FOOD PROCESSING INDUSTRY IN INDIA



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1. INTRODUCTION

Food processing sector is indispensable for the overall development of an economy as it provides a vital linkage and synergy between the agriculture and industry. It helps to diversify and commercialise farming; enhance income of farmers; create markets for export of agro foods as well as generate greater employment opportunities. Through the presence of such industries, a wider range of food products could be sold and distributed to the distant locations.

The term 'food processing' is mainly defined as a process of value addition to the agricultural or horticultural produce by various methods like grading, sorting and packaging. In other words, it is a technique of manufacturing and preserving food substances in an effective manner with a view to enhance their shelf life; improve quality as well as make them functionally more useful. It covers spectrum of products from sub-sectors comprising agriculture, horticulture, plantation, animal husbandry and fisheries.

Food processing industry is one of the largest industry in India and is ranked 5th in terms of production, consumption and export. Earlier, food processing was largely confined to the food preservation, packaging and transportation, which mainly involved salting, curdling, drying, pickling, etc. However, over the years, with emerging new markets and technologies, the sector has widened its scope. It has started producing many new items like ready-to-eat food, beverages, processed and frozen fruit and vegetable products, marine and meat products, etc. It also includes establishment of post-harvest infrastructure for processing of various food items like cold storage facilities, food parks, packaging centres, value added centres, irradiation facilities and modernised abattoir.

The food processing sector comprises of two segments- Primary processed food and Value added food. Primary segment comprises of packaged fruit and vegetables, milk, flour, rice, spices etc and constitutes around 62% in value terms of the processed foods. Value added segment includes processed fruits and vegetables, juices, jam & jelly etc and holds around 38 % share in the total processed food.

In an emerging country like India, where growth with equity is a primary policy thrust, the optimum development of the food processing sector will contribute significantly in tackling several developmental concerns such as disguised unemployment in agriculture, rural poverty, food security, food inflation, improved nutrition, prevention of wastage of food etc. By serving as a bridge between agriculture and manufacturing and by dealing with a basic need of all Indian citizens - the assured supply of healthy and affordable food at all locations in the country, this sector has the potential to be a major driver in India's growth in the coming years. In fact the food processing sector has been growing faster than the agriculture sector.

The food processing industry includes a diverse group of companies involved in the processing of products like fish, meat, milk, crops and water. It includes millions of Small & Medium Enterprises (SMEs) worldwide and also some of the largest companies in the world. Many of these companies deliver products directly to consumers, while others specialize in Business-to-Business activities (ingredients, commodity markets). Some companies directly participate in all areas of food production, from farming activities through to final production and retail. Others are concentrated more at the top end of the production chain or buy through commodity markets.

In fact, Food processing is one of the world's largest industries from the perspective of the number of companies involved in the sector, as well as in terms of its total economic value.

1.1. Major Areas

The sector comprises of the following major areas -

• Fruits & Vegetables

Beverages, Juices, Concentrates, Pulps, Slices, Frozen & Dehydrated products, Wine Potato Wafers/Chips etc.

Fisheries

Frozen & Canned products mainly in fresh form

Meat & Poultry

Frozen and packed mainly in fresh form, Egg Powder

Milk & Dairy

Whole Milk Powder, Skimmed milk powder, Condensed milk, Ice cream, Butter and Ghee

• Grain and Cereals

Flour, Bakeries, Biscuits, Starch Glucose, Cornflakes, Malted Foods, Vermicelli, Pasta Foods, Beer and Malt extracts, Grain based Alcohol.

Consumer Industry

Chocolates, Confectionery, Soft/Aerated Beverages/Drinks

Plantation

Tea, coffee, cashew, cocoa, coconut etc

1.2. Benefits of Food Processing

Benefits of food processing include toxin removal, preservation, easing marketing and distribution tasks, and increasing food consistency. In addition, it increases seasonal availability of many foods, enables transportation of delicate perishable foods across

long distances and makes many kinds of foods safe to eat by de-activating spoilage and pathogenic micro-organisms. Modern supermarkets would not exist without modern food processing techniques, long voyages would not be possible and military campaigns would be significantly more difficult and costly to execute. Processed foods are usually less susceptible to early spoilage than fresh foods and are better suited for long distance transportation from the source to the consumer. When they were first introduced, some processed foods helped to alleviate food shortages and improved the overall nutrition of populations as it made many new foods available to the masses. Modern food processing also improves the quality of life for people with allergies, diabetics, and other people who cannot consume some common food elements. Food processing can also add extra nutrients such as vitamins.

The significant benefits for different stakeholders involved in food processing are:

- Farmer higher yield, better farm realization, lower risk
- Consumer greater variety, lower prices, new products
- Companies new business opportunities, demand growth
- Economy/Government Employment generation, reduced rural migration

1.3. Food Processing in a nutshell

There are different stages of processing of food as depicted hereunder -

Supply chain in Food Processing Industries			
Inputs			
Production			
Production			
Procurement and Storage			
Primary Processing			

Secondary Processing	
Retailing	

Primary Processing relates to conversion of raw agricultural produce, milk, meat and fish into a commodity that is fit for human consumption. It involves steps such as cleaning, grading, sorting, packing etc. Food Processing Industries usually deal with higher levels of processing where new or higher value food products are manufactured. From an analytical perspective food processing can be viewed as different levels of processing - primary, secondary and tertiary. Hence processing includes -

- (a) Manufactured Processes: If any raw product of agriculture, animal husbandry or fishing is transformed through a process [involving employees, power, machines or money] in such a way that its original physical properties undergo a change and if the transformed product is edible and has commercial value, then it comes within the domain of Food Processing Industries.
- (b) Other Value-Added Processes: If there is significant value addition (increased shelf life, shelled and ready for consumption etc.) such produce also comes under food processing, even if it does not undergo manufacturing processes.

		Primary	Secondary Processing	Tertiary Processing
		Processing		
Fruits	&	Cleaning, Sorting,	Slices, Pulps, Flakes,	Ketchups, jam, juices,
vegetables		Grading & Cutting	Paste, Preserved &	pickles, preserves,
			Flavoured	candies, chips, etc.
Grains	£	Sorting & Grading	Flour, Broken, Rice	Biscuits, noodles, flakes,
seeds			Puff , Malt & Milling	cakes, namkeen

Oilseeds	Sorting & Grading	Oil Cakes	Sunflower, groundnut,
			mustard, soya, olive oil,
			etc.
Beverages	Sorting, bleaching	Leaf, Dust & Powder	Tea bags, flavoured
	& Grading		coffee, soft drinks,
			alcoholic beverages
Milk	Grading &	Cottage Cheese,	Processed milk
	Refrigerating	Cream, Simmered &	spreadable fats (butter
		Dried Milk	and cheese), yoghurt
Meat &	Sorting &	Cut, Fried, Frozen &	Ready-to-eat meals
Poultry	Refrigerating	Chilled	
Marine	Chilling & Freezing	Cut, Fried, Frozen &	Ready-to-eat meals
Products		Chilled	

Modern food processing has three major aims:

- 1. To make food safe (microbiologically, chemically).
- 2. To provide products of the highest quality (flavour, colour, texture)
- 3. To make food into forms that are convenient (ease of use)

2. HISTORY OF FOOD PROCESSING

Food processing dates back to the prehistoric ages when crude processing incorporated slaughtering, fermenting, sun drying, preserving with salt, and various types of cooking (such as roasting, smoking, steaming, and oven baking). Salt-preservation was especially common for foods that constituted warrior and sailors' diets, until the introduction of canning methods. Evidence for the existence of these methods can be found in the writings of the ancient Greek, Chaldean, Egyptian and Roman civilizations as well as archaeological evidence from Europe, North and South America and Asia. These tried and tested processing techniques remained essentially the same until the advent of the industrial revolution. Examples of ready-meals also exist from preindustrial revolution times such as the Cornish pasty and Haggis. During ancient times and today these are considered processing foods. Food processing has also helped create quick, nutritious meals to give to busy families.

Modern food processing technology in the 19th and 20th century was largely developed to serve military needs. In 1809 Nicolas Appert invented a vacuum bottling technique that would supply food for French troops, and this contributed to the development of tinning and then canning by Peter Durand in 1810. Although initially expensive and somewhat hazardous due to the lead used in cans, canned goods would later become a staple around the world. Pasteurization, discovered by Louis Pasteur in 1862, was a significant advance in ensuring the micro-biological safety of food.

In the 20th century, World War II, the space race and the rising consumer society in developed countries (including the United States) contributed to the growth of food processing with such advances as spray drying, juice concentrates, freeze drying and the introduction of artificial sweeteners, colouring agents, and preservatives such as sodium benzoate. In the late 20th century products such as dried instant soups, reconstituted fruits and juices, and self cooking meals such as MRE food ration were developed.

In Western Europe and North America, the second half of the 20th century witnessed a rise in the pursuit of convenience. Food processing companies marketed their products especially towards middle-class working wives and mothers. Frozen foods (often credited to Clarence Birdseye) found their success in sales of juice concentrates and "TV dinners". Processors utilised the perceived value of time to appeal to the postwar population, and this same appeal contributes to the success of convenience foods today.

History of Food laws

Food laws were among the earliest of enactments known to man. Governments over many centuries have endeavored to provide for the safety and wholesomeness of man's food by legal provisions and appropriate punitive action. Over the years also, rude forms of fraud, such as adding worthless substances to food or extracting valuable constituents from it, have been followed by sophisticated methods of adulteration more difficult to detect. The birth of modern chemistry in the early nineteenth century made possible the production of materials possessing properties similar to normal foods which, when fraudulently used, did not readily attract the attention of the unsuspecting purchaser. Later, better analytical methods were used in food control work to detect adulterants. When scientists demonstrated that some adulterants were dangerous to health, the aroused public demanded laws that would both protect their health and prevent fraud.

"Food Laws" in one form or another, such as religious tenets or prohibitions, were inherent in all ancient civilizations and have come down to us from early times. It was not until the late nineteenth and early twentieth century — with the urbanization of societies and the depopulation of rural areas—that food laws, as understood today, were prepared. This process was hastened by pressure that developed as the public rebelled against the generally unhygienic conditions of the period.

Since the end of World War II, there have been major changes in the food industry, and this development continues today; at the same time, our knowledge of the risks, actual and potential, has considerably increased. Reorientation and further consolidation of food laws have therefore become necessary to protect the health of the consumer from the many new risks to which he has become exposed and over which he has little personal control.

3. GLOBAL FOOD PROCESSING INDUSTRY

The Global Processed Food Industry is valued at US \$ 3.2 trillion and accounts for over 3/4th of global food sales. Despite the large size of the industry, only 6% of the processed food is traded the world over as compared to bulk agricultural commodities where 16% of produce is traded. Growth of the sector has been the highest in developed economies, especially across Western Europe, North America, Japan and Australia. USA is the single largest consumer of processed food and accounts for 31% of global sales. The food processing sector has seen substantial growth in developing economies with increase in GDP, per capita income and the resultant changes in lifestyle. Organized retailing and availability of better processing technologies too have contributed to the accelerated growth of the sector.

The food processing industry is characterized by intense competition, with the most reliable firms performing well by focusing on efficiency in terms of fast processing and distribution. The global economic recession had less effect on the food processing industry than other industries due to rising demand for pre-packaged food. The industry is becoming increasingly automated, and is therefore seeing labour costs decline. The advantages of food processing include greater food consistency, longer shelf life, removal of toxins, reduction of food borne diseases and cheaper food.

The global fresh meat market is expected to produce 300 million tons by 2015. A rising global population and extensive urbanization are driving forces for the market.

Asia-Pacific demand is growing in tandem with disposable incomes and meat consumption.

Asia-Pacific leads the food processing industry in terms of market share. Market growth in countries in Eastern Europe and Asia-Pacific continues as developing countries enjoy a more favourable economic climate, with larger disposable incomes and improved living standards. Demand for food that is light on preparation time continues to grow in developed countries. Germany, The US, France and Austria are among the major exporters of food processing machinery while the US, the UK, Germany and France lead in importing.

China's processed food industry is expected to continue showing close to 35% yearly growth from 2010 through 2013, mainly due to higher standards of living and improved economic conditions. China's processed food market was left relatively unscathed by the economic downturn. Growth will continue to be lead by meat processing, with a forecast yearly growth of more than 15% for the next few years. Other leading food market segments in China are dairy products and ready meals. Growth will likely continue as China's 25% rate of processed food production catches up with the average 80% rate in developed nations such as the US.

The main driving force behind the global food industry is technological innovation, which concentrates on satisfying consumer demand for more tastes and easy-to-prepare foods. Companies are focusing on innovation to boost profits, with 60% of large companies and over 40% of medium sized enterprises investing in process and product innovation. Over 99% of the EU food and beverage industry is comprised of small-and-medium-sized enterprises. Danish, French and Greek food processing companies dedicate a sizeable part of their profit to research and development, while other countries such as Austria, Hungary and the Czech Republic lag further behind.

The main aims of research and development within the food processing industry are better quality food, enhanced taste, cheaper prices and greater convenience. Other industries recruited in the process include nanotechnology, biotechnology and other

advanced information technology fields. Companies cut production costs by: reducing waste; employing effective manufacturing techniques used in other industries; optimizing automation to cut back on labor costs; and finding ways to cut down on input materials such as energy.

4. FOOD PROCESSING INDUSTRY IN INDIA

The Indian food processing industry stands at \$135 billion and is estimated to grow with a CAGR of 10 per cent to reach \$200 billion by 2015. The food processing industry contributed 7% to India's GDP. The industry employs around 13 million workers directly and about 35 million indirectly.

The industry is segmented into sectors namely, milk and allied products (dairy), meat and poultry, seafood, bakery and confectionery, fruit and vegetables, grain, pulses and oilseeds (staple) products, alcoholic and non-alcoholic products (beverages), and packaged foods. The classification is not distinct as many processed products overlap different segments.

India ranks No. 1 in the world in production of Milk (Fresh, whole, buffalo), Pulses, Ginger, Chick Peas, Bananas Guavas, Papayas and Mangoes. Further, India ranks No. 2 in the world in production of Rice, Wheat, Potatoes, Garlic, Cashew Nuts, Groundnuts, Dry Onion, Green Peas, Pumpkins, Gourds, and cauliflowers. With the huge production base India can easily become the leading food supplier to the world and at the same time serving its vast growing domestic market with over a billion people.

Investments in the registered food processing units have been growing in the recent years. In 2007-08 the fixed capital of registered food processing units have increased by 18.93% over the previous year.

Food processing industry in India is increasingly seen as a potential source for driving rural economy as it brings synergy between industry and agriculture. A developed food processing industry is expected to lead increase in farm gate prices translating into increased rural incomes, reduce wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings. With such a large and diversified production base coupled with low manpower cost and modern technology, the Indian food processing sector is poised for growth, if the advantages are leveraged optimally.

The growth is driven by the fact that the central government has given a priority status to all agro-processing businesses. Government incentives in the field of mega food parks, cold chain and exports benefits are also playing an important role in promoting food processing.

The major challenges are investments at different points of the supply and value chain, proper research, farm and lab connectivity, upgradation of technology, increase in farm holding, skill and manpower training, backend and front-end integration and cold chain integration.

The opportunities in the food processing industry are vast. However, there is a need to improve technology and productivity to be competitive globally. As the economy grows, the food processing industry will offer bigger opportunities to the new as well as the existing players.

India has the second largest arable land of 161 million hectares and has the highest acreage under irrigation. Next to China, India ranks second largest food producer in the world and has the potential to immerge the biggest with its food and agricultural sector. India accounts for less than 1.5% of international food trade despite being one

of the world's major food producers, which indicates huge potential for both investors and exporters.

Advantage India

- India is one of the largest food producers in the world.
- India has diverse agro-climatic conditions and has a large and diverse raw material base suitable for food processing companies.
- India is looking for investment in infrastructure, packaging and marketing.
- India has huge scientific and research talent pool.
- Well developed infrastructure and distribution network.
- Rapid urbanization, increased literacy, changing life style, increased number of women in workforce, rising per capita income leading to rapid growth and new opportunities in food and beverages sector.
- 50 per cent of household expenditure by Indians is on food items.
- Strategic geographic location (proximity of India to markets in Europe and Far East, South East and West Asia).

Key growth drivers of Food Processing Sector in India

- Increasing spending on health and nutritional foods.
- Increasing number of nuclear families and working women
- Changing lifestyle
- Functional foods, fresh or processed foods
- Organized retail and private label penetration
- Changing demographics and rising disposable incomes

Key opportunities in Food Processing Sector

- Processable varieties of crop
- Contract farming
- Investments in infrastructure through Public Private partnership (PPP)

- Mega Food parks
- Logistics and cold chain infrastructure
- Food safety Management Systems
- Machinery and packaging

Challenges faced by the industry

High level of wastage of agricultural produces is primarily on account of the inherent disadvantages faced by the sector. This sector is characterized by preponderance of small farmers, small scale & tiny processors, outdated technology, poor infrastructure and a maze of middle men. Therefore, this sector needs support in terms of creation and strengthening of infrastructure which individual farmers and processors will not be in a position to create and sustain. Further, there is also a need for strengthening R&D activities in food processing sector for innovation of technology which suits local needs, popularization of appropriate technology, skill development and creation of an institutional framework supportive of the industry. The major challenges facing the sector are illustrated below:



5. GOVERNMENT INITIATIVES FOR THE FOOD PROCESSING SECTOR

In order to ensure that the Food processing sector gets the stimulus it deserves, Ministry of Food Processing Industries (MOFPI) has been implementing a number of schemes for Infrastructure development, technology up-gradation & modernization, human resources development and R&D. The following schemes are currently under implementation:

i. Scheme for Infrastructure Development

One of the major factors hindering the progress of agro/food processing in the country is inadequate infrastructure. In order to address the problems of infrastructural constraints in the food-processing sector, the Ministry of Food Processing Industries has been implementing a Scheme for Infrastructure Development since 11th Plan which includes the following components:

Mega Food Park - The Scheme of Mega Food Parks (MFP) aims at providing a mechanism to bring together farmers, processors and retailers and link agricultural production to the market so as to ensure maximizing value addition, minimizing wastages, increasing farmers' income and creating employment opportunities in rural areas. Mega Food Park envisages a well-defined agri/ horticultural-processing zone containing state-of-the-art processing facilities with support infrastructure and well-established supply chain.

- o Cold chain, Value addition and preservation infrastructure The scheme was launched during 11th Plan to provide integrated and complete cold chain and preservation infrastructure facilities, without any break, from the farm gate to the consumer. Under the scheme the Ministry of Food Processing Industries extends financial assistance to project proposals received from public/ private organizations for integrated cold chain infrastructure development. Pre-cooling facilities at production sites, reefer vans, and mobile cooling units has been covered under the Integrated Cold Chain projects. Covers Horticulture produces apart from non-horticultural products such as meat &, fish, dairy etc. Value addition Centres including processing/ multi-line processing/ collection centres, etc. for horticulture including organic produce, marine, dairy, meat and poultry, etc. are included under the scheme
- o Modernization of Abattoirs Hygienic and scientific slaughtering and optimum utilization of by-products are the most important issues in the Indian meat industry. Quality and hygiene levels in the wet market are low due to imperfect bleeding, primitive and crude slaughtering and defeathering techniques, lack of infrastructure facilities like water, electricity and facilities for handing carcass/ flaving, contamination in slaughter and improper handling during carriage. All these result in tremendous waste of meat, contamination/ deterioration of meat and also avoidable cruelty to the animals during the whole process. The qualitative and quantitative capacities of the abattoirs need to be upgraded and these are required to be linked with commercial processing of meat, both for domestic consumption and

exports besides discouraging unauthorized slaughtering. Accordingly, a plan scheme for establishing new abattoirs & modernization of the old abattoirs was started in 2009.

ii. Scheme for Technology Upgradation, Establishment and Modernisation of Food Processing Industries

Government has been implementing a Scheme for technology upgradation/ establishment/ expansion/ modernisation of Food Processing Industries with a view to create demonstrative effect on potential entrepreneurs. The main objective of the scheme is to promote latest technology in the preservation of perishable commodities including processing of horticultural produce through setting up of new food processing units as well as technological upgradation and expansion of existing units. Under the scheme, assistance have been availed by entrepreneurs for modernization and setting up of processing units for fruits & vegetables, meat, milk, fish, grain (oil mill; Rice, pulse & flour milling) alcoholic beverages, consumer products (including bakery units) etc. The scheme envisages financial assistance in form of grants-in-aid to entrepreneurs @ 25% of the cost of Plant & Machinery and Technical Civil Works subject to a maximum of Rs. 50 lakh in general areas and 33.33% in difficult areas subject to maximum of Rs. 75 lakh. In order to ensure wider coverage for food processing industries and decentralise the procedures for appraisal, grant of assistance & monitoring, the implementation of the scheme was decentralised in the 11th Plan period with effect from 01st April, 07 through the participation of banks/financial institutions. Further, in order to transfer funds to the beneficiaries and to generate an MIS relating to the scheme, an online interface e-portal designed and maintained by HDFC Bank has been put in place. This initiative is also aimed at bringing the services of the Government closer to the citizens and increasing the reach and the availability of assistance to larger sections of society. The decentralisation of the disbursement procedure has speeded up the disposal of cases, facilitated

better monitoring of implementation and improved the viability of food processing units. During 11th plan, 3239 units were assisted under the scheme.

iii. Scheme for Human Resources Development

Developing an entrepreneurial base with a variety of skills in the area of production, packaging and marketing is the key to rapid growth of food processing industries in India. It is expected that the demand for trained manpower including entrepreneurs, managers, technologists, skilled workers to cater to the growing needs of the food processing industry will surge. Besides handling of latest technology and new ways of management & marketing in food sector would necessitate skilled manpower not only to cater the domestic market but also to enable the sector to face global competition. To augment the supply of trained manpower/personnel at all levels such as entrepreneurs, managers, sales persons, floor workers etc., the Ministry has been implementing a Scheme for Human Resource Development in Food Processing Industries since the 9th Five year plan period. The Scheme has the following components:

 Creation of Infrastructure Facilities in academic institutions - The objective of this component is to strengthen capacity of academic institutions in terms of infrastructural facilities to enable these institutions to upgrade skills of personnel through training programme. Under this component, Central/State Governments academic institutions, recognized Colleges/ Universities, Technical Institutions are eligible for financial assistance up to Rs.75.00 Lakh (released in two equal instalments) for purchase of laboratory equipments, pilot plants for augmentation of infrastructure facilities and technical books & journals etc. for running Post Graduate / Degree / Diploma courses in the food processing sector.

- o Entrepreneurship Development Program (EDP) The Ministry has been providing Financial Assistance for conducting Entrepreneurship Development Program (EDP) in food processing through Central/State Governments Organizations, R & D Institutes, Universities, SNAs and NGOs. The objective of EDP is to enable trainees to establish commercially viable enterprises in food processing sector by providing them basic knowledge of technology, project formulation, management, instilling confidence and motivating them to join the sector as an entrepreneur. The prospective entrepreneur are also made aware of the for availing credit opportunities, supported banks/financial institutions and other services from the development organizations. Each group of trainees consist of not be less than 25 with from the SC/ST/women Œ representation communities. Maximum financial assistance of Rs. 2.00 lakh per EDP is provided to the institutions. The duration of the EDP is 6 weeks with a follow-up phase of 12 months.
- Food Processing Training Centres (FPTC) The Scheme of setting up of Food Processing Training Centres (FPTC) is aimed at creating a base of rural entrepreneurs, transfer of technology for processing of food products by utilizing locally grown raw materials and providing 'hands on experience' at production-cum-training centers. Persons belonging to SC/ST/OBC and women are accorded priority in coverage. FPTCs are sanctioned preferably in those clusters which have been selected for EDPs. Under the Scheme, Central/ State Government Organizations, Educational and Training Institutions, ITIs, NGOs and Co-operatives are eligible for grant to the tune of Rs. 4.00 lakh for purchase of plant and machinery and Rs. 2.00 lakh as revolving seed capital for setting up of single product line FPTC. For multi product line, the Ministry provides grant-in-aid of Rs. 11.00 lakh for purchase of plant and machinery and Rs. 4.00 lakh for seed capital assistance.

iv. Scheme for setting up/ up-gradation of Quality Assurance/ Food Testing laboratory/ R&D and promotional Activities

Quality and food safety have become competitive edge in the global market for the enterprises producing and marketing foods products. Therefore, the installation of ISO 14000, ISO 22000 Quality Management Systems and Hazard Analysis and Critical Control Points (HACCP) based food safety system is extremely desirable in view of the changing scenario of food market in the international trade. With a view to motivating the food processing industries for adoption/ implementation of food safety and quality assurance mechanisms such as Total Quality Management (TQM) including, ISO 14000, ISO 22000, HACCP, Good Manufacturing Practices (GMP), Good Hygienic Practices (GHP) and prepare them to face the global competition in post WTO era, Ministry of Food Processing Industries is implementing a Plan Scheme for Setting up/ Upgradation of Quality Control/ Food Testing Laboratory/ R &D and Promotional Activity. The scheme has the following components:

O Setting Up/ Up-gradation of Quality Control/ Food Testing Laboratory This component is intended to provide common facilities for testing of food articles to both producers and consumers. Under the Scheme, the Central/ State Governments and their organizations/ Universities (including deemed universities) are eligible for grant in aid of entire cost of the laboratory equipments. In addition, they are also eligible for 25% of the cost of technical civil works to house the equipments and furniture & fixtures associated with the equipments for general areas and 33% for difficult areas. All other implementing agencies/ private sector organizations are eligible for grant-in-aid to the extent of 50% of cost of laboratory equipments and 25% of the cost of technical civil works to house the equipments and furniture & fixtures associated with the equipments for general areas and 70% of cost of lab equipment and 33% of technical civil works for difficult areas. This includes 5% of the

grant amount as professional fees for Programme Management Agency (PMA) engaged for providing advisory and implementation services to Food testing/ Quality Control Laboratories and follow up actions. When the Ministry establishes/ sponsors such food testing laboratories, there is no ceiling to financial assistance and the amount to be approved will be decided on case to case basis. During 2012-13, the implementation of the Scheme has been transferred to Indian Council of Agricultural Research, (ICAR) New Delhi.

- Implementation of HACCP/ ISO 22000, ISO 14000/ GHP/ GMP Etc. -Implementation of Good Manufacturing Practices, HACCP, and ISO Standards is a necessary condition for improving the overall quality of food safety & hygiene in the country and also to increase India's share in global food trade. This component of quality assurance is intended to benefit stakeholders, including domestic industry, small and medium enterprises, exporters, importers of food products, food standards setting bodies and Government. Under this component, assistance in the form of re-imbursement of expenditure is provided to Central/ State Government Organizations, IITs and Universities and private sector units to the extent of 50% of the cost of consultant fee, fee charged by Certification Agency, plant and machinery, technical civil works and other expenditure towards implementation of Total Quality Management System including ISO 14000, ISO 22000, HACCP, GMP & GHP in general areas subject to maximum limit of Rs. 15 lakh and 75% in difficult areas subject to a maximum of Rs. 20 lakh.
- Research & Development in the Food Processing Sector he Ministry supports by way of funding appropriate and relevant R&D proposals for strengthening the R&D base and promote innovation of new technologies/ products/ processes, standards to compete in the global food trade. In terms of focus, the R & D efforts are aimed at reduction

of wastage & spoilage of food and food products, development of technologies & methods for preservation of food products, identification of new eco-friendly & better packaging material, development & standardization of packaging technologies for food fortification of staple food items to improve nutritional quality, change & diversification in food habits, preferences and improvement in consumer perception towards Food Safety, designing/building of prototype equipments, standardization of the processing of preparation/ handling/ packaging/ storage/ transport/ distribution with emphasis on food safety. It is expected to benefit all stakeholders including domestic industry, the consumers, the exporters, entrepreneurs, micro, small and medium enterprises, existing academic & research institutions, foodtesting laboratories, food standards setting bodies and Government. Under this component, Central / State Government organization / IITs/ Universities etc. are supported by way of financial assistance to the extent of 100% of the equipment cost / consumables / JRF / SRF. The present level of assistance to private institutions includes grant in aid of 50% for equipment cost only. For the year 2012-13, the implementation of the Scheme has been transferred to Science and Engineering Research Board (SERB) New Delhi.

Promotional activities -

Ministry provides financial assistance to Government & Academic Bodies, Industry Associations, NGOS, Cooperatives etc. for organising Seminars and workshops to focus attention on the development of Food Processing Industries. Funds are also provided for conducting studies and surveys to assess programmes and get feedback for revising various schemes of the Ministry. Ministry also sponsors seminars/workshops and commissions studies/surveys and provides funds for preparing feasibility reports. Under the Scheme, Financial assistance is provided to the agencies up to

50% of the cost subject to a maximum of Rs. 3 lakh for organizing seminars/ workshops and conducting studies/surveys etc. When the Ministry sponsors/co-sponsors or commissions such events, the above financial ceilings are not applicable. The Ministry on its own or in close association with APEDA, CFTRI, Industry Associations etc. participates in national/ international exhibitions/ fairs for disseminating information regarding food processing industry, familiarizing the existing and prospective entrepreneurs with modern techniques of production & packaging, development of market, popularization of products and promoting investment with focus on Food Processing Industries. The Ministry Sponsors/ co-sponsors event organized by other organizations provided at least 50% coverage is given to food processing sector. Assistance of 25% of the actual rental for the space taken by the Government/ Government organizations in fairs/ exhibitions abroad is also provided subject to maximum of Rs. 20.00 lakh in a year. Assistance is also provided for organizing study tours for exposure of various aspects of Food Processing. The Promotional Activities component of the scheme have since been transferred to National Mission on Food Processing for implementation during the 12th plan.

v. Scheme for Strengthening of Institutions

This scheme focuses on putting in place new institutions and strengthening of the existing institutional mechanisms for human resource development in the food processing sector as well as towards undertaking developmental activities in areas such as grapes, meat and poultry processing. The scheme has the following components:

- Setting up of National Meat and Poultry Processing Board (NMPPB)
- Setting up of Grape Processing Board

- Strengthening of Indian Institute of Crop Processing Technology (IICPT)
- Establishment of National Institute of Food Technology,
 Entrepreneurship & Management (NIFTEM)

National mission on food processing

Government has approved the launching of National Mission on Food Processing (NMFP) main scheme through States/UTs during 2012-13. The basic objective of NMFP is decentralization of implementation of Ministry's schemes, which will lead to substantial participation by State Governments/UTs. The NMFP is likely to add significantly to the Ministry's outreach in terms of planning, supervision and monitoring of assistance through this scheme.

The NMFP scheme would help the States / UTs in maintaining requisite synergy between agriculture plans of States and Development of food processing sector, which in turn would help in Increase in farm productivity thereby increase in farmers' income also. This would also help in ensuring efficient supply chain by bridging Infrastructural / institutional gaps. A National Food Processing Development Council (NFPDC) has been set up under the Chairmanship of Minister (Agri. & FPI) with representatives of State Governments, Industry associations and related Govt. of India Departments. This will provide guidance to all schemes of Ministry of Food Processing Industries (MOFPI) including the NMFP.

The basic objective of NMFP is decentralization of implementation of Ministry's schemes, which will lead to substantial participation of State Governments / UTs. Beneficiaries of MOFPI schemes will also find it easier to deal with State Governments. This would be a paradigm shift in the Ministry's approach and is driven by the need to make food processing truly a national initiative.

Government has already accorded approval and communicated to all States for taking up preparatory activities / advance action by States / UTs for implementation of NMFP during 12th Plan and released Rs. 29.81 crore (as on 10.7.2012 to states / UTs for taking up preparatory activities / advance action for implementation of

NMFP. Flexibility will also be given to States to add components and deviate from central guidelines subject to approval from the National Food Processing Development Council (NFPDC).

The major Programme/Schemes to be covered under NMFP during 2012-13 are:

- (i) Scheme for Technology Up-gradation / Establishment /modernisation of Food Processing Industries.
- (ii) Scheme for Cold Chain, Value Addition and Preservation Infrastructure for Non Horticultural Products.
- (iii) Scheme for Modernisation of Abattoirs (no targets for 2012-13 & 2013-14)
- (iv) Scheme for Human Resource Development (HRD)
 - Creation of Infrastructure Facilities for Running Degree/ Diploma
 / Certificate Courses in Food Processing Technology.
 - Entrepreneurship Development Programme (EDP)
 - Food Processing Training Centre (FPTC)
 - Scheme for Promotional Activities
 - Organizing Seminars/Workshops
 - Conducting Studies/Surveys
 - Support to Exhibitions/Fairs
 - Advertisement & Publicity

5.1. Fiscal Incentives for the sector

Income Tax

Under sub-section (11A) of section 80 IB of the Income Tax Act, 1961 a deduction from profits up to specified amounts [100% for the first 5 assessment years and thereafter, 25%(30% in the case of a company) for another 5 assessment years] is allowed in the case of an undertaking deriving profit from the business of processing, preservation and packaging of fruits or vegetables or from the integrated business of handling,

storage and transportation of food grains subject to specified conditions, if such undertaking begins to operate such business on or after the 1st day of April, 2001.

With a view to encouraging preserving perishable food items like milk, poultry and meat, the Finance (No.2) Act, 2009 amended subsection (11A) of section 80 IB to also provide tax holiday in respect of the business of processing, preserving and packaging of meat and meat products and poultry, marine and dairy products for units which begin to operate such business on or after 01.04.2001.

Further, Finance (No.2) Act, 2009 also extended an investment-linked tax incentive by way of insertion of a new section 35AD in the income tax Act, 1961 to the business of setting up and operating cold chain facilities for specified products and to the business of setting up and operating warehousing facilities for storage of agricultural produce, commencing operations on or after 01.04.2009. As per this section 100% deduction would be allowed in respect of the whole of any expenditure of capital nature (other than on land, goodwill or financial instruments) incurred, wholly and exclusively, for the purpose of the specified business during the previous year in which such expenditure is incurred subject to specified conditions in order to give an impetus to the setting up of food processing units.

To further encourage R & D across all sectors of the economy in the Union Budget 2011-12, weighted deduction on expenditure incurred on in house R&D has been enhanced from 150% to 200%, Further, weighted deduction on payments made to National Laboratories, Research Organisations, Colleges, Universities and other institutions for scientific research enhanced from 125% to 175%.

Central Excise Duty

While some processed foods items attract Nil Excise Duty such as condensed milk, Compounded asafoetida, soya protein etc., others attract a concessional rate of 1% subject to non-availment of Cenvat credit or 5% with Cenvat credit and 10% ad valorem.

Full exemption from excise duty has been extended to:

- Specified goods intended to be used for the installation of a cold storage, cold room or refrigerated vehicle, for the preservation, storage, transport or processing of agriculture, apiary, horticulture, dairy poultry, aquatic and marine product and meat.
- Conveyer belt system used in cold storage facilities for the preservation, storage, transport or processing agriculture, apiary, horticulture, dairy, poultry, aquatic and marine produce and meat, Mandis and warehouses.
- Milking machines and dairy machinery

Central Excise duty is Nil by Tariff for Machines for cleaning, sorting or grading seeds, grain or dried leguminous vegetables; machinery used in milling industry (flour milling, rice milling etc.) or for the working of cereals or dried leguminous vegetables.

Central excise exemption to specified equipment for preservation, storage and processing of agriculture and related sectors and exemption from service tax to the storage and warehousing of their product.

Full exemption from excise duty is granted to trailers and semi-trailers used in agriculture.

Customs duty

'Project Imports' benefits have been extended to the following projects:

- Projects for the installation of mechanized food grain handling systems and pallet racking systems in 'mandis' and warehouses for food grains and sugar
- Cold storage, cold room (including for farm level pre-cooling) or industrial
 projects for preservation, storage or processing of agricultural, apiary,
 horticultural, dairy, poultry, aquatic and marine produce and meat.

Consequently all goods imported as part of the project imports, irrespective of their tariff classification, would be entitled to uniform assessment at concessional basic customs duty of 5%. There is full exemption from customs duty to refrigeration units required for the manufacture of refrigerated vans or trucks. Concessional customs duty of 5 per cent is granted to specified agricultural machinery not manufactured in India.

Service Tax

The following are exempt from the whole of service tax leviable thereon vide mega exemption notification No.25 of 2012 -

- Services by way of construction, erection, commissioning, or installation of original works pertaining to mechanized food grain handling system, machinery or equipment for units processing agricultural produce as food stuff excluding alcoholic beverages.
- Services by way of transportation by rail or a vessel from one place in India to another of - foodstuff including flours, tea, coffee, jaggery, sugar, milk products, salt and edible oil, excluding alcoholic beverages.

Industries (Development & Regulation) Act, 1951

Most of the processed food items have been exempted from the purview of licensing under the Act, except items reserved for small scale sector and alcoholic beverages.

FDI Policy for Food Processing Sector (FPI)

Foreign Direct Investment (FDI) is permissible for all the processed food products under 100% automatic route (except for items reserved for Micro, Small & Medium Enterprises, where FDI is permissible under automatic route up to 24%), subject to applicable laws/regulations/securities and other conditions. FDI under automatic route is approved at Reserve Bank of India (RBI) level and it does not require approval of Foreign Investment Promotion Board (FIPB).

6. LIST OF LAWS APPLICABLE TO THE FOOD PROCESSING INDUSTRY

The list of laws applicable to the food processing industry is as follows -

A. FOOD LAWS

- 1) Food Safety and Standards Act, 2006
 - a. Food Safety and Standards Rules, 2011
 - b. Food safety and Standards (Licensing and Registration of Food businesses) regulation, 2011
 - c. Food Safety and standards (Packaging and Labelling) regulation, 2011
 - d. Food safety and standards (Food product standards and Food Additives) regulation, 2011
 - e. Food safety and standards (Prohibition and Restriction on sales) regulation, 2011
 - f. Food safety and standards (contaminants, toxins and residues) regulation, 2011
 - g. Food Safety and Standards (Laboratory and sampling analysis) regulation, 2011

B. LEGAL METROLOGY LAWS

- 1) The Legal Metrology Act, 2009
 - i. The Legal Metrology (General) Rules, 2011
 - ii. The Legal Metrology (Packaged Commodities) Rules, 2011

C. FISCAL LAWS

- 1) Income Tax Act, 1961
- 2) Customs Act, 1962
- 3) Customs Tariff Act, 1975
- 4) Central Excise Act, 1944
- 5) Central Excise Tariff Act, 1985
- 6) Finance Act, 1994 Service tax
- 7) Value Added Tax (VAT)

D. LABOUR LAWS

- 1) Factories Act, 1948
- 2) Employees Provident Fund & Miscellaneous Provisions Act, 1952
- 3) Employees' State Insurance Act, 1948
- 4) Contract labour (Regulation and Abolition) Act, 1970
- 5) The Child Labour (Prohibition and Regulation) Act, 1986
- 6) Payment of Wages Act, 1936
- 7) Minimum Wages Act, 1948
- 8) Shops & Establishments Act of respective states
- 9) Trade Unions Act, 1926

- 10) Industrial Disputes Act, 1947
- 11) Industrial Employment (Standing Orders) Act, 1946
- 12) Employee's Compensation Act, 1923
- 13) Apprentices Act, 1961
- 14) Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959
- 15) Equal remuneration Act, 1976
- 16) Payment of Bonus Act, 1965
- 17) Payment of Gratuity Act, 1972
- 18) The Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979
- 19) Labour Laws (Exemption from Furnishing Returns & Maintaining Registers by Certain Establishments) Act, 1988
- 20) Labour Welfare Fund Act of respective states
- 21) Maternity Benefit Act, 1961
- 22) Plantation Labour Act, 1951
- 23) The Unorganized Workers' Social Security Act, 2008

E. FOREIGN EXCHANGE LAWS

1) The Foreign Exchange Management Act, 1999 (FEMA) and regulations issued thereunder.

F. ENVIRONMENTAL LAWS

1) The Environment (Protection) Act, 1986 & notifications issued under the Act

- 2) The Environment (Protection) Rules, 1986
- 3) Hazardous Waste (Management and Handling) Rules, 1989
- 4) The Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989
- 5) The Manufacture, Use, Import, Export, and Storage of hazardous Microorganisms/ Genetically Engineered Organisms or Cells Rules, 1989
- 6) The Environment (Siting for Industrial Projects) Rules, 1999
- 7) The Noise Pollution (Regulation and Control) Rules, 2002
- 8) The Public Liability Insurance Act, 1991
- 9) Biological Diversity Act, 2002
- 10) The National Green Tribunal Act, 2010
- 11) The Indian Fisheries Act, 1897
- 12) Water (Prevention and Control of Pollution) Act, 1974
- 13) The Water (Prevention and Control of Pollution) Cess Act, 1977
- 14) The Air (Prevention and Control of Pollution) Act, 1981
- 15) The Air (Prevention and Control of Pollution) Rules, 1982
- 16) Air (Prevention and Control of Pollution) Union Territories Rules, 1983
- 17) The Indian Forest Act, 1927
- 18) Forest (Conservation) Act, 1980 and Forest (Conservation) Rules, 1981
- 19) The Indian Wildlife Protection Act, 1972 and The Wildlife (Protection) Rules, 1995

G. LOCAL LAWS

- 1) Municipalities Act of respective states
- 2) Panchayat Acts of respective states

H. FOOD STANDARDS

- 1) AGMARK
- 2) Bureau of Indian Standards (BIS)
- 3) Codex
- 4) HACCP
- 5) ISO-9000

7. OVERVIEW OF FOOD SAFETY AND STANDARDS ACT, 2006, RULES & REGULATIONS

The Food Safety and Standards Act received the assent of the President on 23rd August, 2006 and came into effect on 5th August, 2011. All the provisions of the Act, have come into force, except Sec.22 that deals with genetically modified foods, organic food, functional foods, proprietary foods etc..

The Food Safety and Standards Act received the assent of the President on 23rd August, 2006 and came into effect on 5th August, 2011. The Act officially repeals the regulatory framework established by the previously existing eight food laws by Notification F.No.P-15025/41/2011-DFQC, issued by the Ministry of Health and Family Welfare on August 4, 2011, consolidating them into the Food Safety and Standards Rules and Regulations 2011 under a single regulator - The Food Safety and Standards Authority of India.

On May 5, 2011, the GOI Ministry of Health and Family Welfare published the final Food Safety and Standards Rules, 2011 vide Notification No.G.S.R.362 (E) in the Indian official gazette. As stated in the notification, these rules came into force on August 5, 2011. These rules specify enforcement mechanisms, sampling techniques, and other legal aspects for implementing Section 91 of the Food Safety and Standards Act 2006.

On August 1, 2011, the Ministry of Health and Family Welfare published the final Food Safety and Standards Regulations, 2011 vide Notification No. F.No. 2-15015/30/2010 in the Indian official gazette. The Food Safety and Standards Regulations, 2011, came

into force on August 5, 2011. These regulations contain labelling requirements and standards for packaged food, permitted food additives, colours, microbiological requirements, etc.

The implementation of the Food Safety and Standards Act, 2006 formally repeals the following laws -

- i. The Prevention of Food Adulteration Act (PFA), 1954,
- ii. The Fruit Products Order, 1955,
- iii. The Meat Food Products Order, 1973,
- iv. The Vegetable Oil Products (Regulation) Order, 1998,
- v. The Edible Oils Packaging (Regulation) Order 1988,
- vi. The Solvent Extracted Oil, De-Oiled Meal and Edible Flour (Control) Order, 1967,
- vii. Milk and Milk Products Order, 1992,
- viii. Any other order issued under the Essential Commodities Act, 1955 relating to food.

The chronology of events regarding implementation of Food Safety and Standards Act. 2006 -

- President assent received on 23.08.2006.
- Notified in the Gazette of India on 24.08.2006.
- The work allocation by Cabinet Secretariat notified vide S.O 1568(E) dated 17.09.2007 to allocate work relating to Food Safety and Standards (FSS) Act, 2006, to the Ministry of Health and Family Welfare.
- The Ministry of Health and Family Welfare issued notification on 15.10.2007 invoking section 4 to 10, 87-88, 91 and 101 relating to establishment of Food

Authority, selection of Chairpersons and member of the Authority, function of Chief Executive Officer, power of Central government to make rules and powers to remove difficulties.

- Section 90 relating to transfer of existing employees of central government agencies governing various food related Act, /Orders to Food Authority, invoked vide gazette notification dated 28.08.2008.
- Food Safety and Standards Authority of India (FSSAI) established under Section 4 of the Act vide notification dated 5th September, 2008.
- Chief Executive Officer of Food Authority was appointed on 30.09.2008.
- Various sections (16-18,81-86,92 and 93) were invoked on 18.11.2008 and other sections (11-15) relating to Central Advisory Committee, Scientific Committee, Scientific Panel etc. were invoked vide notification dated 09.03.2008.
- 29.06.2009 Section 99 notified.
- 31.07.2009 Section 36-47 notified.
- 29.07.2010 all remaining sections have been notified except section 22.
- 05.05.2011 Rules notified
- 05.08.2011 Regulations notified

About the Act

The main object of the Act is to consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and for matters connected therewith.

The Act puts in place a unified structure for all food safety related matters in the form of FSSAI at the Centre ad Commissioners of Food Safety at the State level.

The law is significant in ensuring quality food to the consumer. It protects consumer interest by prohibiting misleading advertisement and penalising adulteration. In other words, the Act seeks to enhance quality of food related information to consumers and

also by setting standards which, when effectively enforced by Commissioners in the States would result in increased consumer welfare.

The Act is applicable to anyone who handles, processes, manufactures, sells, serves, stores, distributes, transports or imports food.

The Act consists of 101 sections under 12 chapters and 2 schedules.

Food Safety and Standards Authority of India

Chapter II of the Act, Secs.4 to 17, deals with the Food Safety and Standards Authority of India.

The Food Authority consists of a Chairperson and 22 members out of which one-third should be women, namely, 7 ex-officio members represent the Ministries or Departments of Central Government viz. Agriculture, Commerce, Consumer Affairs, Food Processing, Health, Legislative Affairs, Small Scale Industries; two representatives from food industry; two representative from consumer organizations; three eminent food technologists or scientists; five members to represent the States and the Union Territories on rotation basis; two persons to represent farmers' organizations and one person to represent retailers' organizations. The head office of the authority is at Delhi.

The Chairperson and the members other than ex officio members of the Food Authority can hold office for a term of three years and eligible for reappointment for a further period of three years subject to a maximum age of 65 years for Chairperson and 62 years for member.

The mandate assigned to the Food Authority is laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption.

General provisions with regard to articles of food

General provisions with regard to articles of food are covered under Chapter IV - Secs.19 to 24 of the FSS Act, 2006.

- No article of food should contain any food additive or processing aid unless it is in accordance with the provisions of the Act and Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.
 - "Food additive" means any substance not normally consumed as a food by itself or used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result (directly or indirectly), in it or its by-products becoming a component of or otherwise affecting the characteristics of such food but does not include "contaminants" or substances added to food for maintaining or improving nutritional qualities. (Sec.3(k) of the FSS Act)
 - "Processing aid" means any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, used in the processing of raw materials, foods or its ingredients to fulfill a certain technological purpose during treatment or processing and which may result in the non-intentional but unavoidable presence of residues or derivatives in the final product.
- No article of food should contain any contaminant, naturally occurring toxic substances or toxins or hormone or heavy metals in excess of such quantities as may be specified by the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.
- No article of food should contain insecticides or pesticides residues, veterinary drugs residues, antibiotic residues, solvent residues, pharmacological active substances and micro-biological counts in excess of such tolerance limit as may be specified by regulations. No insecticide should be used directly on article of food except fumigants registered and approved under the Insecticides Act, 1968.

- No person should manufacture, distribute, sell or expose for sale or despatch or deliver to any agent or broker for the purpose of sale, any packaged food products which are not marked and labelled in the manner as specified by the Food Safety and Standards (Packaging and labelling) Regulations, 2011. Every food business operator shall ensure that the labelling and presentation of food, including their shape, appearance or packaging, the packaging materials used, the manner in which they are arranged and the setting in which they are displayed, and the information which is made available about them through whatever medium, does not mislead consumers.
- No advertisement should be made of any food which is misleading or deceiving or contravenes the provisions of this Act, the rules and regulations made thereunder.

Provisions relating to Import

Chapter V i.e. Sec.25 deals with import of articles of food. No person should import into India any unsafe or misbranded or sub-standard food or food containing extraneous matter; any article of food for the import of which a licence is required under any Act or rules or regulations, except in accordance with the conditions of the licence and any article of food in contravention of any other provision of this Act or of any rule or regulation made thereunder or any other Act.

Special responsibilities as to food safety

Special responsibilities as to food safety are covered under Chapter VI - Secs. 26 to 28.

• Responsibilities of the Food business operator

- Every food business operator should ensure that the articles of food satisfy the requirements of the Act and the rules and regulations made thereunder at all stages of production, processing, import, distribution and sale within the businesses under his control.
- No food business operator should himself or by any person on his behalf manufacture, store, sell or distribute any article of food, which is

unsafe; which is misbranded or sub-standard or contains extraneous matter; for which a licence is required, except in accordance with the conditions of the licence; which is for the time being prohibited by the Food Authority or the Central Government or the State Government in the interest of public health.

- No food business operator should employ any person who is suffering from infectious, contagious or loathsome disease.
- No food business operator should sell or offer for sale any article of food to any vendor unless he also gives a guarantee in writing about the nature and quality of such article to the vendor.
- Where any food which is unsafe is part of a batch, lot or consignment of food of the same class or description, it will be presumed that all the food in that batch, lot or consignment is also unsafe.
- General hygienic and sanitary practices to be followed by food business
 operators are covered under Schedule-4 of the licensing regulations.

• Liability of the manufacturers, packers, wholesalers, distributors and sellers

- The wholesaler or distributor will be liable under this Act for any article of food which is supplied after the date of its expiry; Stored or supplied in violation of the safety instructions of the manufacturer; Unsafe or misbranded; Unidentifiable of manufacturer from whom the article of food have been received; Stored or handled or kept in violation of the provisions of the Act; received by him with knowledge of being unsafe.
- The seller will be liable for any article of food which is sold after the date of its expiry; handled or kept in unhygienic conditions; misbranded; unidentifiable of the manufacturer or the distributors from whom such articles of food were received or received by him with knowledge of being unsafe.

Licensing and registration of food business

Licensing and registration is covered under Sec.31 of the Act and the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011.

Registration of Petty Food Business -

Every petty Food Business Operator should register themselves with the Registering Authority by submitting an application for registration in Form A under Schedule 2 of the licensing Regulations.

The basic hygiene and safety requirements provided in Part I of Schedule 4 of the Regulation should be followed and a self attested declaration of adherence to these requirements should be submitted to the Registering Authority.

A producer of milk who is a registered member of a dairy Cooperative Society registered under Cooperative Societies Act and supplies or sells the entire milk to the Society is exempted from this provision for registration.

"Petty Food Manufacturer" means any food manufacturer, who (a) manufactures or sells any article of food himself or a petty retailer, hawker, itinerant vendor or temporary stall holder; or distributes foods including in any religious or social gathering except a caterer; or (b) such other food businesses including small scale or cottage or such other industries relating to food business or tiny food businesses with an annual turnover not exceeding Rs 12 lakhs and/or whose (i) production capacity of food (other than milk and milk products and meat and meat products) does not exceed 100 kg/ltr per day or (ii) procurement or handling and collection of milk is up to 500 litres of milk per day or (iii) slaughtering capacity is 2 large animals or 10 small animals or 50 poultry birds per day or less.

License for food business

An applicant for grant of license should be made in form B to the concerned licensing authority and accompanies by a self attested declaration and the requisite documents and applicable fees.

An applicant may commence his food business and the concerned licensing Authority shall not deny the applicant to commence such business if, from the date of making

the completed application, a license is not issued within 60 days or the applicant has not received any intimation of inadequacy or inspection report indicating defects from the concerned Licensing Authority.

A Registration or license granted shall be valid and subsisting, unless otherwise specified, for a period of 1 to 5 years as chosen by the Food Business Operator, from the date of issue of registration or license subject to remittance of fee applicable for the period and compliance with all conditions of license. Any application for the renewal of a registration or license should be made in Form A or B of Schedule 2, as the case may be, not later than 30 days prior to the expiry date indicated in the license. The Registration or License shall continue to be in force till such time that the orders are passed on the renewal application which in no case shall be beyond 30 days from the date of expiry of registration or license.

License for commencing or carrying on food business, which falls under Schedule 1 of the licensing regulations, should be granted by the Central Licensing Authority. License for commencing or carrying on food business which are not covered under Schedule 1 will be granted by the concerned State/UT's Licensing Authority.

List of documents to filed along with the application for license to the Central / State Licensing Authority -

- 1. Form-B duly completed and signed (in duplicate) by the proprietor/ partner or the authorised signatory (mandatory for all).
- 2. Blueprint/layout plan of the processing unit showing the dimensions in metres/square metres and operation-wise area allocation (mandatory for manufacturing and processing units only).
- 3. List of Directors with full address and contact details (mandatory for companies only)
- 4. Name and List of Equipments and Machinery along with the number, installed capacity and horse power used (mandatory for manufacturing and processing units only).

- 5. Photo ID and address proof issued by Government authority of Proprietor/Partner/Director(s)/Authorized Signatory. (optional)
- 6. List of food category desired to be manufactured. (In case of manufacturers).
- 7. Authority letter with name and address of responsible person nominated by the manufacturer along with alternative responsible person indicating the powers vested with them viz. assisting the officers in inspections, collection of samples, packing & dispatch. (Mandatory for manufacturing and processors).
- 8. Analysis report (Chemical & Bacteriological) of water to be used as ingredient in food from a recognized/ public health laboratory to confirm the portability (mandatory only for manufacturing and processing units only).
- 9. Proof of possession of premises. (Sale deed/ Rent agreement/ Electricity bill, etc.) (optional).
- 10. Partnership Deed/Affidavit/Memorandum & Articles of Association towards the constitution of the firm. (optional).
- 11. Copy of certificate obtained under Coop Act 1861/Multi State Coop Act 2002 in case of Cooperatives. (wherever applicable).
- 12. NOC from manufacturer (mandatory for Re-labellers and Re-packers)
- 13. Food Safety Management System plan or certificate (if any).
- 14. Source of milk or procurement plan for milk including location of milk collection centre's etc. in case of Milk and Milk Products processing units. (wherever applicable).
- 15. Source of raw material for meat and meat processing plants. (wherever applicable).
- 16. Pesticide residues report of water in case of units manufacturing packaged drinking water, packaged Mineral water and/or carbonated water from a recognized/ public health
- 17. Recall plan wherever applicable, with details on whom the product is distributed. (Optional).
- 18. NOCs from Municipality or local body. (optional).

List of food business falling under the purview of Central Licensing Authority -

- I. Dairy units including milk chilling units equipped to handle or process more than 50,000 litres of liquid milk/day or 2500 MT of milk solid per annum.
- II. Vegetable oil processing units and units producing vegetable oil by the process of solvent extraction and refineries including oil expeller unit having installed capacity more than 2 MT per day.
- III. All slaughter houses equipped to slaughter more than 50 large animals or 150 or more small animals including sheep and goats or 1000 or more poultry birds per day.
- IV. Meat processing units equipped to handle or process more than 500 kg of meat per day or 150 MT per annum.
- V. All food processing units other than mentioned under (I) to (IV) including relabellers and repackers having installed capacity more than 2 MT/day except grains, cereals and pulses milling units.
- VI. 100 % Export Oriented Units.
- VII. All Importers importing food items including food ingredients and additives for commercial use.
- VIII. All food business operators manufacturing any article of food containing ingredients or substances or using technologies or processes or combination thereof whose safety has not been established through these regulations or which do not have a history of safe use or food containing ingredients which are being introduced for the first time into the country.
- IX. Food Business Operator operating in two or more states.
- X. Food catering services in establishments and units under Central government Agencies like Railways, Air and airport, Seaport, Defence etc.

Returns

Every licensee should on or before 31st May of each year, submit a return electronically or in physical form in 'Form D-1' provided in Schedule 2 of the licensing Regulations to the Licensing Authority in respect of each class of food products handled by him during the previous financial year.

Every licensee engaged in manufacturing of milk and/or milk products should file half yearly returns for the periods 1st April to 30th September and 1st October to 31st March of every financial year in form D-2, as provided in Schedule-2 of the licensing regulations. Such returns should be filed within a month from the end of the period. A separate return should be filed for every license issued under the Regulations, irrespective of whether the same Food Business Operator holds more than one license. Any delay in filing return beyond 31st May of each year will attract a penalty of Rs 100 per day of delay.

Penalties

Nature of offence	Penalty
Selling food not of the nature or	penalty not exceeding five lakh rupees
substance or quality demanded	
Manufactures for sale or stores or sells or	penalty which may extend to five lakh
distributes or imports any article of food	rupees
for human consumption which is sub-	
standard	
Misbranded food	penalty which may extend to three lakh
	rupees
Misleading advertisement	penalty which may extend to ten lakh
	rupees
Food containing extraneous matter	penalty which may extend to one lakh
	rupees
Failure to comply with the directions of	penalty which may extend to two
Food Safety Officer	lakh rupees
Unhygienic or unsanitary processing or	penalty which may extend to one lakh
manufacturing of food	rupees
Imports or manufactures for sale, or	• where such adulterant is not
stores, sells or distribute any adulterant	injurious to health, penalty not
	exceeding two lakh rupees;

	where such adulterant is injurious
	to health, penalty not exceeding
	ten lakh rupees
No specific penalty is provided	penalty which may extend to two lakh
The specific penalty is provided	rupees
Unsafe food	·
Unsare rood	
	contravention does not result in
	injury, with imprisonment for a
	term which may extend to six
	months and also with fine which
	may extend to one lakh rupees;
	• where such failure or
	contravention results in a non-
	grievous injury, with imprisonment
	for a term which may extend to
	one year and also with fine which
	may extend to three lakh rupees;
	• where such failure or
	contravention results in a grievous
	injury, with imprisonment for a
	term which may extend to six years
	and also with fine which may
	extend to five lakh rupees;
	• where such failure or
	contravention results in death,
	with imprisonment for a term
	which shall not be less than seven
	years but which may extend to
	imprisonment for life and also with
	fine which shall not be less than
	The state of the second control of the secon

	ten lakh Rupees.
Interfering with seized items	Imprisonment for a term which may
	extend to six months and also with fine
	which may extend to two lakh rupees.
False information	Imprisonment for a term which may
	extend to three months and also with fine
	which may extend to two lakh rupees.
Obstructing or impersonating a Food	Imprisonment for a term which may
Safety Officer	extend to three months and also with fine
	which may extend to one lakh rupees.
Manufactures or distributes or sells or	A sum not less than five lakh rupees in
imports any article of food causing injury	case of death; not exceeding three lakh
to the consumer or his death	rupees in case of grievous injury; and not
	exceeding one lakh rupees, in all other
	cases of injury.

Some of the compliances under the FSS Act are -

- a) Registration/Licensing of the Food Vendors: All the Food Vendors that have been contracted by the company need to be Registered/Licensed under the new FSS Act. Any Vendor that operates only in one state needs to get registered with the FDA of the respective State, and for the Vendors who operate in more than one state need to register with the Central Food Safety Authority FSSAI.
- b) Registration/Licensing of the Corporate Canteen/Cafeteria: If any Food Items are being cooked / manufactured in the Corporate Canteen, registration / licensing of the Corporate Canteens also need to be done.
- c) Adoption of a Food Safety Management System Plan by the Vendor: Under the Act it is mandatory for every Food Manufacturer to prepare a Food Safety

Management System Plan. This plan ensures quality monitoring of the food produced across the entire Food Manufacturing Process. This plan needs to be reviewed annually and its implementation needs to be monitored.

- d) Potable Water being used for cooking: All the Food Manufacturing bodies and Food Serving Canteens need to get the water from their water source tested for "Potability". This would ensure that the water being used for cooking is drinkable and is safe for Human Consumption.
- e) Documentation of Food Quality Monitoring Initiatives: Regular Audit Reports done by an Internal Auditor (Trained Admin/Facility Manager), and monthly/quarterly Audit Reports by a Food Safety/Hygiene Auditor, coupled with monthly/quarterly Food, Water and Hygiene Swab testing reports, and documentation of the steps taken for rectification of errors in case of any non-compliance to the standards found would complete the documentation required for safe guard against the rough sides of the Law. Such documentation is needed to be maintained at the Food Vendor's end, as well as the Corporate Canteen's too.

Food Safety and Standards Rules, 2011

The rules deal with the enforcement structure of the Food Safety and Standards Authority and the procedures to be followed by the authorities. The procedure for adjudication and appeal has also been enumerated.

Food Safety and Standards Regulations, 2011

Food safety and Standards (Licensing and Registration of Food businesses)
 regulation, 2011

It details the licensing and registration procedure. The Application for registration should be in Form A for petty food business operator. The Application for registration should be in Form B for Food Business Operator. The Central Licensing Authority is the licensing authority for food business

which falls under Schedule 1 of this regulation. The State/UT's Licensing Authority is the licensing authority for food business not covered under Schedule 1.

ii. Food Safety and standards (Packaging and Labelling) regulation, 2011

No person should manufacture, distribute, sell or expose for sale or dispatch or deliver to any agent or broker for the purpose of sale, any packaged food products which are not marked and labeled as per the Regulations.

iii. Food safety and standards (Food product standards and Food Additives) regulation, 2011

No article of food should contain any food additive or processing aid except in accordance with the Regulations.

iv. Food safety and standards (Prohibition and Restriction on sales) regulation, 2011

The regulation provides for prohibition of sale of certain admixtures; restriction on use of certain ingredients; prohibition and restriction on sale of certain products and restrictions relating to conditions for sale

v. Food Safety and Standards (Contaminants, Toxins and Residues) regulation, 2011

No article of food should contain any contaminant, naturally occurring toxic substances or toxins or hormone or heavy metals in excess of such quantities as may be specified under the Regulations.

vi. Food Safety and Standards (Laboratory and sampling analysis) regulation, 2011

The regulation provides for recognition and accreditation of laboratories, research institutions and referral food laboratory; notified laboratories for Import and procedure for sampling.

8. OVERVIEW OF OTHER LAWS APPLICABLE TO THE INDUSTRY

1) Legal Metrology laws

Legal Metrology" means that part of metrology which treats units of weighment and measurement, methods of weighment and measurement and weighing and measuring instruments, in relation to the mandatory technical and legal requirements which have the object of ensuring public guarantee from the point of view of security and accuracy of the weighments and measurements. (Sec.2(g) of Legal Metrology Act, 2009)

The Legal Metrology Act, 2009 (Act 1 of 2010) repeals and replaces the Standard of Weights and Measures Act, 1976 and the Standards of weights and Measures (Enforcement) Act, 1985. The Act has come into force from 1st April, 2011.

The Act, *inter alia*, provides for,—

- (a) Regulation of weight or measure used in transaction or for protection;
- (b) Approval of model of weight or measure;
- (c) Verification of prescribed weight or measure by Government approved Test Centre;
- (d) Prescribing qualification of legal metrology officers appointed by the Central

Government or State Government;

- (e) Exempting regulation of weight or measure or other goods meant for export;
- (f) Levy of fee for various services;
- (g) Nomination of a Director by a company who will be responsible for complying with the provisions of the enactment;

- (h) Penalty for offences and compounding of offences;
- (i) Appeal against decision of various authorities; and
- (j) Empowering the Central Government to make rules for enforcing the provisions of the enactment.

Any weight or measure which conforms to the standard unit of such weight or measure (based on metric system or prescribed derived units) and also conforms to the provisions of section 7 (i.e. the physical characteristics, configuration, construction details, materials, equipment, performance, tolerances, period of reverification, methods or procedures of tests shall be such as may be prescribed) as are applicable to it will be the standard weight or measure. Every non-standard or unverified weight or measure is liable to seizure and forfeiture.

The Legal Metrology (Packaged Commodities) Rules, 2011 has been framed under section 52(2)(j) and (q) of the Act and has been amended on several counts, the latest being made under GSR 4257(E) dated 05.06.2012.

Section 2(l) of the Legal Metrology Act, 2009 defines "pre-packaged commodity" as a commodity which without the purchaser being present is placed in a package of whatever nature, whether sealed or not, so that the product contained therein has a pre-determined quantity.

It is illegal to manufacture, pack, sell, import, distribute, deliver, offer, expose or possess for sale any pre-packaged commodity unless the package is in such standard quantities or number and bears thereon such declarations and particulars in such manner as may be prescribed.

Items exempted from the provisions of the Packaged Commodities Rules are packages containing -

• the net weight or measure of the commodity in 10 g or ten ml or less, if sold by weight or measure

- fast food items packed by restaurant/hotel
- Scheduled and non-scheduled formulations covered under the Drugs (Price Control) Order,1995
- Agricultural farm produces in packages of above 50 kg

The items mentioned under the Second Schedule of the Packaged Commodities Rules will have to be packed in quantities specified in that schedule. Baby food, weaning food, biscuits, bread, butter, coffee, tea, cereals, pulses, milk powder, salt, edible oils, rice and wheat flour, aerated soft drink, drinking water etc. are among other products that manufacturers are required to pack and sell in standard sizes.

2) Environmental laws

Environmental law is a complex and interlocking body of statutes, common law, treaties, conventions, regulations and policies which, very broadly, operate to regulate the interaction of humanity and the rest of the biophysical or natural environment, toward the purpose of reducing or minimizing the impacts of human activity, both on the natural environment for its own sake, and on humanity itself.

The Indian constitution is amongst the few in the world that contains specific provisions on environment protection. In the Constitution of India it is clearly stated that it is the duty of the state to protect and improve the environment and to safeguard the forests and wildlife of the country.

The Ministry of Environment and Forests and the pollution control boards (CPCB i.e. Central Pollution Control Board and SPCBs i.e. State Pollution Control Boards) together form the regulatory and administrative core of the sector.

The Environment (Protection) Act, 1986

This Act is an umbrella legislation designed to provide a framework for the coordination of central and state authorities established under the Water (Prevention and Control) Act, 1974 and Air (Prevention and Control) Act, 1981. Under this Act, the central government is empowered to take measures necessary to protect and improve the quality of the environment by setting standards for emissions and discharges; regulating the location of industries; management of hazardous wastes, and protection of public health and welfare. Several notifications have been issued by the Central Government under this Act for protection of ecologically-sensitive areas or issues guidelines for matters under the Act. Some of the important notifications issued under the Environment Protection Act, 1986 are:

- a. Coastal Regulation Zone Notification (2011), which regulates activities along coastal stretches. It replaced the earlier Coastal Regulation Zone (CRZ) notification of 1991.
 It has provided clear procedures for obtaining CRZ approval with time-lines have been stipulated along with post-clearance monitoring and enforcement mechanism. Water area up to 12 nautical miles in the sea and the entire water area of a tidal water body such as creek, river, estuary etc., would now be included in the CRZ areas, without imposing any restrictions of fishing activities.
- b. Island Protection Zone Notification 2011 for environmental management of the islands of Andaman and Nicobar and Lakshadweep.
- c. Environmental Impact Assessment Notification-2006 (in supersession of the notification S.O. 60 (E) dated the 27th January, 1994. This notification is under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts. Rule 5 of the Environment (Protection) Rules, 1986 deals with Prohibitions and

restrictions on the location of industries and the carrying on processes and operations in different areas.

- All projects listed under Schedule I require environmental clearance from the Ministry of Environment and Forests.
- Projects under the delicenced category of the New Industrial Policy also require clearance from the Ministry of Environment and Forests.
- All developmental projects whether or not under the Schedule I, if located in fragile regions must obtain Ministry of Environment and Forests' clearance.
- Industrial projects with investments above prescribed limit must obtain Ministry of Environment and Forests clearance and are further required to obtain a LOI (Letter Of Intent) from the Ministry of Industry, and an NOC (No Objection Certificate) from the State Pollution Control Board and the State Forest Department if the location involves forestland. Once the NOC is obtained, the LOI is converted into an industrial licence by the state authority.
- The notification also stipulates procedural requirements for the establishment and operation of new power plants. As per this notification, two-stage clearance for site-specific projects such as pithead thermal power plants and valley projects is required. Site clearance is given in the first stage and final environmental clearance in the second. A public hearing has been made mandatory for projects covered by this notification. This is an important step in

providing transparency and a greater role to local communities.

Hazardous Waste (Management and Handling) Rules, 1989

This Rules provide the procedure to control the generation, collection, treatment, import, storage, and handling of hazardous wastes. Under this Rule, any Unit that generates, collects, treats, imports, stores or handles hazardous wastes should obtain authorisation, maintain necessary records and submit returns.

The Manufacture, Use, Import, Export, and Storage of hazardous Micro-organisms/ Genetically Engineered Organisms or Cells Rules, 1989

This Rule was introduced with a view to protect the environment, nature, and health, in connection with the application of gene technology and microorganisms. Any person dealing with Micro-organisms, Genetically Engineered Organisms or Cells should obtain permission from the Department of Bio-Technology.

The Environment (Siting for Industrial Projects) Rules, 1999

This rule lays down detailed provisions relating to areas to be avoided for siting of industries, precautionary measures to be taken for site selecting as also the aspects of environmental protection which should have been incorporated during the implementation of the industrial development projects.

The Biological Diversity Act, 2002

This Act provides for the conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising out of the use of biological resources and knowledge associated with it.

The National Green Tribunal Act, 2010

National Green Tribunal has been established for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment

and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.

The Indian Fisheries Act, 1897

This Act establishes two sets of penal offences whereby the government can sue any person who uses dynamite or other explosive substance in any way (whether coastal or inland) with intent to catch or destroy any fish or poisonous fish in order to kill.

Water (Prevention and Control of Pollution) Act, 1974

The Act prohibits the discharge of pollutants into water bodies beyond a given standard, and lays down penalties for non-compliance. The CPCB (Central Pollution Control Board) was constituted under this act. Consent of the State Pollution control Board should be obtained by an industrial establishment for discharge of sewage or trade effluents.

The Water (Prevention and Control of Pollution) Cess Act, 1977

This Act provides for the levy and collection of cess or fees on water consuming industries and local authorities.

The Air (Prevention and Control of Pollution) Act, 1981

The Act provides means for the control and abatement of air pollution. The Act seeks to combat air pollution by prohibiting the use of polluting fuels and substances, as well as by regulating appliances that give rise to air pollution. Under the Act establishment or operation of any industrial plant requires consent from state pollution control boards. The pollution control boards are also expected to test the air in air pollution control areas, inspect pollution control equipment, and manufacturing processes. To counter the problems associated with air pollution, ambient air quality standards were established, under the Act.

The Indian Forest Act, 1927

It is one of the many surviving colonial statutes. It was enacted to 'consolidate the law related to forest, the transit of forest produce, and the duty leviable on timber and other forest produce'.

The Indian Wildlife Protection Act, 1972 and The Wildlife (Protection) Rules, 1995

It provides for the protection of birds and animals and for all matters that are connected to it whether it be their habitat or the waterhole or the forests that sustain them. There is a blanket ban on carrying out any industrial activity inside these protected areas. It provides for authorities to administer and implement the Act; regulate the hunting of wild animals; protect specified plants, sanctuaries, national parks and closed areas; restrict trade or commerce in wild animals or animal articles; and miscellaneous matters.

Forest (Conservation) Act, 1980 and Forest (Conservation) Rules, 1981

It provides for the protection of and conservation of forests. The Act restricts the powers of the state in respect of de-reservation of forests and use of forestland for non-forest purposes (the term 'non-forest purpose' includes clearing any forestland for cultivation of cash crops, plantation crops, horticulture or any purpose other than re-afforestation).

3) Labour laws

The law relating to labour and employment in India is primarily known under the broad category of "Industrial Law". The prevailing social and economic conditions have been largely influential in shaping the Indian labour legislation, which regulate various aspects of work such as the number of hours of work, wages, social security and facilities provided.

Under the Constitution of India, Labour is a subject in the concurrent list i.e. List III of the Seventh Schedule of the Constitution of India where both the Central and State Governments are competent to enact legislations.

As a result, a large number of labour laws have been enacted catering to different aspects of labour namely, occupational health, safety, employment, training of apprentices, fixation, review and revision of minimum wages, mode of payment of wages, payment of compensation to workmen who suffer injuries as a result of accidents or causing death or disablement, bonded labour, contract labour, women

labour and child labour, resolution and adjudication of industrial disputes, provision of social security such as provident fund, employees' state insurance, gratuity, provision for payment of bonus, regulating the working conditions of certain specific categories of workmen such as plantation labour, beedi workers etc.

a) Factories Act, 1948

The object of the Act is to ensure adequate safety measures and to promote the health and welfare of the workers employed in factories.

The Act is applicable to the whole of India including Jammu & Kashmir. It covers all manufacturing processes and establishments falling within the definition of 'factory'. It s applicable to all factories using power and employing 10 or more workers, and if not using power, employing 20 or more workers on any day of the preceding 12 months.

Important provisions under the Act -

- Facilities and conveniences
- Welfare
- Facilities in case of large factories
- Safety
- Working hours
- Overtime wages
- Employment of women
- Leave
- Child employment
- Notices of accidents, diseases etc.

b) Employees Provident Fund & Miscellaneous Provisions Act, 1952

The Act provides for the institution of provident funds, pension funds and deposit linked insurance fund for the employees in the factories and other establishments. The Act extends to the whole of India except the State of Jammu and Kashmir. It is applicable to all factories and establishments in which 20 or more are employed. It will continue to apply to an establishment even if the number of persons employed therein at any time falls below twenty. Where an establishment consists of different departments or has branches, whether situated in the same place or in different places, all such departments or branches shall be treated as parts of the same establishment.

"Employee" means any person who is employed for wages in any kind of work, manual or otherwise, in or in connection with the work of an establishment, and who gets his wages directly or indirectly from the employer, and includes any person (i) employed by or through a contractor in or in connection with the work of the establishment; (ii) engaged as an apprentice, not being an apprentice engaged under the Apprentices Act, 1961, or under the standing orders of the establishment. (Sec.2(f) of PF Act, 1952)

The Employees Provident Funds & Miscellaneous Provisions Act, 1952 was enacted with the main object of making some provision for the future of the industrial worker after he retires or for his dependants in case of his early death.

Three schemes have been framed under the Employees Provident Funds and Miscellaneous Provisions Act, 1952, namely -

- 1. Employees Provident Fund Scheme, 1952
- 2. Employees Pension Scheme, 1995
- 3. Employees Deposit Linked Insurance, 1976

The Three Schemes taken together provide to the employees an umbrella for the rainy day in the shape of old age and survivorship benefits, a long term protection and security to the employee and after his death to his family members, and timely advances including advances during sickness and for the purchase/construction of a dwelling house during the period of membership.

Contribution to EPF -

- Employees' share : 12% of the Basic + DA
- Employer's contribution: 12% to be deposited as:
 - 8.33% to be deposited in Pension Fund A/C No 10 and
 - the balance, i.e. 3.67% to be deposited in Provident Fund A/C No 01 along with Employees' share of 12%
- Administration charges @ 1.1% of the total wages/salary disbursed by deposit to A/C No 02,
- Employees Deposit Linked Insurance @ 0.5% of the total wages/salary by deposit to A/C No. 21 and
- Administration of EDLI @ 0.01% of the wages/ salary by deposit to A/C. No. 22.

c) Employees' State Insurance Act, 1948

The ESI Act is a social welfare legislation enacted with the object of providing certain benefits to employees in case of sickness, maternity and employment injury. Under the Act, employees will receive medical relief, cash benefits, maternity benefits, pension to dependents of deceased workers and compensation for fatal or other injuries and diseases.

The Act extends to the whole of India. It applies to all the factories including Government factories (excluding seasonal factories and mines), which employ 10 or more persons on any day of the preceding twelve months. The act also applies to

shops and establishments. Generally, shops and establishments employing more than 20 employees are covered by the Act.

All employees including casual, temporary or contract employees drawing wages less than Rs.15,000 per month are covered. The ceiling limit had been raised from Rs.7500 to Rs.10,000 with effect from 01.10.06. The limit has further been raised to Rs.15,000 with effect from 01.05.2010. Apprentices covered under the Apprenticeship Act are not covered under this Act.

Where a workman is covered under the ESI scheme,

- Compensation under the Employees' Compensation Act, 1923 (erstwhile Workmen's Compensation Act) cannot be claimed in respect of employment injury.
- o No benefits can be claimed under the Maternity Benefit Act, 1961.

The employer should get his factory or establishment registered with the ESI Corporation within 15 days after the Act becomes applicable to it and also obtains the employer's code number. Application should be made in Form 01 and after having being satisfied with the application form, the regional office will allot a code number to the employer, which must be quoted in all documents and correspondence.

Like most of the social security schemes, the world over, ESI scheme is a self-financing health insurance scheme. Contributions are raised from covered employees and their employers as a fixed percentage of wages. Presently covered employees contribute 1.75% of the wages, whereas as the employers contribute 4.75% of the wages, payable to the insured persons. Employees earning less than and up to Rs. 100 per day are exempted from payment of contribution. The responsibility for payment of all contributions is that of the employer with a right to deduct the employees share of contribution from employees' wages relating to the period in respect of which the contribution is payable.

Employees covered under the scheme are entitled to medical facilities for self and dependants. They are also entitled to cash benefits in the event of specified

contingencies resulting in loss of wages or earning capacity. The insured women are entitled to maternity benefit for confinement. Where death of an insured employee occurs due to employment injury or occupational disease, the dependants are entitled to family pension.

d) Contract labour (Regulation and Abolition) Act, 1970

The Contract Labour (Regulation and Abolition) Act, 1970 regulates the employment of contract labourers in establishments and by contractors.

An establishment which engages 20 or more persons or engages on any day of the preceding 12 months as contract labourers come under the purview of the legislation. The legislation is also applicable to contractors who employ workmen as contract labourers, or who employed on any day of the preceding 12 months. It does not apply to establishments where the work performed is of intermittent or seasonal nature. An establishment wherein work is of intermittent and seasonal nature will be covered by the Act if the work performed is more than 120 days and 60 days in a year respectively.

The establishments covered under the Act are required to be registered as principal employers with the appropriate authorities. Every contractor is required to obtain a licence and not to undertake or execute any work through contract labour, except under and in accordance with the licence issued in that behalf by the licensing officer. The licence granted is subject to conditions relating to hours of work, fixation of wages and other essential amenities in respect of contract.

The Act has laid down certain amenities to be provided by the contractor to the contract labour for establishment of Canteens and rest rooms; arrangements for sufficient supply of wholesome drinking water, latrines and urinals, washing facilities and first aid facilities have been made obligatory. In case of failure on the part of the contractor to provide these facilities, the Principal Employer is liable to provide the same.

The contractor is required to pay wages and a duty is cast on him to ensure disbursement of wages in the presence of the authorised representative of the Principal Employer. In case of failure on the part of the contractor to pay wages either in part or in full, the Principal Employer is liable to pay the same.

e) Minimum Wages Act, 1948

The main object of the Minimum Wages Act, 1948 is to provide for fixing minimum rates of wages in certain establishments. The Act is applicable to employees employed in the employments specified in the Schedule appended to the Act.

"Employee" means any person who is employed for hire or reward to do any work, skilled or unskilled, manual or clerical, in a scheduled employment in respect of which minimum rates of wages have been fixed; and includes an out-worker to whom any articles or materials are given out by another person to be made up, cleaned, washed, altered, ornamented, finished, repaired, adapted or otherwise processed for sale for the purposes of the trade or business of that other person where the process is to be carried out either in the home of the out-worker or in some other premises not being premises under the control and management of that other person; and also includes an employee declared to be an employee by the appropriate Government; but does not include any member of the Armed Forces of the Union. (Sec.2(i) of Minimum Wages Act, 1948)

Under the Act both State and Central Government are "Appropriate Governments" for fixation/revision of minimum rates of wages for employments covered by the Schedule to the Act. The minimum rates of wages also include Special Allowance (Variable Dearness Allowance) linked to Consumer Price Index Number which are revised twice a year effective from April and October. The rates of wages once fixed are revised at an interval not exceeding of five years.

The minimum wages covers all workers in the sectors agricultural, industrial and small-scale sectors.

For checking the minimum wage rate log on to http://www.paycheck.in/main/officialminimumwages. It gives state wise updated minimum wage rate with their effective date.

Some of the types of employment covered under the Schedule are -

- Agriculture
- Confectionery and Daily products, Food Preservation etc.
- Dal and Flour Mills
- Ice Factories and Cold Storage
- Oil Mills

f) Employee's Compensation Act, 1923

The Employees' Compensation Act (erstwhile Workmen's Compensation Act) and Workmen's Compensation Rules, 1924 aims to provide workmen and/or their dependents some relief in case of accidents arising out of and in the course of employment and causing either death or disablement of workmen.

All establishments hiring 20 workers and above must compulsorily register themselves under the Employees' State Insurance Act (ESI Act). It is only those establishments, which employ a lesser number of workers, and therefore to do not come within the purview of the ESI Act that the Employees' Compensation Act applies to. Also if employers fail to register themselves under the ESI Act, then they will be responsible to pay compensation under the Employees' Compensation Act. The Act will be applicable only to those persons considered workers and those employers as defined under the Act.

Since a workman is entitled to get compensation from Employees State Insurance Corporation, a workman covered under ESI Act is not entitled to get compensation under Workmen's Compensation Act, as per section 53 of ESI Act, 1948.

Minimum rate of compensation payable to a worker has been enhanced from eighty thousand rupees to one lakh twenty thousand rupees for death and from ninety thousand rupees to one lakh forty thousand rupees for permanent disability. Funeral expenses has been raised from two thousand five hundred rupees to five thousand rupees. Provision has been for re-imbursement of actual medial expenditure incurred for treatment of injuries caused during the course of employment.

Every employee (including those employed through a contractor but excluding casual employees), who is engaged for the purposes of employers business and who suffers an injury in any accident arising out of and in the course of his employment, shall be entitled for compensation under the Act.

The employer of any establishment covered under this Act, is required to compensate an employee:

- a. Who has suffered an accident arising out of and in the course of his employment, resulting into (i) death, (ii) permanent total disablement, (iii) permanent partial disablement, or (iv) temporary disablement whether total or partial, or
- b. Who has contracted an occupational disease.

The amount of compensation payable will be as follows, namely:-

- (a) where death results an amount equal to fifty per cent of the monthly wages of the deceased workman multiplied by the relevant factor; or an amount of fifty thousand rupees, whichever is more;
- (b) where permanent total an amount equal to disablement results from sixty the injury per cent of the monthly wages of the injured workman multiplied by the relevant factor, or an amount of sixty thousand rupees, whichever is more; For the purposes of clause (a) and clause (b), "relevant factor", in relation to a workman means the factor specified in the second column of Schedule IV against the entry in the first column of that Schedule specifying the number of years which are the same as the completed years of the age of the workman on his last birthday immediately

preceding the date on which the compensation fell due. Where the monthly wages of a workman exceed two thousand rupees, his monthly wages for the purposes of clause (a) and clause (b) shall be deemed to be two thousand rupees only;

- (c) where permanent partial disablement results from the injury (i) in the case of an injury specified in Part II of Schedule I, such percentage of the compensation which would have been payable in the case of permanent total disablement as is specified therein as being the percentage of the loss of earning capacity caused by that injury, and (ii) in the case of an injury not specified in Schedule I, such percentage of the compensation payable in the case of permanent total disablement as is proportionate to the loss of earning capacity (as assessed by the qualified medical practitioner) permanently caused by the injury;
- (d) Where temporary a half monthly payment of the sum disablement, whether equivalent to twenty-five per cent of total or partial, results monthly wages of the workman, to from the injury be paid in accordance with the provisions of sub-section (2).
- (1A) Notwithstanding anything contained in sub-section (1), while fixing the amount of compensation payable to a workman in respect of an accident occurred outside India, the Commissioner shall take into account the amount of compensation, if any, awarded to such workman in accordance with the law of the country in which the accident occurred and shall reduce the amount fixed by him by the amount of compensation awarded to the workman in accordance with the law of that country.
- (2) The half-monthly payment referred to in clause (d) of sub-section (1) shall be payable on the sixteenth day (i) from the date of disablement where such disablement lasts for a period of twenty-eight days or more; or
- (ii) after the expiry of a waiting period of three days from the date of disablement where such disablement lasts for a period of less than twenty-eight days; and thereafter half-monthly during the disablement or during a period of five years,

whichever period is shorter: Provided that - (a) there shall be deducted from any lump sum or half-monthly payments to which the workman is entitled the amount of any payment or allowance which the workman has received from the employer by way of compensation during the period of disablement prior to the receipt of such lump sum or of the first half-monthly payment, as the case may be; and (b) no half-monthly payment shall in any case exceed the amount, if any, by which half the amount of the monthly wages of the workman before the accident exceeds half the amount of such wages which he is earning after the accident. Explanation: Any payment or allowance which the workman has received from the employer towards his medical treatment shall not be deemed to be a payment or allowance received by him by way of compensation within the meaning of clause (a) of the proviso.

- (3) On the ceasing of the disablement before the date on which any half-monthly payment falls due, there shall be payable in respect of that half-month a sum proportionate to the duration of the disablement in that half-month.
- (4) If the injury of the workman results in his death, the employer shall, in addition to the compensation under sub-section (1), deposit with the Commissioner a sum of one thousand rupees for payment of the same to the eldest surviving dependant of the workman towards the expenditure of the funeral of such workman or where the workman did not have a dependant or was not living with his dependant at the time of his death to the person who actually incurred such expenditure.

g) Payment of Bonus Act, 1965

The payment of Bonus Act provides for payment of bonus to persons employed in certain establishments on the basis of profits or on the basis of production or productivity and for matters connected therewith. It extends to the whole of India and is applicable to every factory and to every other establishment where 20 or more workmen are employed on any day during an accounting year.

Every employee receiving salary or wages upto **Rs. 10,000** p.m. and engaged in any kind of work whether skilled, unskilled, managerial, supervisory etc. is entitled to bonus for every accounting year if he has worked for at least 30 working days in that year.

Where an employee has not worked for all the working days in an accounting year, the minimum bonus of one hundred rupees or, as the case may be, of sixty rupees, if such bonus is higher than 8.33 per cent, of his salary or wage for the days he has worked in that accounting year, shall be proportionately reduced.

An employee shall be deemed to have worked in an establishment in any accounting year also on the days on which--

- (a) he has been laid off under an agreement or as permitted by standing orders under the Industrial Employment (Standing Orders) Act, 1946 (20 of 1946), or under the Industrial Disputes Act, 1947 (14 of 1947), or under any other law applicable to the establishment;
- (b) he has been on leave with salary or wage;
- (c) he has been absent due to temporary disablement caused by accident arising out of and in the course of his employment; and
- (d) the employee has been on maternity leave with salary or wage, during the accounting year.

The minimum bonus which an employer is required to pay even if he suffers losses during the accounting year or there is no allocable surplus is 8.33 % of the salary or wages during the accounting year, or Rs. 100 in case of employees above 15 years and Rs 60 in case of employees below 15 years, at the beginning of the accounting year, whichever is higher. If in an accounting year, the allocable surplus, calculated after taking into account the amount 'set on' or the amount 'set of' exceeds the minimum bonus, the employer should pay bonus in proportion to the salary or wages earned by

the employee in that accounting year subject to a maximum of 20% of such salary or wages.

The bonus should be paid in cash within 8 months from the close of the accounting year or within one month from the date of enforcement of the award or coming into operation of a settlement following an industrial dispute regarding payment of bonus.

h) Payment of Gratuity Act, 1972

The Act provides for a scheme for the payment of gratuity to employees engaged in factories, mines, oilfields, plantations, ports, railway companies, shops or other establishments. The Act enforces the payment of 'gratuity', a reward for long service, as a statutory retiral benefit. The Act applies to every factory, mine, oilfield, plantation, port and railway company; every shop or establishment within the meaning of any law for the time being in force in relation to shops and establishments in a State, in which ten or more persons are employed, or were employed, on any day of the preceding twelve months; such other establishments or class of establishments, in which ten or more employees are employed, or were employed, or, any day of the preceding twelve months, as the Central Government may, by notification, specify in this behalf.

Every employee irrespective of his wages is entitled to receive gratuity if he has rendered continuous service of 5 years or more than 5 years.

Gratuity is not paid to an employee gratuitously or merely as a matter of boon. It is paid for the service rendered by him to the employer.

Gratuity is payable to an employee on termination of his employment after he has rendered continuous service for not less than five years:

- > on his superannuation
- > on his resignation

on his death or disablement due to employment injury or disease

The amount of gratuity payable to an employee shall not exceed Ten lakh Rupees. Gratuity limit has been increased from Rs. 3,50,000 to Rs. 10,00,000 with effect from 24.05.2010.

i) Equal remuneration Act, 1976

The Equal Remuneration Act, 1976 aims to provide for the payment of equal remuneration to men and women workers and for the prevention of discrimination, on the ground of sex, against women in the matter of employment and for matters connected therewith or incidental thereto. According to the Act, the term 'remuneration' means "the basic wage or salary and any additional emoluments whatsoever payable, either in cash or in kind, to a person employed in respect of employment or work done in such employment, if the terms of the contract of employment, express or implied, were fulfilled". Nothing in this Act shall apply:- (i) to cases affecting the terms and conditions of a woman's employment in complying with the requirements of any law giving special treatment to women; or (ii) to any special treatment accorded to women in connection with the birth or expected birth of a child, or the terms and conditions relating to retirement, marriage or death or to any provision made in connection with the retirement, marriage or death.

No employer shall pay to any worker, employed by him/ her in an establishment, a remuneration (whether payable in cash or in kind) at rates less favourable than those at which remuneration is paid by him/ her to the workers of the opposite sex in such establishment for performing the same work or work of a similar nature. Also, no employer shall, for the purpose of complying with the provisions of this Act, reduce the rate of remuneration of any worker.

j) Apprentices Act, 1961

This Act provides for the regulation and control of training of apprentices, and to supplement the availability of trained technical employees for the industry.

The Act requires employers to hire apprentices in certain designated trades as notified by the Government.

"Apprenticeship training" means a course of training in any industry or establishment undergone in pursuance of a contract of apprenticeship and under prescribed terms and conditions which may be different for different categories of apprentices.

Every employer is under obligation to provide the apprentice with the training in his trade in accordance with the provisions of this Act and the rules made there under. If the employer is not himself qualified in the trade, he has to ensure that a person who possesses the prescribed qualification is placed in charge of the training of the apprentice. Every employer has to provide adequate instructional staff, possessing such qualifications as may be prescribed for imparting practical and theoretical training and facilities for trade test of apprentices; and every employer is under obligation to take apprentices in prescribed ratio of the skilled workers in his employment in different trades.

k) Maternity Benefit Act, 1961

The object of the Act is to regulate the employment of women in certain establishments for certain periods before and after childbirth and to provide for maternity benefits and certain other benefits.

This act applies to women who work in factories, mines, plantations, circus industry, shops and establishment with more than 10 employees. It does not apply to employees covered by the Employees State Insurance Act, 1948. It can be extended to other establishments by the State Governments.

Every woman is entitled to the payment of maternity benefit at the rate of the average daily wage for the period of her actual absence immediately preceding and including the day of her delivery and for the six weeks immediately following that day.

The average daily wage is calculated on the basis of the amount payable to her for the days on which she has worked during the period of three calendar months immediately preceding the date from which she has absented herself on account of maternity, or one rupee a day, whichever is higher. To be eligible for maternity benefit, a woman should have worked in an establishment for not less than 160 days in the twelve months immediately prior to the date of her expected delivery. The maximum period for which any woman can be entitled to maternity benefit is twelve weeks.

If a woman dies during this period, the maternity benefit will be payable only for the days up to and including the day of her death. However, if she delivers a child and dies during the delivery or during the period of six weeks following the delivery, the employer will be liable for the maternity benefits of the entire period of six weeks immediately following the day of her delivery. If the child dies during this period, the liability will be only up to and including the day of the death of the child.

In the event of a miscarriage, the woman must produce relevant proof that she has suffered a miscarriage. This will entitle her to receive leave with wages at the rate of the maternity benefit, for a period of six weeks immediately following the date of the miscarriage.

Women who are ill on account of pregnancy, delivery, premature birth of a child or a miscarriage are also entitled to a period of absence or to leave with wages at the rate of maternity benefit for a maximum period of one month. However, they must submit proof of their illness.

1) The Unorganized Workers' Social Security Act, 2008

The unorganized sector can be defined as that part of the work force that have not been able to organize itself in pursuit of a common objective because of certain constraints such as casual nature of employment, ignorance or illiteracy, superior strength of the employer singly or in combination etc. viz. construction workers, labour employed in cottage industry, handloom/power loom workers, sweepers and

scavengers, beedi and cigar workers etc. This sector is marked by low incomes, unstable and irregular employment, and lack of protection either from legislation or trade unions. The unorganized sector uses mainly labour intensive and indigenous technology.

Out of 440 million workers in India, 93% of the workers are in the unorganized sector. The contributions made by the unorganized sector to the national income, is very substantial as compared to that of the organized sector. It adds more than 60% to the national income while the contribution of the organised sector is almost half of that depending on the industry.

This Act builds a social security system for the unorganized workers. It does the following:

- 1. It redefines worker so as to include all types of workers, not only those who have a fixed employer. In so doing, it brings in all the self employed workers as well as casual, contract, home based etc.
- 2. It identifies each worker and gives him/her a unique social security number and social security card.
- 3. It offers a variety of social security benefits to the unorganized worker. These would include health insurance, maternity benefit and pensions. As these schemes become successful, the trust and participation of workers' builds up, and more funds come in, a variety of different benefits can be included such as children's education, housing, skill building etc.
- 4. It binds the Central Government to providing a minimum amount of benefits and funds.
- 5. It creates a structure, an architecture that works with but does not rely solely on the Government system. It creates a participatory structure that builds on already existing civil society, government and semi-government organizations which have a good record.
- 6. It encourages the unorganized workers to organize around the social security structures and benefits, creating a voice and space for them.

^{&#}x27;Unorganized Sector Worker" means a person who:

- 1. works for wages or income; and
- 2. directly or through any agency or contractor or who works on his own or her own account or is self employed; and
- 3. in any place of work including his or her home, field or any public place; and
- 4. who is not availing of benefits under the ESIC Act and the P.F Act, individual insurance and pension schemes of LIC, private insurance companies, or other benefits as decided by the Authority from time to time.

This includes all workers in all types of occupations including agriculture.

9. FOOD STANDARDS

Bureau of Indian Standards (BIS)

The Bureau of Indian Standards (BIS) is the national Standards Body of India working under the aegis of Ministry of Consumer Affairs, Food & Public Distribution, Government of India. It is established by the Bureau of Indian Standards Act, 1986 which came into effect on 23 December 1986. The organization was formerly the Indian Standards Institution (ISI).

As a corporate body, it has 25 members drawn from Central or State Governments, industry, scientific and research institutions, and consumer organizations. Its headquarters are in New Delhi, with regional offices in Kolkata, Chennai, Mumbai, Chandigarh and Delhi, and 20 branch offices.

One of the major functions of the Bureau is the formulation, recognition and promotion of the Indian Standards. Product Certifications are to be obtained voluntarily. For, some of the products like Milk powder, Milk-cereal based weaning foods, Processed cereal based complementary foods for infants, sweetened condensed milk, packaged, infant milk substitutes, Drinking Water, etc., certification is mandatory because these products are concerned with health and safety.

International Organization for Standardization (ISO) has published ISO 22000:2005 - Food Safety Management Systems - Requirements for any Organization in the Food Chain, with a view to provide framework for internationally harmonized requirements for systematically managing safety in food supply chains. Consequent to publication of ISO 22000, BIS has adopted this International Standard as IS/ISO 22000:2005. This standard integrates the principles of Hazard Analysis and Critical Control Point (HACCP) system developed by Codex Alimentarius Commission and combines the HACCP plan with Prerequisite Programmes (PRPs) and is fully compatible with Quality Management Systems (QMS) as per ISO 9001: 2000.

BIS has launched Food Safety Management Systems (FSMS) Certification IS/ISO 22000:2005 scheme which envisages grant of FSMS Certification license to organizations according to IS/ISO 22000.

AGMARK

The word Agmark is derived from Agricultural Marketing. The Agmark standard was set up by the Directorate of Marketing & Inspection (DMI), Ministry of Agriculture, Government of India by introducing an agricultural produce Act in 1937. The word Agmark seal ensures about quality and purity of the food products. The quality of the product is determined with reference to the size, variety, weight, colour, moisture, fat content and other factors are taken in to account.

It covers quality assurances of unprocessed, semi processed and processed agricultural commodities. It lays down the specifications for various adulteration prone commodities Viz. butter, ghee, vegetable oils, ground spices, honey, wheat etc., Agmark also covers pulses, cereals, makhana, vegetable oils, fruits and vegetables, roasted bengal gram, vermicelli, macaroni and spaghetti. Blended edible vegetable oils and fat spread are compulsorily required to be certified under Agmark.

Products available under AGMARK are pulses, wheat products, vegetable oils, ground spices, whole spices, milk products, honey, compounded asafoetida, rice, tapioca sago, seedless tamarind and gram flour; grading of these commodities is voluntary. On the other hand grading of commodities like tobacco, walnut, spices, basmati rice, essential oils, onion, potatoes are meant for export is compulsory under AGMARK.

CODEX

Codex Alimentarius Commission is an international body constituted by Food and Agriculture Organisation (FAO) and World Health Organisation (WHO) of the United Nations with an objective to protect health of consumers and to ensure fair practices in the food trade. Codex prescribes International Standards for safety and quality of

food as well as codes of good manufacturing practices, guidelines to protect health of the customers. These standards, guidelines and recommendations are recognized worldwide for international trade and negotiations and also for settling of disputes by WTO. There are Codex standards for fruits and vegetables, meat and poultry products, pulses and cereals.

Codex standards usually relate to product characteristics and may deal with all government-regulated characteristics appropriate to the commodity, or only one characteristic. Maximum residue limits (MRLs) for residues of pesticides or veterinary drugs in foods are examples of standards dealing with only one characteristic. There are Codex general standards for food additives and contaminants and toxins in foods that contain both general and commodity specific provisions. The Codex General Standard for the Labelling of Prepackaged Foods covers all foods in this category. Because standards relate to product characteristics, they can be applied wherever the products are traded. Codex methods of analysis and sampling, including those for contaminants and residues of pesticides and veterinary drugs in foods, are also considered Codex standards.

Hazard Analysis Critical Control Point (HACCP)

Hazard Analysis and Critical Control Point (HACCP) is a process control system designed to identify and prevent microbial and other hazards in food production. It includes steps designed to prevent problems before they occur and to correct deviations as soon as they are detected. Such preventive control system with documentation and verification are widely recognized by scientific authorities and international organizations as the most effective approach available for producing safe food.

HACCP involves a system approach to identification of hazard, assessment of chances of occurrence of hazards during each phase, raw material procurement, manufacturing, distribution, usage of food products, and in defining the measures for

hazard control. In doing so, the many drawbacks prevalent in the inspection approach are provided and HACCP overcomes shortcomings of reliance only on microbial testing.

HACCP enables the producers, processors, distributors, exporters, etc, of food products to utilize technical resources efficiently and in a cost effective manner in assuring food safety. Food inspection too would be more systematic and therefore hassle-free. It would no doubt involve deployment of some additional finances initially but this would be more than compensated in the long run through consistently better quality and hence better prices and returns.

ISO-9000

Implementation of the ISO standards enables export enterprises in developing countries to offer products or services that meet well-defined needs, satisfy consumer expectations, comply with applicable standards and specifications, as well as conform to requirements in regard to health & safety, protection of the environment and conservation of energy and materials: all these at lower costs and higher levels of efficiency.

Application of ISO 9000 in the Fruit & Vegetable Processing Industry -

ISO 9000 series of standards are generic standards and are applicable equally both to manufacturing as well as to service industries. Under individual circumstances these need to be tailored to meet the requirements specific to each industry. The fruit and vegetable processing industry has its own special features such as variable quality of raw material due to its agricultural origin, limited shelf life of both raw materials and final product, importance of packing and storage to maintain the products safe for human consumption, need to maintain proper hygienic conditions during manufacture, storage and distribution as these products are often liable to microbial contamination and toxin development, importance of safety as these products tend to get contaminated with metallic impurities and pesticides. In addition, food additives are added to enhance appeal and shelf life and if these are not added judiciously or

controlled, these may prove to be harmful. These special features need to be given due consideration while orienting ISO 9000 to this industry.

10. FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders that have hitherto handled food related issues in various Ministries and Departments. The Ministry of Health & Family Welfare, Government of India is the Administrative Ministry for the implementation of FSSAI. The Chairperson and Chief Executive Officer of Food Safety and Standards Authority of India (FSSAI) have already been appointed by Government of India. The Chairperson is in the rank of Secretary to Government of India.

FSSAI has been mandated by the FSS Act, 2006 for performing the following functions:

- Framing of Regulations to lay down the Standards and guidelines in relation to articles of food and specifying appropriate system of enforcing various standards thus notified.
- Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses.
- Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories.
- To provide scientific advice and technical support to Central Government and State Governments in the matters of framing the policy and rules in areas which have a direct or indirect bearing of food safety and nutrition.
- Collect and collate data regarding food consumption, incidence and prevalence
 of biological risk, contaminants in food, residues of various, contaminants in
 foods products, identification of emerging risks and introduction of rapid alert
 system.

- Creating an information network across the country so that the public, consumers, Panchayats etc receive rapid, reliable and objective information about food safety and issues of concern.
- Provide training programmes for persons who are involved or intend to get involved in food businesses.
- Contribute to the development of international technical standards for food, sanitary and phyto-sanitary standards.
- Promote general awareness about food safety and food standards.

11. REGULATORY AUTHORITIES

Ministry Of Food Processing Industries

The Ministry of Food Processing Industries (MFPI) was set up in July, 1988 to give an impetus to development of food processing sector in the country. Subsequently vide Notification No. Doc. CD-442/99 dated 15.10.99 this Ministry was made a Department and brought under the Ministry of Agriculture. It was again notified as the Ministry of Food Processing Industries vide Cabinet Secretariat's Note No.1/22/1/2001-cab.(1) dated 06.09.2001.

A major issue facing the country is to ensure remunerative prices to the farmers for their produce. If the surplus production of cereals, fruits, vegetables, milk, fish, meat and poultry etc. are processed and marketed both inside and outside the country, there will be greater opportunities for adding to the income of farmers and employment. A strong and dynamic food processing sector plays a vital role in diversification and commercialisation of agriculture, enhances shelf life, ensures value addition to agricultural produce, generates employment, enhances income of farmers and creates markets for export of agro foods. The Ministry of Food Processing Industries is concerned with formulation and implementation of the policies and plans for the food processing industries within the overall national priorities and objectives. The Ministry acts as a catalyst for bringing in greater investment into this sector, guiding and helping the industry, and creating a conducive environment for healthy growth of the food processing industry. Within these overall objectives, the Ministry aims at:

- Better utilization and value-addition of agricultural produce.
- Minimising wastage at all stages in the food processing chain by development of infrastructure for storage, transportation and processing of agro-produce.
- Induction of modern technology into the food processing industries.

- Encouraging R&D in food processing for product and process development.
- Providing policy support, promotional initiatives and facilities to promote value added exports.
- Create the critical infrastructure to fill the gaps in the supply chain from farm to consumer.

12. ORGANISATIONS RELATED TO THE INDUSTRY

National Institute of Food Technology Entrepreneurship & Management (NIFTEM)

National Institute of Food Technology, Entrepreneurship & Management (NIFTEM) was conceived by MFPI to create an international Center of Excellence in the field of food sciences & food technology. It is located at Kundli, near Sonipat, Haryana. NIFTEM will grow into an apex world class Institute to promote cooperation and networking among existing institutions both within the country and International bodies. The Institute will offer high quality educational, research and management programme specific to the food industry, provide referral advice on food standards, disseminate knowledge on the food sector and provide business incubation facility.

NIFTEM would work as Sector Promotion Organization of the food processing sector. Major objectives of NIFTEM drawn from its mandate are:

- (i) Working as a 'One Stop Solution Provider' to all the problems of the sector.
- (ii) Working for Skill Development and Entrepreneurship Development for the sector.
- (iii) Facilitating business incubation services with its ultra modern pilot plant for processing of fruits and vegetables, dairy, meat and grain processing.
- (iv) Conducting Frontier Area Research for development of the Sector.
- (v) Developing world class managerial talent with advanced knowhow in food science and technology.
- (vi) Providing intellectual backing for regulations which will govern food safety and quality and at the same time foster innovation.(vii) Functioning as a knowledge repository in food processing domain such as
- product information, production and processing technology, market trends, safety and quality standards, management practices among others.
- (viii) Working for upgradation of SME food processing clusters.

(ix) Promoting cooperation and networking among existing institutions within India and as well as with international bodies.

Indian Institute of Crop Processing Technology (IICPT)

Indian Institute of Crop Processing Technology (IICPT) is an autonomous organization under the Ministry of Food Processing Industries, Government of India. It is located in Thanjavur, Tamil Nadu. The main activities of IICPT are teaching, research and extension in areas of food processing to cater to the needs of stake holders in the country. It runs a four year B.Tech Programme and a two year M.Tech Programme. The first M.Tech batch graduated in 2011; the first B.Tech batch will graduate in 2013. A Ph.D Programme is also in operation. IICPT has two regional centers; one in New Delhi and the other in Guwahati to cater to the needs of the stakeholders in those regions. The Guwahati Centre caters to the needs of the north-eastern region of the country. A state of the art food processing business incubation center and a food quality testing laboratory are being created in the Guwahati center. The New Delhi centre is catering to the Northern States such as Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, Delhi, Uttar Pradesh, Uttarakhand and Rajasthan.

IICPT has NABL accredited food quality testing laboratory, food product development laboratory, food microbiology laboratory, a state of the art hi-tech food processing incubation center and food engineering laboratories. With its modern and world class laboratories equipped with hi-tech instruments, IICPT is engaged in identifying technologies for processing, preserving, value addition, by-product utilization through bio-processing, and process and product development. The subjects of research IICPT takes up are chosen with careful selection and approach. IICPT focuses their research in areas like: non-destructive quality evaluation and grading of fruits and vegetables, acoustic determination of fruits and vegetables maturity for harvesting, application of soft X-rays for identifying internal blemishes in fruits and vegetables, development of on-farm pre-coolers and vegetable washers, development of indigenous technology knowledge based food, composite grains foods, energy saving in parboiling, improving milling techniques of cereal grains, pulses, oil seeds and millets, food processing

effluent treatment, creating ready to use dry mix fermented batter for idly and other Indian foods, new food product development based on grains, fruits and vegetables, fortification of processed foods for making health foods at affordable prices, development of new equipments for puffing, multipurpose yard drying, parboiling, for producing hand pound rice, reducing storage losses, economic utilization of biomass, food industries by-product and waste utilization. Besides R & D, the institute started offering bachelor, master and doctoral degrees in food processing technologies apart from conducting non-formal short term certificate programs in food processing related areas.

Indian Grape Processing Board

The government approved the setting up of Indian Grape Processing Board in January 2009. The main objectives of the Indian Grape Processing Board are:

- (i) to focus on Research & Development, extension, quality upgradation, market research and information, domestic and international promotion of Indian wine;
- (ii) to set up facilities for wine analysis, testing for quality defining and label standards, certification of wine and promoting Good Manufacturing Practices (GMP), Hazard Analysis and Critical Control Point (HACCP)/ISO22000, 2005;
- (iii) to promote cooperative efforts, backward and forward linkages between growers and wine industry in general,
- (iv) to formulate a vision, action plan for the growth of Indian wine sector including research and development in new technologies/ processes and to foster sustainable development of Indian wine industry.

The Board has since then been set up with its headquarters its Pune. The Executive Committee of the Board has a total of 16 members including the Chairman.

National Meat & Poultry Processing Board (NMPPB)

National Meat and Poultry Processing Board (NMPPB) is an autonomous body registered under the Societies Registration Act, 1860. The Board started functioning from a leased accommodation at 7/6, Association of Municipalities & Development Authority

(AMDA Building), Siri Fort Institutional Area, August Kranti Marg, New Delhi. This industry driven institution works as a National hub for addressing all issues relating to the meat and poultry processing sector. The Board was constituted on 27th February, 2009 with 19 Members including CEO and is managed by the industry itself. The Board serves as a single window service provider for producers/manufacturers and exporters of meat and meat products, for promoting & regulating the meat industry as a whole. The Board has setup a Food Testing Laboratory at AMDA building, August Kranti Marg, New Delhi. NMPPB Laboratory has hi-tech instruments for analyzing various microbiological and physico-chemical parameters related to various food and food products. The Board is making efforts for obtaining NABL Accreditation. The benefit of this lab is available to its members at a concessional rate. NMPPB has also undertaken a major outreach initiative involving all the stake-holders. Jointly with Indian Institute of Crop Processing Technology (IICPT), the Board organized a series of training programmes for meat workers across the country.

Agricultural and Processed Food Products Export Development Authority (APEDA)

The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December, 1985. The Act came into effect from 13th February, 1986 by a notification issued in the Gazette of India: Extraordinary: Part-II [Sec. 3(ii): 13.2.1986). The Authority replaced the Processed Food Export Promotion Council (PFEPC).

APEDA is mandated with the responsibility of export promotion and development of the following scheduled products:

- Fruits, Vegetables and their Products.
- Meat and Meat Products.
- Poultry and Poultry Products.
- Dairy Products.
- Confectionery, Biscuits and Bakery Products.

- Honey, Jaggery and Sugar Products.
- Cocoa and its products, chocolates of all kinds.
- Alcoholic and Non-Alcoholic Beverages.
- Cereal and Cereal Products.
- Groundnuts, Peanuts and Walnuts.
- Pickles, Papads and Chutneys.
- Guar Gum.
- Floriculture and Floriculture Products
- Herbal and Medicinal Plants

In addition to this, APEDA has been entrusted with the responsibility to monitor import of sugar.

APEDA has marked its presence in almost all agro potential states of India and has been providing services to agri-export community through its head office, five Regional offices and 13 Virtual offices.

Marine Products Export Development Authority (MPEDA)

The Marine Products Export Development Authority (MPEDA) was constituted in 1972 under the Marine Products Export Development Authority Act 1972 (No.13 of 1972). The role envisaged for the MPEDA under the statute is comprehensive - covering fisheries of all kinds, increasing exports, specifying standards, processing, marketing, extension and training in various aspects of the industry.

MPEDA functions under the Ministry of Commerce, Government of India and acts as a coordinating agency with different Central and State Government establishments engaged in fishery production and allied activities.

The plan schemes of the Authority are implemented under seven major heads:

- Market Promotion
- Capture Fisheris
- Culture Fisheries

- Processing infrastructure & value addition
- Quality control
- Research and development
- Viability gap funding

The Head Quarters of MPEDA is located at Kochi in Kerala. The regional offices of MPEDA in Veraval (Gujarat), Mumbai (Maharashtra), Kochi (Kerala, Chennai (Tamil Nadu), Visakhapatanam (Andhra Pradesh) and Kolkata (West Bengal) and six sub regional offices at Goa, Mangalore (Karnataka), Kollam (Kerala), Tuticorin (Tamil Nadu), Bhubaneswar (Orissa) and Guwahatti (Assam) are functioning as field offices for implementation of various activities of the Authority besides engaging themselves in export promotion of marine products by providing guidance and assistance to the processing industry and the export trade.

Similarly six regional centres in Kochi (Kerala), Panvel (Maharashtra), Valsad (Gujarat), Thanjavur (Tamil Nadu), Vijayawada (Andhra Pradesh), and Bhubaneswar (Orissa) and four sub regional centres in Kannur (Kerala), Karwar (Karnataka), Bhimavaram (Andhra Pradesh) and Kolkota (West Bengal) extend assistance to augment production of shrimp to sustain and increase exports. MPEDA has also set up three stand alone laboratories, other than the one in Head Quarters, at Bhimavaram, Nellore in Andhra Pradesh & Bhubaneswar(Orissa) equipped with sophisticated equipments like LC MS MS for testing various parameters.

13. <u>IMPORTANT WEBSITES AND ADDRESSES</u>

http://mofpi.nic.in - Ministry of Food Processing Industries, Government of India

www.fssai.gov.in - Food Safety and Standards Authority of India

http://foodlicensing.fssai.gov.in/UserLogin/Login.aspx - Online Licensing and Registration system

www.mohfw.nic.in/ - Ministry of Health and Family Welfare, Government of India

www.agricoop.nic.in - Ministry of Agriculture & Cooperation, Govt. Of India

www.envfor.nic.in/ - Ministry of Environment & Forests, Govt. Of India

<u>http://labourbureau.nic.in/</u> - Labour Bureau, Govt. Of India

http://www.dahd.nic.in - Department of Animal Husbandry, Dairying & Fisheries,Ministry of Agriculture, Govt. Of India

www.nmcc.nic.in - National Manufacturing Competitiveness Council, Govt. Of India

www.commerce.nic.in - Department of Commerce, Govt. Of India

<u>http://nmppb.gov.in/</u> - National Meat and Poultry Processing Board

<u>http://www.iicpt.edu.in/</u> - Indian Institute of Crop Processing Technology

http://www.niftem.ac.in/NIFTEM/ - National Institute of Food TechnologyEntrepreneurship and Management

http://www.aifpa.net/ - All India Food Processors' Association

<u>http://www.pfndai.com/</u> - Protein Foods and Nutrition Development Association of India http://apeda.gov.in - Agricultural & Processed Food Products Export Development
Authority

www.dgft.gov.in - Directorate General of Foreign Trade

www.indianspices.com - Spices Board

www.cbec.gov.in - Central Board of Excise and Customs

www.mpeda.com - Marine Produce Export Development Authority

www.teaboard.gov.in - Tea Board

http://www.indiacoffee.org/ - Coffee Board

www.fieo.org - Federation of Indian Export Organisations

<u>http://www.dgciskol.nic.in/</u> - Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce, Government of India

http://www.cftri.com/ - Central Food Technological Research Institute

http://icmr.nic.in/ - Indian Council of Medical Research

http://www.ndri.res.in - National Diary Research Institute

http://www.iitrindia.org/ - Indian Institute of Toxicology Research

http://www.icar.org.in/ - Indian Council of Agricultural Research

<u>http://www.nabl-india.org/</u> - National Accreditation Board for Testing and Calibration Laboratories

http://www.gs1india.org/service/overview-services - Barcode service providers

http://www.ninindia.org/ - National Institute of Nutrition

http://www.foodsafetyindia.com/ - Food Safety

http://iip-in.com/ - Indian Institute of Packaging

http://ncti-india.com/ - National Centre for Trade Information

http://www.cashewindia.org/ - Cashew Export Promotion Council of India

http://fciweb.nic.in/ - Food Corporation of India

<u>http://agmarknet.nic.in/</u> - Directorate of Marketing & Inspection (DMI), Ministry of Agriculture, Govt. Of India

http://www.bis.org.in/ - Bureau of Indian Standards

www.codexalimentarius.org/ - Codex Alimentarius Commission

http://www.foodstandards.gov.au/ - Food standards, Australia, New Zealand

<u>http://www.who.int/en/</u> - World Health Organisation

http://www.fao.org/index_en.htm - Food and Agriculture Organisation of the United Nations

www.fda.gov - U.S. Food and Drug administration

http://www.efsa.europa.eu/ - European Food Safety Authority

Food Safety and Standards Authority of India (Head Office)

FDA Bhawan near Bal Bhavan,

Kotla Road,

New Delhi - 110002

India

Email: admn@fssai.gov.in

EPABX: 011-23236975

Telefax: 011-23220994

Food Safety and Standards Authority of India (Northern Region)

Food Safety and Standards Authority of India

1st Floor, East Tower, NBCC Place,

Bishm Pitamah Marg, Pragati Vihar,

New Delhi

Telefax- 011-24360934-36

Food Safety and Standards Authority of India (Eastern Region)

Food Safety and Standards Authority of India 4th Floor, Mayukh Bhawan, Salt Lake,

Kolkata-700091

Telefax- 033-23585625

Food Safety and Standards Authority of India (North Eastern Region)

Food Safety and Standards Authority of India

6th Mile, Milan Path, Juri Pur, Panjabari Road

Guwahati-781037

Assam

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Food Safety and Standards Authority of India (Western Region)

Food Safety and Standards Authority of India Ministry of Health and Family Welfare of India, Room No.319, Old C.G.O Building, 101 Maharishi Karve Marg, New Marine Lines,

Mumbai-400020

Tele-fax- 022-22036801

Food Safety and Standards Authority of India (Southern Region)

Food Safety and Standards Authority of India

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Food Research and Standardization Laboratory

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Ghaziabad-201014

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Central Food Laboratory

3Kyd Street, Kolkata-700016

Tele: 033-22291309

Central Food & Drugs Laboratory

GMSD Compound, Belasis road,

Opposite Sahil Hotel, Mumbai Central

Mumbai-400 008

Ministry of Food Processing Industries,

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Agricultural & Processed Food Products Export Development Authority (Ministry of Commerce & Industry, Govt. of India)

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