# Value Addition with Special Emphasis on Processing

# Food Processing Background

- One of the largest Industry categories in terms of Production, Consumption & Export
- Widely recognised as Sunrise Industry, Estimated net worth 67 Bln US$ and Employing 13 Mln Directly & 35 Mln Indirectly
- Indian Food & Grocery – 6$^{th}$ Largest in the world, expected to touch 482 Bln US$ by 2020
- Indian Food processing – 32% of Food Market (14% Manufacturing, 13% Exports, 6% Industrial Investment)

**India is the largest producer of Milk, Largest Livestock population of 512 Mln (119 Mln Milch, 80 Mln Goats, 45 Mln Sheep) contributes to 25% of farm GDP, # 1 Shrimp Aquaculture producer**

# THE FOOD PROCESSING SECTOR COMPRISES SIX MAJOR SEGMENTS

CLFMA OF INDIA

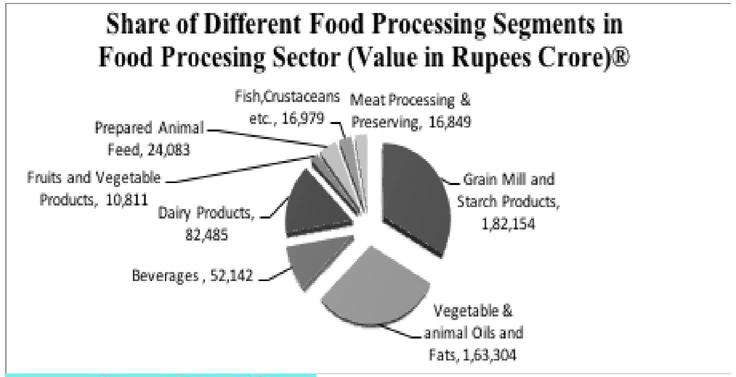
**Food processing**

- **Fruits and vegetables**[(1)] → India is the world's 2nd largest producer of fruits & vegetables. The government expects the processing in this sector to grow by 25 per cent of the total produce by 2025. In 2015-2016, the total production in horticulture (fruits & vegetables) is estimated at 282.5 million tonnes.
- **Milk** → India is the largest producer of milk in the world, with the production estimated at 155.5 million tonnes in FY16.
- **Meat and poultry** → India is the largest producer of buffalo meat (1.61 MT in 2016) & the 2nd largest producer of goat meat (0.912 MT in 2016). India is also the 2nd largest egg producer (82.9 billion) as of FY16 & 3rd largest producer of broiler meat (4.2 million tonnes in 2016), globally. India's production of Meat was estimated at 7 MT as of FY16
- **Marine products** → Total fish production in India is estimated at 13.0 MT during 2015-16. Andhra Pradesh stood as the largest producer of fish with production of 741.3 Thousand Tonnes during 2015-2016 (upto June 2015)
- **Grain processing** → India produces more than 200 million tonnes of different food grains every year. Total food grains production reached 270.10 MT in FY16 (As per Ministry of Agriculture)
- **Consumer food** → Among the fastest growing segments in India; it includes –
  - Packaged food
  - Aerated soft drinks
  - Packaged drinking water
  - Alcoholic beverages

*Source:* Indiabusiness.nic.in, Ministry of Agriculture, Directorate of Statistics, APEDA, Indiastat, Meat & Poultry Processing Board, FAOSTAT, Assocham, Department of Animal Husbandry, Dairying & Fisheries, Economic Times (US Department of Agriculture)
Notes: FY – Indian Financial Year (April – March), E- Estimate, [(1)] - 3rd Estimate, MT - Million Tonnes

# Highlights

- India’s processing industry is highly fragmented and is dominated by the unorganized sector.
  - Number of Small players, Composition: 42% -unorganized sector, 25% - organized sector & rest small scale players.
  - India’s agri base is quite strong but wastage is very high & processing of food products is very low.
    - The country’s processing sector is small and processing of food to consumable standards in India has reached only 10% recently. The processing level is around 2.2 % in F&V, **37% Dairy, 21% in Meat & 6% in Poultry products.**
    - While processing of food to consumable standards are at levels of up to 80% in some developed countries,
  - The highest share of the processed food is in the Dairy sector, where 37 % of total produce is processed, of which only 15% is processed by the organized sector.






**India’s share in exports of processed food in World trade has remained at about 1.5 percent or $3.2 billion.**

# Major Constraints in Development of the Food Processing Sector

- **Inadequate infrastructural facilities**:
  - Indian food industry has a long and fragmented supply chain.
  - The last mile connectivity is still missing from the supply chains.
  - This is evident from the fact that transportation losses constitute the major part of the losses
- **Lack of skilled and trained manpower:**
  - Though major employer, still suffers from shortage of skilled and semi-skilled man power.
  - The need of the sector is not only limited to SCM, but has extended to value chain management.
- **Quality of Raw Materials:**
  - India is the second largest food producer in the world but lack of processable varieties in India.
- **Other constraints:**
  - Lack of consumer education on nutritional importance of processed food.
  - Pricing and Taxation in Indian processed food market is not at par with that of other developed markets-  Break in GST / Less competitive in the global market.
  - With the fast changing technologies the requirements of better technology required

# Industry Drivers

**India: 1.3 bn people,**
growing by 1.13%


**47.1% POPULATION < 25 YEAR'S OLD**

**65.7% WORKING-AGE (15-64 YEARS) POPULATION**

- **Large country with young and ambitious population**
  - 27.3 year's old median age (26.7 for male, 28 for female)
- **Availability of abundant workforce**
  - 2nd highest in the world
  - Largest by 2030

**400mn Millennials** and **390mn Gen Z** (in 2015)

**Aspiration** | **Talented** | **Hyper-connected**

**Shaping India's consumption**

**A young nation, large working population; driven by Millennials & Gen Z, Rapid Urbanisation, Increase in Women joining workforce, Awareness of Health & Hygiene,**



Source: UN Data Report 2015

# Way **Forward**

- A vibrant food processing sector can lead to
  - Increasing farm gate prices & Increase income levels,
  - Reduce Wastages
  - Increase employment opportunities
  - Rapid economic growth – Domestic & Exports

**The industry contributes around 14% to the country’s GDP (2015), 32% of Total Food market, Employs 18% of workforce**

# Key Emerging Issues / Opportunities

- Food Safety Management systems
  - Large scale Consumer education promoting Processed Foods – Hygiene, Food safety, Year long availability, Better yield, Value Addition
  - Robust Food traceability systems in place
  - No changes in Veg / N Veg logos which is being envisaged
- Rationalization of GST / Ensuring no Break in GST
  - Many instances of GST chain broken: Chilled Chicken, Milk etc
  - Foodservice Segment
    - India’s Food Market: 894 Bln $ by 2020; of which Institutional Foodservice(FS): 1/3rd
    - Indian Foodservice Industry growing in Double Digits - Aided by rapid Urbanization, Growing Per capita disposable Incomes, Rising Delivery business like Swiggy / Zomato
    - Scope for Introduction of VA Food products into the Foodservice Industry
    - All Food products charged GST from 0% to 18%
    - At the Front end, Restaurants / Foodservice at composite 5% GST which cannot be set off (except 5 Star Hotels – very negligible)
    - No incentive to drive innovation / introduction in Foodservice sector, Break in GST chain to be arrested

# Key Emerging Issues / Opportunities (cont'd)

- Agriculture & Animal Husbandry
  - Ease of Contract Farming of Process Grade varieties
    - Correcting Gene Pool
  - Introducing new High Yielding varieties
- Integrated Cold Chain development
  - Ability to move from Farm to Processors to Exports / Domestic markets
  - Infrastructure subsidies of Setting up of Cold stores / Collection center's
  - Aid in Import of Equipment's under subsidized schemes
  - Restore Depreciation rates for Energy saving equipment / R&D
- Mega Food Parks
  - Integrated eco-system to drive economies with all facilities under one roof

Need to look at subsidies / benefits in an integrated fashion rather than on a piecemeal basis.

# Key Issues

- Poultry
- Dairy
- Sea Food

# Poultry - Background

- Chicken consumption in India has grown multifold over past 3 decades :
  - Penetration (cooked at home) up from approximately 8% to 38 %
  - Per capita per annum consumption amongst consuming HH from approximately 0.5Kg to 3.0Kg
  - Total chicken consumed from approximately 0.2Mn MT to 4Mn MT
- Even today the processing industry contributes to only 4% of the chicken demand
- Processing industry has got sandwiched between very high cost of processing and low consumer acceptance because of
  - Value addition by the processing industry is primarily on significantly improved Hygiene levels – consumer awareness and hence appreciation for this is nearly absent
  - Processing industry is loaded with extra cost and is capital intensive (asset turnover ratio 1.5-1.8 ) and very low gross margins of approximately 8-10%
  - Processing industry is further burdened by stringent laws and regulations which comes at a significant cost of waste disposal
- All the above has led to meagre or no growth for this sector –
  - Current capacity utilisation is sub 50%
  - Very few new installations in last 5 years.
  - Most of the players would be in red for the processing business.
- Chicken processing industry needs to be seen from the lens of value addition of a farmers' produce (live chicken).

# Poultry : Key Issues

- Drive consumer awareness levels of need of hygiene in meat and the benefits of the same
    - Evolve a rating approach akin to the electrical appliances depending on the MicroB load of the meat from the processors
- Ease out the cost structure which is currently like any other private sector and hence is leading the processing industry cost to be almost twice as much of a local butcher. This can be done by taking the following approaches
    - Lower interest rates (like a priority sector).
    - Significantly reduced import and custom duty for equipment at processing plants as well as poultry operations
    - GST reduction/waiver for utilities like power, fuel, water including manpower
    - Subsidised rates for utilities particularly power and water.
    - Affordable Insurance of Livestock in poultry.
    - GST reduction/ waiver for Capital goods
    - Accelerated Depreciation on Energy savings equipment

# Dairy : Background

- World’s largest milk producer, accounting for more than 13% of the worlds total milk production.
- It is the world’s largest consumer of dairy products, consuming almost 100% of its own milk production.
- Dairy products - major source of cheap and nutritious food to millions of people in India and the only acceptable source of animal protein for a large vegetarian segment of the Indian population,
- Dairying considered as one of the activities aimed at alleviating the poverty and unemployment,
- livestock sector produces regular employment to about 9.8 million persons in principal status and 8.6 million in subsidiary status, which constitute about 5% of the total work force.
- **Milk Processing** : The milk processing industry is small compared to the huge amount of milk produced every year. Only 10% of all the milk is delivered to some 400 dairy plants.
  - Phenomenon is the unorganised sector of milkmen, vendors who collects the milk from local producers and sell the milk in both, urban and non-urban areas, which handles around 65-70% of the national milk production.
  - In the organised dairy industry, the cooperative milk processors have a 60% market share. The cooperative dairies process 90% of the collected milk as liquid milk, whereas the private dairies process and sell only 20% of the milk collected as liquid milk and 80% for other dairy products with a focus on value-added products.
- **Trade**: In spite of having largest milk production, India is a very minor player in the world market
  - The major destinations for Indian dairy products are Bangladesh (23.1%), UAE (15.4%), US (15.6%) and Philippines (8.9%).
  - In terms of products, SMP is the most important product accounting for about 63% of total export volume, followed by ghee and butter (11.7%) and WMP.
  - Export figures clearly demonstrate that the Indian dairy export is still in its infancy and the surpluses are occasional.
  - Indigenous milk products & desserts are popular with the ethnic population all over the world, great potential for export.

# Dairy : Key Issues

- Competitiveness- cost of production, productivity of animals.
  - efforts to be made to reduce cost of production.
  - Increasing productivity of animals,
  - better health care and breeding facilities and management of dairy animals
- Production, processing and marketing infrastructure
  - we should develop proper production, processing and marketing infrastructure, which is capable of meeting international quality requirements.
  - A comprehensive strategy for producing quality and safe dairy products should be formulated with suitable legal backup.
- Focus on buffalo milk based specialty Dairy industry in India is also unique with regard to availability of a large proportion of buffalo milk.
  - To focus on buffalo milk based specialty products, like Mozzarella cheese,
- Import of value-added products & export of lower value products
  - Eduacating the people on Quality of dairy products

# India Seafood Industry : Background

- India blessed with a coastline of over 8,118 kms, 2.02 million sq. km of EEZ, 0.5 million sq. km
- India's total fishery production was 9.58 million tons from both marine and inland during 2012-14, in which inland sector contributed 6.14 million tons and marine sector 3.44 million tons.
- India's seafood industry has become one of the leading suppliers of quality seafood to all the major markets of the world.
    - Seafood exports from India during the year 2014 – 2015 reached to an all time high of US$ 5.5 Billion.
    - 106 countries in the world taste Indian seafood, SE Asia, EU, USA, Japan, China and Middle East being the major markets.
- Frozen shrimp holds the major share in India's export earnings and frozen fish is the principal export item in terms of quantity. Frozen cephalopods are also contributing a major share in the export earnings. Exports of dried, chilled and live items are also showing upward trend..
- India has an installed processing capacity of 23,000 M.T with 506 state-of-the-art processing plants, out of which over 62% of them are EU approved plants.
- The increased production of Vannamei shrimp, increased productivity of Black Tiger shrimp and better price realization of major items like Cuttlefish, Shrimp and Squid helped India to achieve significant export turnover during 2014-15.
- Aquaculture
    - Indian Aquaculture is highly promising and has grown over six and half fold in the last two decades with freshwater aquaculture contributing over 95% of the total aquaculture production.
    - . India is the second largest aquaculture producer in the world, largest exporter of shrimp to USA, the 2nd largest exporter of shrimps to Europe and the 4th largest exporter of shrimps to Japan
    - India's aquaculture production can be classified into freshwater and brackish water production. The development support provided by the Indian Government through a network of 429 Fish Farmers Development Agencies (FFDA) and 39 Brackish water Fish Farmers Development Agencies (BFDAs) have been the principal vehicles for the development and growth of freshwater and coastal aquaculture.
    - The three Indian major carps, namely catla (Catla catla), rohu (Labeo rohita) and mrigal (Cirrhinus mrigala) contribute as much as 87% of total fresh water aquaculture production.
    - Shrimps, Black Tiger and Vannamei, remain to be the most favourite among the developed countries and earned 3.08 billion US$ to India's economy. Though India has huge Aquaculture resources, only 14% of the potential water resources are utilized, implying huge potential for the growth of this sector

# Seafood: Key Issues

- Broodstock / Breeding
  - Need to bring in new Genetics in to the country.
  - Emerging diseases reported any where in the world should be added to the list of diseases to be checked at RGCA quarantine.
  - Need to establish breeding programs for indigenous species as well.
- Hatcheries
  - Regular updation of Hatcheries disinfection protocols in maturation and larval rearing as well keeping emerging diseases in view.
  - Avoiding antibiotics and using probiotics.
  - Broodstock needs to be tested periodically for diseases of concern.
- Market Development :
  - New Geographies
    - As a leading exporter, we need to have lion's share in EU market which is the leading importer of shrimps
    - Exporters need to move up the value chain.
    - Value addition.
    - establishing distribution network in the market place.
  - Domestic Market
    - Need to establish the domestic market.
      - Need to establish the cold chain.
      - Processors should take the lead as they already have part of the cold chain