

## FOOD PROCESSING IN INDIA: POLICIES, CHALLENGES AND STRATEGIES

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### ABSTRACT

*The food processing industry is of mammoth significance for India's development. The government's initiatives to make India Global Food Factory and Global Food Market bring immense opportunities for the food processing sector. Demand for processed food items is set to increase in India in the coming years, providing opportunities for greater value addition, lower wastage and alternative employment opportunities. Increasing the level of perishable processing products will help reduce the level of wastage, generating employment and fetching remunerative prices for farmers. This paper attempts to give information about the government initiatives to promote the industry, the challenges and suitable strategies to overcome.*



### INTRODUCTION

The Indian food industry is poised for huge growth, increasing its contribution to the world food trade yearly. In India, the food sector has emerged as a high-growth and high-profit sector due to its immense potential for value addition, particularly within the food processing industry. India is the second largest producer of food in the world after China. It has the potential to become a food basket for the world, considering the scope and increasing demand for food processing. The Indian food and grocery market is the world's sixth largest, with retail contributing 70% of the sales. It accounts for 32% of the country's total food market, one of the

largest industries in India and is ranked fifth in production, consumption, export and expected growth (NABARD, 2018). Food processing is a link between the agriculture and manufacturing sectors. Therefore, it helps ensure safe and healthy food at affordable prices across the population. The food processing industry in India comprises different sub-sectors, such as food grain processing, fruit and vegetable products, milk and milk products, meat and poultry products, etc. A well-developed food processing sector with a higher level of processing helps reduce wastage, improves value addition, promotes crop diversification, ensures better return to the farmers, promotes employment, and increases export earnings. This sector is also capable of addressing critical issues of food security, and food inflation and providing wholesome, nutritious food to the masses (Dhanya *et al.*, 2020)

## **CONTRIBUTION OF THE FOOD PROCESSING SECTOR TO GDP**

Over the years, agricultural production in India has consistently recorded higher output. India ranks third in cereals, first in pulses, second in the vegetable primary, second in fruit primary, first in milk, and third in eggs primary, etc., in World Agriculture in 2018. An abundant supply of raw materials, increased demand for food products, and incentives offered by the government have positively impacted the food processing sector. During the last five years ending 2019-20, the food processing sector has been growing at an Average Annual Growth Rate (AAGR) of around 11.18 per cent as compared to around 4.19 per cent in Agriculture (at 2011-12 prices). The food processing sector has also emerged as an important segment of the Indian economy in terms of its contribution to GDP, employment and investment. The sector constituted as much as 9.87 per cent and 11.38 per cent of gross value added in the manufacturing and agriculture sector, respectively, in 2019-20 (at 2011-12 prices) (Annual Report, 2022).

## **1. GOVERNMENT POLICIES TO PROMOTE FOOD PROCESSING IN INDIA**

### **1.1. FOREIGN DIRECT INVESTMENT (FDI)**

- Hundred per cent (100%) FDI is permitted under the automatic route in food processing industries
- Hundred per cent (100%) FDI is allowed through the Government Approval route for trading (including e-commerce) in respect of food products manufactured in India
- Hundred per cent (100%) FDI is allowed for companies undertaking Single Brand Retail Trading in India (49% under Automatic route and approval route for beyond 49%)

- Up to 51%, FDI is permitted under the approval route for Multi Brand Retail Trading with the condition that the minimum amount to be brought-in as FDI would be USD 100 million and 50% of this amount to be invested in back-end infrastructure.

## **1.2. NATIONAL FOOD PROCESSING POLICY**

The policy's objective is to reduce wastage, increase value addition, and ensure better farmers' prices while ensuring availability and quality produce to consumers. The significant highlights of the policy are given below:

- The single window clearance system
- Promote fruit processing clusters
- Strengthen agriculture marketing infrastructure
- Facilitation of land allotment
- Promote mega food parks/food parks
- Support the development of logistic infrastructure
- Compliance with food safety regulatory requirements
- Support to business units having established backward integration

## **1.3. ROLE OF MEGA FOOD PARK AND ITS LINKAGES WITH FPOS IN THE PROMOTION OF THE FOOD PROCESSING SECTOR**

The scheme of the mega food park aims to create a modern infrastructure of food processing and to provide a mechanism to bring together farmers, processors and retailers and link agriculture production to the market so as to ensure maximizing value addition, minimizing wastage, increasing farmers' income and creating employment opportunity especially rural areas. The government has operationalized 42 mega food parks in the country.

## **1.4. OTHER ENABLING SUPPORT FOR INVESTMENT**

- The government of India facilitates investment in the food processing sector through a number of incentives announced from time to time. The major incentives are as under Income tax relief under sections 80 IB, 35 AD and 10 AA of Income Tax Act, 1961.
- GST for food processing machinery ranges from 5% (machines for cleaning, sorting or grading, seed, grain or dried leguminous vegetables; machinery used in milling industry or for the working of cereals or dried leguminous vegetables other than farm type machinery and parts thereof), 12% (dairy machinery, milking machines), 18% (machinery for the industrial preparation or manufacture of food or drink, other than

machinery for the extraction or preparation of animal or fixed vegetable fats or oils) to 28% (freezers and refrigerating equipment, etc.)

## **2. GOVERNMENT OF INDIA (GOI) SCHEMES AND INITIATIVES**

There are a number of central sectors and centrally sponsored schemes operating for the promotion of cold chain, agri-marketing infrastructure and food processing industries. The details are discussed in this section:

### **2.1. CENTRAL SECTOR SCHEMES**

#### **2.1.1. PRADHAN MANTRI KISAN SAMPADA YOJANA**

The Government of India (GoI) has approved a new Central Sector scheme – PM Kisan SAMPADA (Scheme for Agro Marine Processing and Development of Agro-Processing Clusters) with an outlay of 6000 crore rupees for the period 2016-20 co-terminus with the 14th Finance Commission cycle. The Ministry of Food Processing Industries, GoI New Delhi implemented the scheme. SAMPADA is a comprehensive package that creates modern infrastructure from farm gates to retail outlets.

**The scheme consists of the following sub-schemes:**

- i. Mega Food Parks
- ii. Integrated cold chain and preservation infrastructure
- iii. Creation/expansion of food processing and preservation capacities
- iv. Infrastructure for agro-processing clusters
- v. Creation of backward and forward linkages
- vi. Food safety and quality assurance infrastructure
- vii. Human resources and institutions
- viii. Operation Greens

#### **2.1.2. MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE (MIDH)**

Ministry of Agriculture launched MIDH, GoI by subsuming various existing schemes such as National Horticulture Mission (NHM), Horticulture Mission for North East & Himalayan States (HMNEH), National Bamboo Mission (NBM), National Horticulture Board (NHB), Coconut Development Board (CDB) & Central Institute for Horticulture (CIH). The subsidy for post-harvest management and cold chain projects implemented through NHM and NHB are also part of the MIDH.

### **2.1.3. PRODUCTION LINKED INCENTIVE SCHEME FOR FOOD PROCESSING INDUSTRY**

Union Cabinet, in its meeting on 31.03.2021, approved the Central Sector Scheme- "Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)" to support the creation of global food manufacturing champions and support Indian brands of food products in the international markets. The PLISFPI has been formulated based on the Production Linked incentive scheme of NITI Aayog under "Aatma Nirbhar Bharat Abhiyaan for Enhancing India's Manufacturing Capabilities and Enhancing Exports". The scheme will be implemented for a six-year period from 2021-22 to 2026-27. The Scheme Objectives are to extend financial support to food manufacturing entities, with stipulated minimum sales and willing to make a committed investment for the expansion of food processing capacity and incur expenditure in branding & marketing of food products abroad to facilitate the emergence of strong Indian brands.

## **2.2. CENTRALLY SPONSORED SCHEMES**

### **2.2.1. NATIONAL FOOD SECURITY MISSION (NFSM)**

The Government of India enacted Food Security Act with a right to every targeted beneficiary belonging to the eligible targeted public distribution system to receive 5 kilograms of food grains at a subsidized price. The scheme is implemented through State Government and requires investment in post- harvest management, especially warehousing and transport logistics.

### **2.2.2. PM FORMALIZATION OF MICRO FOOD PROCESSING ENTERPRISES (PMFME) SCHEME**

As part of Aatmanirbhar Bharat Abhiyan, the Ministry of Food Processing Industries (MoFPI) has launched an all India centrally sponsored "PM Formalization of Micro food processing Enterprises (PMFME) Scheme" for providing financial, technical and business support for the upgradation of existing micro food processing enterprises. It is to be implemented for five years, from 2020-21 to 2024-25, with an outlay of Rs. 10,000 cr. Two lakh micro food processing units will directly assist with credit-linked subsidies.

**The objectives of the scheme are as under:**

- Increased access to credit by existing Micro Food Processing entrepreneurs, FPOs, Self Help Groups and Co-operatives;
- Integration with an organized supply chain by strengthening branding & marketing;

- Support for the transition of existing 2,00,000 enterprises into a formal framework;
- Increased access to common services like common processing facilities, laboratories, storage, packaging, marketing and incubation services;
- Strengthening of institutions, research and training in the food processing sector; and
- Increased access for the enterprises to professional and technical support.

## **2.3. OTHER INITIATIVES**

### **2.3.1. START-UP INDIA**

The programme was announced in January 2016 with an action plan for promoting bank financing for Start-Up ventures to boost entrepreneurship and encourage start-ups with job creation. Start-up is an entity incorporated or registered in India not prior to seven years (for biotechnology not prior to ten years) with an annual turnover not exceeding 25 crore rupees in any preceding financial year working towards innovation, development or improvement of products, processes or services or if it is a scalable business model with a high potential of employment generation or wealth creation. A Start-up India online hub was also launched in June 2017.

### **2.3.2. STAND-UP INDIA (SUI)**

The Government of India launched the Stand-up India scheme in April 2016 to support at least one SC/ST and one women entrepreneur per bank branch to set up greenfield enterprises in manufacturing, services or the trading sector and become job creators. Over 16,000 new enterprises have come up through this scheme in activities as diverse as food processing, garments, diagnostic centres, etc. The scheme offers a huge opportunity for investors in the food processing sector. Small Industries Development Bank of India (SIDBI) operates and maintains the Stand-up India portal and acts as connect centre along with NABARD.

### **2.3.3. SKILL INDIA**

Skill development in the food processing industry is a major challenge today. There is a dearth of skilled workforce. As per a study conducted by National Skill Development Corporation (NSDC) on human resources and skill requirements in the food processing sector, the annual human resource requirement in the food industry is estimated at 5.3 lakh people, including one lakh, in the organized sector. Skill India programme was launched in July 2015 to train a minimum of 300 million people in India in different sectors by 2022. The following are some of the flagship programmes of the Government of India for promoting skill development in the country.

### **2.3.3.1. PRIME MINISTER KAUSHAL VIKAS YOJANA (PMKVY)**

GoI launched the scheme in July 2015 to skill one crore youth of the country with an outlay of 12000 crores. It is being implemented by the National Skill Development Corporation (NSDC). The centre is implementing the PMKVY (2016-2020) along with the states, which have three training formats. Short-Term Training (STT), Recognition of Prior Learning (RPL) and Special projects. Pradhan Mantri Kaushal Kendra (PMKK) plays a crucial role in imparting vocational training to the youth. Under PMKVY, training is imparted for pickle-making technicians, traditional snacks and savoury makers, baking technicians, mixing technicians, plant biscuit production specialists, etc.

### **2.3.3.2. UDAAN**

It is the Special Industry Initiative (SII) for Jammu & Kashmir to train 40000 unemployed youth in J&K over six years. It is funded by the Ministry of Home Affairs and implemented by the NSDC of India. Increasing investments in the sector have led to higher demand for more qualified people.

### **2.3.4. MAKE IN INDIA**

The programme was launched by GoI in September 2014. Under this initiative, 25 thrust sectors, including manufacturing and relevant services sectors, have been identified. The major objective of the scheme is to improve the competitiveness of the private and public sector firms operating in the country, facilitating their integration into the global value chains and enabling them to compete better in the global markets.

## **3. CHALLENGES FOR THE GROWTH OF THE FOOD PROCESSING SECTOR IN THE COUNTRY**

- Lack of a comprehensive national food processing policy leads to inconsistent central and state policies.
- Delays in land acquisition due to requirement of conversion of land use (non-agricultural use permission).
- Inadequate infrastructure for storage, sorting, grading and post-harvest management, road connectivity, sea ports, airports, information and marketing linkage, electricity and cold chain are the Indian food processing industry's biggest constraints.

- Lengthy procedures for Government clearance - The clearances from Government apartments like Municipal/ Town Planning Authorities, Pollution Control Board, State Electricity Department, Boiler Inspector, etc., usually delay project implementation.
- The dominance of unorganized sector (42%) & small scale (28%) in the food industry operating at low scale and high cost of production.
- Organized production of raw materials for processing leads to low recovery rate, high cost of raw materials and low-quality products.
- Inadequate facilities for mentoring of Start-Ups and pilot testing of technologies and innovations. There is also a lack of applied research on processes and technology.
- The high cost of manufacturing and packaging makes the products' luxury items unaffordable to the common population.
- Fluctuation of raw material prices leading to viability issues in food industries. The sudden rise in the prices of raw materials have resulted in the past temporary or complete shutdown of food factories.
- Inadequate flow of credit, especially for working capital requirements. The assessment of the working capital cycle followed by banks does not hold good due to the seasonal availability of raw materials.
- Non-availability of skilled man power for food processing is a big challenge. Industrial training institutions providing skill-based training/diploma courses are limited.
- Poor adoption of quality standards by the food industry led to a lowering of the brand value of the Indian Food Industry.
- Lack of market intelligence and brand building in Indian Food Processing Industries (Makda, 2019).

#### **4. STRATEGIES TO PROMOTE THE FOOD PROCESSING SECTOR IN THE COUNTRY**

- A National Food Processing Policy may be formulated to follow a uniform approach for the food processing sector on a Pan-India basis.
- Relax non-agricultural land use permit for the food industry procuring raw materials directly from the farmers and to Farmer Producer Organizations
- The Single Window approach for Government clearances may need to be in place in all the States.



- Exclusive Food Technology Skilling Mission for bridging the skill gap in food in view of the emerging food safety systems and food standards.
- The Model Contract Farming Facilitation Act 2017, under consideration of the government, may need to be expedited.
- Constituting a task force to study the working capital requirement and adequacy of working capital finance to the food industry, especially considering the recent initiatives of the GoI such as Make in India, etc.
- Providing affordable credit to the food processing Industry to promote the creation of investments in the sector.
- Enlarging the scope of the credit guarantee fund/creating of a risk fund will help mitigate stress on the banking industry on financing the sector, which is mostly seasonal and capital and labour intensive.
- Infrastructure for setting up food research and testing facilities and traceability may be promoted in a big way to provide safe food in the domestic market and also remain competitive in the world market.
- Creation of a National Brand Equity Fund for Food Industry with a contribution from Industry Associations, GoI, etc. to India brands internationally.
- Make in India to focus on manufacturing plant and machinery and packaging materials locally to reduce cost of production.

## CONCLUSION

Food processing Industry in India has seen remarkable growth and changes over the past few years driven by changing trends in market, consumer behaviour and Government initiatives. India's food processing industry is dominated by a highly fragmented, unorganized sector with small operations. About 42% of the output comes from the unorganized sector, 25% from the organized sector and the rest from small-scale players. The processing level in non-perishable products such as cereals and pulses are more than 90%. However, only 7 per cent of the total Indian perishable produce is processed, which is significantly lower compared to countries. A fragmented and lengthy supply chain, inadequate infrastructure, skill gap in human resources, low adherence to quality standards, capital-intensive nature of the industry and taxation issues are the major challenges this sector faces. Addressing these challenges will take this industry to par with its global counterpart. The Government of India's focus towards the food processing industry is the key to double farmer's income.

## REFERENCES

- Annual Report 2021-22. (2022). MOFPI.  
[https://www.mofpi.gov.in/sites/default/files/mofpi\\_annual\\_report\\_for\\_web\\_english.pdf](https://www.mofpi.gov.in/sites/default/files/mofpi_annual_report_for_web_english.pdf)
- Dhanya, V., Avdhesh, K. S., & Rishabh, K. (2020). Food Processing Industry in India: Challenges and Potential. *RBI Bulletin*, 27–41.
- Makda, S. (2019). The food processing industry in India: Challenges and Prospects. *GAP Interdisciplinarity*, 2(3), 97–107.
- NABARD. (2018). Sectoral Paper on Food Processing. In Farm Sector Policy Department, NABARD Head Office, Mumbai (p. 38). NABARD.  
<https://www.nabard.org/auth/writereaddata/file/NSP%20on%20Food%20and%20Agro%20Processing.pdf>.

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