

1. What are some of the favourable locational factors that should make India a favoured destination for setting up food processing industries by foreign investors? Illustrate.

Introduction

Food processing is the transformation of raw ingredients into food, or of food into other forms. Food processing industry in India is a sunrise sector that has gained prominence in the recent years. This sector serves as a vital link between the agriculture and industrial segments of the economy.

Body

Stats (remember any 2 data):

- The Indian food processing industry accounts for 32 per cent of the country's total food market.
- It is ranked fifth in terms of production, consumption, export and expected growth.
- It contributes around
 - 14 per cent of manufacturing Gross Domestic Product (GDP).
 - 13 per cent of India's exports.
 - six per cent of total industrial investment.
 - Indian food service industry is expected to reach US\$ 78 billion by 2018.
 - The Indian gourmet food market is currently valued at US\$ 1.3 billion
 - It is growing at a Compound Annual Growth Rate (CAGR) of 20 per cent.
 - India's organic food market is expected to increase by three times by 2020

Locational advantages of India:

- **Raw material:** India has a large agricultural sector employing half of its labour force. Hence, the raw material required by the food processing industry is readily available and accessible at lower cost. Also, Variety of domestic animals such as cows, buffaloes, goats, chicken, lamb, sheep etc., are reared (livestock in India equals its population). E.g. Milk co operatives established in western Indian states like Gujarat.
- **Coastal region:** with around 7500km of coastline, accessibility to marine food processing favours the industry establishment. Similarly, large inland water resources supply the raw material required for the industry. E.g. only 5 coastal states of India accounted for around \$4billion export of marine products.

- Climate location: Having the monsoonal climate, India has favouring climate vis a vis growing the raw materials required for the food processing industries.
 - Further, 46 out of 60 soil types are present in India.
 - More than 26 types of climatic conditions and hence can cultivate large variety of fruits, crops, vegetables.
- Indian geographical location: India is geographically close to key export destinations like Middle East, South East Asia who are the major importers of processed food.
- Being a peninsula and coastal transportation possible in large quantities, it would help in exports. E.g. Mega food parks established in coastal districts like Godavari food park, Satara food park etc., have boosted processed food exports due to low transportation charges.
- The different locations of India have naturally available food raw material required for the industry. E.g. Minor forest produces like curry leaf, Tendu Patta, gallnut, Cane, Soapnut in states like Jharkhand used in many processed foods.
- Being densely populated and with large population, India provides a large domestic market for the finished products. E.g. As per the ibef estimation, with proper marketing strategy, upto 60% of the processed food could be consumed domestically.

For all these reasons, FDI in food processing industry is lucrative for foreign investors. Also, rising urban population, increasing household consumption, policy support by government etc., makes India a favourable destination for foreign investors.

Conclusion

Food processing industry is expected to reach \$300billion by 2020 as per estimates of the government. Owing to its potential, companies like Zomato, Swiggy, ITC etc., are investing on large scale in India. Government schemes like PM SAMPADA yojana, mega food parks, cold storage schemes etc., and national mission on food processing are steps in right direction. This would help in increasing farmer income as well as generating new jobs.

2. In the context of India's growing FMCG sector, examine the supply chain bottlenecks being faced. How can these bottlenecks be addressed? Suggest.

Introduction

Fast-moving consumer goods (FMCG) can be defined as packaged goods that are consumed or sold at regular and small intervals. The prices of the FMCG are low and profits earned are more dependent upon the volume sales of the products.

Body

The fast-moving consumer goods (FMCG) sector is an important contributor to India's GDP growth. The sector includes food & dairy products, packaged food products, household products, drinks and others. FMCG is the fourth largest sector in Indian economy and provides employment to around 3 million people accounting for approximately 5% of the total factory employment in India. The Indian FMCG sector is the fourth largest sector in the economy with a total market size of USD49 billion in 2016. The sector is projected to grow at a CAGR of 20.6% to reach USD103.7 billion by 2020.

The FMCG industry is characterised by complex distribution network and intense competition, forcing firms to constantly work on supply chain innovation. Micro-economics play an important role in the supply chain structure of India.

Bottlenecks

- **Infrastructure:** Poor roads and unreliable transport systems have an adverse impact on costs and uncertainties. Lack of storage and transport facilities coupled with rising costs of raw materials and energy has been a major challenge for the Indian FMCG market. Food items tend to have a significantly shorter shelf life and requires quick delivery systems, regular replenishment of products on the shelf, and vast different distribution and storage requirements.
- **Emergence of third –Party Logistics provider:** Traditionally most companies have been managing all logistics activities themselves so far the logistics sector in India has lacked professionalism. Hence the new players will be of value only to new MNCs and FMCG players who operate in the mid volume high variety segment of the market. Established FMCG companies like Nestle and HUL are unlikely to use their services as logistics solution providers as they are not likely to be cost effective. Moreover most Indian FMCG companies have skewed sales patterns that place huge demands on service providers in the last week of month.
- **Managing availability in the complex distribution Set Up:** The Indian FMCG sector has to work with very complex distribution system comprising multiple layers of numerous small retailers between company and end customer. For example a company like, Marico has to ensure reach to 1.6 million retailers spread throughout the country.
- **Entry of National Players in the Traditional Fresh Products sector:** National players want to market “fresh” products that have been traditionally handled by local players in each region. For example, ITC wants to make inroads in the market for ‘ATTA’ and Nestle for yoghurt. Traditionally national companies have worked with centralized plants, As freshness is one of the most important criteria from the customer's point of view, national players will have to work with decentralized manufacturing plants. Balancing quality, freshness and cost is a major issue for national players.
- **Dealing with Counterfeit Goods:** According to recent study conducted, counterfeits accounted for loss of sale worth more than Rs 300 billion for the

FMCG sector every year. P&G found that various counterfeit products of Vicks Vaporub raked in sales equivalent to 54 percent of the original.

- **Opportunistic Games played by the Distribution Channel:** It is a common notion in distribution that only 50 percent of the promotion actually reaches the final customer. This is due to the fact that many distributors work unscrupulously. Rather than playing the role of the facilitator, they try to grab a significant part of the promotion budget for themselves. Some of these distributors also indulge in the illegal movement of goods from one market to another during local promotions.
- **Emergence of Modern Retails:** In the West large departmental or discount chains have managed to grab huge market shares and have clout with FMCG companies. FMCG companies so as to offer better deals to their customers. Unlike in the west margins in distribution are traditionally quite low in India.
- **Optimize costs and investments:** Optimization of costs and investments is a matter of priority and has to be factored in along with your production needs.

Solutions

- To increase market penetration, Indian companies have to reach out to consumers present at the lower end of the economic pyramid
- To prevent losses from the counterfeit Goods, FMCG companies in India have to ensure that they exercise greater control over their distribution channel and not just leave it to the market forces.
- Companies should focus on utilizing universally accepted global standards, and organizations should implement a comprehensive track and trace system.
- GST, upon being implemented shall replace the multiple indirect taxes levied on FMCG sector with a uniform, simplified and single-point taxation system.
- Food Security Bill The Food Security Bill has been passed recently by the Union Cabinet. As per the bill, 5Kg of food grains per person per month will be provided at subsidized prices by the State Governments under the targeted public distribution system. This is expected to result in higher inflow of investments into the agriculture sector in the coming years.
- Relaxation of License Rules Industrial license is not required for almost all food and agro-processing industries, barring certain items such as alcoholic beverages, cane sugar, and hydrogenated & animal fats as well as items reserved for exclusive manufacture in the small-scale sector.
- The Government of India has approved 100 per cent Foreign Direct Investment (FDI) in the cash and carry segment and in single-brand retail along with 51 per cent FDI in multi-brand retail.

Conclusion

Indian economy as a whole and the manufacturing sector in particular, need to improve supply chain performance considerably if Indian firms are to compete

globally. Indian firms need to learn from progressive firms in developed economies, which have managed to improve supply chain performance considerably.

3. What are the challenges being faced by the exporters of food products in India? What measures have been taken by the government to promote the export of food products? Discuss.

Introduction

Agricultural export constitutes 10% of the country's exports and is the fourth-largest exported principal commodity. However in the global trade, the share of India is only close to 2%. To achieve the true potential and export a greater share of what is being produced in India, there is an immediate need to address the export challenges. Some of them are discussed below –

Body

Challenges being faced by the exporters of food products in India

- **Seasonal deficiency and high cost of raw materials** constitute one of the most important constraints affecting the exporters of food products.
- **Storage Constraints** is the main hazard faced by the Indian small-scale enterprise.
- **Transportation and logistics constraints** are hurting export of perishable food items.
- **Low Automation and processing of food** – only ~ 10% of the food is processed. This leads to lots of wastage and reduces export capacity.
- **High competition** due to many players in the organized, in addition to, unorganized sectors.
- **Sanitary and Phytosanitary Measures** - In the year 2016, the India's share in EU's imports of fresh and processed food products was 2.9 per cent, which was lower than that of other developing countries including Brazil (7.8 per cent), China (4.9 per cent), Turkey (4.5 per cent) and Vietnam (3.4 per cent). Border rejections as a percentage of total notifications raised are the highest for India, when compared to other developing countries.
- **High Tariffs and Protectionist Policies** - India has the highest average applied tariff of any G20 country and among the highest bound tariff rates in the WTO.
- **Lack of synergy between the state and central government** as agriculture is a state subject, while the state's role for exports is undefined

Measures taken by the government to promote the export of food products

The Department of Commerce also has several schemes to promote exports of agricultural products - Trade Infrastructure for Export Scheme (TIES), Market Access Initiatives (MAI) Scheme and Merchandise Exports from India Scheme (MEIS).

In addition, assistance to the exporters of agricultural products is also available under the Export Promotion Schemes of Agricultural & Processed Food Products Export Development Authority (APEDA), Marine Products Export Development Authority (MPEDA), Tobacco Board, Tea Board, Coffee Board, Rubber Board and Spices Board. These organisations also seek to promote exports through participation in international fairs & exhibitions, taking initiatives to gain market access for different products in different markets, dissemination of market intelligence and taking steps to ensure quality of exported products.

Conclusion

Agriculture plays a vital role in India's economy. Over 58% of the rural households depend on agriculture as their principal means of livelihood. Hence enabling export of food products can become strategy for rural prosperity and inclusive development.

4. What are the upstream challenges faced by the cooperative model of food processing industries? Discuss. How can those be addressed? Suggest.

Introduction

Food Processing includes process under which any raw product of agriculture, dairy, animal husbandry, meat, poultry or fishing is transformed through a process in such a way that its original physical properties undergo a change and the transformed product has commercial value and is suitable for human and animal consumption. It also includes the process of value addition to produce products through methods such as preservation, addition of food additives, drying etc. with a view to preserve food substances in an effective manner, enhance their shelf life and quality.

Body

Upstream challenges faced by the cooperative model of food processing industries.

The food processing industry accounts for one third of the total food market in India. According to a report by Agricultural and Processed Food Products Exports Development Authority (APEDA) food processing industry accounts for 32% of India's food market.

However, it does face certain hindrances to its growth. They are as follows:

- **Low availability raw materials:** Certain crops are seasonal, thus cause delay in the process. Certain crops like oilseeds are mainly grown by small and medium farmers. These farmers need to have capital for fertilisers, equipment etc, to increase the quality of their produce. However this is difficult as they can't afford to do so. Certain crops are increasingly dependent on monsoons which are sometimes delayed resulting in poor or no yield.

- **Lack of Storage Infrastructure:** Many small scale food processing industries are suffering from shortage of food storage infrastructure that help in storage of raw materials. This results in increased food wastage and loss. The scarcity of space in these infrastructures account for large wastage of the agricultural produce
- **Lack of adequate connectivity:** Certain rural areas are not well connected. Thus the goods produced in these areas take a long time to reach the food processing units. Therefore increase in the connectivity by roads, railways, rivers, airways and shipping is of essence to increase the profit of the farmers and others who are involved in the process. The perishables must be sent to its destination in an efficient manner
- **Old processes:** The foods are usually inspected manually. This should cease in order to reduce human error and time wastage Technologies must be improved to stay in track with the increasing competition in the global market
- **Ignorance and human error:** Many food items are wasted in daily basis due to carelessness of those who handle them while shifting, packaging, storing transporting etc. this needs to be reduced through efficient and stringent measures

Suggestions to further boost the sector

India cannot afford any wastage of food, according to FAO; every third malnourished child is an Indian. Several measures have been taken by the Indian government like National Food Security Act, 2013 and India Food Banking network. However, with the rapid increase in the population, it is of essence for the Indian government to improve the measures for preventing wastage of food.

- There is a need for an integrated approach with a focus on forging backward and forward linkages, which are crucial for scaling up the economic viability of the sector.
- The regulatory framework for contract and corporate farming needs to be developed in this regard. Model land leasing law developed by NITI Aayog is a step in the right direction that needs to be implemented by states with suitable local adaptations and modifications.
- Promote the holistic development of the sector by increasing private sector participation with a well-developed framework for risk-sharing and fiscal incentives for creating infrastructure for logistics, storage, and processing.
- There is a need for modification in the Mega food park scheme for first-time entrepreneurs as the current cap of ten crores credit is not sufficient and has to be enhanced for the high-cost adoption of technology and enhancement of scale.
- The implementation architecture needs to be simplified for a complete overhaul of certifying and approval procedures. There is a crying need to get a single window scheme for the same.

- Ensure uniform implementation of the APMC act to increase private sector participation and also harmonization of tax structure under GST to reduce vast fluctuations in price.
- There is also an urgent need to improve research and development (R&D) standards. This will meet stringent global standards and increase the scope for exports. The globalisation has increased trade across the borders and about 460 million tons of food valued at US\$ 3 billion is traded annually. Hence, India has immense potential for global trade in agricultural and processed food products. The share of food processing exports in total exports was about 12% during the last few years. Between 2011 and 2015, India's exports of processed food products have been growing at a compounded annual growth rate (CAGR) of 23.3%. These figures reinforce the fact that India can capitalise on the export potential of the food processing sector in the forthcoming years.
- There is also a need to encourage academia and industry to commence courses in food packing, processing, biotechnology, information technology so that there would be a constant supply of skilled manpower and also help India achieve global excellence in the food processing sector.

Way Forward

- Food processing has numerous advantages which are specific to Indian context. It has capacity to lift millions out of poverty and malnutrition. Government should develop industry in a way keeping in mind the interests of small scale industry along with attracting big ticket domestic and foreign investments.
- The entire food value chain in India is controlled by multiple ministries, departments and laws. A comprehensive policy will ensure that various initiatives across the departments are aligned to the overall goal of ensuring availability, awareness, affordability, access, quality and safety of food.
- The target of ensuring food security for more than a billion people requires a concerted effort by all stakeholders including government and the food processing industry. In addition to private players and government, industry bodies and academia will also have a crucial role in the success of these initiatives.

Conclusion

India is one of the major exporters of processed food products and so the FPI earns significant export revenue for the country. India needs to go for technology up-gradation as well as innovation and diminish the adverse role of intermediaries and strengthen supply chain for the robust growth of this sector. A vibrant FPI sector marked by a supportive ecosystem can alleviate India's concerns on inter-linked issues of food security, malnutrition and food inflation. And this must be a core priority for the government in the larger national interest.

5. Do you think a National Land Use Policy should be formulated urgently? Substantiate your views.

Introduction

The National Land Use Policy is necessary to achieve improvement of livelihood, food and water security, and best possible realization of various developmental targets so as to ensure sustainable development of India. There was draft National land utilisation policy formed in 2013.

Body

To ensure optimal utilisation of the limited land resources in India for addressing social, economic and environmental considerations and to provide a framework for the States to formulate their respective land utilisation policies incorporating state specific concerns and priorities.

Necessity of National Land Use Policy:

- Unregulated land use shifts: the net sown areas in the country have increased from 41.8% to almost 51%, the forest areas have increased from 14.2% to almost 23%, and the areas under non-agriculture uses, which include industrial complexes, transport network, mining, heritage sites, water bodies and urban and rural settlements has also increased, since 1950. These increases of land use as above have lead to reduction of land use elsewhere. During the same period, the “other areas” that include barren & unculturable land, other uncultivated land excluding fallow land and fallow lands have drastically decreased by nearly half.
- Reduction in per capita uses of land resources: Protection of agricultural lands from land use conversions so as to ensure food security and to meet consumption needs of a growing population and to meet livelihood needs of the dependent population.
- Urbanisation demands: According to the world population prospects by the United Nations, 55% population of India will be urban by the year 2050. The demand for non-farm land use will increase further in future. There is a need for appropriate land utilisation and management strategy and land use planning to cater to the growing urbanisation needs. There is scope for re-densification, proper augmentation of land under municipal corporations, PSUs.
- Meeting industrialisation demands: The industrial development occupies a lot of land. The industrial development is associated with supportive development which also requires considerable amounts of land.
- Protection of social interests: To identify and protect lands that are required to promote and support social development, particularly of tribal communities and poor section of society for their livelihood.

- Protection of heritage: To preserve historic and cultural heritage by protecting, places/sites of religious, archaeological, scenic and tourist importance.
- Protecting lands under natural resources and ecosystem services: To preserve and conserve lands under important environmental functions such as those declared as National Parks, Wild Life Sanctuaries, Reserved Forests, Eco Sensitive Zones, etc. and guide land uses. To preserve the areas of natural environment and its resources that provides ecosystem services.

As there is continuous stress on land resource in India as around 17% of world population has only 2.4% of world land area.

- Nearly 30% of its land area in India, as much as the area of Rajasthan, Madhya Pradesh and Maharashtra put together, has been degraded through deforestation, over-cultivation, soil erosion and depletion of wetlands.
- This land loss is not only whittling away India's gross domestic product by 2.5% every year and affecting its crop yield, but also exacerbating climate change events in the country which, in turn, are causing even greater degradation.
- Recognition of the customary tenure of indigenous people who have knowledge about local ecosystems like forests, and involving them in the decision-making and governance can help advance the efforts against climate change. "Insecure land tenure affects the ability of people and communities" to fight climate change, said the IPCC report.
- An ongoing case in the Supreme Court of India also threatens to evict 2 million forest dweller families whose Forest Rights claims have been rejected. Currently, 21 state governments are in the process of reviewing all the rejected claims.
- Land pollution due to excessive use of chemical fertilisers, biocides (pesticides, insecticides and herbicides), polluted liquids and solids from urban and industrial areas, forest fires, water-logging and related capillary processes, leaching, drought.

Detailed National land utilisation policy could help to do away all aforementioned issues regarding land use in India.

Conclusion

There is urgent need to formulate National land use policy with perspective of 'New India' to minimise land use conflicts or negative environmental impacts. For implementation of land utilisation policy, all concerned at different levels, viz. national, state, regional and local should suggest a general implementation framework and undertake capacity building.