MANAGE मैनेज

Spice

POST GRADUATE PROGRAMME IN AGRI BUSINESS MANAGEMENT

Vol. 1 No. 3 January 2003

PGPABM @ MANAGE
100% Placements

We acknowledge the support provided by the participating companies for successful recruitment of MANAGE students in their esteemed organizations. The placement was completed in just five days and the credit for this success goes to all our client companies. We hope and wish that our students would prove to be assets to their companies and achieve high standards of performance. The companies which participated in the placement process is given below:

1.	Advanta
2.	BASF
3.	Commodity India
4.	De-Nocil Crop Protection Ltd.
5.	DSCL
6.	EID Parry(India) Ltd.
7.	IDFC Limited
8.	IS Agro (Asia) Pvt. Ltd.
9.	ITC-IBD
10.	ITC-ILTD
11.	Mahindra Shubhlabh Services
12.	MCFL
13.	Namdhari Seeds
14.	Tata Chemicals Limited
15.	VKL Spices
16.	Wockhardt

The students are provided with the best of academic inputs and moulded for a right attitude to serve the function of agri-business.

Should you think, a student selected by you, needs to acquire any specific skill or knowledge, to meet the company's expectations, please communicate the same to us. We welcome your suggestions and advise to further improve the quality of the course.

Principal Coordinator, PGPABM

THE INDIAN FOOD PROCESSING INDUSTRY

INTRODUCTION

The value of the Indian food market is currently estimated at Rs. 3230 billion, of which Rs. 1076 billion accounts for processed food. The demand is expected to rise to an astounding Rs. 5000 billion by 2005, much of it to come from the processed or instant or ready-to-eat/serve packed food segment. This growth is expected to occur as the outcome of socio-economic changes, different value perceptions, and rapid transformation currently taking place in Indian society. Although the average Indian still prefers home-made food like *parathas* and *curries*, time-saving, easy-to-cook/serve processed food products are fast capturing consumer demand. Fast-paced life, increasing numbers of working women, dual income nuclear families, larger disposable incomes, and the demand for safe, good quality, nutritious food are all factors fuelling the growth of this industry. Apart from the domestic market, emerging opportunities in the international processed food market offer Indian agri and food industry tremendous export opportunities.

Except for a few scattered attempts by some co-operatives and medium-scale entrepreneurs, major corporate houses had not done much till date by way of tapping the existing potential of the enormous raw material base and the expanding consumer base. The proposed Processed Food Industries Development Act and the recent formation of the Indian Farmers and Industry Alliance (in association with the Confederation of Indian Industries, CII) and the Confederation of Indian Food Trade and Industry (the Food wing of the Federation of Indian Chambers of Commerce and Industry) herald a new era in the Indian food industry.

2 CURRENT STATUS OF VARIOUS SECTORS IN THE INDIAN FOOD PROCESSING INDUSTRY (FPI)

2.1 Grain processing

Due to the efforts made by the Ministry of Agriculture by organizing seminars, group discussions and workshops; setting up demonstration units and preparing technical literature; the number of modernized rice mills has gone up from practically none in 1970 to 35088 on January 1, 2000. As a result of improved availability, value addition in rice is estimated to have reached around 3.4 million tons (1999-2000). Nearly 15 million tons of wheat is converted into various wheat products by about 950 roller flourmills in the country every year against an installed capacity of 27 million tons.

2.2 Bakery products

The two major bakery segments - bread and biscuits - account for about 82% of total bakery products. The annual production of bakery products that includes bread, biscuits, pastries, cakes, buns, rusks etc., most of which are in the unorganized sector, is estimated to be in excess of 3 million tons. Of the total production of bread and biscuits, about 35% is produced in the organized sector and the remaining is manufactured in the unorganized sector.

2.3 Cocoa products

There are 20 units engaged in the manufacture of cocoa products like chocolates, cocoa butter, cocoa butter substitutes, and cocoa-based malted milk foods, with a production of approximately 34,000 tons.

"Spice is a bi-monthly publication from The National Institute of Agricultural Extension Management (MANAGE), an organisation of the Ministry of Agriculture, Govt. of India.

2.4 Soft drinks

The country is estimated to be producing over 6500 million bottles (in 2000-01) of soft drinks annually.

2.5 Fruit and vegetables

The estimated installed capacity of fruit- and vegetable-processing units in India is 2.11 million tons (2000), which have actually been processing much below their installed capacities to produce a mere 0.99 million tons (2002).

2.6 Milk and milk products

There has been an increase in the estimated production of milk products over the years, which is indicative of the potential in the sector. In 2000, the country's production figures for the sector stood at 2.30 lakh tons of milk powder including infant milk food, 67000 tons of malted food products, 7500 tons of cheese, condensed milk of 11500 tons - all only in the organized sector.

2.7 Meat and poultry

The total meat production in the country is to the tune of 4.5 million tons per annum. This includes meat products. The rate of slaughter in relation to the population of animals is about 6% in the case of cattle, 10% in the case of buffalo, 99% in the case of pigs, 31% in the case of sheep and 39% in the case of goat. The production of value-added meat and meat products is also steadily increasing.

2.8 Fish

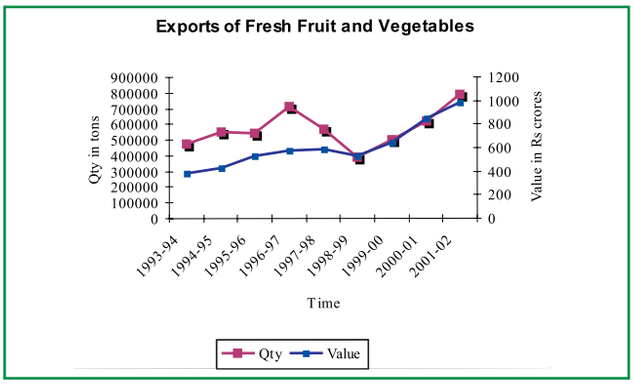
Of the total annual fish production of 5.26 million tons (1998-99), 55% comes from marine sources and the rest from inland fishery. Processing of marine products into canned and frozen form is carried out almost entirely for the export market. In all, there are 388 freezing units, 12 canning units, 156 ice-making units, 12 fishmeal plants, and about 482 frozen storage units in India in this sector.

3. EXPORT PERFORMANCE OF INDIAN FOOD PRODUCTS

The export of food products from India can be broadly divided into fresh fruits and vegetables, processed foods and vegetables, and other products.

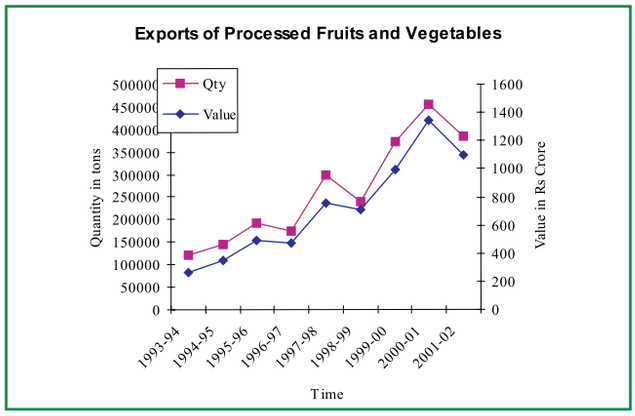
3.1 Fresh fruit and vegetables

The export of fresh fruit and vegetables in terms of value increased from Rs 38.54 million in 1993-94 to Rs 98.76 million in the year 2001-02, at a compounded annual growth rate (CAGR, growth rate/rate hereafter) of 4.497%. The exports in the year 2002-03 may touch Rs. 103.19 million at the existing growth rate. Although in terms of value the exports have shown a better performance, in terms of quantity the exports have increased at a rate of only 1.17%. Fresh onions and vegetables, dried nuts, fresh mangoes, grapes and other fresh fruits contributed to these exports.



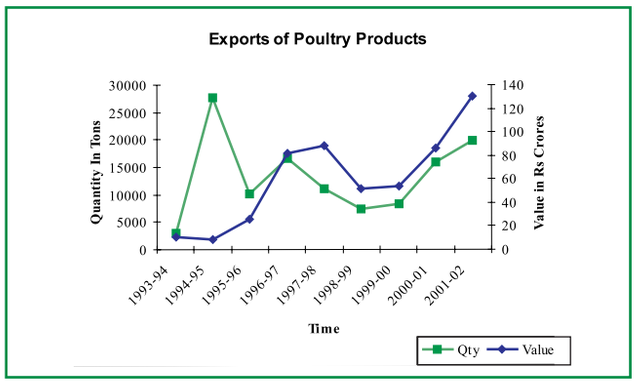
3.2 Processed fruit and vegetables

This category mainly includes dried and processed vegetables, mango pulp, pickles and chutneys, and other processed fruits and vegetables. The exports in this category are growing at the rate of 8.68% (1993-94 to 2001-02). The major export destination for mango pulp is Saudi Arabia, which accounts for one-third of the total exports of mango pulp. Pickles and chutneys are exported to all EU countries USA, UK and the Middle East. UK and USA account for 30% of Indian pickle exports. Quantitatively, this sector of exports is growing at 7.3%. It is estimated that around 20% of processed fruits produced are exported.



3.3 Export of poultry products

This sector has posted a good performance in terms of the rate of growth at 13.64% compounded annually. This can be attributed to major importing countries like UAE and Bangladesh, which import to the extent of 50% of volume with respective shares of 30% and 40%. India currently exports table eggs and hatching eggs to the Middle East to cater to the NRI (Non-resident Indian) population there. The country also exports egg powder to a number of EU nations and East Asian countries, but since 1999-2000, egg powder exports have been affected by a decrease in demand in Japan and decline of sales in the EU. India also supplies pathogen-free eggs to the EU for pharmaceutical purposes. This sector has been growing at the rate of 3.46 %.

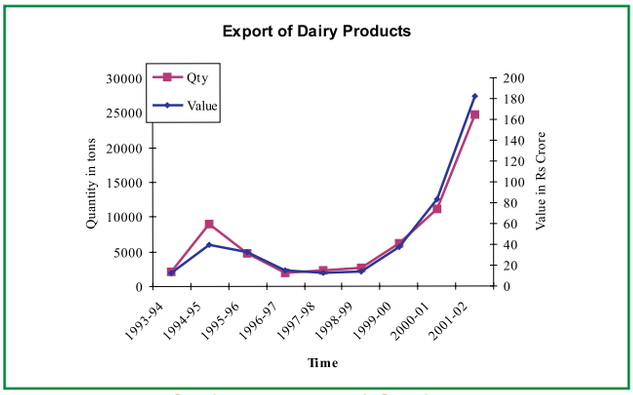


3.4 Export of dairy and meat products

India's dairy exports mostly consist of skimmed milk powder, milk-based baby food, condensed milk, whole milk, curdled milk and different kinds of cheese in small quantities. The exports are growing at the rate of 9.94 %. The country's dairy sector is expected to triple its production in the next 10 years in view of the expanding potential for export to Europe and the West. Moreover, with WTO regulations expected to come into force in the years to come, all the developed countries, which are among the big exporters today, will have to withdraw the support and subsidy to their domestic milk products sector. The quantity of dairy products exported is growing at the rate of 8.49 %.

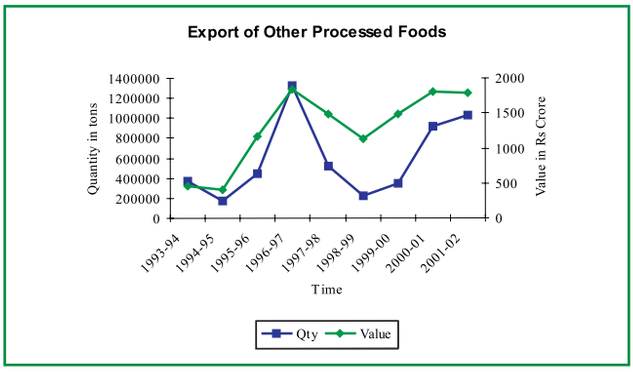
India is the cheapest milk producer in the world, at 27 cents per litre, compared with 63 cents for the US and Japan's US$ 2.8. Some of these milk producers have already obtained quality standard certificates from the authorities.

In the animal product category, exports of buffalo meat and animal casings are growing at a rate of 7.93% and 9.87% respectively. The growth in buffalo meat export is attributed to the increasing population of buffaloes for their high fat content milk for which the domestic demand is growing. The sheep/ goat meat export rates are reducing at 0.69%, as the meat exports are destined for the Middle Eastern countries, where the consumption of beef is greater than that of mutton.. The processed meat export rate is growing at a minimal rate of 1.19%. The current export destinations for these are the Seychelles, South Africa and the UAE.



3.5 Export of other processed foods

Exports of other processed food items are growing at a rate of 5.01% quantitatively. These include products such as groundnut-based products, alcohol and non-alcoholic beverages, cereal products, jaggery, and confectionery and cocoa products. Alcoholic beverages exported to Sweden account for 25% of India's total beverage exports by volume and a little more than 15% of the revenue, while exports to the UAE are to the extent of 10% and 25% in terms of volume and earnings respectively.



4. POLICY MATTERS RELATED TO FPI

The Ministry of Food Processing Industries is the central agency of the Government of India responsible for developing a strong and vibrant FPI. The strategic role and functions of the Ministry fall under three categories—developmental and promotional, technical and advisory, and regulatory.

The Ministry acts as a catalyst and facilitator for attracting domestic and foreign investments towards developing large, integrated processing capabilities; and for creating a conducive policy environment, including rationalization of taxes and duties. The Ministry processes applications for foreign collaborations, EOUs (export-oriented units) etc. and assists/guides prospective entrepreneurs in their endeavours.

Since the liberalization of economic policies in India several policy measures have been taken with regard to regulation and control, fiscal policy, export and import, taxation, exchange and interest rate control, export promotion, and incentives to high-priority industries. Food processing and agro industries have been accorded high priority with a number of exemptions and incentives. Some of the important policies related to the industry are as follows:-

4.1 Policies specific to different sectors

4.1.1 Fruits and Vegetables (F&V)

- Although no industrial license is required for setting up F&V processing units, setting up 100% EOUs require specific Government approvals.
- This sector is regulated by the Fruit Products Order 1955 (FPO), issued under the Essential Commodities Act. The Ministry of Food Processing Industries administers this order. It lays down product specifications and quality control requirements on production hygiene, and re-labelling and marketing of processed fruits and vegetables.
- All processing units are required to obtain a license under this order. Periodic inspection of units is also carried out.
- In addition, consignments of F&V products intended for export are subject to pre-shipment inspection under the FPO. However, recognized export houses and State trading houses are exempt from this inspection.
- Some items like pickles and chutneys, tapioca sago and tapioca flour are reserved for exclusive manufacture in the small-scale sector.
- Export of F&V products is freely allowed.

- Many F&V processing sectors are eligible for automatic approval of foreign technology agreement and upto 51% foreign equity participation. These include tomatoes, mushrooms and frozen vegetables, fruit, nuts, fruit-peel, fruit jellies, marmalades, fruit juices and vegetable juices.

4.1.2 Grains

- The Rice Milling Industry (Regulation) Act 1958 and Rice Milling Industry (Regulation and Licensing) Rules 1959 have been repealed with effect from 28th May 1997. Furthermore, rice milling and pulse-milling sectors, which were earlier reserved for the small-scale sector, have now been dereserved. No license/permission is now required for setting up a rice mill/pulse mill.
- Since liberalization, there is no license requirement for setting up or capacity expansion of roller flourmills. The mills can obtain their wheat supply from any source. Also there is no license requirement or price/distribution control on manufacture of wheat products.

4.1.3 Packaged/convenience foods

- The packaging laws and regulations affecting food products are mainly covered under the Standards of Weights and Measures Act, 1976, and the Standards of Weights and Measures (Packaged Commodities) Rules, 1977 (SWMA) specifying the quantity and package-labelling regulations for all products.
- The Prevention of Food Adulteration Act, 1954, and the Prevention of Food Adulteration Rules, 1955 (PFA) specify food adulteration/contamination norms and permissible ingredients from the point of view of consumer health and safety.
- The Agmark Rules relate to the quality specifications and needs of certain agricultural products to be eligible for Agmark certification. Some of the food products like edible nuts, honey etc. are currently covered under this.
- The industry is delicensed and automatic approval for foreign investment upto 51% of equity (except for items like malted food and items, which are reserved for production in small-scale sector), is granted. The setting up of 100% EOUs requires specific Government approval.

4.1.4 Fisheries

- Foreign equity is permitted in the fish-processing sector. Fish-processing projects with at least 20% value addition can be set up as 100% EOUs.
- All items can be exported freely except for silver pomfrets of weight less than 300 grams.
- Export of marine products is allowed only after registration of the unit as an exporter with the Marine Products Export Development Authority (MPEDA), Kochi, Kerala.

4.2 Recent policy initiative from the Government of India (GoI)

The Ministry of Food Processing Industries is forging ahead to create an appropriate and competitive environment by initiatives such as infrastructure development, backward and forward linkages, and equalization fund. It is expected that this will be achieved through the proposed **Processed Food Industries Development Act.**

- The proposed Act, when introduced, is expected to provide a single window system and will move from a regulatory panel regime to that of promotional and developmental mechanism. This will be in the interest of the Indian food industry and make it viable and competitive, to derive the best advantage from globalised and liberalised markets.
- There will be a provision to define standards that would cover not only nationally manufactured goods but also imported goods. The definition and standards will take into account the provisions of AGMARK, Export (Quality Control and Inspection) Act, ISO- 9000, and SQS- 2000, besides Codex standards. The standards defined in the proposed Act will be a compulsory provision rather than the existing voluntary submission, thus preventing malpractices that are rampant in quality specifications.
- It is also proposed to set up an Equalisation Fund under this Act and an authority to administer the same. It is observed that in the food processing sector, the cost of production fluctuates depending upon a variety of factors such as cost of raw material, cost of technology, marketing infrastructure; the sale proceeds may fall below the cost and the industry will suffer adversely. In such a situation, the difference between the cost price and the sale proceeds will be made available to the industry from the Equalisation Fund. Where a large surplus is expected from the sale proceeds, a portion of the surplus will be ploughed back into the fund to replenish it.
- The proposed Act will contain enabling provisions for regulating genetically engineered or modified food items either by means of compulsory labelling or, in certain cases, totally banning such items from being imported into the country or from being manufactured or sold in the country.

5. SECTOR-WISE OPPORTUNITIES

5.1 Processing of fruit and vegetables

Although India is the second largest producer of fruits and vegetables next only to China, only less than 2% is processed. There are abundant investment opportunities in the expanding domestic market and export arena. An increasing acceptance of new products with market development efforts is seen. Changes in export-import policies and exchange rate adjustments have helped improve the export potential.

There is a good international demand for certain fresh fruits such as mango, grapes, banana, litchi and exotic fruits like sapota, ber, pomegranate, custard apple and other tropical fruits, as well as processed fruit products.

Among vegetables, the items identified as having good export potential are- onions, potatoes, green vegetables such as okra, bitter gourd, and green chillies, and other seasonal vegetables.

Many non-traditional vegetables, mainly processed mushrooms and gherkins and others such as asparagus, celery, bell pepper, sweet corn, green and lima beans and organically grown vegetables are also being increasingly exported.

5.2 Fisheries

With liberalisation, the fish-processing sector has been attracting more foreign investments.

Processed IQF (Instant Quality Freezer) marine products fetch a better price in foreign markets than conventional block-frozen material. Different IQF products suitable for export are shrimp, lobster, fish, clams and fish fillets.

5.3 Meat

There is a large potential for setting up modern slaughterhouse facilities and development of cold chains in the meat- and poultry-processing sector. The market has not been tapped for ready-to-eat and semi-processed meat products in the domestic market or for exports to neighbouring countries, especially to the Middle East. There is surplus buffalo meat in the country, which has good export potential. Poultry production and egg processing industries have come up in the country in a big way and are exporting egg powder, frozen egg yolk, and albumin powder to Europe, Japan and certain other countries . Export of meat products has a growth rate of 10% whereas the growth rate of eggs and broilers are 16% to 20% respectively.

Most of the production of meat and meat products continues to be in the unorganised sector. However, some branded products have also come up in the domestic market now. At present, poultry export from India is mostly to Maldives and Oman. Other markets like Japan, Malaysia, Indonesia and Singapore can be explored for export of poultry meat products.

5.4 Grain sector

With the popularity of branded rice and flour among urban population, the investment scope in the field has increased. There is also very good demand for Indian basmati and non-basmati rice in export markets and a lot of export has been taking place

5.5 Packaged/convenience foods

The convenience foods segment, growing at a rate of 20%, offers the greatest potential.

Export of soya-based products like soyameal, deoiled cake and other value-added products are increasing at a rapid pace.

Technological revolutions in processing and packing of food products, coupled with fast growing inland and export markets present a very good potential for further investment in this sector.

5.6 Milk products

Industry profitability has been good and there is very good potential for introduction of new value-added products and their export. Currently largely imported, casein and lactose manufacture has good scope in the country. Exports of milk products have now been decanalised. Export of milk products in 2001-02 was reported at Rs 1824.5 million.

6. CONSTRAINTS AND POSSIBLE SOLUTIONS

Food worth thousands of crores of rupees gets wasted in a food-scarce country like India. The government and private sector, however, are planning large-scale expansion of the food processing industry. However, the infrastructure for this industry is still not developed and those who venture into this field have to face numerous bottlenecks. The problems relating to raw material availability impairing the growth of the food industry are:

- The Indian food industry is crippled by several infrastructure-related problems such as non-availability of specialised transportation and poorly maintained link roads across the country, which result in the damage of produce during transportation.
- The railway system is also ill equipped for free container movement from the hinterlands, which delays the transportation of material within the country. Handling facilities for food products at ports are also inadequate and obsolete. Apart from this, there is no cold chain of refrigeration units for preservation of food products.
- The major problem facing the fruit and vegetable chain in India is the large number of intermediaries. There are too many people involved in delivering these products from the farm to dining tables. In other countries, farmers sell their produce to wholesalers who forward it to retailers. But in India there are consolidators, traders, wholesalers, and a number of intermediaries who delay the transit time of such foodstuffs. This causes a large-scale loss in the process.
- Facilities for post-harvest handling also need to be improved by providing better packing of products and facilities for storage and handling. These include a wide network of cold chains to store seafood, poultry and meat products.
- Storing of food grains in gunny bags in godowns and in the open leads to about 10% wastage. In other words, of an average 200 million tons of actual production 20 million tons of food grains are lost. To prevent this, modern systems should be brought into use.

- Even today, 75% of the food industry is unorganised. It has thus become imperative that technological assistance and knowhow be provided to small and medium farmers across the country. Lack of awareness of international requirements and consumer preferences World over leads to the production of undesirable produce. Information regarding product standards and pesticides has still not percolated to grass root levels. Indian farmers are also unaware of quality developments in other nations across the globe.
- Despite a large yield, Indian exports have not picked up in a big way. One of the problems in exports to European nations is that consumer needs in these countries have changed. The consumer is now looking for nutritional food in eco-friendly packing. Almost all packaged food across Europe has product information on the label.
- The country still lacks facilities for biodegradable and eco-friendly packaging of food. The Central Food Technological Research Institute (CFTRI) has developed degradable plastics like starch-based plastic, polymers synthesized by microorganisms, and chemically degradable photodegradable plastics. All of these can be used for packaging fast foods, sandwiches and candy; for making dairy containers and lids; for food bags and bottles; and for making labels.
- A similar problem which faces India's packaging industry is that more than 50% of the tinplates used in tins for packaging edible oils and vanaspati are not prime sheets, but secondary tinplates. Secondary tinplates are those that have logos or matter printed on their face and are supposed to be disposed of as scrap. According to the guidelines laid down by the Bureau of Indian Standards, sheets used for packaging these products should not have anything printed on their inner surface. Although production of vanaspati cans is increasing, imports of primary sheets are stagnant, while the import of scrap printed sheets is increasing. Although these sheets are highly hazardous to public health, the BIS (Bureau of Indian Standards) has inexplicably amended its regulations concerning tinplates. Under the amended rules, use of primary tinplates has been made voluntary instead of mandatory. This means that the public may be exposed to the hazard of chemicals from printed sheets dissolving in the oils contained in the tins.
- Apart from a lack of infrastructure and technological facilities, the Indian food sector is also a victim of a system of archaic laws and lack of policy direction. Indian foodstuffs are heavily taxed - currently, about 16% of excise duty is levied on certain processed commodities.

7. THE WAY AHEAD - BACKWARD LINKAGE AND INVESTMENT IN THE MARKETING NETWORK

The expected growth of the processed food market from the current Rs. 1076 billion to Rs. 5000 billion by 2005 speaks of the enormous potential and the prospective opportunity in the industry.

The availability of raw material for processing is one of the crucial issues seriously affecting the health of the processing industry. With the supply of farm produce in India being governed largely by nature, the food processing industry suffers from the inability to plan for consistent, timely availability of quality/desired raw material. The most suitable method in the Indian context appears to be contract farming, which many big corporates have already adopted successfully to the mutual benefit of the supplier of the farm produce and the processing corporate.

To achieve greater efficiency, the industry needs to adopt the latest technologies that could provide economies of scale and cost effectiveness. Greater use of radiation technology in food processing, which is being used in many countries around the World (which has been permitted in India too), and application of biotechnology would go a long way toward increasing efficiency.

The Indian FPI, which is currently dominated by small, mostly unorganised players, needs to be organised. The formation of the Indian Farmers and Industry Alliance (under CII) and the Confederation of Indian Food Trade and Industry (under FICCI) is the first step in this direction. The industry needs larger companies that have the financial power to invest in both cost-intensive technologies and widening the marketing network.

Last but not the least, consumer attitude towards processed foods has to be changed. For instance, even to this day, Indian consumers prefer a live poultry bird as against processed and frozen poultry meat. Industry should drive home the point that processed and frozen foods give greater utility in terms of hygiene, quality, convenience and cost.

SPICE is Published by :

The Director General,
National Institute of Agricultural Extension Management (MANAGE)
Rajendranagar, Hyderabad - 500 030, India.
Tel : + 91 (0) 40 24016702 - 706,
Fax : + 91 (0) 40 24015388
Website: www.manage.gov.in

Editor-in-Chief
Shri. A.K. Goel

Series Editor
Dr. Vikram Singh

VAMSI, Hyd ✆ : 23311858