

Impact of Food Processing on Employment Generation and Skill Development

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In order to become a developed nation in the next 25 years, the vision of India in the Amrit Kaal era would require a critical transformation in its primary sector, agriculture. The development paradigm within agriculture needs to transform from agriculture to agribusiness, with the employment dependency on agriculture being suitably addressed by skill development and absorption in the emerging agribusiness sphere. The food processing sub-sector will be centric to this agricultural transformation pathway. NABARD has been at the forefront as an important stakeholder in the food processing sector, playing a vital role in infrastructure creation for the food processing industry.

Thanks to the Green Revolution, over the last five decades (1970s to 2020s), India has moved from a position of scarcity to surplus in terms of food production. Agricultural production in India has consistently recorded higher output, ranking first in pulses and milk, second in vegetables, fruits, wheat, and rice, and third in cereals, eggs in world

agriculture. With increasing production and supply of raw materials, India's food processing sector in recent years has been known for its high growth, thus increasing its contribution to world food demand every year. Currently, India is processing less than 10% of its agricultural output, thus presenting immense opportunities for increasing processing levels and leading to immense

investment potential in this sector. With about 70% of households still dependent on agriculture for their livelihood in India, this sector provides huge employment generation potential as well. In this background, the food processing sector has been recognised as a 'sunrise sector' and a key priority industry under the 'Make in India' initiative, led by the Prime Minister, Shri Narendra Modi and is being promoted aggressively through fiscal and monetary incentives.

Status and Role of the Food Processing Sector in India

a. Contribution to GDP

During the last 5 years ending 2020-21, the food processing sector had grown at an average annual growth rate of around 8.38%, as compared to around 4.87% in the agriculture and allied sectors (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 (Table 1).

The food processing sector also constituted as much as 10.54% and 11.57% of the Gross Value Added (GVA) in the manufacturing and agriculture sectors, respectively, in 2020-21 (at 2011-12 prices) (Table 2).

Although there has been increasing demand for processed food and ready-to-eat food in India, the share of the food processing industry in overall GVA has only been 1.88% (2020-21) as against the share of manufacturing at 17.86% and the share of GVA in agriculture at 16.26% (Table 3).

b. Employment Generation

As per the latest Annual Survey of Industries (ASI) for 2019-20, the total number of persons engaged in the registered food processing sector was 20.32 lakhs. Moreover, the unregistered food processing sector supported employment for 51.11 lakh workers as per the NSSO 73rd Round, 2015-16, and constituted 14.18% of employment in the unregistered manufacturing sector (Table 4).

Table 1: GVA by Food Processing Industries (FPI) at Constant Prices (2011-12)

(₹ lakh cr.)

Sr.	Economic activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	GVA-All India	85.46	90.64	97.12	104.92	113.28	120.34	127.34	132.19	125.85
2	GVA Manufacturing	14.87	15.61	16.84	19.04	20.55	22.09	23.29	22.61	22.48
3	GVA-Agriculture, Forestry, Fishing	15.24	16.09	16.06	16.16	17.26	18.40	18.79	19.82	20.48
4	GVA-FPI	1.30	1.30	1.34	1.61	1.79	1.93	2.36	2.26	2.37

Source: Annual Report 2022-23, MoFPI, Gol

Table 2: Share (%) of FPI in GVA of Manufacturing and Agri & Allied Sector

Sr.	Economic activity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	GVA Manufacturing	8.74	8.33	7.96	8.46	8.71	8.74	10.13	10.00	10.54
2	GVA Agriculture, Forestry And Fishing	8.53	8.08	8.34	9.96	10.37	10.49	12.56	11.40	11.57

Source: Annual Report 2022-23, MoFPI, Gol

Table 3: Share (%) of Various Sectors in Overall GVA

Sr.	Economic activity	2018-19	2019-20	2020-21
1	GVA-FPI	1.85	1.71	1.88
2	GVA-Manufacturing	18.29	17.10	17.86
3	GVA Agri and allied sectors	14.76	14.99	16.26

Source: Annual Report 2022-23, MoFPI, Gol

Table 4: Number of Persons Engaged in Food Processing Sector**(lakh persons)**

Sector	Food Processing Industry*	All Industries	(%) Share of FP sector
Registered (2019-2020)	20.32 lakh	166.21 lakh	12.22
Un-incorporated	51.11 lakh	360.41 lakh	14.18

*Source: Annual Report- FY 2022-23, MoFPI, GoI, *includes food products and beverage segments*

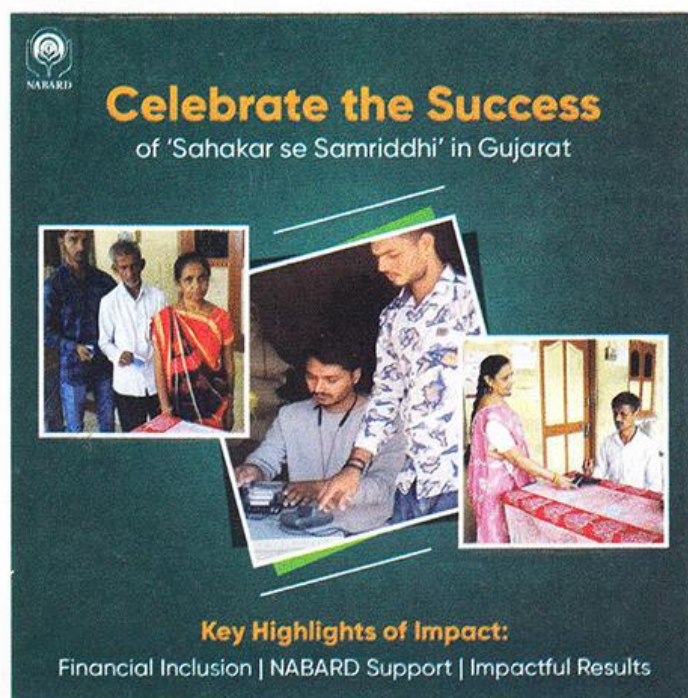
The Ministry of Food Processing Industries (MoFPI) through the implementation of the Central Sector Scheme, namely, Pradhan Mantri Kisan Sampada Yojana (PMKSY), across the country has facilitated the creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet for promotion. The scheme has resulted in the overall development and growth of the food processing industry, through the creation of employment opportunities, reducing wastage of agricultural produce, increasing processing levels, and enhancing the export of processed foods. Based on evaluation studies carried out for relevant components of PMKSY, substantial direct/indirect employment opportunities have been created through this scheme. The evaluation study of the Integrated Cold Chain and Value Addition Infrastructure Scheme under PMKSY, conducted by M/s NABARD Consultancy Limited (Nabcons) in the year 2020, has estimated that each project has resulted in the creation of about 600 direct/indirect employment opportunities. It is estimated that about 9.69 lakh direct/indirect employment opportunities have been generated through projects completed under component schemes of PMKSY.

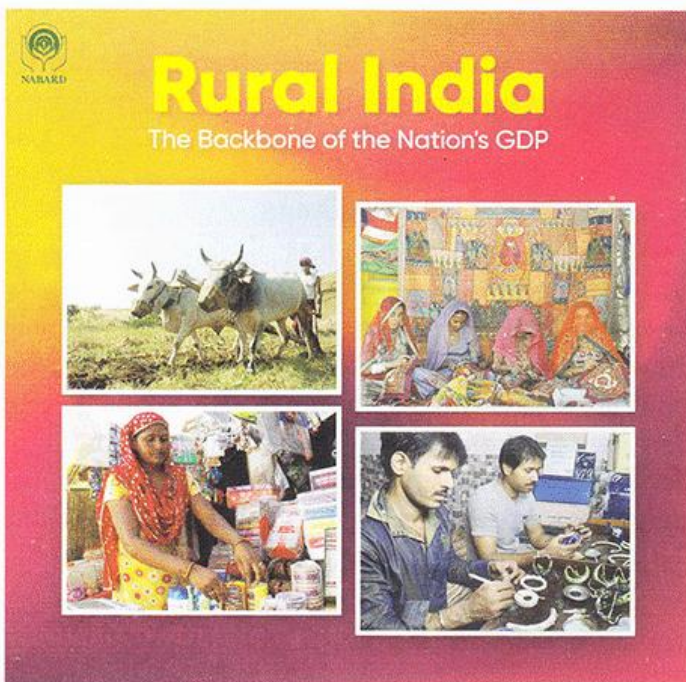
Similarly, under Atmanirbhar Abhiyaan, the MoFPI launched a Centrally Sponsored Scheme (CSS) named Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) in June 2020 to encourage 'Vocal for Local' in the sector with a total outlay of ₹10,000 crore during the period 2020-2025 under this scheme. The scheme aims to enhance the competitiveness of individual micro-enterprises in the unorganised segment of the food processing industry and promote formalisation of the sector. This is the first ever Government scheme for Micro Food Processing enterprises and is targeted to benefit 2 lakh enterprises through credit linked subsidies and adopting the approach of 'One District One Product'. Since the inception of the scheme, so far, a total of 65,094 loans have

been sanctioned under the credit-linked subsidy component of the PMFME scheme to individual beneficiaries, Farmer Producer Organisations (FPOs), Self Help Groups (SHGs), and Producer Cooperative Societies. Further, an amount of Rs 771 crore has been released as seed capital assistance, benefiting 2.3 lakh SHG members.

c. Skill Development Initiatives

The availability of skilled manpower has been identified as one of the major challenges facing the food processing industry in India. In order to address the issue, the MoFPI has been working in close collaboration with the Food Industry Capacity and Skill Initiative (FICSI), the Sector Skill Council (SSC), and the National Institute of Food Technology Entrepreneurship and Management (NIFTEM), an institute under the MoFPI, to regularly guide and assist it in achieving its mandate. As per the study undertaken by FICSI, the net expected skilled human resource requirement in the 11 major food processing subsectors of the industry in the country, viz., bread and bakery products; cold chain; dairy products; fish and sea food processing;





F&V processing; meat and poultry processing; milling (grain and oil seeds); beverages (tea and coffee); ready-to-eat (RTE) and ready-to-cook (RTC) products; soya processing and spices and condiments respectively, during 2021-30 would be around 13.4 lakh.

Accordingly, the Government has undertaken several skill development initiatives to ensure availability of technically qualified and trained staff in the food processing sector. It is in the process of strengthening the SSC in this sector to complete the validation of the Qualification Packs (QPs) for each job role that has been developed. It is also assisting in the development of the course curriculum through NIFTEM.

Role of NABARD in Food Processing and Storage Infrastructure

NABARD has been at the forefront as an important stakeholder in the food processing sector, playing a vital role in infrastructure creation for the food processing industry. Currently, NABARD manages two important funds viz., the Food Processing Fund (FPF) and Warehouse Infrastructure Fund, allocated by the Government of India for supporting the food processing sector and the creation of warehouse infrastructure for scientific storage of food grains in the country.

a. Food Processing Fund

The Government of India instituted the Food Processing Fund (FPF) in NABARD during 2014-15,

with a corpus of ₹2,000 crore, with the objective of providing affordable credit to public and private players for setting up of Designated Food Parks (DFPs) notified by the Ministry of Food Processing Industries (MoFPI), Government of India, and establishing food processing units therein. As of 31 March 2024, NABARD has sanctioned a term loan of ₹1191.57 crore for 14 Mega Food Parks (MFPs), 03 Industrial Parks, 09 Agro Processing Clusters (APCs), and 15 Individual Food Processing Units, and the cumulative disbursement is ₹768.77 crore.

i. Expected Capacity Creation

An area of about 1370.03 acres would be developed in 14 Mega Food Parks (MFP), 03 Industrial Parks, and 09 Agro Processing Clusters (APC) projects, which act as Central Processing Centres (CPCs). The 14 CPCs of MFP projects would be supported by 45 Primary Processing Centres (PPCs) and several Collection Centres (CCs) to be established at suitable places in the catchment zone of the respective 'mega food parks. These centres will help in the sourcing of agricultural produce directly from the farmers by the processing units to be established in the mega food parks, thereby creating direct marketing access to the user industry. These projects, when completed, would result in providing a diversified and much-needed core and processing infrastructure (Fig.1).

ii. Milestone Achieved

Under the Food Processing Fund, term loans have been extended to all types of eligible activities, viz.: mega food parks, industrial parks,

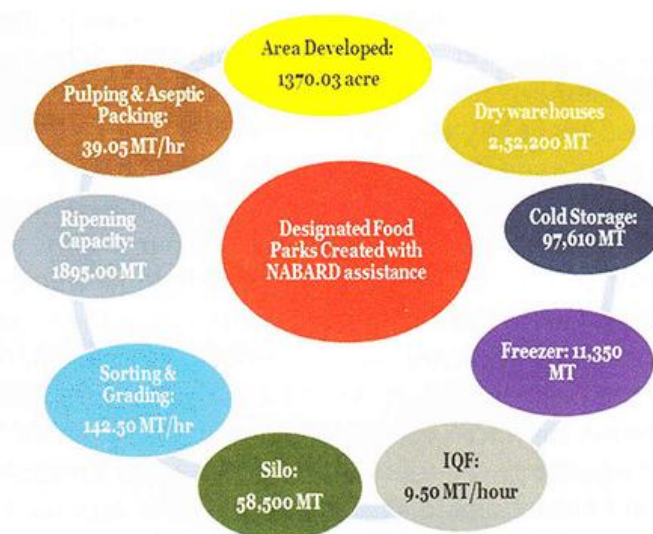


Fig.1

agro processing clusters, and individual units; and to different borrowing entities, viz. State Governments, State Government-owned entities, SPVs, federations, companies, partnership firms, and limited liability partnerships. Government of India has approved the Production Linked Incentive (PLI) scheme for 10 key sectors, including the food processing sector, with a budgetary outlay of ₹10,900 crore spread over a period of six years (FY 2021-22 to FY 2026-27). This would, inevitably, create huge opportunities for investment in the sector by both the public and private sectors. Food Processing Units established in Designated Food Park (DFP) would be able to avail benefit of such schemes. State-owned entities like State Agricultural Marketing Boards/Directorates of resource-rich States are coming up with proposals to set up Agro Processing Clusters (APC) across the districts. There is a good opportunity to tie up with the State Government to support their infrastructure plans through finance for the APC or any other designated food park managed by the PSUs of state governments. Financing of Individual Units coming up in the completed DFPs, especially those that have been supported by NABARD, will ensure the viability of both the DFP and the individual food processing units, respectively.

b. Warehouse Infrastructure Fund

The Government of India announced a dedicated Warehouse Infrastructure Fund (WIF) with a corpus of ₹ 5,000 crore in 2013–14. The WIF corpus was augmented with a further allocation of ₹5,000 crore in 2014–15. The fund was set up to support State governments, State-owned agencies, and Corporates for the creation of scientific warehouse capacity through financial support. The creation of storage infrastructure in APMCs was later included as an eligible activity for support under WIF.

The Fund envisages financing State governments, State government undertakings and the private sector for establishing dry warehouses, cold storage facilities, and cold chain infrastructure. As of date, the corpus under WIF is fully committed, and a total of 8,161 projects have been sanctioned across the country that envisage the creation of a storage capacity of 13.74 million MT. In terms of capacity created, a total of 9.96 million MT of scientific storage has been created in the country.



Tech Revolution in Assam's Tea Industry

Through the 'Climate Resilient Tea Cultivation and AI-based Pest Management' project, 64 Sewjyoti Tea Federation growers can access automated weather stations and pest recognition systems. This ground-breaking initiative boost productivity sustainably.



The southern and western regions of the country accounted for the majority of decentralised storage. The northern region, being the major procurement region, accounted for large-sized storage structures, whereas small-sized storage structures at village level have been sanctioned in Gujarat, Odisha, and Tamil Nadu. As of 31 March 2024, a total of 9.96 million MT of capacity has been operationalised consisting of varied storage structures, from small 100 MT farm gate warehouses of Primary Agricultural Cooperative Society (PACS) to modern state-of-the-art 50,000 MT silos meant for bulk storage.

Estimated Investment Potential in Food Processing Sector

The India food processing market size reached ₹ 28,027.5 billion in 2023 and is one of the largest in the world, and its output is expected to reach ₹61,327.5 billion by 2032, exhibiting a projected market growth rate of 8.8% between FY 2024-2032. New initiatives like planned infrastructure spending of approximately ₹100 lakh crore under the National Infrastructure Pipeline (NIP) and PMKSY with a budgetary outlay of ₹4600 crore till FY 2025-2026 as well as PMFME with an outlay of ₹10,000 crore spread over a 5-year timeline till FY 2024-25 have provided the much-needed fillip to the sector.

Further, the Gol has taken policy initiatives like exempting all processed food items from the purview of licensing under the Industries (Development and Regulation) Act, 1951; allowing 100% Foreign Direct Investment (FDI) through an

automatic route for the food processing sector; lowering GST for raw and processed products; and covering more than 71.7% food products under various chapter heads and sub-heads in a lower tax slab of 0% and 5%. All these would attract the necessary private investments to the sector. The sector has attracted \$6.18 billion in FDI equity inflow between April 2014 and March 2023, and it is going to grow further in the future.

Future Outlook

The Gross Value Added (GVA) of the food processing sector has increased from ₹1.34 lakh crore in 2014-15 to ₹2.08 lakh crore in 2021-22. The share of processed food exports in agri-exports has increased substantially from 13.7% in 2014-15 to 25.6% in 2022-23. However, India's food processing sector contributes only around 1.8% to the total GVA. This has grown at a six-year average annual rate of 3.5%. To make India a developed country by 2047, the contribution of the food processing sector to the overall Gross Value Added (GVA) needs to quadruple to ~7.2%. Future strategies need to be aligned to achieve the target of 10.4% CAGR by 2047 and make India a developed country. This can be achieved by making India's processed food exports globally competitive. The policy focus should be on making India a market leader in global trade for at least five value chains (processed fruits and vegetables, processed fish and sea food, meat, dairy products, poultry, and eggs) by 2047. This must be accompanied by nurturing a skilled workforce for the food processing sector and addressing the current skill gaps between the workforce and the industry. □

(The views expressed by the author are his own and not that of the Institution i.e. NABARD)

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