
Food Processing Industry in India

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ABSTRACT- Mahatma Gandhi envisaged a self-sustaining village economy in which he implicitly included food processing or agro based industry as a means of achieving it. Food processing combines raw food ingredients to produce marketable food products that can be easily prepared and served by the consumer. A strong and dynamic food processing sector plays a vital role in reduction in the wastage of perishable agricultural produce, enhancing shelf life of food products, ensuring value addition to agricultural produce, diversification & commercialization of agriculture, generation of employment, enhancing income of farmers and creating surplus for the export of agro & processed foods. The main aim of this paper is to elaborate the concept of food processing and also to examine their importance in economy of India. Additionally, this paper contains the discussion about important location factors for food processing industries in India along with other upstream and downstream linkages. This research work also attempts to throw some light on conception of Mega Food Parks in India and the bottlenecks faced by food processing entrepreneurs in the Industry. And In the end, this study also entails some possible suggestions

for further growth and development of this sector in Indian Economy.

KEY WORDS- Self-sustaining village, Shelf life, Entrepreneurs, Mega Food Parks.

What is food processing?

Food processing is the transformation of cooked ingredients, by physical or chemical means into food, or of food into other forms. Food processing combines raw food ingredients to produce marketable food products that can be easily prepared and served by the consumer. Food processing typically involves activities such as mincing and macerating, liquefaction, emulsification, and cooking (such as boiling, broiling, frying, or grilling); pickling, pasteurization, and many other kinds of preservation and canning or other packaging. Food processing can be applied to variety of food products like vegetables, fruits, dry fruits dates, milk products, meal poultry, fishery, oil seeds, food flavors and colors, spices, coconut, mushroom leading to value addition and shelf-life enhancement.

Food processing and its significance

1. Economic progress or prosperity is dependent on effective and meaningful integration of its agriculture and industry. It is an invaluable tool for economic empowerment of a large number of people who would be linked with both forward and backward linkages'with this sector The economic imbalance in Indian economy is a cause of various socio economic problems. The rural labor force is swelling the agriculture sector nearly 60 percent of the population is engaged in agriculture. The urgent need is to divert this population to ago food processingsector to increaselivelihood opportunities in rural areas.
2. In agriculture, subsidies are a pertinent malady in the macroeconomic health of the country. The minimum support price ensures remunerative price to the farmers. I he more practical solution can be to increase the marketable value of food to provide remunerative price to the farmers.
3. On the nutritional front India is also going through a worse phase. India constitutes largest population of world's malnourished population which is higher than from sub Saharan Africa. Malnourished population is a resource burden because of poor physical, mental and psychological development as well as increased susceptibility to infections and diseases. A robust food processing sector has the potential to give a decisive blow to malnourishment and associated impoverishment.
4. The significance of food processing also lies in achieving'(millennium development goals] of halving hunger, reducing maternal mortality by three fourth, and infant mortality by two third as processed food implies less wastage of food and subsequent availability and affordability.
5. The trend of processed food is also increasing in present century due to the changing lifestyle pattern such as long distance between home and workplace, increase in the working women and shifting food consumption pattern with focus jumping from cereals to protein rich food such as pulses, fish, egg and meat.
6. India is mosaic country from point of view of agriculture crop pattern. Here north Himalayan states are suitable for horticulture, if north western belt is wheat growing eastern and southern plains have been the cradle of rice cultivation. Where southern highlands grow coffee, Darjeeling grows world's finest tea. It means raw material is

available in plenty; the food processing industries are not in the take off stage because of various factors like lack of training in this sector, low demand in rural areas, sanitary issues in world trade organization.

7. Most importantly according to World Bank the amount of food that goes waste in India every year is more than 40 percent valued 58000 crore. The comptroller and auditor general recently reported colossal wastage of food grains in Food Corporation of India in the event of yearly procurement of selected food grains from farmers. The country where millions sleep hungry, such wastage must be stopped urgently.

The Food industry in India primarily consists of small scale industries and the majority of them fall under unorganized sector Combined with various agricultural missions like national Horticulture Mission, Technology mission on oil seeds, palm and pulses, and various rainbow revolution, formation of several women self-help groups through socialmobilization under schemes like STEP and Swayamsidha and KVIC (Khadi Village and industries commission) Government is ready to give a thrust to food processing in 12th plan.

Location factors of Food Processing Industries

1. Physiography of a region is main determinant regarding food processing industries in India.
2. Soil, altitude, latitude and customs are the other factors contributing the location of food processing industries.
3. The location depends on economic factors such as raw material and demand of processed food in the market. The food industry is dependent on both raw material and market hence these are located generally in rural urban fringe.
4. Good and supportive government policy with good institutional factors like finance and land.
5. Good transport facilities and cold storage facilities.
6. Gramin melas, gramin haats and rural marketing agencies.
7. Port facilities both for national and international markets.
8. Cheap and skill labor and good power supply.

Studies based on Annual Survey of Industries show that if output of these industries were to double) the employment would increase by90 per cent.The industry needs a robust UPSTREAM and DOWNSTREAM requirements and improvedtransport and marketing and supply chain management to make the food processing industry both national and internationally competitive.

The upstream requirement include important pre-production supplies of inputs to food processing industries such as-

1. Raw material
2. Finance and capital
3. Information and training
4. Technology transfer
5. Organization, it includes single or group entrepreneurs in both small scale and unorganized sector and cluster collection cum processing units such as megafood parks.

1. **Upstream requirements in Raw materials:** Raw material of food processing industry means fruits, vegetables grains, milk or meat producing livestock in agricultural fields. The upstream requirements in raw material include:

- a. Primary collection centers and secondary collection centers which are linked with food processing industries for example potato collection centers in the form of rural haats arc set up for wafers and chips making industry. Similarly fruits like apple, plums, peaches, sea buckthorn, apricot mango etc. collection centers are linked with squash, jams and pickles and other varied food processing units. While for bakery industries, upstream requirements include initial processing

of agricultural commodities.

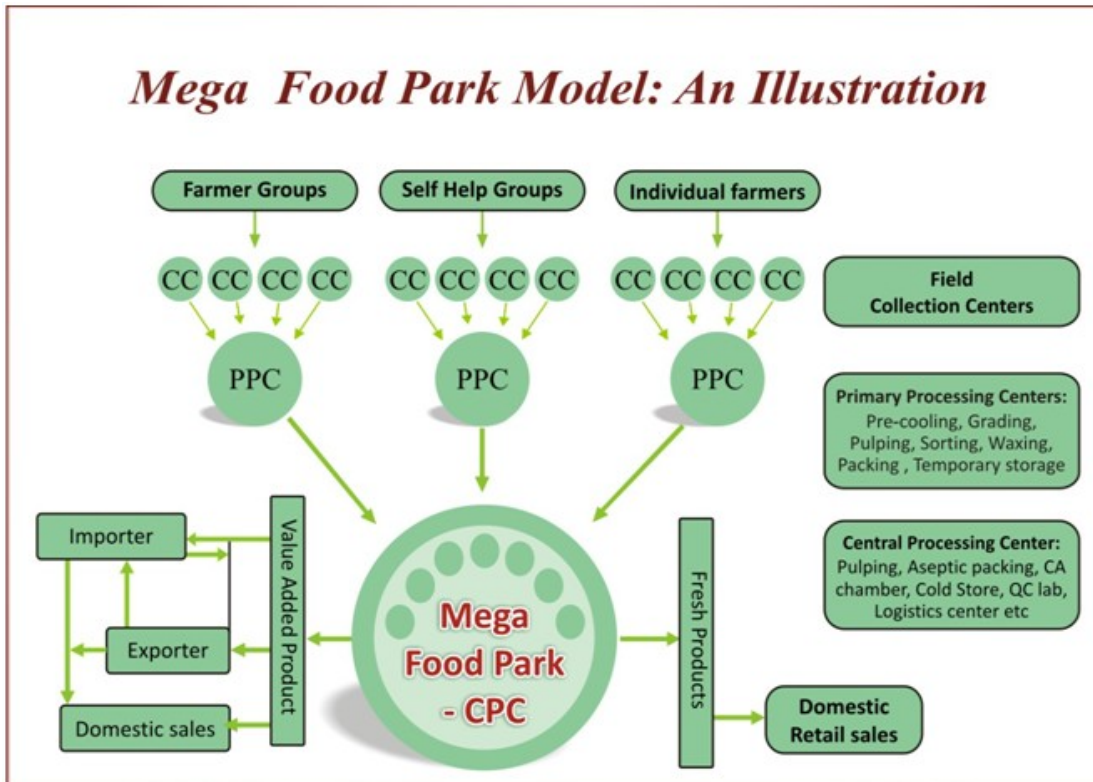
Examples are rice and flour milling, oil pressing, sugar or khandsari making units and for fish or marine industries, fish, prawn, shrimp, squids salting, drying and canning comes under upstream requirement. This collection important issues relate to giving remunerative price to farmers specially women, and tribal people. While women are making their mark through initiatives like jointly managed rural haats, the recent such haat in Madhya Pradesh has bagged UN Public Service commission award. To promote tribal rights Tribal Cooperate Federation was set up in 1987 which as the market developer for tribal self-help groups.

- b. Second upstream requirement of food processing include formation of rural godowns and cold storages. India is facing shortage of rural godowns, Ministry of food processing launched 12th plan the GRAMEEN BHANDARAN YOZANA. The scheme promotes scientific storage of food with minimum 100 and maximum 100 tonne capacity. For this government is giving subsidy to farmers 25 percent, companies(which include agriculture produce marketing companies or APMC, Agro processing corporate, NGOs and Self-help groups) 25 percent

and women, hilly farmers SC,ST equal to 35 percent. Likewise in 2013 budget Government envisages to build scientific warehouses and modern silos in every village.

- c. The ambitious Mega Food Park scheme specially focuses on upstream requirements. The scheme aims to facilitate the establishment of a strong food processing industry backed by an efficient supply chain, which includes collection centers, Primary Processing Centers (PPC), Central Processing Centre (CPC) and cold chain infrastructure. The CPC have need based common infrastructure required for processing, packaging, environmental protection systems, quality control labs, trade facilitation

centers, etc. CPC is supported by farm proximate to Primary Processing Centers (PPC) and Collection Centers (CCs) in identified locations based on a techno-feasibility study, adequate to meet the requirements of the CPC. It is expected that on an average, each project will have around 30-35 Food Processing Units with a collective investment of Rs. 250 crore that would eventually lead to annual turnover of about Rs 450-500 crore and creation of direct and indirect employment to about 30,000 persons. The aggregate investment in CPC, PPCs and CCs should be proportionate to the size of the total project keeping in view the economies of scale.



d. Food Venture capitalist and farm entrepreneur require subsidy support to build and maintain cold storage to overcome the wastage problem in our country in this direction a significant scheme has been introduced recently by the name of COLD CHAIN FOR HORTICULTURE. The objective of the scheme is to provide integrated cold chain and preservation infrastructure facilities without any break from the farm gate to the consumer. It covers pre-cooling facilities at production sites, reefer vans, mobile cooling units as well as value addition centers which includes infrastructural facilities like Processing/ Multi-line Processing/Collection

Centers, etc. for horticulture, organic produce, marine, dairy, meat and poultry etc. Individual or group of entrepreneurs can set up integrated cold chain and preservation infrastructure with business interest in cold chain solutions. It can also be set up by those who manage supply chain enabling linking groups of producers to the processors and market through well-equipped supply chain and cold chain.

e. In relation to hygienic meat processing a significant scheme is run by Ministry of Food Processing Industries (MOFPI), the scheme is:

Setting up of New/ Modernization of existing Abattoirs. The scheme aims to ensure

scientific, hygienic slaughtering of the animals and supply of quality animals and meat products. The scheme will be implemented preferably under PPP mode with the involvement of local bodies (Municipal Corporations and Panchayats)/ Public Sector Undertakings/ Cooperatives/ Boards under Government and will have flexibility for involvement of private investors/ exporters on a Build-Operate-Own (BOO)/ Build-Operate-Transfer(BOT)/ Joint Venture (JV) basis. Regulatory functions will continue to be discharged by the local bodies. The salient features of the scheme are as under:

- (i) Scientific and hygienic slaughtering of animals;
- (ii) Application of modern technology for slaughter waste management and pollution control;
- (iii) Humane Treatment of animals/ minimizing transportation of animals;
- (iv) Better-by-product utilization/ value addition ;
- (v) Provision of chilling facility to prevent microbial activity in slaughtered animals;
- (vi) Better hygiene, safety and retail cold chain management;

2. FINANCE

To promote finance various channels are being opening in India to give the much

required support to this sector NABARD, SIDBI, COMMERCIAL banks, cooperative banks especially primary agricultural Credit societies are primarily catering to agro or food processing and organic farming. Following schemes are run by NABARD in the food processingsector:

- a. Capital Investment Subsidy Scheme for Commercial Production Units for Organic/ biological Inputs has been introduced. The scheme is being implemented by the Department of Agriculture & Cooperation through NationalCentre of Organic Farming (NCOF) in collaboration with NABARD or NCDC. Under this scheme NABARD provides Under the scheme, each unit of Bio fertilizers Bio pesticides will be provided with a subsidy @ 25% of the capital cost of the project subject to a ceiling of Rs.40 lakh and each unit of fruit and vegetable waste compost production unit will be provided with a subsidy @ 33% of the capital cost of the project subject to a ceiling of Rs.60 lakh. The remaining cost will be met through term loan from banks.
- b. Poultry Venture Capital Fund: Assistance in the shape of subsidies is provided to breeding Farms for low Input Technology. Birds like turkey,

ducks, Japanese quails, emu etc. Rs 30.00 lakh.

3. TRAINING AND KNOWLEDGE BUILDING

To provide training ministry of Food and civil supplies has started an innovative National Institute of Food Technology Entrepreneurship and Management(NIFTEM)atKUNDLI in Haryana.

Vision of NIFTEM

To be an international centre of excellence which integrates all facets of food technology, entrepreneurship and management and catalyzing the growth of the food processing industry in India in the global context.”

Mission

1. To produce world-class business leaders, develop globally competitive food processing technologies and international best practices in the area of food technology, entrepreneurship and management.
2. To carry out R&D in frontier areas, develop world -class technologies and assist the Government in policy making on food processing.
3. To be a prime academic institution in the areas of food technology,

entrepreneurship and management NIFTEM offers courses and training programmes of global standards in B.Tech, M.Tech and Ph.D. courses.

4. To offer continual training to the industry to enhance their skill and be updated on global trends in food research and technology by consultation with the stake holders.

NIFTEM would play a pivotal role in developing food standards, quality, accreditation and certification; keeping a repository of international & national standards and also advising the Government on matters related to international food standards. As part of its endeavor to bring in global methodology and expertise into Indian food processing industries, NIFTEM and the College of Agriculture and Life Sciences at Cornell University (CAL S) signed a Memorandum of Understanding (MoU) in January 2008 to collaborate in the fields of human resource development applied research and industry oriented innovation.

NIFTEM has also pioneered a VILLAGE ADOPTION PROGRAMME Under this students as soon as they enter B.Tech and M.Tech courses adopt a village and prepare a four year and two year plan respectively with the help of their faculty mentor Then they do demographics and understand the problems of

villagers in terms of finance, lack of scientific processing and advertising and marketing issues. After that through three approaches food processing is promoted.

These three approaches include:

1. **KNOWLEDGE** of village life at grassroots level.
2. **INNOVATION** by mixing classroom learning with traditional food preservation and food recipes.
3. **OUTREACH** means reaching the farmer's especially rural youth and uplifting them to mainstream level.

Definition of DOWNSTREAM REQUIREMENTS

The downstream requirements in the production process involve:

1. Processing the materials collected during the upstream stage into a finished product.
2. While processing maintenance of adequate food processing standards.
3. Proper advertising and actual sale of that product to other businesses, governments or private individuals. The downstream process has direct contact with customers through the finished product.

A company that combines both

upstream and downstream processes is an [integrated company.

Downstream requirements in food processing industries are:

Quality and Standards Management

Ministry of food processing run scheme R&D, QA, Codex and Promotional Activities. Quality and Food Safety provides competitive edge in the global market. For a successful food processing sector in the country, various aspect of Total Quality Management (TQM) such as quality control, quality system and quality assurance should function in a horizontal fashion for total success. Further, in the processed Food Sector, R & D is an important area where focused attention is required as it is related to improvement of production, quality, consumer safety and public health. There is need for R&D for development and up-gradation of products, processes and technologies in the processed food sector.

The Scheme has the following components:

- i. Setting Up/ Up-gradation of Quality Control.
- ii. Implementation of HACCP/ ISO 22000, ISO 14000.
- iii. Research & Development in the Food

Processing Sector.

iv. Promotional Activities.

WHAT IS HACCP?

Hazard Analysis and Critical control Point is a logical system which emphasizes hygiene and prevention of contamination in production process. Many food processed products in India are getting HACCP compliant, for example Mc-Vities cookies. HACCP is recommended by Codex Alimentarius, a body further recommended jointly by World Health Organisation and Food and Agriculture Organisation.

The challenge in the downstream requirement, definitely the hygiene standards as many Indian products are getting rejected by developed countries on ground of sanitary and Phytosanitary measures or SPS and Technical Barriers to Trade TBT under WTO provisions.

The percentage of Indian processed food in global processed food trade is only 1.6 percent. Vision 2015 of Ministry of Food Processing aims it to increase to 3 percent.

2. 2nd important downstream requirement is promotion of both domestic and foreign sale by meeting higher standards of production and management. To promote exports Government of India set up Agriculture products export Promotion Authority. APEDA exports a

variety of processed food items. Its aim is to increase India's share in global processed food trade.

BOTTLENECKS FOR DEVELOPMENT IN INDIAN FOOD PROCESSING INDUSTRY

India is one of the world's largest producers as well as consumer of food products, with the sector playing an important role in contributing to the development of the economy. Food and food products are the largest consumption category in India, with a market size of USD 181 billion. Domestically, the spending on food and food products amounts to nearly 21% of the gross domestic product of the country and constitutes the largest portion of the Indian consumer spending more than a 31% share of wallet. Going forward, the Indian domestic food market is expected to grow by nearly 40% of the current market size by 2015, to touch USD 258 billion by 2015. (FICCI-EY report, 2009)

Food processing industry in India is increasingly seen as a potential source for driving the rural economy as it brings about synergy between the consumer, industry and agriculture. A well-developed food processing industry is expected to increase farm gate prices, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export

earnings. In order to facilitate and exploit the growth potential of the sector, the government on its part has initiated extensive reforms. Some of the key measures undertaken by the Government include: amendment of the Agriculture Produce Marketing Committee Act, rationalization of food laws, implementation of the National Horticulture mission etc. The government has also outlined a plan to address the low scale of processing activity in the country by setting up the mega food parks, with integrated facilities for procurement, processing, storage and transport. To promote private sector activity and invite foreign investments in the sector the Government allows 100% FDI in the food processing & cold chain infrastructure. The recent budget has announced several policy measures, especially for the cold chain infrastructure, to encourage private sector activity across the entire value chain.

However, despite of continual efforts and initiatives of the Government to provide the required stimulus to the sector, processing activity is still at a nascent stage in India with low penetration. At the same time, though India is a key producer of food products, having an adequate production base for inputs, productivity levels are very low in the country. While India remains a top producer of food production yield levels are among the

lowest amongst the BRIC countries. Also, the Indian export market, at USD 13.7 billion, has a share of only 1.4% of the world food trade.

Considering the criticality of the situation and the need to appropriately address the challenges faced by the sector, India identified 15 major factors hampering the growth of food processing sector and holding it back:

1. Comprehensive national level policy on food processing sector.
2. Availability of trained manpower.
3. Processing plants with cost effective technologies.
4. Cost effective food machinery & packaging technologies.
5. Constraints in raw material production.
6. Inadequate infrastructural facilities.
7. Access to Credit.
8. Market Intelligence.
9. Inconsistency in central and state policies.
10. Lack of Applied research.
11. Adequate value addition.
12. Lack of specific plan to attract private sector investment across the value chain.
13. Food safety Laws.
14. Weights & measures Act & Packaging commodity rules.
15. Taxation

It is very pertinent to mention here that

the challenges for the food processing sectors are diverse and demanding, and need to be addressed on several fronts to derive maximum market benefits." A combination of uncontrollable and controllable factors has affected the growth of the sector and has acted as a hindrance in achieving its potential.

Top five challenges which need immediate action to stimulate the growth of the sector:

Inadequate Infrastructure Facilities

As per the survey maximum percentage of respondents ranked inadequate infrastructure as the top most concern hindering the growth of the sector accounting to 44.25% of weighted response. The inadequate support infrastructure which is the biggest bottleneck in expanding the food processing sector, in terms of both investment and exports includes: long and fragmented supply chain, inadequate cold storage and warehousing facilities, road, and rail and port infrastructure. Also, lack of modern logistics infrastructure such as logistics parks, integrated cold chain solutions, last mile connectivity, dependence on road over rail, customized transportation, technology adoption (barcoding, RFIDs) and government support via incentivizing private public partnerships are some of the lacunae that exist in supply chain & logistics sector in India.

Absence of Comprehensive national level

policy on food processing sector

The food processing sector is governed by statutes rather than a single comprehensive policy on food processing. India urgently needs a national food processing policy which incorporates tax breaks for the sector. The policy to be effective will have to be comprehensive and adopt a number of legislative, administrative and promotional measures. The survey showed absence of comprehensive national level policy on food processing sector as the second most critical factor hampering Industry's growth, receiving 34.46% of weighted response. The respondents felt that policy should evolve through detailed discussions between all the stakeholders across the entire value chain on pan India basis and should promote the development of viable agri-business and agro-industry models based on different agro-climates and regions.

Food Safety Laws & Inconsistency in State and Central policies

The Indian food regulations comprise various food policies that have been enacted at different points of time, and are under the ambit of various ministries of Government of India (GOI). Historically they were introduced to complement and supplement each other in achieving total food sufficiency, safety and quality. The result is that the food sector in India is governed by a number of different statutes

rather than a single comprehensive enactment. This incremental approach has led to incoherence and inconsistency in the food sector regulatory scenario. In addition the multiplicity of ministries and administering authorities at both the central and state level has resulted in a complex regulatory system that is not well integrated adding an additional burden on the food industry. The respondents of the survey identified food safety laws as the third critical factor hampering Industry's growth, receiving 34.46% of weighted response and Inconsistency in state and central policies as the fourth major challenges for food processing sector accounting for 28.08% of weighted response.

Lack of adequate trained manpower

Many positive developments in the food processing sector have also resulted in the apprehension about the emerging skill shortages due to mismatch between the demand for specific skills and available supply. In fact, of late, shortage of skilled, semi-skilled and unskilled workers has emerged as a critical factor impacting the competitiveness of Indian food industry. The survey showed that lack of adequate trained manpower was also a major hindrance to the growth of the sector, accounting for 25.53% of weighted responses making it as fifth most important item of concern. At each level in the value chain, there are strong

deficiencies in technical knowledge and support.

According to recent FICCI survey on skill demand in food processing industry, it has been observed that a majority percentage of organizations are dissatisfied with the skills of the available trained manpower. For instance, 58% of the respondents were dissatisfied with technical skills and knowledge needed for the job. Also 72% showed discontent with employees' ability to use appropriate and modern tools, equipment, and technologies specific to their jobs.

Apart from the above major challenges hampering the growth of sector, the respondents also identified constraints in raw material production, taxation, access to credit, processing plants with obsolete technologies, lack of applied research etc. as other major challenges for the growth of food processing sector.

Indian food industry is gradually making an important mark in the global food arena as a large producer and exporter of agro food products. At present small players dominate the Indian food processing industry. The favorable policy environment and holistic approach to address the major challenges identified in this survey, augurs well for India, which is well on track to become one of the leading food nations of the world.

Whilst, the Government initiatives aimed to bring about regulatory reforms and infrastructure development in agriculture marketing; and private sector investment in infrastructure creation have created the much desired vibrancy in the sector in recent times, however, there is a paramount need to take big ticket measures to catapult the growth of food processing sector and take it to the high growth trajectory.

SOLUTIONS

Address Infrastructure bottlenecks to give further impetus to the sector

a. **Overcoming long & fragmented supply chain:** To overcome the long and fragmented supply chain, contractfarming can emerge as a significant opportunity for companies whereby they can create direct farm linkages to source appropriate quality, quantity and varieties of inputs. Currently, contract farming is supported by the governments of few key producing states in India. A few companies have been successful in linking up with farmers, and some models of contract farming based on profit sharing or social investment may emerge in the future.

b. **Providing impetus to logistics &**

supply chain sector

1. Dedicated freight corridors in rail supplemented by concretized dual carriageways for the State & National highways, will directly reduce the cost of goods supplied.
2. There is a need to develop a single entity of all multi-modal transportation, instead of splitting into rail, surface and air as separate Ministries & entities. This entity needs to remain customer & industry centric rather than as the Governmental control mechanism.
3. Support to private rail operators by providing access to infrastructure of Indian railways at concessional rates; tax holidays for purchase of wagons and creation of infrastructure, especially that of rail terminals for cargo consolidation and aggregation.
4. Provide further incentives to FTWZs, one of the major drivers of warehousing business.
5. The Government should provide industry status to this sector and formulate a separate Ministry for Supply Chain & Logistics sector.
6. Support development of organized strategic logistics hubs by helping in land acquisition and by providing tax incentives/ tax holidays.
7. Tax incentives to Multi modal Logistical

Centers which also have manufacturing/exporting capabilities.

8. Incentivize 3PL operators in setting up end-to-end logistics and warehousing set-up.
9. Incentives for setting up warehousing/cold storage infrastructure and customized transportation network development.

Formulation of Comprehensive National Level policy on Food Processing

The comprehensive 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. The comprehensive national level food processing policy would also ensure institutional strengthening, capacity building across the value chain and would also seek to promote innovation in general and technological innovation in particular.

Need for Second Green Revolution in Agriculture

The first Green Revolution has run its course. Cereal yields are rising very slowly, water tables are plunging, and agricultural growth is also low. 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. This high end initiative requires commitment from all the stakeholders in the food value chain.

Interministerial Working Group to Address the Issues

The Government should set up Inter Ministerial Working Group (IMWG) under the leadership of Ministry of Food Processing to look at comprehensively addressing various issues that are holding this sector back.

Undertake appropriate measures to address the skill Gap Issue in the sector

- a. The government should allocate separate budget for human resource development for food processing sector for enhancing and up gradation of the skills and implementation of the various schemes for skill development. All the skills development cells and other organizations and ministries should work tandem for effective implementation of the objectives set.
- b. There is a need for immediate adoption of ITI's by the food processing industry in various clusters across the country to upgrade the lower end skills. The candidates after training could be directly employed by the industry; this

model is already prevalent in some parts of the country at a small scale, but now it needs a big push from the industry.

- c. Food processing Industry should partner with few food technology/processing institutes on a pilot basis for up gradation of higher end skills, and the same could be replicated for more and more institutions. However, the government needs to address the regulatory/policy issues to facilitate this engagement at a broader scale rather than on piece meal basis.

Implementation of GST as per the set deadline

Government should ensure timely implementation of GST to provide incentive to the food processing sector, while removing subjectivity in treatment and classification of various food products. Some packaged foods which are of daily necessities, be classified at lower rate of taxation. The key impacts foreseen are:

- a. Location of manufacturing plants would be determined on the basis of demand rather than tax implications. This means that total landed costs and infrastructure considerations would govern the location of manufacturing plants rather than tax implications. This would thereby spurt growth for infrastructure

as well as transportation and logistics.

- b. Distribution networks may undergo significant change - With the onset of GST, companies would not require setting up of warehouses in each state. Tax dynamics will no longer shape supply-chain networks. Economies of scale and larger operations would be possible, and it would also enable the development of a hub-and-spoke system of delivery for outbound movements.
- c. GST is first and foremost expected to remove disparities in taxes across states hence make India as one market helping free movement of goods with minimum Logistics resources spend.

Implementation of Food Safety and Standards Act (FSS Act)

Government should ensure the enforcement of the Food Safety and Standards Act in spirit including increasing radically the number of trained inspectors and state of the art lab facilities. Given the objective of the FSSA and the mandated transparency, it is important that the following Principles are adopted to have world class rules which would foster innovation and serve the interest of the consumers at large.

- Science should get the pre-eminence.
- Proper risk Assessment based on the available science, before any standards are framed.

- Constituted bodies such as Food Authority, Scientific Panels & Scientific Committees must be given defined tasks with specified object of rulemaking.
- Public and Industry participation at an early date.
- Public hearings to achieve transparency.

Any adhoc and haste approach to adopt old PFA Rules must be avoided.

Implementation of all the provisions of Model Act across all States/UTs.

One of the major issues holding the sector back is the non-implementation of all the provisions of the Model Act across all the States/UT's. The Government should ensure speedy implementation of all the provisions of the act.

Credit Access to Food Processing Industries

The Government should establish a National bank, on the lines of NABARD, to lend credit to food processing industries. This will ensure speedy disbursements of the funds to food processing sector, always grappling, with the issue of lack of access to credit from banks. Also, the state governments should play a catalytic role in partnership with banks, financial institutions and technical and management institutions so that small and unorganized players become globally competitive.

All Industry incentives undersingle window clearance

Government should bring all Industry incentive policies under single window clearance. A nodal body under Food processing Industry with single window clearance of all issues, must be created so that no separate rules and regulations come from different ministries to impact the sector without due deliberations.

Open up multi brand retail to bring in more global investments in the infrastructure and logistics domain; and in turn contribute to the growth of supply chain & logistics sector in particular and economy in general

Multi brand retail is an easier way of creating ideal environment for the use of modern logistics infrastructure like transportation, hubs, IT, cold chain etc. The organized retail is expected to grow from current 4% to 10% by 2010-11, thereby creating a huge demand for the availability of modern logistics infrastructure. However, the use of modern infrastructure can also be accelerated through various other initiatives, such as supporting modernization of general trade such as supporting star retail outlets etc. These outlets can be served by organized modern supply chain players.

- Create a state specific plan to attract domestic and foreign investment in this

sector.

- Promote agri-food parks by involving industry participation for better functioning of these parks.
- Make concerted efforts to enhance private sector investment in infrastructure development, increasing farm productivity and up gradation of quality.

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