

industry. The government through the Ministry of Food Processing Industries (MoFPI) is making all efforts to encourage investments in the business. It has approved proposals for joint ventures (JV), foreign collaborations, industrial licenses and 100 per cent export oriented units.

The Indian food and grocery market is the world's sixth largest, with retail contributing to 70 per cent of the sales. Food has also been one of the largest segments in India's retail sector, which was valued at US\$ 490 billion in 2013. The Indian food retail market is expected to reach Rs 61 lakh crore (US\$ 894.98 billion) by 2020.

According to the Confederation of Indian Industry (CII), the food processing sector has the potential to attract US \$33 billion of investment in 10 years and can generate employment of 9 million person-days.

### **Ministry for Food Processing Industries**

Realizing the importance of food processing and its potential in India, the government has set up a separate Ministry for Food Processing Industries during 1998, with the following under its purview:

- Fruit and vegetable processing (including freezing and dehydration)
- Grain processing
- Processing of fish (including canning and freezing)
- Processing and refrigeration of certain agricultural products, dairy products, poultry and eggs, meat and meat products
- Industries that are related to bread, oil seeds, meals (edible), breakfast foods, biscuits, confectionery, malt extract, protein isolate, high protein food, weaning food and extruded food products (including other ready-to-eat foods)
- Beer, including non-alcoholic beer
- Alcoholic drinks from non-molasses base
- Aerated water and soft drinks

The vision 2015 for the food processing sector aims at the following:

- Enhancing and stabilizing the income level of the farmers
- Providing choice to consumers in terms of wide variety and taste including traditional ethnic food
- Providing greater assurance in terms of safety and quality of food to consumers
- On promoting a dynamic food processing industry
- Enhancing the competitiveness of food processing industry in both domestic as well as international markets
- To establish the food processing sector attractive for both domestic and foreign investors
- Achieving integration of the food processing infrastructure from farm to market
- Having a transparent and industry friendly regulatory regime
- Arranging in place a transparent system of standards based on science

The following specific targets have been set out for the year 2015:

- Increase in the level of processing of perishables from 6 to 20 per cent
- Increase in value addition from 20 to 35 per cent
- Share in global food trade to increase from 1.5 to 3 per cent

## Government Initiative

Some of the major initiatives taken by the Government of India to improve the food processing sector in India are as follows:

- The Government of India allocated Rs 1,500 crore (US\$ 225.7 million) and announced various measures under the Merchandise Exports from India Scheme (MEIS), including setting up of agencies for aquaculture and fisheries in coastal states and export incentives for marine products.
- Union Budget 2016-17 has proposed 100 per cent FDI through FIPB (Foreign Investment Promotion Board) route in marketing of food products produced and manufactured in India.
- All of the ration cards in India have been digitised and 42 per cent of the digitised ration cards are now linked to Unique Identification (UID) or Aadhaar cards.
- Government of India plans to allow two Indian dairy companies, Parag Milk Foods and Schreiber Dynamix Dairies, to export milk products to Russia for six months, after these companies got approval for their products by Russian inspection authorities.
- Ms Harsimrat Kaur Badal, Union Minister for Food Processing Industries. Government of India inaugurated the first of its kind Rs 136 crore (US\$ 20 million) mega international food park at Dabwala Kalan, Punjab. She has also expressed confidence that the decision to allow 100 per cent Foreign Direct Investment (FDI) in multi-brand retail with 100 per cent local sourcing condition, will act as a catalyst for the food processing sector, thereby controlling inflation, uplifting the condition of farmers, and creating more jobs in the country.
- The Food Safety and Standards Authority of India (FSSAI) has issued new rules for importing products, to address concerns over the entry of sub-standard items and simplify the process by setting shelf-life norms and relaxing labelling guidelines.
- The Ministry of Food Processing Industries announced a scheme for Human Resource Development (HRD) in the food processing sector. The HRD scheme is being implemented through State Governments under the National Mission on Food Processing. The scheme has the following four components:
  - ◆ Creation of infrastructure facilities for degree/diploma courses in food processing sector
  - ◆ Entrepreneurship Development Programme (EDP)
  - ◆ Food Processing Training Centres (FPTC)
  - ◆ Training at recognised institutions at State/National level
- The Food Safety and Standards Authority of India (FSSAI) under the Ministry of Health and Family Welfare has issued the Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011 and the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 which prescribe the quality and safety standards, respectively for food products.
- The Ministry of Food Processing Industries has taken some new initiatives to develop the food processing sector which will also help to enhance the incomes of farmers and export of agro and processed foods among others.
- Spices Board, set up by the Ministry of Commerce to develop and promote Indian spices worldwide, aims spice exports of US\$ 3 billion by 2017.

- The Government of India has approved the setting up of five numbers of Mega Food Parks in the states of Bihar, Maharashtra, Himachal Pradesh and Chhattisgarh. The Government plans to set up 42 such mega food parks across the country in next three to four years.
- In the Budget 2015-16, a corpus of Rs. 2,000 crore (US\$ 293.44 million) was created under National Bank for Agriculture and Rural Development (NABARD) to provide cheaper credit to food processing industry. Excise duty on plant and machinery for packaging and processing has been brought down to six per cent from 10 per cent.
- To ensure better returns to farmers, the budget of 2018-19 doubled budget allocation to the food processing ministry to ₹ 1,400 crore and set up institutions to finance agro-processing projects.

### **Government Incentives to Food Processing Industries**

An estimated investment of ₹100,000 crores is required to achieve the vision, of which ₹45,000 crores is expected to come from the private sector, ₹ 45,000 crores from financial institutions and ₹ 10,000 crores from government.

The government seeks to create an appropriate environment for entrepreneurs to set up food processing industries through the following:

- Fiscal initiatives and interventions such as rationalization of tax structure on fresh foods as well as processed foods and machinery used for the production of processed foods.
- A concerted promotion campaign to create market for processed foods by providing financial assistance to industry associations , NGOs /cooperatives , private sector units , state government organization for undertaking generic market promotion.
- Harmonization and simplification of food laws by an appropriate enactment to cover all provisions relating to food products so that the existing system of multiple laws is replaced and also covering issues concerning standards such as nutrition , merit goods , futures marketing, equalization fund, etc.
- Efforts to expand the availability of the right kind and the quality of raw material round the year by increasing production and improving productivity.
- Strengthening of database and market intelligence system through studies and surveys are to be conducted in various states to enable planned investment in the appropriate sector matching with the availability of raw material and marketability of processed products.
- Strengthening extension services and to the farmers and co-operatives in the areas of post harvest management of agro-produce to encourage the creation of pre-processing facilities near the farms such as washing, fumigation, packaging, etc.
- Efforts to encourage setting up of agro-processing facilities as close to the area of production as possible to avoid wastage and reduce transportation cost.
- Promotion of investments, both foreign as well as domestic.
- Simplification of documentation and procedures under taxation laws to avoid unnecessary harassment arising out of mere technicalities.

- Establishment of cold chain, low cost pre-cooling facilities near farms, cold stores and grading, sorting, packing facilities to reduce wastage, improve quality and shelf life of products.
- Application of biotechnology, remote sensing technology, energy saving technologies and technologies for environmental protection.
- Building up a strong infrastructural base for production of value added products with special emphasis on food safety and quality matching international standards.
- Development of packaging technologies for individual products, especially cut-fruits and vegetables, so as to increase their shelf life and improve consumer acceptance both in the domestic and international markets.
- Development of new technologies in food processing and packaging and also to provide for the mechanism to facilitate quick transfer of technologies to field through a network of R&D institutions having a central institute at the national level with satellite institutions located strategically in various regions to cover up the whole country and to make available the required testing facilities. This could be done by establishing a new institution or by strengthening an existing one.
- Development of area-specific agro food parks dedicated to processing of predominant produce of the area e.g., apple in J&K, pineapple in North East, lichi in Bihar, mango in Maharashtra and Andhra Pradesh, etc.
- Development of anchor industrial centre and/or linkage with anchor industrial units having network of small processing units.
- Development of agro-industrial multi-products units capable of processing a cluster of trans-seasonal produces.
- Establishment of a sustained and lasting linkage between the farmers and the processors based on mutual trust, understanding and benefits by utilizing the existing infrastructure of cooperative, village panchayats and such other institutions.
- Mechanism to reduce the gap between the farm gate price of agro-produce and the final price paid by the consumer.
- Development of futures market in the best interest of both the farmers and the processors ensuring minimum price stability to the farmer and a sustained supply of raw material to the processor.
- Setting up of an equalization fund to ensure sustained supply of raw material at a particular price level and at the same time to plough back the savings occurring in the eventuality of lower price to make the fund self-regenerative.
- Establishment of a strong linkage between the processor and the market to effect cost economies by elimination of avoidable intermediaries.
- Establishment of marketing network with an apex body to ensure proper marketing of processed products.
- Development of marketing capabilities both with regard to infrastructure and quality in order to promote competitive capabilities to face not only the WTO challenge but also to undertake exports in a great way.

Given the trends in the Indian food and beverage sector including key industry consideration, it is imperative for the Indian industry to leverage the emerging opportunities through the following:

- Exploitation of the huge untapped potential in processed foods.
- Opportunities demonstrated by contract farming, captive supplies of raw materials, disintermediation and direct access to farmers, availability of new and improved seeds and farm technology.
- Value addition to unprocessed categories of food such as dairy, fruits and vegetable, staples and edible oils.
- Exploitation of increasing health and safety awareness of the Indian consumer—this would pave the way for value added products on a health platform.
- Investment in supply chain in order to improve costs, tighten supplies and minimize wastage.
- Investment in better packaging and cold chain infrastructure will aid the processed food and beverage sector as these would aid in processing of fruits and vegetables.
- Exploration of appropriate regional branding strategies in order to appeal to the deep rooted traditions, values and customs of the consumer.
- Taking advantage of the inherent ethnic tastes and food habits of the Indian consumer—this provides the local food players a distinct advantage over foreign entrants into the sector and poses an entry barrier for the latter.
- Exploitation of the increasing consumerism fuelled by new job opportunities, larger disposable incomes and the emerging boom in modern retail trade.
- Opportunities for growth through the inorganic route, both domestically and outbound this would provide access to new product categories, brands, markets and new technologies.
- The SEZ/AEZ opportunity would also provide players an added incentive to develop green field projects within these zones and enjoy additional fiscal benefits.
- The Indian foods and beverage industry is poised for a significant leap forward—these are interesting times and continued success will depend on a proper understanding of the landscape and challenges therein, quickly exploiting emerging opportunities, skillful execution of strategic mergers and acquisitions and effecting a seamless organization to evolve into truly global players.

### **Mega Food Park Scheme**

Highest priority has been accorded by the government for the development of infrastructure. The government has already taken several initiatives on this front which include developing of food parks, packaging centres, modernized abattoirs, integrated cold chain facilities, irradiation facilities and value added centres.

The initiative to develop food parks was taken primarily in order to assist the small and medium enterprises which are unable to invest in capital intensive activities. So far, twenty-two food parks have come into operation which provide common facilities such as cold storage, food testing and analysis labs.

The primary objective of the MFPS is to provide adequate/excellent infrastructure facilities for food processing along the value chain from the farm to market. It will include creation of infrastructure near the farm, transportation, logistics and centralized processing centres.

The main feature of the scheme is a cluster-based approach. The scheme will be demand-driven; pre-marketed and would facilitate food processing units to meet environmental, safety and social standards. The expected outcome results in increased realization for farmers, creation of high quality rural processing infrastructure, reduction in wastage, capacity building of the producers and processors and creation of an efficient supply chain along with significant direct and indirect employment generation.

The scheme aims to facilitate the establishment of a strong food processing industry backed by an efficient supply chain, which would include collection centres, primary processing centres and cold chain infrastructure. The food processing units, under the scheme, would be located at a central processing centre (CPC) with requirements based on common infrastructure which are required for processing, packaging, environmental protection systems, quality control labs, trade facilitation centres, etc.

### **Urgency of Such Initiatives—Reasons**

As mentioned earlier, it is because of the growing market largely because of increased income of people, rapid urbanization, changing demographics, movement away from joint families to nuclear families and increasing number of working women. The changing pace of life has marked a preference for processed food.

These have resulted in shift in consumption driven by the processed food market, which is increasing and presently accounts for 32 per cent of the total food market and is likely to grow further only. The food processing industry is growing and has become one of the largest industries in India—it is ranked fifth in terms of production, consumption, export and expected growth.

Consumption patterns in India have been undergoing a visible shift. Earlier, the share of cereal products was the highest, followed by milk and milk products, vegetables, edible oil and meat products. However, in recent years, the growth rates for fruits, vegetables, meat and dairy products have been higher than cereals and pulses. This shift in turn implies that there is also a need to diversify the food production base to match the changing consumption preferences.

This shift in consumption follows the pattern observed in developed countries in the evolution of the global food demand. There is a shift from carbohydrate staples to animal sources and sugar. On following this pattern, in future, there will be increasing demand for prepared meals, snack foods and convenience foods and further on the demand would shift towards functional, organic and diet foods. These are post-liberalization trends that have given an impetus to the sector.

### **Some Structural Issues**

Farmers have a limited market for their agricultural produce, which are confined to the local 'Mandis', and are governed by APMC under the respective state government; and the

farmers can only sell to them. They cannot sell directly to the private parties for further processing. As a result, they are denied better prices and also prevent food processing. They also have limited information about the market(s), prevailing prices and operate within their limited knowledge, based on their own wisdom.

The supply chain of agricultural produce from the farmer to the ultimate consumer lacks transparency and passes through a number of middlemen raising cost through commission charges, resulting in higher prices without any value addition. Further, the absence of storage/warehousing facilities and an inefficient transport system results in wastage, which only add up to higher prices.

There is virtual no use made of even the available technology let alone leveraging technology in the entire supply chain. There is no quality control and testing mechanism for agricultural produce which reaches the consumer. The extent of use of fertilizers, hygiene aspects and whether they are safe for human consumption is not seen as anyone's responsibility.

## **Remedial Measures**

The government has taken the first step, by allowing the FDI in multi-brand retailing. Despite the opposition by various vested groups, it is a step in the right direction (which are dealt at length in the section on foreign investment). This will address most of the structural issues, especially back end activities. This will lead to an organized development of the supply chain bring in transparency and the investment in development of cold chains and warehousing facilities. It will also lead to a technology infusion and a boost to the food processing industry. This will also ensure a larger participation of the private sector in the entire chain.

However, this step will require a critical enabler, that of, amending to the respective APMC act of the respective state governments. This amendment will allow farmers to sell directly to those interested in food processing, which allow private sector to set up back yards for picking up produce from the farmers. It will also open up the supply chain.

It is for this reason the central government has permitted the FDI subject to consent of state governments.

In recent times, there has been a biotechnology revolution and now is the time for 'food revolution' around food processing industry and this is the reason why this industry is known as a 'sunrise industry in view of its potentiality. India besides meeting its own food needs in terms of quality, diversified and value added products is also capable of expanding to global markets. The food market can never have a down turn like other markets as it is driven as a basic necessity and the demand will always be there for the same. The real challenge will be from the supply side or the ability to feed this growing market.

The food processing industry in India has only become to evolve and has the capability of becoming the fastest growing sector in the future, with tremendous opportunity and potential, but also at the same time a challenge in overcoming the structural issues,

improvements in supply chain and transforming from an informal to a formal sector business activity.

### **6.11. AGRICULTURE POLICY: VISION 2020**

Impressive strides attained by India in the agricultural front during the last three decades could be attributed to the several million small farming families that form the backbone of Indian agriculture and economy. Policy support, production strategies, public investment in infrastructure, research and extension for crop, livestock and fisheries have significantly helped to increase food production and its availability.

Despite the impressive growth and development, India is still home to the largest number of poor people of the world. India has high population pressure on land and other resources to meet its food and development needs. Due to this, natural resource, water and bio-diversity are under severe pressure.

Due to the increase in population and income growth, demand for extra food grains also increases. Besides this, significant increase in demand is happening in the supply of livestock, fish and horticultural products as well.

So, future increases in the production of cereals and non-cereal agricultural commodities will have to be essentially achieved through increases in productivity, as the possibilities of expansion of area and livestock population are minimal. To meet the projected demand in the year 2020, country must double per hectare yield of various crops.

### **Emerging Trends**

The agriculture sector recorded satisfactory growth recently due to improved technology, irrigation, inputs and pricing policies. Livestock, poultry, fisheries and horticulture are surging ahead in production growth in recent years. Industrial and service sectors have expanded faster than agriculture sector resulting in declining share of agriculture in national accounts.

Despite all these structural changes, agriculture still remains a key sector by providing both employment and livelihood opportunities to more than 70 percent of the country's population. The contribution of small farmers to the national and household food security has been steadily increasing. The water availability for agricultural uses has reached a critical level and deserves urgent policy attention.

India is having high population pressure on land and other resources to meet its food and developmental needs. The natural resource base of land, water and bio-diversity is under severe and continuous pressure. Food demand challenges ahead are formidable and there are serious gaps in yield potential and technology transfer. Due to this the national average yields of most of the commodities are low.

Concentration was on enhanced production of a few commodities like rice and wheat, which could quickly contribute to increased total food and agricultural production. This resulted in considerable depletion of natural resources and the rainfed dry areas having



maximum concentration of resource poor farmers remained ignored, aggravating problems of inequity and regional imbalances. This also led to a high concentration of malnourished people in these rainfed, low productive areas. This era also witnessed rapid loss of soil nutrients, agrobiodiversity including indigenous land races and breeds.

So, the agriculture policy must accelerate all-round development and economic viability of agriculture in comprehensive terms. Farmers must be provided the necessary support, encouragement and incentives. It must focus both on income and greater on-farm and off-farm job and livelihood opportunities.

### **Major Issues Concerning Agriculture**

The following issues for sustainable agricultural development and poverty alleviation must be considered through appropriate policy intervention

- Pressure of population and demographic transition
- Degradation of resource base and water scarcity
- Investment in agriculture and impact on the poor
- Implication of globalization on the poor
- Science and technology and support to research
- Rapid urbanization
- Urbanization of poverty
- Deceleration in rural poverty reduction

**In addressing the above issues, a policy statement on agriculture must take note of the following opportunities:**

- Conservation of natural resources and protection of environment
- Untapped potential of soil and water resources, and farming systems
- Technology revolution especially in the areas of molecular biology, biotechnology; space technology, ecology and management
- Revolution in informatics and communication and the opportunity of linking farmers, extension workers and scientists with the national and international databases

### **Vision**

The policy initiative towards the Agricultural sector must articulate a clear vision on following few basic parameters

- Organization of agriculture
- Sustainability and natural resource management
- Institutional change
- Investment priorities
- Incentives
- Risk management

**Challenges before the Agricultural sector**

Enhancing Yield of Major Crops

Integrated nutrient management

Preventing deceleration in total factor productivity

Bridging Yield Gaps

Water for Sustainable Food Security

Emphasis on Rain fed Ecosystem

Diversification of Agriculture and Value Addition

Post-Harvest Management, Value Addition and Cost-Effectiveness

Increased Investment in Agriculture and Infrastructures

- Fighting Poverty and Hunger

Empowerment of Small Farmers

- Disaster Management

- Challenges posed by Globalization

Harnessing potential of Information Technology.