvt Ltd	Haryana, India
10	Advance Machinery Corporation	Tamil Nadu, India

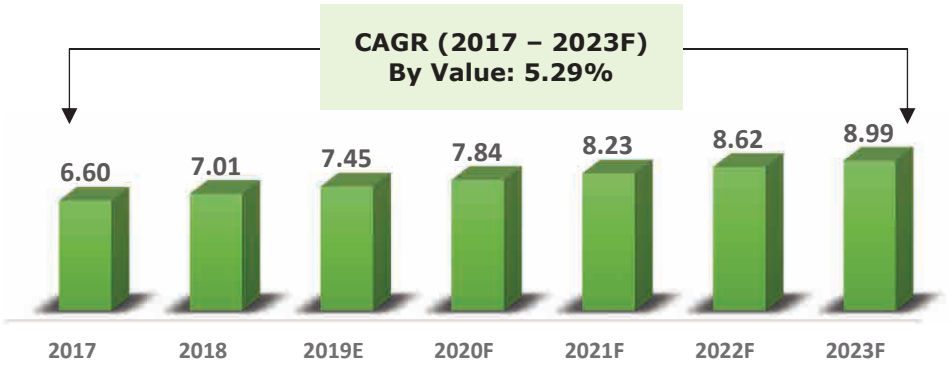
Source: TechSci Research

Under the food processing sector, some of the major equipment that are imported in the country are chocolate machinery, machinery for fruits/nuts/vegetable preparation, milking machines and dairy machinery. In addition to these, major equipment/technologies imported in India for the food processing sector are control unit for automation, fluid control equipment, hygienic & ultrapure fittings for installation material, analytical instruments for instrumentation process and tank mixing eductors for the mixing equipment.

Homogenizers, heat exchangers, agitators, rotary jet heads, valves and pumps are some of the equipment which are exported to different countries from India.

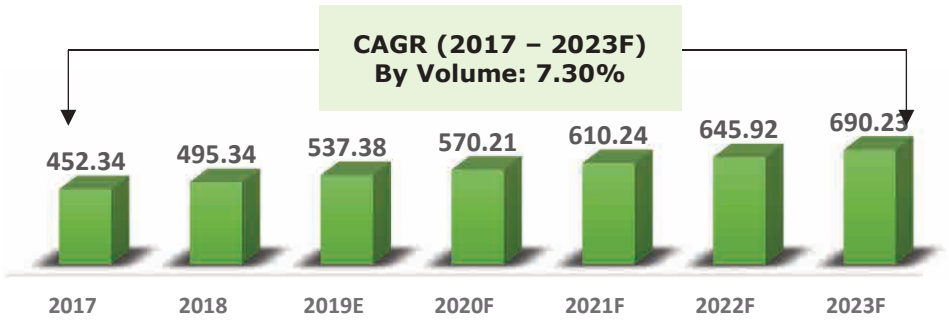
India Cold Logistics Food Industry

Figure: India Cold Logistics Food Market Size, By Value (USD Billion), 2017-2023F



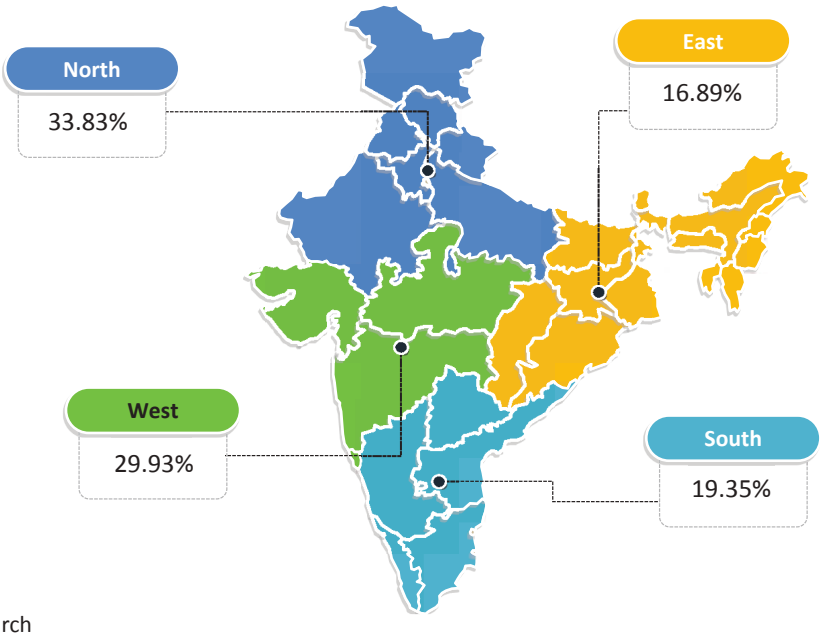
Source: TechSci Research

Figure: India Cold Logistics Food Market Size, By Volume (Million Tonnes), 2017-2023F



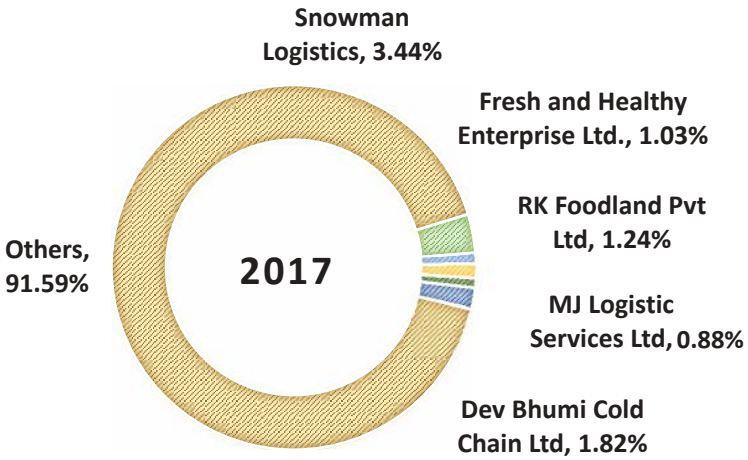
Source: TechSci Research

Figure: India Cold Logistics Food Market Share, By Region, 2017



Source: TechSci Research

Figure: India Cold Logistics Food Market Share, By Stakeholder, 2017



Source: TechSci Research Estimates

Problems related to cold logistics

- India has more than 106 million small farm holdings
- India is the second largest fruit and vegetable producer in the world, but the cold storage is available only for 10% of the total produce.
- India is also the second largest producer of milk, globally, but there is a need for additional cold storage and cold logistics.
- India is the fifth largest producer of eggs and sixth largest producer of fish in the world. It needs additional cold logistics.

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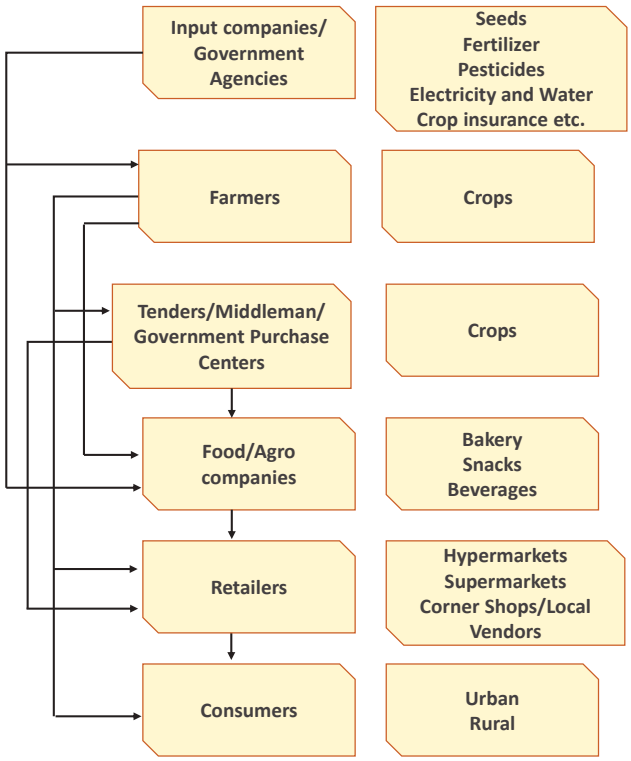
3- Pronged Approach

Approach 1 - How does the Food Value Chain Work in India?

Partnerships are important, especially when you are catering to the 10% of the global population.



There are several successful agri-business models incorporated in India by small and big farmers in their local rural hub and they are further connected with the market. The following examples briefly analyze the scenario. These processes are working in the favor of farmers and connecting them with the domestic as well as global markets.

Case 1 – PepsiCo's agricultural operation in India

Currently, PepsiCo generates 26% of its revenue turnover from processed agricultural products (such as peanut butter, potato, rice, tomato, chilly, ginger and garlic pastes). The company has signed an MOU with Punjab Agro Industries Corporation and Punjab Agricultural University for contract farming and other agri-requirement and research purposes. The company is assisting them with the technical inputs and farmers with the machinery. Productivity of the agriculture land has increased, and farmers have mutually agreed to deliver the required quantity in a fixed period. Direct communication of the company's agents with farmers has also created an entrusted good quality process for the company. Moreover, these practices cover risks to farmers from crop infestation, bad weather, etc.

Case 2 - Mahagrapes in India

It is a cooperative and partnership firm of various cooperative societies spread across the Indian state of Maharashtra. The cooperative was established in Pune in January 1991 to export fresh seedless grapes from India. The cooperative has backing from National Cooperative Development Corporation (NCDC), Government of Maharashtra and other related government agencies involved in agricultural product exports. Mahagrapes is a reputed global brand, with presence in Europe, Sri Lanka and Middle Eastern markets. Currently, 16 Grape Grower Cooperative Societies are its members, with a collective strength of 2,500 grape growers and 6,000 HA of land under grapes, from Sangli, Latur, Nasik, Solapur and Pune. Mahagrapes also extends support to small farmers by providing in-house production of inputs and bulk buying. In addition to that, farmers get commodity price based on the quality of their output. To sustain standard, maintain quality and ensure safety, the firm also provides technical help, materials and infrastructure support, such as cold storage to the farmers. The successful partnerships and trade practices of Mahagrapes demonstrate that multi-specialized intermediaries can play a big role in linking small farmers to overseas export markets.

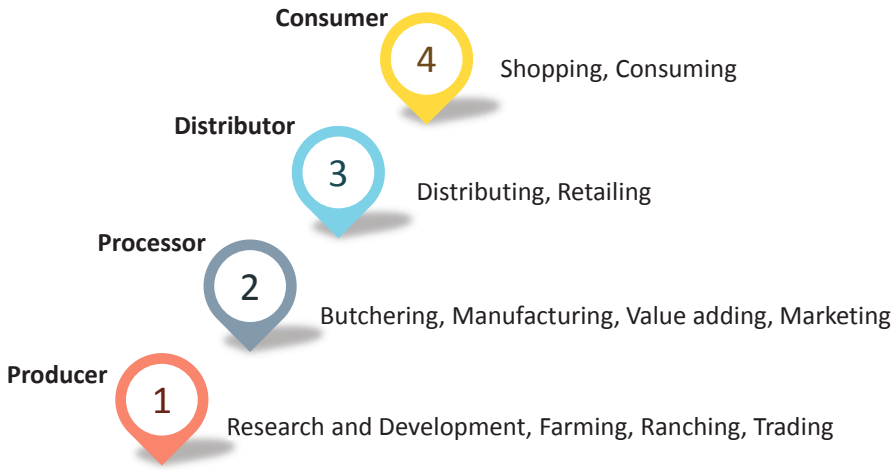
Approach 2 – Beneficiaries At All Levels

Win-win situation – Farmers and end consumers are miles apart and both needs one another. In this complex scenario of demand supply, multiple partnerships and human assembly line are the two most important links to connect the dots. With the help of these links, farmers, end consumers and all the intermediaries get benefited, as the delivery and quality stays in place with the collective effort.

Goal Alignment – Motivating intermediaries ensure the effective supply chain, hence, few important and interesting mechanisms are incentivizing the supply chain partner, performance-based-contracts, outcome-based contracting, value-based contracts, performance-based logistics, availability contracting, incentive contracting etc.

Stakeholder Embeddedness – The interdependencies between stakeholders are no longer solely dependent on the two ends of supply chain. Specialized partnerships in even smallest of the process prove to be effective for all the related functions. The collaborative specialized actions lead to a sustainable environment.

Stakeholder Involvement – The stakeholder active participation ensures resource optimization and efficiently produced outputs.



Risk and Resource Sharing – Effective partnerships are a mixed bag of various factors. Some are listed below:

- Shared Risk: Every partner must bear the risk, but the returns are profitable too.
- Shared Resources: Each partner carries out an appropriate proportion of the resource's disbursement, which can be in the form of capital, people, knowledge or technology.
- Shared Rewards: Each partner proportionately carries the reward and incentives
- Shared Vision & Values: The partners share a common understanding of the objectives and hence, the results of the alliance. The common vision, common value systems and complementary cultures is the foundation of the food partner relationship

Approach 3 – Government Regulations

Agricultural marketing in states is governed by their respective Agricultural Produce Market Committee (APMC) Acts. As per the APMC Act, all the states of India must follow the practice of selling all agricultural products only through government regulated markets called 'Mandis'.

These Mandis impose substantial taxes on buyers. Moreover, commissions and fees are also being coerced by the middlemen, which result in Disintegrated Supply Chains.

With the new government in power, it aims to end the APMC monopoly with a new agricultural law.

Under the new law, traders will be able to do transactions in all types of markets (not only mandis) within the state by paying a single fee. They can also sell fruits and vegetables outside the existing wholesale markets.

There are many regulations in APMC which are not in farmers' favor such as companies cannot buy but only can lease fertile land from the farmer. However, they can buy waste land or lease it.

For big retailers, it is a hurdle, as they can have competitive pricing only when they work directly with the farmers and change the Mandi mechanism. Mandis remain more price-competitive, as retailers source fresh products from the Mandis instead of developing their own supply chains.

6

Environment analysis for Sustenance

Conditions of Successful Value Chain Partnerships

Natural Pesticides and Fertilizers – Introduction of practice of using natural pesticide and organic fertilizer, which is also known as Jaivik Khad, made of organic sources like fruits and vegetables are natural in nature and saves micro nutrients of the soil.

Use of LEDs – Various agricultural operations require full-time electricity. Many farmers and manufacturers have adopted LED lights to save non-renewable energy.

Use of Solar Energy – In many villages, pumps and other agricultural equipment are being operated with the help of solar energy.

Reducing Green House Gas Emissions – Several companies, for example, Patanjali has introduced a lot of innovative agriculture techniques to avoid greenhouse gas emissions.

7

Drivers & Challenges

Drivers

1) Supply driven - The farmers sell their agricultural produce in a mandi or to an agent. APMC laws safeguard ` from unfair pricing.
2) Desirable Scenario - The farmers grow crops to fulfill market demands. Due to increase in modern retail outlets, contract farming has been benefiting many small-scale farmers.
3) Food Processing Units – This is the fastest growing sector in food sector, as the companies are growing to create a sellable product out of the agriculture produce. Although, the concept needs expertise & involvement of many technology partners. However, with the gradual introduction of the innovative solutions India is expecting to cut down the imports.

The unprecedented potential of agriculture demands a fair process reformation in all the related sectors right from the crop production technique to agriculture marketing.

Challenges

1) Crop Loss - India is still facing a huge problem of crop loss. About 35% of the produced crop, according to Indian council of agriculture research, gets loss or wasted during the supply of crops from farmer to retailers or mandis.
2) Mandi Concept - The mandis are so far considered as the most effective link between farmers and retailers. However, the concept itself has many loopholes and quite disintegrated. Each state has its own policy. Thus, tracking prices of fruits and vegetables is itself a nightmare. Also, due to non-sustenance of infrastructure or any unforeseen situation, farmers are left with no choice but to dump the crop at lower price or toss it away.
3) Inconsistent policies – Across the country APMC have inconsistent policies. As the law is state specific for big companies which includes laws related to acquire the land from the farmers, restrictions on free trade with the farmers etc.
4) Poor Governance – APMC has few favorable points for farmers. But the effect on prices due to competitive factors, such as monopoly and perfect competition, gets ignored.
5) Improper Transport Facilities – Infrastructure is the biggest problem faced by agriculture stakeholders.

8

Trade Dynamics

Imports

HSCode	Commodity	13-14	14-15	15-16	16-17	17-18
8	Edible fruit and nuts; peel or citrus fruit or melons	1.25	1.63	1.99	2.04	2.19
7	Edible vegetables and certain roots and tubers	1.29	1.74	2.64	2.88	1.91
4	Dairy produce; birds' eggs; natural honey; edible prod. Of animal origin, not elsewhere spec. Or included.	0.02	0.03	0.03	0.02	0.03
19	Preparations of cereals, flour, starch or milk; pastry-cooks products.	0.03	0.04	0.04	0.04	0.04
	Sum Total of major HS Codes in Agri Products	2.59	3.44	4.70	4.98	4.18
	Total	271.54	273.71	249.03	257.77	300.10

Source: Directorate General of Foreign Trade

Note: All data figures are in Million

Exports

HSCode	Commodity	13-14	14-15	15-16	16-17	17-18
8	Edible fruit and nuts; peel or citrus fruit or melons	0.98	0.99	1.04	1.16	1.20
7	Edible vegetables and certain roots and tubers	0.82	0.72	0.83	0.87	0.84
4	Dairy produce; birds' eggs; natural honey; edible prod. Of animal origin, not elsewhere spec. Or included.	0.43	0.23	0.21	0.20	0.24
19	Preparations of cereals, flour, starch or milk; pastry-cooks products	0.35	0.11	0.33	0.35	0.35
	Sum Total of major HS Codes in Agri Products	2.57	2.05	2.41	2.57	2.62
	Total	190.50	189.63	171.64	184.94	195.65

Source: Directorate General of Foreign Trade

Note: All data figures are in Million

9

Way Forward

Partnerships for New Technologies – India is experiencing 99% electrification, which includes new sources of renewable energy such as solar & hydro power energy. With this, rapid technological transformation is expected in the coming years. Imports and new foreign manufacturing units are expected to be deployed in India to aid technological requirements such as hybrid tractors, drone technology, etc.

Digital Initiatives – From ages, the specialized crops are being grown at one farm. Introduction of digital equipment and gradual change in attitude towards accepting new initiatives is expected to bring newness to the approach to the farming. Partnerships with the digital technology providers is expected to increase by 2-folds in coming years.

New Age of Contract Farming – Due to increasing trend of e-tailing, need of personalized spaces are expected – a one stop farm from where a retailer picks everything to save the cost of sourcing it from different places, especially in one state. Hence to sustain the cost, contract farming is expected to pick up pace. The partnership between retailers and individuals/companies involved in contract farming will increase.

New Law for Agriculture Marketing – New government regulations are expected to change the equations between the companies as several restrictions will be pulled off.

ASSOCHAM
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ASSOCHAM initiated its endeavour of value creation for Indian industry in 1920. Having in its fold more than 400 Chambers and Trade Associations, and serving more than 4,50,000 members from all over India. It has witnessed upswings as well as upheavals of Indian Economy, and contributed significantly by playing a catalytic role in shaping up the Trade, Commerce and Industrial environment of the country.

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ASSOCHAM is seen as a forceful, proactive, forward looking institution equipping itself to meet the aspirations of corporate India in the new world of business. ASSOCHAM is working towards creating a conducive environment of India business to compete globally.

ASSOCHAM derives its strength from its Promoter Chambers and other Industry/ Regional Chambers/Associations spread all over the country.

VISION

Empower Indian enterprise by inculcating knowledge that will be the catalyst of growth in the barrierless technology driven global market and help them upscale, align and emerge as formidable player in respective business segments.

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Together, we can make a significant difference to the burden that our nation carries and bring in a bright, new tomorrow for our nation.

Shri Uday Kumar Varma
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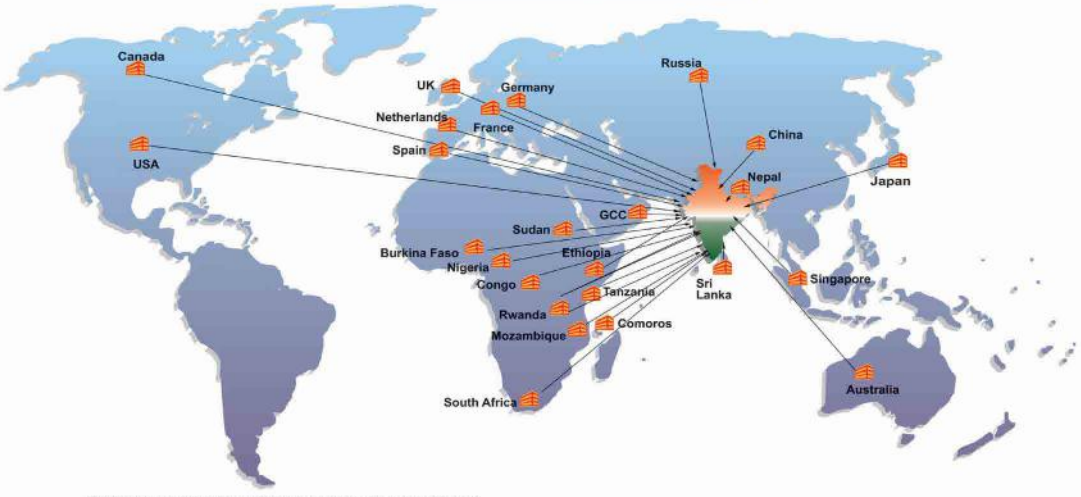
ASSOCHAM OVERSEAS 28 OFFICES



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NOTES

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