

1. Assess the export potential of India's food processing sector.

Introduction

The Ministry of Food Processing, Government of India has defined dairy, fruits & vegetable processing, Grain processing, Meat & poultry processing, Fisheries and Consumer foods including packaged foods, beverages and packaged drinking water segments within the Food Processing industry.

Body

Export potential of India's food processing sector:

- India's export of Processed Food was Rs. 31111.90 Crores in 2018-19.
- Land area: India ranks second in terms of availability of arable land with 127 diverse agro-climatic zones, having a share of 11.2% of the total arable land in the world. In addition, the resource-rich country has the sixth largest food and grocery market and fifth largest retail market globally.
- Strategic position: The Indian food processing industry is primarily export orient. India's geographical situation gives it the unique advantage of connectivity to Europe, the Middle East, Japan, Singapore, Thailand, Malaysia and Korea.
- Transition phase: Retail, one of the largest sectors in the global economy (USD 7 Trillion), is going through a transition phase in India.
- Quality products: One of the prime factors for non-competitiveness of the food processing industry is because of the cost and quality of marketing channels.
- Mega food parks: The government has sanctioned 42 Mega Food Parks (MFPs) to be set up in the country under the Mega Food Park Scheme. Currently, 17 Mega Food Parks have become functional.
- Big retailer: Globally more than 72% of food sales occur through super stores. India presents a huge opportunity and is all set for a big retail revolution.
- Organized market: India is the least saturated of global markets with a small organized retail and also the least competitive of all global markets.
- Automatic route: 100% FDI is permitted under the automatic route in Food processing industries.
- Approval route: 100% FDI is allowed through government approval route for trading, including through e-commerce in respect of food products manufactured or produced in India.

Challenges in food processing sector

- Food processing sector supply chain today relate to access, infrastructure, and inadequate information for market linkages. This has led to significant wastage of produced foods in the supply chain.

- Numerous laws, under the jurisdiction of different ministries and departments, govern food safety and packaging. The multiplicity of legislation leads to contradictions in specifications, conflicting approach, lack of co-ordination and administrative delays.
- Processed food is still seen as inferior to fresh foods by consumers.
- Forward and backward linkages are not fully developed to match the global market.
- Expensive to match to international standards in processing, storage and infrastructure.

Conclusion

The Food Processing Sector in India represents an attractive investment opportunity for new players both domestic and international. Demand for processed foods over the next decade will increase rapidly due to the steady economic growth, rising income levels and changing lifestyles.

2. What are the supply chain constraints of India's food processing sector? What steps have been taken to address those? Examine.

Introduction:

The food processing industry is valued at US\$258 billion and is the fifth-largest industry domestically in terms of production, consumption, export and expected growth in the country. It contributes to around 14 % of manufacturing Gross Domestic Product (GDP) and 13 % of India's total food exports.

Body:

Supply chain management (SCM) is the management of the flow of goods. It includes the movement and storage of raw materials, inventory and finished goods from point of origin to point of consumption.

Supply chain constraints of India's food processing sector:

- **Fragmented supply chain:** The long and fragmented supply chain results in the wastages and price escalations. This is because of the large share of unorganised players in the supply chain and operating commercial viability challenges.
- **Inadequate cold storage and warehousing facilities:** Warehousing is a key requirement in the overall supply chain it is mostly dominated by unorganized players. 20% of warehousing is organized currently with 70% of the organized market controlled by the Government.
- **Logistics in India still face challenges related to quality and connectivity:**

- Indian national highways account for only 2% of the total road network but carry 40% of all cargo.
- Port capacity may be increasing, lack of connectivity to these ports leads to cost escalations and delays in the goods transferred.
- Lack of last-mile connectivity from rail transporters.
- **Slowdown in production growth:** With around 67 percent of landholdings being marginal (<1 hectare), with an average size of 0.4 hectares, more than half of marginal farmers are likely to not have any excess income to spare beyond subsistence, hindering the improvements in farm-level productivity

Apart from the above-mentioned areas of concern, other issues such as Lack of applied research, Taxation issues, Access to credit, Processing plants with obsolete technologies, etc., persist in the sector.

Steps taken to address supply chain constraints:

- **PM Kisan SAMPADA Yojana** is a 6000 crore Umbrella scheme incorporating ongoing and new schemes of the ministry of food processing and industry.
- Some important schemes under SAMPADA yojana:
 - **Mega food parks** - consist of supply chain infrastructure including collection centres, primary processing centres, central processing centres, and food processing units.
 - **Cold chain** - creation of infrastructure facility along the entire supply chain (pre-cooling, weighing, sorting, grading, waxing facilities, mobile cooler vans etc.,)
 - **Scheme for Creation of Backward and Forward Linkages** - to perishable horticulture and non-horticulture produce by plugging the gaps in the supply chain in terms of availability of raw material and linkages with the market.
 - Infrastructure for agro-processing based on cluster approach
- The **National Agricultural market (eNam)** which creates a pan India market facilitates removal of intermediaries, thereby streamlining the entire supply chain
- The new **Contract Farming Act** further helps in improving the backward and forward integration of the supply chain
- **Electronic Negotiable Warehouse Receipt (e-NWR) System** to facilitate an easy pledge financing by banks and other financial institutions

- Inclusion of food processing and agro-warehousing under **priority sector lending** by RBI
- The Logistics challenge of the supply chain is being taken care of by leveraging the existing PM-Gram Sadak yojana, BHARATMALA, and SAGARMALA schemes
- Promotion of Agri Export Zones, one-time capital grants, etc., are being undertaken.
- 100% FDI in this sector.

Conclusion:

The Government of India has identified the food processing sector as the sunrise sector. Several initiatives are being put in place for promoting primary as well as secondary processing. For unhindered growth, it becomes important to address the demand and supply side constraints of food processing in India.

3. What are the upstream requirements of the dairy sector? Examine the existing levels of backward and forward linkages in the dairy sector.

Introduction

India is the world's largest producer of milk, with 21 percent of global production due to its prospering dairy sector, which contributes 4.11% GDP and 25.6% of total Agriculture GDP in India.

Body

Upstream requirements of dairy sector:

- Quality cattle to provide enough milk production for the population
- Dairy farmers and cooperatives that can participate in dairying as the economic activity.
- Fodder availability to feed the cattle.
- Transportation for supplying milk produced to processing centers or market.
- Coolers to improve the shelf life of milk in transportation to processing plants.

Existing levels of backward linkages:

- India has world's highest livestock population, and first in the total buffalo population in the world with 105.3 million buffaloes.
- Dairy farming provides livelihood to two-third of rural community. It also provides employment to about 8.8% of the population in India. India has vast livestock resources.

- Reduction in pasture lands, and decreasing availability of quality fodder owing to rain fed conditions.
- Regional imbalance in availability and quality of transportation and bulk coolers.
- Increasing incidence of veterinary diseases, with low presence of veterinary clinics in rural areas.
- Low productivity of indigenous breeds and lack of nutrition in milk from foreign breeds.
- Low availability of quality breeding bulls and semens and comparatively less success in cross breeding indigenous and foreign breeds.
- Excessive use of anti-biotics in cattle growth.
- Less than adequate extension services.

Existing levels of forward linkages:

- Lack of marketing facilities for farmers.
- High presence of middleman that eats away profit of farmers.
- Regional success of cooperatives, only in some states like Gujarat and Maharashtra.
- Price rise due to increasing focus on protein intake, especially in urban areas.
- Adulteration and presence of synthetic milk. Around 70% of Indian milk doesn't meet the standards set by set by the Food Safety and Standards Authority of India (FSSAI).
- Untapped export potential due to issues like quality, hygiene etc.
- A taxation rate of 12% on dairy equipment and machinery.

Way forward

- Cost effective and nutritionally balanced feed for animals.
- Encouragement to cooperatives pan India.
- Reproductive efficiency of cattle be improved.
- Training related to entrepreneurial marketing of milk and milk product
- 'Optimum usage of technology' for cattle management.
- Improvement in logistics.

Conclusion

The active involvement of National Dairy Development Board (NDDDB) in growth of dairy sector and the creation of Dairy Processing & Infrastructure Development Fund (DIDF) along with other initiatives in the sector are a welcome step not just to achieve growth in the sector but also to fight malnourishment and hidden hunger in country.

4. The staggering diversity of culture, customs and cuisine in India makes food processing industry one of the promising sectors of the economy. Do you agree? Substantiate

Introduction:

India is a diverse country with its diversity ranging from ethnicity to religion and from cultures to cuisines. India celebrates thousands of cultural and religious festivals and has a number of customs. This diversity promises growth in many economic activities which are directly or indirectly associated with it, such as tourism, food processing industry etc.

Body:

The term 'food processing' is mainly defined as a process of value addition to the agricultural or horticultural produce by various methods like grading, sorting and packaging.

India's food processing sector is a sunrise industry and spans a wide range of products that includes fruits and vegetables, meat, fish, seafood and poultry; dairy and dairy products; fermented foods and drinks; grains, cereals and millets; bakeries; confectionery; etc. Of these, RTE (ready to eat) and RTH (ready to heat) foods have grabbed special attention.

The staggering diversity of culture, customs and cuisine in India makes food processing industry one of the promising sectors of the economy in the following ways:

- India has been a forerunner in giving diverse facets to this art of food processing. Using salt and oil to pickle surplus vegetables and sun-drying brined vegetables and fruits to increase their shelf life, and survive scarcity and unfavourable conditions is nothing new in Indian households.
- Regional Customs and food habits are diverse in India, for example, North-East and South India have different customs and cuisines. By this FPI gets a diversity of product range and also gets market for different products as per regional customs demand.
- Usage of many fruits is crucial for many traditional customs of the country. These fruits can be made available during the offseason in any part of the country by processing and increasing their shelf life.
- Dairy items such as milk, *Ghee* and *Shrikhand* which are used in bulk for many festivals can be made available where their production is low due to the regional disparity. Demand for dairy products is expected to grow at a healthy rate of 15 to 20 per cent over the next five years.
- Indian belief in *Atithi Devo Bhava*. Many serve bakery products to guest along with tea to show hospitality, which is also part of Indian culture. Therefore, Bakery products are a related segment that has also the potential to grow strongly.
- Dietary habits of most Indians are associated with their culture and religion, due to which some are pure vegetarian and some are non-vegetarian. With increasing population, demands for both vegetables as well as meat, fish and chicken is increasing day by day which can be fulfilled by FPI. There is a large

potential for setting up modern slaughter facilities and development of cold chains for vegetables and meat.

- In the fisheries segment also, India's long coastline and network of inland waterways and lakes offer plentiful availability of different types of fishes. Many fish-eating coastal residents are now living in cities away from the coast due to internal migration. So FPI can play an important role to place particular fish in their plates.
- FPI has huge potential for giving Indian test of diverse cuisine to the world. The home-grown food brands such as Haldirams with a suitably ethnic product range can serve the global market.
- Traditional summer beverages such as *Lassi*, *Aam Rus* and *Aam Panna* can be served across the length and breadth of the nation and also abroad.

Hurdles and Drawbacks:

FPI companies haven't quite managed to make inroads into the centre of the Indian consumer's plate due to the following reasons:

- Attempts to force-fit global food preferences to the Indian marketplace.
- Company's failure to recognize the enormous regional diversity in food habits.
- Lack of customizing global products and flavours to the local palate.
- Consumer backlash against preservative and calorie-laden processed foods.
- The recent controversy over cattle slaughter is not good for the meat industry.
- Large sections of women who are housewives prefer serving homemade and home preserved food considering it to be healthier.

Conclusion:

Under the Make in India initiative, the Government plans to stimulate growth in the Food Processing sector through the creation of a strong infrastructure, reduction of food wastage and promotion of Ease of Doing Business (EODB) measures. The upcoming 'Scheme For Agro-Marine produces Processing and Development of Agro-clusters' (SAMPADA) will provide a renewed thrust to the sector.

5. What is land banking? How does it affect various stakeholders? Discuss.

Introduction:

Land banking is the practice of aggregating parcels or blocks of land at current market rates or lower, for future sale or development. A land aggregator aggregates land by tracking the geographical and topological locations, which are primed for investment, based on social infrastructure and demographic factors.

Body:

Organisations that engage in land banking:

- **Federal, state and local governments:** Government agencies use land banking to support long-term civic planning or to support future economic development. Municipalities gain and hold ownership of land to be used for new roads, metro stations, hospitals, schools, parks or for economic or residential development efforts.
- **Businesses:** The aggregators can purchase and hold undeveloped or pre-developed land parcels, which expected to increase in market value, for long-term business gains.
- **Universities and non-profit entities:** Universities and non-profit entities purchase land for future growth and/or expansion in public interest.
- **Individuals:** Owning properties, including land, provide a sense of security. Individuals can use land as wealth creation vehicles, either for their retirement plans, to pay for their children's education, or to create a family legacy.

Advantages:

- Land banking provides tools to quickly turn non-agricultural land into usable parcels.
- The Government can use these lands for the public projects like highway construction, drinking water protection, afforestation, nature restoration and promote economic development.
- Land bank can also provide the land to the private entities for their commercial purpose. In this process local governments benefit from the rental paid by the private entities when land is paid on lease thus acquiring gainful income which is then used for the welfare of the local areas.

However, land banking also has significantly affected its stakeholders:**Government agencies:**

- **Ambiguity:** Buying and selling prices in various states is be ambiguous thus there is no uniformity.
- **Questionable to local residents:** Most times the lands come under conflict, and result in denial of people's rights.
- **Vacant land comes with expensive liabilities:** A vacant lot owned by a land bank does not produce property tax revenue, and sometimes comes with maintenance costs.

Private entities and individuals like farmers, local residents etc:

- **Problem with disputed land:** Land banking by real estate private agencies or individuals will not deal in disputed properties, especially those under litigation.

- **Stalling of projects:** Some companies buy the lands for their projects but those projects are never carried out. This has often led to conflicts between farmers and states, stalling projects uneconomically. For example: When POSCO signed an agreement with the Odisha government to set up a steel plant in Nuagaon and nearby villages in 2005, the 700 families affected were not enthused. Over generations, the locals had developed a deep bond with the land and the forest, beyond merely as a source of employment and their only possession resulting in a decade-long resistance including legal challenges followed, at the end of which POSCO shelved the project in 2015.
- **Unable to attract investment or sell the land by the land banking entity:** The full potential of land banking can only be realised, if the land is purchased in the under-developed/early phase. Land banking works on the premise of patience. Most investors ignore land banking as an investment, due to the long term nature of the business.

Conclusion:

Land banking as a strategic response has proven to be a powerful solution, allowing public control of abandoned property; assemblage of parcels for residential, recreational, commercial and industrial redevelopment; and empowerment of communities to reverse the social and economic consequences of neglected and abandoned property. However, care must be taken to prevent disruptive and unreasonable usurping which will only lead to denial of rights rather than work in the rightful interest of people.