

## **Food Processing Industries (A support system for Non Farm Activities in Rural India)**

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**Abstract:** *“The prosperity of India lies in the prosperity of Villages”--- Mahatma Gandhi*

As there is a lot of change in the occupational structure of India since independence. But change in the overall economy did not have a pronounced effect on rural economies as Indian population still depends largely on agriculture sector. So, pressure on land should be reduced by giving priority to Rural Non-Farm Activities(RNFA). Food Processing is one of the such Non-Farm Activity (NFA) which can play a crucial role in reducing unemployment, poverty and enhances development activities in rural areas. This paper is an attempt to explain about the significance and performance of important non-farm activity – The food processing industry (FPI) in India. Further it highlights the major problems faced by FPI. At last it concludes with some remedial measures for improving their performance.

**Keywords:** Rural Non-Farm Activities (RNFA), Food Processing Industries (FPI)

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### **I. Introduction**

The rural nonfarm sector (RNFS) has attracted considerable attention in recent years in India. As agriculture is a seasonal activity, it fails to provide employment throughout the year. There is also problem of disguised unemployment and underemployment in the agriculture sector. Migration is not an option for everyone. Even the urban industrial sector is unlikely to provide much opportunity for increased employment to the rural labour force. The solution for rural poverty and unemployment must be sought primarily within the rural sector.

Thus Rural Non Farm Activities (RNFA) are those that can productively absorb the many agricultural workers and small farmers being squeezed out of agriculture by increasingly commercialized and capital intensive modes of farming. So, RNFA works as a potential alternative to agriculture for stimulating rural income growth. As it is evident from NSSO estimates that the share of Non-Farm sector, which was around 23.7 percent in 1999-00 rose to nearly 36 percent in 2011-12. The proportion of total workers in rural India engaged in the primary sector has been steadily declining from 74.6 per cent in 1987-88 to 71.4 per cent in 1999-2000 and further 50.2 percent in 2010-11 (Census Report, 2011). Simultaneously, the share of rural workers employed in the non-farm sector has steadily increased from 21.7 percent in 1987-88 to 23.8 per cent in 1999-00 and 31.9 percent in 2009-10. whereas the proportion of male workers in the non-farm sector has witnessed a steady increase from 25.5 per cent in 1987-88 to 28.6 per cent in 1999-2000 and 36.4 per cent in 2009-10 and the proportion of female workers has decreased from 15.3 percent in 1987-88 to 14.6 percent in 1999-00 but further increased to 20.4 percent in 2009-10. (Mitra,2005 ; Singh 2005 ; Pandey, 2012)

The rural and village non-farm sector in India has immense potential to generate new jobs with relatively low direct investments, by utilising local skills and resources or by meeting local demands by adoption of simple techniques. Development of this sector would also prevent migration of rural population to urban areas in search of employment and reduce the pressure of increasing urbanisation.

### **Objectives**

Agro processing / Food processing is an important non agricultural activity which promises a vast scope for employment and income generation especially for small and marginal farmers. The major objectives of the study are

- To know the significance and performance of Food Processing Industry (FPI) in India.
- To assess the major problems faced by FPI.
- suggests some remedial measures for improving their performance.

### **Data and Sources**

This paper is primarily based on the secondary data collected from various Reports of Government of India, Annual survey of Industries, National Sample Survey Organisation (NSSO) Data, National Accounts Statistics, Directorate General of Commercial Intelligence and Statistics (DGCIS), Department of Industrial

Policy and Promotion (DIPP), Census of India, Economic Surveys, Books, various Publications and Official Websites etc. Also simple arithmetic techniques are used to calculate percentage of the data.

### **Significance and Performance of food Processing Industries in India**

Agriculture alone cannot improve the overall development of rural economy; we need to diversify the rural economy by starting agro-processing industries in rural areas. Food processing, an important component of agro-processing deserve special attention. A Strong and dynamic food processing sector plays a significant role in the overall economic setup of a country. The sector provides vital linkages and synergies between industry and agriculture and has been identified as a sector having immediate potential for growth of the economy. Processing also helps in generating rural employment, additionally processed fruits and vegetables are a source of earning foreign exchange (Murthy, 2011)

A developed food processing sector will help overcome the biggest challenges in front of India as low farmer income and high subsidies, high wastage, poor hygiene and safety standards etc. Food processing is a large sector in India that covers activities such as agriculture, horticulture, plantation, animal husbandry and fisheries. It also includes other industries that use agricultural inputs for manufacturing of edible products. The extent of food processing can be categorised as

- Primary Processing; cleaning, grading, powdering and refining of agricultural produce, e.g., grinding wheat into flour.
- Secondary Processing: basic value addition, e.g., tomato-puree, ground coffee, processing of meat products.
- Tertiary Processing: high value addition products like jams, sauces, biscuits and other bakery products ready for consumption.

The Ministry of Food Processing, Government of India divides the industry into six segments: Dairy, fruits & vegetable processing; Grain processing; Meat & poultry processing; Fisheries; and Consumer foods including packaged foods, beverages and packaged drinking water.

**Table :1** Segments of Food Processing Industry and Products Produced in India

Sectors	Products
Dairy	Whole milk powder, skimmed milk powder, ice cream, condensed milk, butter and ghee, cheese
Fruits & Vegetables	Beverages, juices, concentrates, pulps, slices, frozen & dehydrated products, potato wafers/ chips etc.
Grains and Cereals	Flour, bakeries, starch glucose, cornflakes, malted foods, vermicelli, beer and malt extracts, grain based alcohol
Fisheries	Frozen canned products mainly in fresh form
Meat & Poultry	Frozen and Packed- mainly in fresh form egg powder
Consumer Foods	Snack food, namkeens, biscuits, ready to eat food, alcoholic and non-alcoholic beverages

Source: Ministry of food processing India, Annual report, 2004

The food processing sector in India has a great potential for growth because India is the world's second largest producer of food next to China and has the potential of being the biggest in the World. Food and food products are the biggest consumption category in India, with spending on food accounting for nearly 21 per cent of India's GDP and with a market size of \$181 billion. The Indian domestic food market is expected to grow by nearly 40 per cent of the current market size to \$258 billion by 2015 and \$344 billion by 2025 (World of Food India, 2011; Merchant, 2008). India's Agricultural base is quite strong but wastage is very high and processing of food products is very low. While processing of food to consumable standards are at levels of up to 80 per cent in some developed countries, the overall processing level in India has recently reached 10 per cent. Therefore, India's food processing sector comparatively is small and its share in exports of processed food in world trade has remained at about 1.5 percent or \$ 3.2 billion (Bhuyan, 2010)

Globally, the food processing industry is considered to be a sunrise industry and food companies are among the top ten in several countries. Keeping in view the great and practical relevance of agro processing / food processing industry we will now examine its performance in India.

- **Contribution of FPI to Gross Domestic Product (GDP)**

The demand for processed food in India is rising substantially day by day because of the breakdown of the joint family system, the shift in food habits, and rise in purchasing power. This revolutionary change in demand pattern for food has occurred among other factors due to urbanisation, rise in literacy levels and widening export markets.

To determine the level of food processing in the country, the Ministry of Food processing proposes to know the contribution of Food Processing Sector to GDP by NIC Groups 151-155 and contribution of agriculture to GDP.

Here 151-155 NIC groups as described below are added to derive the contribution of food processing sector as classified by ASI and NSSO data

**Table :2**

Sr. No	NIC Group	Description
1.	151	Production, Processing and Preservation of Meat, Fish, Fruits, Vegetables, Oils and Fats
2.	152	Manufacturing of Dairy Products
3.	153	Manufacture of Grain Mill Products, Starches and Starch Products and Prepared Animal Feeds
4.	154	Manufacture of Other Food Products
5.	155	Manufacture of Beverages

**Table:3 Contribution of FPI to GDP** (value in Rs. Crore)

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	CAGR
Total GDP at factor cost of which	35,64,364	38,96,636	41,58,676	45,16,071	49,37,006	52,43,582	8.0
a). GDP Agriculture*	5,54,395	5,89,383	5,88,757	5,92,110	6,43,111	6,67,446	3.8
b). GDP Manufacturing	5,70,458	6,29,073	6,56,302	7,30,435	8,01,477	8,23,023	7.6
c). GDP-FPI	52,161	57,320	60,378	58,752	67,508	78,094	8.4

Source : National Accounts Statistics, 2013

**\* Excludes forestry and logging**

It is evident from the Table 3 that the Gross Domestic Product (GDP) at 2004-05 prices in India has gone up to Rs. 52,43,582 crore in 2011-12 from Rs. 35,64,364 crore in 2006-07, with compound Annual Growth Rate (CAGR) of 8.0%. Contribution of FPI sector has increased to Rs. 78,094 crore in 2011-12 from Rs. 52,161 crore in 2006-07 with CAGR of 8.4%., whereas CAGR for total manufacturing and agriculture sector during the same period has been growing at 7.6% and 3.8% respectively. It is Clear that the level of processing in value terms has been increasing as the contribution of food processing sector to GDP has been growing faster than that of the agriculture sector.

**• Employment in FPI**

Employment potential of FPI is much higher than other sectors. For Instance, an investment of Rs. 10 billion generates employment for 54,000 people in the food processing sector, jobs for 48,000 people in textiles and employment of 25,000 people in the paper industry. There is also fourfold generation of indirect employment in auxillary and other downstream activities on account of investment in the food sector. (KPMG Report,2009). From Table :4 it is evident that the Employment in the Registered Food Processing Sector has increased substantially.

**Table:4 Employment in the Registered Food Processing Sector**

Year	No. of Persons (in Lakh)
2006-07	14.76
2007-08	15.05
2008-09	15.64
2009-10	16.06
2010-11	16.62

Source: Annual Survey of Industries, MOSPI

Persons employed under the registered food processing industries have been increasing steadily from the year 2006-11 with a CAGR of 3.6%. However there has been a fall in employment in the unregistered sector of FPI. As per NSSO 67<sup>th</sup> Round data as follows it is clear that FPI in organized sector is increasing whereas it is declining in unorganized sector.

**• Exports of Food Processing related items**

All agricultural produce when exported undergo an element of processing. So, all edible agricultural commodities exported are included in the export data. The share of Food Processing export in total exports from India is around 12.0%.

**Table:5 Exports of Food Processing related items**

Year	Export (in US \$ Million)
2008-09	16,312
2009-10	14,787

2010-11	20,427
2011-12	31,762
2012-13	36,057

Source: DGCI&S, Kolkata

It is evident from the table that value of export in this sector has been showing an increasing trend with Average Annual Growth rate of 20.4 percent for five years ending 2012-13

#### • **Foreign Direct Investment**

A strong economy requires four strong foundational pillars. These are efficient infrastructure which attracts investments and encourages initiative; an efficient and productive administrative and managerial set-up; a healthy environment which enhances the quality of life and minimizes social strains; a political leadership committed to country's long term interests, which inspires confidence in its stability (Jagmohan, 1997). Unfortunately, in case of India, these four foundational pillars are not strong enough. As a whole, we are not action oriented people (Rangi and Sidhu, 2004). As food processing sector has a great potential for attracting investment, Foreign Direct Investment inflows to food processing has shown an increasing trend as clear from the following Table:6 but still we are lagging in this regard in comparison to leading developing and developed countries like China, USA, Germany etc.

**Table:6** Foreign Direct Investment in Food Processing Sector

Year	FDI (Rs. Crore)
2007-08	279.01
2008-09	455.59
2009-10	1314.23
2010-11	858.03
2011-12	826.16
2012-13	2193.65

Source: Department of Industrial policy and Promotion (DIPP)

It is evident from the Table 6 that 2012-13 has shown a tremendous increase of 2193.65 crores from mere 279.01 crore in 2007-08. As it has shown a declining trend in 2010-11 and 2011-12, but then it shows rising trend in 2012-13. FDI has increased many fold in 2012-13 as compared to 2007-08, but still it is not upto the mark as compared to developed and many developing countries as well. As the demand for processed food is likely to multiply significantly in the coming years, food processing with value addition offers good business opportunity. So, there is lot of scope and opportunities to grab in this sector through FDI.

In India, processing industry is still dominated by the unorganized sector both in rural and urban areas. The focus of corporate India must be to transform these small units in the unorganized sector into an organised industry to increase the use of indigenous traditional foods.

## **II. Major Constraints**

Food processing industry acts as catalyst in utilizing the surplus from agriculture and stabilizing the prices during peak season of harvest in developed countries. However, in developing countries like India this industry is not well organized and still in nascent stage. We can highlight some of the major problems pertaining to this industry in India.

- One of major problem affecting the health of the processing industry is the non availability of suitable raw material in terms of size, colour, texture etc. And lack of awareness about the processable varieties.
- Low yield and poor quality of raw material are crucial problems facing food processing industries.
- Not only poor quality but the standards and control methods for processing and packaging are the other major problems faced by food processing industries.
- The industry has failed to exploit the huge market potential both at home and abroad. The density of market especially of fruits and vegetables are low and facilities for storage, cold storage chains and godowns are seriously lacking.
- Lack of integration of local markets with national and international markets.
- Inadequate transport facilities, lack of education, poor health and abrupt power supply are some of the other major factors limiting markets for processed foods.
- Lack of post-harvest market technology and infrastructure, inadequate financial assistance are some of the serious problems facing food processing in India.
- Dominated by the unorganized sector in the rural areas.
- Also the small and marginal farmers cannot compete with those who have adopted the latest farm technology. They also lack knowledge about the processable variety of raw material.

- The food law in India are also outdated as there are multiple controls and the tax structure for processed foods is too cumbersome.

Besides this, the other major challenges faced by the Indian food processing industry to achieve the full potential of this industry are as educating consumers that processed foods can be more nutritious; dealing with low price elasticity for processed food products; need for distribution network; development of marketing channels; strengthening institutional framework to develop manpower for improving R&D capabilities to address global challenges.

### **III. Suggestive Measures**

Despite all the difficulties and constraints discussed above, the scope for expansion in food processing sector is enormous. To boost the potential of food processing, the major thrust of government should be on regarding prices, grading and processing.

- Indian food industry is largely based on primary processing which accounts for almost 80 percent of the value addition. This industry should move to secondary and tertiary processing to increase value addition.
- For encouraging exports of the processed food long term agriculture and food export plan will have to be formulated. To facilitate faster growth of the industry there is an acute need to harmonize the existing food laws.
- The essential requirement of food processing industry is optimal utilization of waste from processing for manufacture of food and animal feed as well as other industrial products. For this agro industry parks should be built up to make collection of industrial waste easier and economical.
- For providing better infrastructure facilities to small units, certain areas need to be earmarked where more food parks could be developed for food processing units.
- Extensive training should be provided to the farmers and the cooperatives in the area of post-harvest management of agro-produce to encourage creation of pre-processing facilities close to the area of production to minimize wastage and transportation of raw material.
- To make processing more economical, direct link between the producers and processing industry should be created by locating the latter in the rural areas. This will result in faster use of the perishable produce and will minimize post-harvest losses of food crops.
- As most of the raw material produced in the country at present is not suitable for processing, this gap needs to be filled most urgently. For this there is need to increase manufacture of safe hygienic, nutritive and better quality value added processed products at competitive and economic cost.
- The comprehensive national level food policy will ensure private sector investment in infrastructure development, increased farm productivity and up gradation of quality and give further impetus to the food processing sector.

Besides all such suggestive measures, to make food processing more competitive, India needs a second Green Revolution which takes rice and wheat cultivators beyond the grain production stage to agro-food processing and gives value addition and would also solve the issue of constraints in raw material procurement.

### **IV. Conclusion**

In the end it is concluded that for improving the lot of rural masses, major employment generation activities must be created in the rural areas. Food processing is one such non-farm activity which can improve the conditions of Indian farmers especially landless, small and marginal farmers by supplementing their incomes and generating employment opportunities for them. The prospects for the growth of food processing sector in India are excellent provided all stakeholders of the food industry namely farmers, food processors, government agencies, infrastructure developers, both private and public sector entrepreneurs and others in the food supply chain to network in such a way so as to make the agriculture and food processing business dynamic and efficient.

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