



ACHARYA N. G. RANGA AGRICULTURAL UNIVERSITY

B. Tech (Food Technology)

Course No.: **FTBM 352**

Credit Hours: **3 (2+1)**

THEORY STUDY MATERIAL

FOOD LAWS AND REGULATIONS

Prepared by

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DEPARTMENT OF FOOD TRADE AND BUSINESS MANAGEMENT

1. Course No: **FTBM - 352**
2. Title: **Food Laws and Regulations**
3. Credit Hours: 3 (2+1)
4. **Objectives:** To impart knowledge to the students on various acts, rules, regulations, standards, orders and laws related to food articles governing their manufacture, import, export, storage, distribution and sale
5. **Specific Objectives:**
 - a) **Theory:** By the end of the course, the students will be able to
 - i. Know and understand the various national and international standards for different food articles in detail
 - ii. Understand the food regulatory mechanism in our country
 - b) **Practical:** By the end of the course, the students will be able to
 - i. Examine cereals, pulses, jams, jellies, marmalades, squashes, ketchup/sauce for their compliance with BIS and FPO specifications respectively
 - ii. Examine Ghee, other dairy and Milk products for their compliance with AGMARK and BIS standards
 - iii. Examine various spices available in the market for compliance with AGMARK and BIS standards
 - iv. Understand the analytical procedures involved along with field knowledge in examining the food articles for different standards by visiting BIS, AGMARK, QC laboratory and various food processing industry

Theory Lecture Outlines:

1. Introduction - What is the need for food standards and their enforcement
2. Various types of laws- Mandatory/Regulatory and Voluntary/Optional - Introduction to various food laws (Mandatory) - Food Safety and Standards Act, 2006 (FSSA), Edible Oils Packaging (Regulation) Order, 1998, Environment (Protection) Act, 1986, Fruit Products Order, 1955 (FPO), Meat Food Products Order, 1973 (MFPO), Milk and Milk Product Order, 1992 (MMPO), Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) Order, 1967, Standards of Weights and Measures Act, 1976, The Essential Commodities Act, 1955, The Export (Quality Control and Inspection) Act, 1963, The Insecticides Act, 1968, Vegetables Oil Products(Control) Order, 1998, Prevention of Food Adulteration Act & Rules (PFA Act), 1954
3. Introduction to various food laws (Voluntary) - Agmark Standards (AGMARK), Codex Alimentarius Standards, BIS Standards and Specifications, Consumer Protection Act, 1986

4. Food Safety and Standards Act, 2006 (FSSA) - Need, Scope and Definitions (Chapter I of FSSA, 2006)
5. Establishment of Food Safety and Standards Authority of India (FSSAI) (II), Composition of FSSAI and qualifications for appointment of its Chairperson & other Members
6. Functions of the chairperson and other members of FSSAI
7. Establishment and Functions of Central Advisory Committee, Scientific Panels, Scientific Committees. Duties and functions of Food Authority
8. General principles to be followed in the administration of FSSA (III). General provisions as to articles of food in the FSSA (IV). Special responsibility as to safety (VI). Analysis of food (VIII). Offences and penalties (IX)
9. Enforcement of FSSA (VII). Food Safety Officer (FSO)/ Food Inspector (Called so by PFA Act) - Powers, Duties and functions of FSO
10. Prevention of Food Adulteration Act & Rules (PFA Act), 1954. Definition. Object of the act. Central committee for food standards
11. Analysis of Food - Public Analysts & Food Inspectors. Powers of the food Inspectors. Procedures to be followed by the Food Inspectors. Report of public analyst. (PFA Act 1954 and Part IV of PFA Rules, 1955) Sealing, fastening and dispatch of samples
12. Powers of Court (Section 14 to 25 of PFA Act, 1954)
13. Consumer Protection Act, 1986 and Consumer Protection Rules, 1987. - Need, Scope, Functions and Enforcement
14. Environment (Protection) Act, 1986. - Need, Scope, Functions and Enforcement
15. The Insecticides Act, 1968. - Need, Scope, Functions and Enforcement
16. The Export (Quality Control and Inspection) Act, 1963. - Need, Scope, Functions and Enforcement
17. Fruit Products Order, 1955 (FPO). - Need, Scope, Functions and Enforcement
18. Milk and Milk Product Order, 1992 (MMPO).- Need, Scope, Functions & Enforcement
19. The Plants, Fruits and Seeds (Regulation of Imports in India) Order, 1989. - Need, Scope, Functions and Enforcement
20. Edible Oils Packaging (Regulation) Order, 1998. - Need, Scope, Functions & Enforcement
21. Meat Food Products Order, 1973 (MFPO).- Need, Scope, Functions & Enforcement
22. Standards of Weights and Measures Act, 1976. - Need, Scope, Functions & Enforcement
23. The Essential Commodities Act, 1955. - Need, Scope, Functions & Enforcement

24. Optional food standards. Their scope, Need - Procedure to obtain that standard (ISO 9001, 14000 etc.)
25. AGMARK
26. Bureau of Indian Standards (BIS)
27. Codex Alimentarius
28. Scope of Codex Alimentarius and Codex Standards
29. Codex standards for Cereals & Pulses
30. Codex standards for Fruits and Vegetables
31. Codex standards for Meat and Poultry products
32. Recommended International Code of hygiene for various food products

Practical Class Outlines:

1. Examination of cereals & pulses from one of go-downs and market shops in relation to FPO and BIS specifications
2. Examination of ghee for various standards of AGMARK & BIS standards
3. Examination of spices for AGMARK and BIS standards.
4. Examination of milk and milk products for BIS standards
5. Examination of milk product order- standards
6. Examination of fruit products such as jams, jellies, marmalades for FPO specification
7. Examination of fruit products such as jams, jellies, marmalades for FPO specification
8. Examination of two brands of squash for FPO specification
9. Examination of two brands of squash for FPO specification
10. Examination of two brands of ketchup/ sauce for FPO specification
11. Examination of two brands of ketchup/ sauce for FPO specification
12. Visit to BIS laboratory
13. Visit to AGMARK laboratory
14. Visit to quality control laboratory
15. Visit to food processing laboratory - I
16. Visit to food processing laboratory - II

Reference Books:

- Visit <http://www.cfst-angrau.co.cc> or <http://www.cfst-bapatla.blogspot.com> for all Act, Order, Rules and other material.
- Patricia and Curtis A, An operational Text Book, Guide to Food Laws and Regulations.
- Ranganna S, Hand book of Analysis and Quality Control for Fruit and Vegetable Products.
- Srilakshmi B, Food Science.
- Avanthi Sharma, A text book of Food Science and Technology.
- Sumati R Mudambi, Shalini M Rao and Rajagopal M.V, Food Science.
- Potter NN and Hotchkiss JH, Food science.
- Dev Raj, Rakesh Sharma and Joshi V.K, Quality for Value Addition in Food Processing.
- The Food Safety and Standards act, 2006 along with Rules & Regulations 2011, Commercial Law Publishers (India) Pvt. Ltd.

Lecture-1

1. *Introduction - What is the need for food standards and their enforcement*

PREAMBLE

Effective national food control systems are essential to protect the health and safety of domestic consumers. They are also critical in enabling countries to assure the safety and quality of their foods entering international trade and to ensure that imported foods conform to national requirements. The new global environment for food trade places considerable obligations on both importing and exporting countries to strengthen their food control systems and to implement and enforce risk-based food control strategies.

Consumers are taking unprecedented interest in the way food is produced, processed and marketed, and are increasingly calling for their Governments to accept greater responsibility for food safety and consumer protection.

The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) have a strong interest in promoting national food control systems that are based upon scientific principles and guidelines, and which address all sectors of the food chain. This is particularly important for developing countries as they seek to achieve improved food safety, quality and nutrition, but will require a high level of political and policy commitment.

In many countries, effective food control is undermined by the existence of fragmented legislation, multiple jurisdictions, and weaknesses in surveillance, monitoring and enforcement. These guidelines seek to provide advice to national authorities on strategies to strengthen food control systems to protect public health, prevent fraud and deception, avoid food adulteration and facilitate trade. They will enable authorities to choose the most suitable options for their food control systems in terms of legislation, infrastructure and enforcement mechanisms. The document delineates the overarching principles of food control systems, and provides examples of possible infrastructures and approaches for national systems.

1. INTRODUCTION

The publication *Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems* was prepared to enable national authorities, particularly in developing countries, to improve their food control systems.

There have been advances in the control of food borne hazards as well as improvements in food inspection and surveillance systems. Globalization of the food supply chain, the increasing importance of the Codex Alimentarius Commission, and the obligations emerging from the World Trade Organization (WTO) Agreements have resulted in unprecedented interest in the development of food standards and regulations, and the strengthening of food control infrastructure at the country level.

- The challenges for food control authorities include:
- Increasing burden of food borne illness and new and emerging food borne hazards;

- Rapidly changing technologies in food production, processing and marketing;
- Developing science-based food control systems with a focus on consumer protection;
- International food trade and need for harmonization of food safety and quality standards;
- Changes in lifestyles, including rapid urbanization; and
- Growing consumer awareness of food safety and quality issues and increasing demand for better information.

Globally, the incidence of food borne diseases is increasing and international food trade is disrupted by frequent disputes over food safety and quality requirements. The modern concept of risk assessment provides guidelines with important information on the principles and practices of food control and the trend away from a merely punitive to a preventive approach to food control.

Responsibility for food control in most countries is shared between different agencies or ministries with duplication of regulatory activity, fragmented surveillance and a lack of coordination are common resulting in wide variations in expertise and resources between the different agencies and the responsibility for protecting public health may conflict with obligations to facilitate trade or develop an industry or sector.

2. IMPORTANT FOOD ISSUES

2.1 Food Safety, Quality and Consumer Protection - The terms food safety and food quality can sometimes be confusing. Food safety refers to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer. It is not negotiable. Quality includes all other attributes that influence a product's value to the consumer including negative attributes such as spoilage, contamination with filth, discoloration, off-odors and positive attributes such as the origin, colour, flavour, texture and processing method of the food. This distinction between safety and quality has implications for public policy and influences the nature and content of the food control system most suited to meet predetermined national objectives.

Food control: It is defined as a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labelled as prescribed by law.

The foremost responsibility of food control is to enforce the food law(s) protecting the consumer against unsafe, impure and fraudulently presented food by prohibiting the sale of food not of the nature, substance or quality demanded by the purchaser.

Confidence in the safety and integrity of the food supply is an important requirement for consumers. Food borne disease outbreaks involving agents such as Escherichia coli, Salmonella and chemical contaminants highlight problems with food safety and increase public anxiety that modern farming systems, food processing and marketing do not provide adequate safeguards for public health. Factors which contribute to potential hazards in foods

include improper agricultural practices; poor hygiene at all stages of the food chain; lack of preventive controls in food processing and preparation operations; misuse of chemicals; contaminated raw materials, ingredients and water; inadequate or improper storage, etc.

Specific concerns about food hazards have usually focused on:

- Microbiological hazards;
- Pesticide residues;
- Misuse of food additives;
- Chemical contaminants, including biological toxins; and
- Adulteration.

The list has been further extended to cover genetically modified organisms, allergens, veterinary drugs residues and growth promoting hormones used in the production of animal products. Consumers expect protection from hazards occurring along the entire food chain, from primary producer through consumer (often described as the farm-to-table continuum). Protection will only occur if all sectors in the chain operate in an integrated way, and food control systems address all stages of this chain. As no mandatory activity of this nature can achieve its objectives fully without the cooperation and active participation of all stakeholders e.g. farmers, industry, and consumers, the term Food Control System is used in these Guidelines to describe the integration of a mandatory regulatory approach with preventive and educational strategies that protect the whole food chain. Thus an ideal food control system should include effective enforcement of mandatory requirements, along with training and education, community outreach programmes and promotion of voluntary compliance. The introduction of preventive approaches such as the Hazard Analysis Critical Control Point System (HACCP), have resulted in industry taking greater responsibility for and control of food safety risks. Such an integrated approach facilitates improved consumer protection, effectively stimulates agriculture and the food processing industry, and promotes domestic and international food trade.

2.2 Global Considerations

- (a) International Trade - With an expanding world economy, liberalization of food trade, growing consumer demand, developments in food science and technology, and improvements in transport and communication, international trade in fresh and processed food will continue to increase. Access of countries to food export markets will continue to depend on their capacity to meet the regulatory requirements of importing countries.
- (b) Codex Alimentarius Commission - The Codex Alimentarius Commission (CAC) is an intergovernmental body that coordinates food standards at the international level. Its main objectives are to protect the health of consumers and ensure fair practices in food trade. The CAC proved to be most successful in achieving international harmonization in food quality and safety requirements. It has formulated international standards for a wide range of food products and specific requirements covering pesticide residues, food additives, veterinary drug residues, hygiene, food contaminants, labelling etc. These

Codex recommendations are used by governments to determine and refine policies and programmes under their national food control system.

More recently, Codex has embarked on a series of activities based on risk assessment to address microbiological hazards in foods. Codex work has created worldwide awareness of food safety, quality and consumer protection issues, and has achieved international consensus on how to deal with them scientifically, through a risk-based approach. As a result, there has been a continuous appraisal of the principles of food safety and quality at the international level. There is increasing pressure for the adoption of these principles at the national level.

(c) SPS and TBT Agreements - The conclusion of the Uruguay Round of Multilateral Trade Negotiations in Marrakech led to the establishment of the WTO on 1 January 1995, and to the coming into force of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT). Both these Agreements are relevant in understanding the requirements for food protection measures at the national level, and the rules under which food is traded internationally.

The SPS Agreement confirms the right of WTO member countries to apply measures to protect human, animal and plant life and health. The Agreement covers all relevant laws, decrees, regulations; testing, inspection, certification and approval procedures; and packaging and labelling requirements directly related to food safety. Member States are asked to apply only those measures for protection that are based on scientific principles, only to the extent necessary, and not in a manner which may constitute a disguised restriction on international trade. The Agreement encourages use of international standards, guidelines or recommendations where they exist, and identifies those from Codex (relating to food additives, veterinary drugs and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practices), to be consistent with provisions of SPS. Thus, the Codex standards serve as a benchmark for comparison of national sanitary and phytosanitary measures. While it is not compulsory for Member States to apply Codex Standards, it is in their best interests to harmonize their national food standards with those elaborated by Codex.

The TBT Agreement requires that technical regulations on traditional quality factors, fraudulent practices, packaging, labelling etc imposed by countries will not be more restrictive on imported products than they are on products produced domestically and encourages use of international standards.

3. ELEMENTS OF A NATIONAL FOOD CONTROL SYSTEM

3.1 Objectives: The principal objectives of national food control systems are:

- Protecting public health by reducing the risk of food borne illness;
- Protecting consumers from unsanitary, unwholesome, mislabelled or adulterated food;

- Contributing to economic development by maintaining consumer confidence in the food system and providing a sound regulatory foundation for domestic and international trade in food.

3.2 **Scope** - Food control systems should cover all food produced, processed and marketed within the country, including imported food. Such systems should have a statutory basis and be mandatory in nature.

3.3 **Building Blocks** - While the components and priorities of a food control system will vary from country to country, most systems will typically comprise the following components.

(a) **Food Law and Regulations** - The development of relevant and enforceable food laws and regulations is an essential component of a modern food control system. Many countries have inadequate food legislation and this will impact on the effectiveness of all food control activities carried out in the country.

Food law has traditionally consisted of legal definitions of unsafe food, and the prescription of enforcement tools for removing unsafe food from commerce and punishing responsible parties after the fact. It has generally not provided food control agencies with a clear mandate and authority to prevent food safety problems. The result has been food safety programmes that are reactive and enforcement-oriented rather than preventive and holistic in their approach to reducing the risk of food borne illness. To the extent possible, modern food laws not only contain the necessary legal powers and prescriptions to ensure food safety, but also allow the competent food authority or authorities to build preventive approaches into the system.

In addition to legislation, governments need updated food standards. In recent years, many highly prescriptive standards have been replaced by horizontal standards that address the broad issues involved in achieving food safety objectives. While horizontal standards are a viable approach to delivering food safety goals, they require a food chain that is highly controlled and supplied with good data on food safety risks and risk management strategies and as such may not be feasible for many developing countries. Similarly, many standards on food quality issues have been cancelled and replaced by labelling requirements.

In preparing food regulations and standards, countries should take full advantage of Codex standards and food safety lessons learned in other countries. Taking into account the experiences in other countries while tailoring the information, concepts and requirements to the national context is the only sure way to develop a modern regulatory framework that will both satisfy national needs and meet the demands of the SPS Agreement and trading partners.

Food legislation should include the following aspects:

- it must provide a high level of health protection;
- it should include clear definitions to increase consistency and legal security;
- it should be based on high quality, transparent, and independent scientific advice following risk assessment, risk management and risk communication;

- it should include provision for the use of precaution and the adoption of provisional measures where an unacceptable level of risk to health has been identified and where full risk assessment could not be performed;
 - it should include provisions for the right of consumers to have access to accurate and sufficient information;
 - it should provide for tracing of food products and for their recall in case of problems;
 - it should include clear provisions indicating that primary responsibility for food safety and quality rests with producers and processors;
 - it should include obligation to ensure that only safe and fairly presented food is placed on the market;
 - it should also recognize the country's international obligations particularly in relation to trade; and
 - It should ensure transparency in the development of food law and access to information.
- (b) Food Control Management - Effective food control systems require policy and operational coordination at the national level. While the detail of such functions will be determined by the national legislation, they would include the establishment of a leadership function and administrative structures with clearly defined accountability for issues such as: the development and implementation of an integrated national food control strategy; operation of a national food control program; securing funds and allocating resources; setting standards and regulations; participation in international food control related activities; developing emergency response procedures; carrying out risk analysis; etc. Core responsibilities include the establishment of regulatory measures, monitoring system performance, facilitating continuous improvement, and providing overall policy guidance.
- (c) Inspection Services - The administration and implementation of food laws require a qualified, trained, efficient and honest food inspection service. The food inspector is the key functionary who has day-to-day contact with the food industry, trade and often the public. The reputation and integrity of the food control system depends, to a very large extent, on their integrity and skill. The responsibilities of the inspection services include:
- Inspecting premises and processes for compliance with hygienic and other requirements of standards and regulations;
 - Evaluating HACCP plans and their implementation;
 - Sampling food during harvest, processing, storage, transport, or sale to establish compliance, to contribute data for risk assessments and to identify offenders;
 - Recognizing different forms of food decomposition by Organoleptic assessment; identifying food which is unfit for human consumption; or food which is otherwise deceptively sold to the consumer; and taking the necessary remedial action;
 - Recognizing, collecting and transmitting evidence when breaches of law occur, and appearing in court to assist prosecution;

- Encouraging voluntary compliance in particular by means of quality assurance procedures;
- Carrying out inspection, sampling and certification of food for import/export inspection purposes when so required;
- In establishments working under safety assurance programmes such as HACCP, conduct risk based audits.

Proper training of food inspectors is a prerequisite for an efficient food control system. As current food systems are quite complex, the food inspector must be trained in food science and technology to understand the industrial processes, identify potential safety and quality problems, and have the skill and experience to inspect the premises, collect food samples and carry out an overall evaluation. The inspector must have a good understanding of the relevant food laws and regulations, their powers under those laws, and the obligations such laws impose on the food sector. They should also be conversant with procedures for collecting evidence, writing inspection reports, collecting samples and sending them to a laboratory for analysis. With gradual introduction of HACCP systems in the food industry, the inspector should be trained to handle HACCP audit responsibilities. Clearly, there is a continuing need for training and upgrading the skills of existing inspectional staff and having a policy for human resource development, especially the development of inspectional specialists in specific technical areas.

- (d) Laboratory Service : Food Monitoring and Epidemiological Data - Laboratories are an essential component of a food control system. The establishment of laboratories requires considerable capital investment and they are expensive to maintain and operate. Therefore careful planning is necessary to achieve optimum results. All food analysis laboratories may not be under the control of one agency or ministry, and a number could be under the jurisdiction of the states, provinces and local authorities. The Food Control Management should, however, lay down the norms for food control laboratories and monitor their performance.

The laboratories should have adequate facilities for physical, microbiological and chemical analyses. In addition to simple routine analysis, the laboratories can be equipped with more sophisticated instruments, apparatus and library facilities as required. It is not only the type of equipment that determines the accuracy and reliability of analytical results but also the qualification and skill of the analyst and the reliability of the method used. The analytical results of a food control laboratory are often used as evidence in a court of law to determine compliance with regulations or standards of the country. It is therefore necessary that utmost care be taken to ensure the efficient and effective performance of the laboratory. The introduction of analytical quality assurance programmes and accreditation of the laboratory by an appropriate accreditation agency within the country or from outside, enables the laboratory to improve its performance and to ensure reliability, accuracy and repeatability of its results. Prescription of official methods of sampling and analysis also support this effort.

- (e) Information, Education, Communication and Training - An increasingly important role for food control systems is the delivery of information, education and advice to stakeholders across the farm-to-table continuum. These activities include the provision of balanced

factual information to consumers; the provision of information packages and educational programmes for key officials and workers in the food industry; development of train-the-trainer programmes; and provision of reference literature to extension workers in the agriculture and health sectors.

Food control agencies should address the specific training needs of their food inspectors and laboratory analysts as a high priority. These activities provide an important means of building food control expertise and skills in all interested parties, and thereby serve an essential preventive function.

4. STRENGTHENING NATIONAL FOOD CONTROL SYSTEMS

4.1 Principles of Food Control: Issues for Consideration: When seeking to establish, update, strengthen or otherwise revise food control systems, national authorities must take into consideration a number of principles and values that underpin food control activities, including the following:

- Maximizing risk reduction by applying the principle of prevention as fully as possible throughout the food chain;
- Addressing the farm-to-table continuum;
- Establishing emergency procedures for dealing with particular hazards (e.g. recall of products);
- Developing science-based food control strategies;
- Establishing priorities based on risk analysis and efficacy in risk management;
- Recognizing that food control is a widely shared responsibility that requires positive interaction between all stakeholders.

Certain key principles and related issues are discussed below:

(a) Integrated farm-to-table concept - The objective of reduced risk can be achieved most effectively by the principle of prevention throughout the production, processing and marketing chain. To achieve maximum consumer protection it is essential that safety and quality be built into food products from production through to consumption. This calls for a comprehensive and integrated farm-to-table approach in which the producer, processor, transporter, vendor, and consumer all play a vital role in ensuring food safety and quality.

It is impossible to provide adequate protection to the consumer by merely sampling and analyzing the final product. The introduction of preventive measures at all stages of the food production and distribution chain, rather than only inspection and rejection at the final stage, makes better economic sense, because unsuitable products can be identified earlier along the chain. Government regulators are then responsible for auditing performance of the food system through monitoring and surveillance activities and for enforcing legal and regulatory requirements.

Food hazards and quality loss may occur at a variety of points in the food chain, and it is difficult and expensive to test for their presence. A well structured, preventive approach that controls processes is the preferred method for improving food safety and quality. Many but not all potential food hazards can be controlled along the food chain through the application of good practices like good agricultural practices (GAP), good manufacturing practices (GMP), and good hygienic practices (GHP).

An important preventative approach that may be applied at all stages in the production, processing and handling of food products involves the Hazard Analysis Critical Control Point system (HACCP). The principles of HACCP have been formalized by the Codex Committee on Food Hygiene¹, and provide a systematic structure to the identification and control of food borne hazards. Governments should recognize the application of a HACCP approach by the food industry as a fundamental tool for improving the safety of food.

(b) Risk Analysis - The Codex Alimentarius Commission defines risk analysis as a process composed of three components:

Risk assessment - a scientifically based process consisting of the following steps: (i) hazard identification; (ii) hazard characterization; (iii) exposure assessment; and (iv) risk characterization.

Risk management - the process, distinct from risk assessment, of weighing policy alternatives, in consultation with all interested parties, considering risk assessment and other factors relevant for the health protection of consumers and for the promotion of fair trade practices, and, if needed selecting appropriate prevention and control options.

Risk communication - the interactive exchange of information and opinions throughout the risk analysis process concerning hazards and risks, risk related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties.

Risk analysis is well established for chemical hazards, and FAO and WHO are now extending the experience and expertise developed from risk analysis of chemical hazards to that of microbiological hazards. Risk analysis must be the foundation on which food control policy and consumer protection measures are based.

Codex standards take into account risk assessments carried out at the international level and are accepted as scientifically valid under the SPS Agreement. Hence their adoption and implementation within national food control systems is encouraged. Risk management should take into account the economic consequences and feasibility of risk management options, and recognizes the need for flexibility consistent with consumer protection requirements.

(c) Transparency - A food control system must be developed and implemented in a transparent manner. The confidence of consumers in the safety and quality of the food supply depends on their perception of the integrity and effectiveness of food control operations and activities. This will encourage cooperation from all concerned parties and improve the efficiency and rate of compliance.

Food control authorities should also examine the manner in which they communicate food safety information to the public. This may take the form of scientific opinion on food safety matters, overviews of inspection activity, and findings on foods implicated in food borne illnesses, food poisoning episodes, or gross adulteration. All this could be considered as a part of risk communication to enable consumers to better understand the risks and their responsibilities for minimizing the impact of food borne hazards.

(d) Regulatory Impact Assessment - When planning and implementing food control measures, consideration must be given to the costs of compliance (resources, personnel, and financial implications) to the food industry, as these costs are ultimately passed onto consumers. The important questions are: Do the benefits of regulation justify the costs? What is the most efficient management option? Export inspection systems designed to assure the safety and quality of exported foods, will protect international markets, generate business and secure returns. Animal and plant health measures improve agricultural productivity. In contrast, food safety is an essential public health goal and may impose costs on producers, yet investments in food safety may not be immediately rewarded in the market place.

Regulatory impact assessments (RIA) are of increasing importance in determining priorities and assist food control agencies in adjusting or revising their strategies to achieve the most beneficial effect. They are, however, difficult to carry out. Two approaches have been suggested for determining cost/benefit of regulatory measures in food safety:

- Theoretical models can be developed to estimate willingness to pay (WTP) for reduced risk of morbidity and mortality;
- Cost of illness (COI) covering lifetime medical costs and lost productivity.

Both approaches require considerable data for interpretation. COI estimates are perhaps easier for policy makers to understand and have been widely used to justify measures for food control, even though they do not measure the full value of risk reduction. Not surprisingly, it is easier to perform a RIA for an export inspection intervention, than for regulatory policy which achieves a public health outcome.

4.2 Developing a National Food Control Strategy: The attainment of food control system objectives requires knowledge of the current situation and the development of a national food control strategy. Programmes to achieve these objectives tend to be country specific. Like socioeconomic considerations, they are also influenced by current or emerging food safety and quality issues. Such programmes also need to consider international perceptions of food risks, international standards, and any international commitments in the food protection area. Therefore, when establishing a food control system it is necessary to systematically examine all factors that may impinge upon the objectives and performance of the system, and develop a national strategy.

(a) Collection of Information - This is achieved through the collection and collation of relevant data in the form of a Country Profile. This data underpins strategy development, with stakeholders reaching consensus on objectives, priorities, policies, roles of different ministries/agencies, industry responsibilities, and timeframe for implementation. In particular, major problems associated with the control and prevention of food borne

diseases is identified so that effective strategies for the resolution of these problems can be implemented.

The profile should permit a review of health and socioeconomic issues impacting on food borne hazards, consumers concerns, and the growth of industry and trade, as well as identification of the functions of all sectors which are directly and indirectly involved in ensuring food safety and quality and consumer protection. The collection of epidemiological data on food borne illness is an indispensable component of a country profile and should be done whenever possible.

(b) Development of Strategy - The preparation of a national food control strategy enables the country to develop an integrated, coherent, effective and dynamic food control system, and to determine priorities which ensure consumer protection and promote the country's economic development. Such a strategy should provide better coherence in situations where there are several food control agencies involved with no existing national policy or overall coordinating mechanism. In such cases, it prevents confusion, duplication of effort, inefficiencies in performance, and wastage of resources.

The strategy should be based on multi-sectoral inputs and focus on the need for food security, and consumer protection from unsafe adulterated or misbranded food. At the same time it should take into consideration the economic interests of the country in regard to export/import trade, the development of the food industry, and the interests of farmers and food producers. Strategies should use a risk based approach to determine priorities for action. Areas for voluntary compliance and mandatory action should be clearly identified, and timeframes determined. The need for human resource development and strengthening of infrastructure such as laboratories should be also considered.

The strategy will be influenced by the country's stage of development, the size of its economy, and the level of sophistication of its food industry. The final strategy should include:

- A national strategy for food control with defined objectives, a plan of action for its implementation, and milestones;
- Development of appropriate food legislation, or revision of the existing legislation to achieve the objectives defined by the national strategy;
- Development or revision of food regulations, standards and codes of practice as well as harmonizing these with international requirements;
- A program for strengthening food surveillance and control systems;
- Promotion of systems for improving food safety and quality along the food chain i.e. introduction of HACCP-based food control programmes;
- Development and organization of training programmes for food handlers and processors, food inspectors, and analysts;
- Enhanced inputs into research, food borne disease surveillance, and data collection, as well as creating increased scientific capacity within the system;

- Promotion of consumer education and other community outreach initiatives.

4.3 Strengthening Organizational Structures for National Food Control Systems - Given the wide scope of food control systems, there are at least three types of organizational arrangements that may be appropriate at the national level. These are:

- A system based on multiple agencies responsible for food control - Multiple Agency System;
- A system based on a single, unified agency for food control - Single Agency System;
- A system based on a national integrated approach - Integrated System.

(a) Multiple Agency System - While food safety is the foremost objective, food control systems also have an important economic objective of creating and maintaining sustainable food production and processing systems. In this context, food control systems play a significant role in the following:

- Ensuring fair practices in trade;
- Developing the food sector on a professional and scientific basis;
- Preventing avoidable losses and conserving natural resources;
- Promoting the country's export trade.

The systems that deal specifically with these objectives can be sectoral i.e. based upon the need for development of the particular sector such as fisheries, meat and meat products, fruit and vegetables, milk and milk products. These systems can be mandatory or voluntary, and put into effect either through a general food law or a sectoral regulation. Examples include: An export inspection law that identifies foods to be covered for mandatory export inspection prior to export; or offers facilities for voluntary inspection and certification for exporters.

Specific commodity inspection regulations, such as for fish and fish products, meat and meat products, or fruit and vegetable products which are implemented by different agencies or ministries given this mandate under relevant law(s).

Regulated systems for grading and marking of fresh agricultural produce which go directly for sale to the consumer or as raw material for industry. They are mostly confined to quality characteristics so that the producer gets a fair return for his produce and the buyer is not cheated. Where sectoral initiatives have resulted in the establishment of separate food control activities, the outcome has been the creation of multiple agencies with responsibilities for food control.

Food control systems may also be fragmented between national, state and local bodies, and the thoroughness of implementation depends upon the capacity and the efficiency of the agency responsible at each level. Thus consumers may not receive the same level of protection throughout the country and it may become difficult to properly evaluate the effectiveness of interventions by national, state or local authorities.

While multiple food control agencies may be the norm, they suffer from serious drawbacks including:

- Lack of overall coordination at national level;
- Frequent confusion over jurisdiction and resultant inefficiencies in performance;
- Differences in levels of expertise and resources and hence uneven implementation;
- Conflict between public health objectives and the facilitation of trade and industry development;
- Limited capacity for appropriate scientific inputs in decision-making processes;
- Lack of coherence leading to over-regulation or time gaps in adequate regulatory activity;
- Reductions in the confidence of domestic consumers and foreign buyers in the credibility of the system.

During the preparation of a national food control strategy, it is important to consider the type and size of the organization(s) that are necessary to implement the strategy.

(b) Single Agency System - The consolidation of all responsibility for protecting public health and food safety into a single food control agency with clearly defined terms of reference has considerable merit. It acknowledges the high priority that Government places in food safety initiatives and a commitment to reducing the risk of food borne disease. The benefits that result from a single agency approach to food control include:

- Uniform application of protection measures;
- Ability to act quickly to protect consumers;
- Improved cost efficiency and more effective use of resources and expertise;
- Harmonization of food standards;
- Capacity to quickly respond to emerging challenges and the demands of the domestic and international marketplace;
- The provision of more streamlined and efficient services, benefiting industry and promoting trade.

While a national strategy helps to influence both the legislation and the organizational structure for enforcement, it is not possible to recommend a single organizational structure that will universally meet the requirements and resources of every country's socioeconomic and political environment. The decision has to be country specific and all stakeholders should have the opportunity to provide inputs into the development process. Unfortunately, there are often few opportunities for countries to build a new food control system based on a single agency.

(c) Integrated System - Integrated food control systems warrant consideration where there is desire and determination to achieve effective collaboration and coordination between

agencies across the farm-to-table continuum. Typically, the organization of an integrated food control system would have several levels of operation:

Level 1: Formulation of policy, risk assessment and management, and development of standards and regulations.

Level 2: Coordination of food control activity, monitoring, and auditing.

Level 3: Inspection, and enforcement.

Level 4: Education and training.

The advantages of such a system include:

- Provides coherence in the national food control system;
- Politically more acceptable as it does not disturb the day to day inspection and enforcement role of other agencies;
- Promotes uniform application of control measures across the whole food chain throughout the country;
- Separates risk assessment and risk management functions, resulting in objective consumer protection measures with resultant confidence among domestic consumers and credibility with foreign buyers;
- Better equipped to deal with international dimensions of food control such as participation in work of Codex, follow-up on SPS/TBT Agreements, etc;
- Encourages transparency in decision-making processes, and accountability in implementation;
- Is more cost-effective in the long term.

Some other functions of such a body at the national level may include:

- Revising and updating the national food control strategy as needed;
- Advising relevant ministerial officials on policy matters, including determination of priorities and use of resources;
- Drafting regulations, standards and codes of practice and promoting their implementation;
- Coordinating the activity of the various inspection agencies, and monitoring performance;
- Developing consumer education and community outreach initiatives and promoting their implementation;
- Supporting research and development;
- Establishing quality assurance schemes for industry and supporting their implementation.

An integrated National Food Control Agency should address the entire food chain from farm-to-table, and should have the mandate to move resources to high priority areas and to address important sources of risk. The establishment of such an agency should not involve day-to-day food inspection responsibilities.

4.4 Funding National Food Control Systems - The funds and resources required for reorganizing and strengthening food control systems would normally be made available from the national government. In countries where food control responsibilities are spread across many government agencies it may be necessary to negotiate a revised funding structure and establish transition arrangements to ensure continuity of funds and resources. For this to occur, it is essential there is full commitment by the government for establishing appropriate structures and developing policies to deliver the optimum level of consumer protection.

5. SPECIFIC ISSUES OF DEVELOPING COUNTRIES

5.1 Food Systems - Food production, processing, and marketing systems are complex. In many developing countries they are also highly fragmented and dependent upon a large number of small producers. While this may have socioeconomic benefits, as large quantities of food pass through a multitude of food handlers and middlemen, the risk of exposing food to unhygienic environments, contamination and adulteration increases. Problems occur as a result of poor postharvest handling, processing and storage of food and also due to inadequate facilities and infrastructure such as the absence or shortage of safe water supply, electricity, storage facilities including cold stores, and transport facilities and networks, etc.

Furthermore, a majority of food producers and handlers lack appropriate knowledge and expertise in the application of modern agricultural practices, food hygiene, and good food handling practices.

5.2 Food Processing Industry - The food processing industry in developing countries ranges from sophisticated state-of-art facilities to small artisanal operations producing traditional foods for the local community. The size of these processing units is quite variable – from a few large plants to a majority of small and cottage scale units with very limited resources for effective technological inputs. At the least developed end of this continuum, these premises are ill equipped to deal with the maintenance of food safety and quality in a scientific and sustained manner. Governments often support these small units as they provide employment and generate income for their operators. The challenge for developing countries is to provide incentives for the effective expansion of these small units so they may absorb better technology.

5.3 Street Foods - Studies in developing countries have shown that up to 20-25% of household food expenditure is incurred outside the home, and some segments of the population depend entirely on street foods. This has been one of the consequences of rapid urbanization, with millions of people having no access to a kitchen or other cooking facilities. There are millions of single workers without families and a large floating population who move in and out of the city for work, and these people largely depend upon street foods for their daily sustenance from places of work, schools, hospitals, railway stations, and bus terminals.

Food safety is a major concern with street foods. These foods are generally prepared and sold under unhygienic conditions, with limited access to safe water, sanitary services, or garbage disposal facilities. Hence street foods pose a high risk of food poisoning due to microbial contamination, as well as improper use of food additives, adulteration and environmental contamination.

5.4 Food Control Infrastructure and Resources - Food control infrastructure in many developing countries tends to be inadequate, due to limited resources and often poor management. Food control laboratories are frequently poorly equipped and lack suitably trained analytical staff. This is accentuated where multiple agencies are involved in food control. A lack of overall strategic direction means that limited resources are not properly utilized. Food control systems may also suffer from poorly or inadequately developed compliance policies.

Food control authorities need to better appreciate the role of science in the risk-based approach, and to take advantage of scientific resources in the international community.

5.5 Technical Assistance: Role of International Agencies - The need for technical assistance in strengthening food control systems in developing countries is well recognized. FAO and WHO are the two main specialized agencies of the United Nations involved in food quality and safety technical cooperation programmes with developing countries.

FAO assistance in food control and food standards is a major activity and is delivered at global, regional, and country levels. Published manuals of food quality control cover a range of different aspects of food control systems and are used internationally. Technical assistance is provided in many areas such as the following:

- Establishing or strengthening national food control systems and infrastructure;
- Assistance in preparation of food law and regulations;
- Workshops on developing national strategies for food control;
- Assistance in establishing or improving food analysis capabilities;
- Assessing the implications of SPS and TBT Agreements;
- Providing training in food inspection, analysis and food handling;
- Providing training of trainers in HACCP;
- Providing training in management of food control systems;
- Assistance in strengthening National Codex Committees.

WHO has in recent years substantially increased the priority of its food safety activities at international and regional levels. The Organization also provides technical assistance at international, regional, and country level for providing assistance to Member States in developing and strengthening their National Food Safety Programs. The nature and extent of these activities is influenced by available resources, but includes the following.

- Developing regional and national food safety policy and strategies;
- Preparation of food legislation, food regulations and standards, and codes of hygienic practice;
- Implementation of food inspection programmes;
- Promoting methods and technologies designed to prevent food borne diseases, including the application of the HACCP system;
- Developing or enhancing food analysis capability;
- Development and delivery of hygiene training and education programmes;
- Establishing healthy markets and enhancing the safety of street food; and
- Promoting the establishment of food borne disease surveillance activity.

Both the SPS Agreement and TBT Agreement specifically refer to the need to provide technical assistance to developing countries. Such assistance may be in areas of processing technologies, research and infrastructure, establishment of national regulatory bodies, etc. In particular, developed countries which import food from developing nations are required, upon request, to provide technical assistance to the developing exporting countries to enable these countries to meet their SPS or TBT obligations in international food trade. This new opportunity to access technical assistance under the WTO Agreements has not yet been fully utilized by developing countries.

Technical assistance in the food control area may also be obtained through the World Bank, other development banks, and from bilateral donor agencies. Access to such funds is dependent upon the priority that developing countries attach to strengthening their food control systems as reflected in their national development plans.

A few definitions as given by FAO / WHO:

- Audit: A systematic examination to determine whether what is actually happening complies with documented procedures.
- Codex Alimentarius Commission: The Codex Alimentarius Commission is a subsidiary body of the Food and Agriculture Organization of the United Nations and the World Health Organization. The Commission is entrusted with the elaboration of international standards of food to protect the health of consumers and to ensure fair practices in the food trade.
- Codex Committees: These subsidiary bodies of the Codex Alimentarius Commission include nine general subject committees, fifteen specific commodity committees, six regional coordinating committees and time-limited ad-hoc Intergovernmental Task Forces on specific subjects.
- Critical Control Point: A step at which control is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

- Equivalence: The process of recognition that enables the sanitary and phytosanitary measures employed in one country to be deemed equivalent to those of a second country, trading in the same product, although different control measures are being practiced.
- Farm-to-Table: Includes all steps involved in the production, storage, handling, distribution and preparation of a food product.
- Food Contaminant: Any biological or chemical agent, foreign matter, or other substance not intentionally added to food which may compromise food safety or suitability.
- Food Control: A mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing and distribution are safe, wholesome and fit for human consumption; conform to quality and safety requirements; and are honestly and accurately labelled as prescribed by law.
- Food Hygiene: All conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.
- Food Inspection: The examination, by an agency empowered to perform regulatory and/or enforcement functions, of food products or systems for the control of raw materials, processing, and distribution. This includes in-process and finished product testing to verify that they conform to regulatory requirements.
- Food Surveillance: The continuous monitoring of the food supply to ensure consumers are not exposed to components in foods, such as chemical contaminants or biological hazards, which pose a risk to health.
- Good Agricultural Practices (GAP): Practices of primary food producers (such as farmers and fishermen) that are necessary to produce safe and wholesome agricultural food products conforming to food laws and regulations.
- Good Manufacturing Practices (GMP): Conformance with codes of practice, industry standards, regulations and laws concerning production, processing, handling, labelling and sale of foods decreed by industry, local, state, national and international bodies with the intention of protecting the public from illness, product adulteration and fraud.
- GMO: Genetically modified organism.
- HACCP Plan: A document prepared in accordance with the principles of HACCP to ensure control of hazards which are significant for food safety in the segment of the food chain under consideration.
- HACCP System: The hazard analysis critical control point system (HACCP) is a scientific and systematic way of enhancing the safety of foods from primary production to final consumption through the identification and evaluation of specific hazards and measures for their control to ensure the safety of food. HACCP is a tool to assess hazards and establish control systems that focus on prevention rather than relying mainly on end-product testing.

- Hazard: A biological, chemical or physical agent in, or condition of, food with the potential to cause harm.
- Hazard Analysis: The process of collecting and interpreting information on hazards and conditions leading to their presence to decide which are significant for food safety and therefore should be addressed in the HACCP plan.
- JECFA: Joint FAO/WHO Expert Committee on Food Additives.
- JMPR: Joint FAO/WHO Meeting on Pesticide Residues.
- Monitoring: In a HACCP plan, the act of conducting a planned sequence of observations or measurements of control parameters to assess whether a critical control point is under control.
- RIA: Regulatory impact assessment.
- Risk Analysis: A process consisting of three components: risk assessment, risk management and risk communication.
- Risk Assessment: A scientifically based process consisting of the following steps: hazard identification, hazard characterization, exposure assessment, and risk characterization.
- Risk Characterization: The qualitative and/or quantitative estimation, including attendant uncertainties, of the probability of occurrence and severity of known or potential adverse health effects in a given population based on hazard identification, hazard characterization and exposure assessment.
- Risk Communication: The interactive exchange of information and opinions concerning risks among risk assessors, risk managers, consumers and other interested parties.
- Risk Management: The process of weighing policy alternatives in the light of results of risk assessment, and, if required, selecting and implementing appropriate control options, including regulatory measures.
- SPS: Sanitary and Phytosanitary Agreement of the World Trade Organization (WTO).
- TBT: Technical Barriers to Trade Agreement of the World Trade Organization (WTO).
- Verification: In HACCP, the use of methods, procedures, or tests in addition to those used in monitoring to determine compliance with the HACCP plan, and/or whether the HACCP plan needs modification in order to enhance food safety.
- WTO: The World Trade Organization (WTO) is the international organization that establishes the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

Lecture 2

2. *Various types of laws- Mandatory/Regulatory and Voluntary/Optional - Introduction to various food laws (Mandatory)*

Some of the guidelines prevalent in India are listed below:

- Food Safety and Standards Act, 2006 (FSSA)
- Edible Oils Packaging (Regulation) Order, 1998
- Environment (Protection) Act, 1986
- Fruit Products Order, 1955 (FPO)
- Meat Food Products Order, 1973 (MFPO)
- Milk and Milk Product Order, 1992 (MMPO)
- Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) Order, 1967
- Standards of Weights and Measures Act, 1976
- The Essential Commodities Act, 1955
- The Export (Quality Control and Inspection) Act, 1963
- The Insecticides Act, 1968
- Vegetables Oil Products (Control) Order, 1998
- Prevention of Food Adulteration Act & Rules (PFA Act), 1954

Lecture 3

3. *Introduction to various food laws (Voluntary) - Agmark Standards (AGMARK), Codex Alimentarius Standards, BIS Standards and Specifications, Consumer Protection Act, 1986*

A few of the Food Laws which can be declared voluntarily by the manufacturers of finished products are as follows:

- Agmark Standards (AGMARK)
- Codex Alimentarius Standards
- BIS Standards and Specifications
- Consumer Protection Act, 1986

Lecture 4

4. *Food Safety and Standards Act, 2006 (FSSA) - Need, Scope and Definitions (Chapter I of FSSA, 2006)*

THE FOOD SAFETY AND STANDARDS BILL, 2005

BILL: To lay down science based standards for articles of food and regulate their manufacture, import, export, storage, distribution and sale, to ensure availability of safe and wholesome food for human consumption and to establish Food Safety and Standards Authority of India. It was enacted by Parliament in the Fifty-fifth Year of the Republic of India

I. Short title, extent and commencement

- a. This act may be called the Food Safety and Standards Act (FSSA), 2005.
- b. It extends to the whole of India.
- c. It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint, and different dates may be appointed for different provisions of this Act.

II. Declaration as to expediency of control by the Union: It is hereby declared that it is expedient in the public interest that the Union should take under its control all articles of food.

III. Definitions: In this Act, unless the context otherwise requires -

1. "Adulterant" means any material which is or could be employed for the purposes of adulteration
2. "Adulteration" - It includes intentional addition, substitution or abstraction or substances which adversely affect the purity and quality of foods incidental contamination of foods with deleterious substances such as toxins and insecticides due to ignorance, negligence or lack of proper storage facilities. Contamination of the food with harmful insects, micro organisms like bacteria, fungus, moulds etc during production, storage and handling.
3. "Advertisement" means any visible representation or announcement made by means of any light, sound, smoke, gas, print, electronic media, internet or website".
4. "Authorized Officer" means an officer authorized by the Food Authority to enforce and execute rules and regulations, orders and any other provisions of this Act relating to import and export of articles of food
5. "Chairperson" means the Chairperson of the Food Authority.
6. "Claim" means any representation which states, suggests or implies that a food has particular qualities relating to its origin, nutritional properties, nature, processing, and composition or otherwise.

7. "Commissioner of Food Safety" means the Commissioner of Food Safety in the State or the union territory.
8. "Consumer" means persons and families purchasing and receiving food in order to meet their personal needs.
9. "Contaminant" means any substance, not intentionally added to food, which is present in such food as a result of the production (including operations carried out in crop husbandry, animal husbandry or veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food or as a result of environmental contamination, but does not include insect fragments, rodent hair and other extraneous matter.
10. "Designated Officer" means the officer appointed by the Food Authority or the State Commissioner of Food Safety, by notification in the Official Gazette.
11. "Enforcement authority" means an authority prescribed by the Act, rules and regulations for the purpose of enforcement of this Act.
12. "Enforcement officer" means the officer by whom they are to be enforced and executed and includes Food Inspector of the State Commissioner of Food Safety and Authorized Officer of the Food Authority.
13. "Extraneous matter": Food containing any matter which may be carried from the raw materials, packaging materials or process systems used for its manufacture or which is intentionally added to it, though such matter may not render such article of food injurious to health.
14. "Food" (or "foodstuff") means any substance or product, whether processed, partially processed or unprocessed, consumed by humans and includes drinking water, chewing gum and beverages.
15. "Food additive" means any substance which is added to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation or treatment of such food affects the characteristics of such food, but does not include contaminants.
16. "Food Authority" means the Food Safety and Standards Authority of India established under section 4.
17. "Food business" means any undertaking, whether for profit or not and whether public or private, carrying out any of the activities related to any stage of production, processing and distribution of food and includes import, export and sale of food and food service providers.
18. "Food business operator" means the natural or legal persons responsible for ensuring that the requirements of food law are met within the food business under their control.

19. "Food hygiene" means all the conditions and measures necessary for the manufacture, processing, sale, storage and distribution of food designed to ensure safe and wholesome food for human consumption.
20. "Food Inspector" means an officer authorized by the State Commissioner of Food Safety to enforce and execute rules and regulations, orders and any other provisions of this Act relating to manufacture, distribution, sale of articles of food.
21. "Food law" means the laws, Acts, orders, rules, regulations, notifications and orders governing food at every stage of its production, processing and distribution.
22. "Food Laboratory" means any laboratory or institute established by the Central or the State Governments or any other agency and accredited by National Accreditation Board for Testing and Calibration of Testing Laboratories (NABL) and recognized by Food Authority.
23. "Food safety audit" means a systematic and functionally independent examination of food safety measures adopted by manufacturing units to determine whether such measures and related results meet with objectives of food safety and the claims made in that behalf.
24. "Food Safety Management System" means the adoption of good manufacturing practices (GMP), good hygienic practices (GHP), hazard analysis and critical control point (HACCP) and such other practices as may be notified by the Food Authority, by the food business engaged in the manufacture, processing, sale, storage and distribution of food.
25. "Genetically modified food" means the food, which is produced through techniques in which the genetic material has been altered.
26. "Hazard" means a biological, chemical or physical agent in food with the potential to cause an adverse effect on the health of consumer.
27. "Ingredient" means any substance, including a food additive used in the manufacture or preparation of food and present in the final product although in a modified form.
28. "Irradiation" means any physical procedure, involving the intentional exposure of food to ionizing radiations.
29. "Label" means any tag, brand, mark, pictorial or other descriptive matter or display of written, printed, stenciled, marked, embossed or impressed matter on, or attached to a container, cover, lid or crown of any food package.
30. "License" means a license granted under this Act.
31. "Local Area or Specified Area" means any area, whether urban or rural, declared by the Central Government or as the case may be, the State Government by notification in the Official Gazette, to be a local area for the purposes of this Act.
32. "Manufacture" includes any process incidental and ancillary to the manufacture of an article of food.

33. "Manufacturer" means a person engaged in the business of manufacturing any article of food for sale.
34. "Member" means a whole-time or a part-time member of the Food Authority and includes the Chairperson.
35. "Misbranded" – A food may be considered as misbranded if it has a label which gives false or misleading information about the product. Failure to specify weight, measure, names of additives (color, flavoring) limitations in use of the product, name of the manufacture as well as misleading the consumer in terms of size are considered as misleading of foods.
36. "Notification" means a notification published in the Official Gazette.
37. "Package" means a box, bottle, casket, tin, barrel, case, receptacle, sack, bag, wrapper or other thing in which an article of food is placed or packed.
38. "Pesticide residue" means any specified substance in or on food resulting from the use of a pesticide or any derivatives of a pesticide, such as conversion products, metabolites, reaction products and impurities considered to be of toxicological significance.
39. "Premises" include any shop, stall, place or vehicle or vessel where any article of food is sold or manufactured or stored for sale.
40. "Prescribed" means prescribed by rules and regulations made there under this Act.
41. "Primary food" means any article of food, being a produce of agriculture or horticulture or animal husbandry and dairying or aquaculture in its natural form.
42. "Proprietor" means the person who carries the business.
43. "Regulations" means the regulations made by the Food Authority.
44. "Risk", means the probability of an adverse effect on the health of consumers and the severity of that effect, consequential to a food hazard.
45. "Sample" means a sample of any article of food taken under the provisions of this Act or any rules and regulations made under the act.
46. "Standard", means the standard notified by the Food Authority under this Act.
47. "Sub-standard" - If the food deviates in the percentage of any of its ingredients or parameters provided in the standards laid under the rules or regulations made under this Act.
48. "Tribunal" means the Food Appellate Tribunal established under section 71 of this Act;
49. "Unsafe food" means food which is injurious to health or unfit for human consumption.

Lecture-5

5. *Establishment of Food Safety and Standards Authority of India (FSSAI) (II), Composition of FSSAI and qualifications for appointment of its Chairperson & other Members*

Establishment of Food Safety and Standards Authority of India (FSSAI)

- (1) Within three months from the date of the commencement of this Act, by notification in the Official Gazette, The central government established a body known as the Food Safety and Standards Authority of India to exercise the powers conferred on, and the functions assigned to, it under this Act.
- (2) The Food Authority is a corporate body having perpetual succession and a common seal with power to acquire, hold and dispose of property, both movable and immovable.
- (3) The head office of the Food Authority shall be at New Delhi. It may establish its offices at other places in India.

Composition of the Food Authority and Qualification for appointment of its Chairperson and other Members:

- (1) The Food Authority shall be composed of eleven members excluding the Chairperson as follows:
 - (a) Chairperson
 - (b) six members not below the rank of Joint Secretary to be appointed by the Central Government, to respectively to representing the Ministries of the Central Government dealing with
 - (i) Agriculture,
 - (ii) Commerce,
 - (iii) Consumer Affairs,
 - (iv) Food Processing,
 - (v) Health,
 - (vi) Law and Justice,
 - (c) Two representative one each from food industry and consumer organizations.
 - (d) One Eminent Food Technologist or scientist
 - (e) Two members to be appointed by rotation in alphabetical order to represent the States and Union territories.

- (2) The Chairperson and members of the food authority shall be appointed in such a way to secure the highest standards of competence.
- (3) The Chairperson shall be appointed by the Central Government by a notification in the Official Gazette, from amongst the persons of eminence in the field of food science or from amongst the persons from the administration who have been associated with the subject and is either holding or has held the position of not below the rank of Secretary to the Government of India.
- (4) The Chairperson of the Food Authority shall be appointed by the Central Government on the recommendation of the Selection Committee.

Selection Committee for selection to recommend Food Authority Members:

- (1) The Central Government shall, for the purpose of sub-section (3) of section 5, constitute a Selection Committee consisting of
 - (a) Cabinet Secretary – Chairperson
 - (b) Secretary-in-charge of the Ministry of Food Processing Industries as the convener Member.
 - (c) Secretary-in-charge of the Ministries of the Central Government dealing with the Departments of Health, Legislative and Personnel – Member.
 - (d) Chairman of the Public Enterprises Selection Board – Member.
 - (e) An eminent food technologist to be nominated by the Central Government – Member.

Lecture – 6

6. *Functions of the chairperson and other members of FSSAI*

Chief Executive Officer

- (1) The Chief Executive Officer shall be appointed by the Central Government who shall be in the rank of Joint Secretary in Government of India.
- (2) The Chief Executive Officer shall be the legal representative of the Food Authority and shall be responsible for:
 - (a) The day-to-day administration of the Food Authority.
 - (b) Drawing up a proposal for the Food Authority's work programs in consultation with the Central Advisory Committee.
 - (c) Implementing the work programs and the decisions adopted by the Food Authority.
 - (d) Ensuring the provision of appropriate scientific, technical and administrative support for the Scientific Committee and the Scientific Panels

- (e) Ensuring that the Food Authority carries out its tasks in accordance with the requirements of its users, in particular with regard to the adequacy of the services provided and the time taken.
 - (f) The preparation of the statement of revenue and expenditure and the execution of the budget of the Food Authority.
 - (g) Developing and maintaining contact with the Central Government, and for ensuring a regular dialogue with its relevant committees.
- (3) Every year, the Chief Executive Officer shall submit to the Food Authority for approval:
- (a) a general report covering all the activities of the Food Authority in the previous year
 - (b) program of work
 - (c) The annual accounts for the previous year
 - (d) The budget for the coming year
- (4) The Chief Executive Officer shall, following adoption by the Food Authority, forward the general report and the programs to the Central Government and the States and shall have them published.
- (5) The Chief Executive Officer shall approve all financial expenditure of the Food Authority and report on the Authority's activities to the Central Government.
- (6) The Chief Executive Officer shall exercise the powers of the Commissioner of Food Safety while dealing with matters relating to food safety for import and export of food articles.

**Term of office, salary, allowances and other conditions of service of
Chairperson and Members of Food Authority**

- (1) The Chairperson and the Members other than ex officio Members shall hold office for a term of three years from the date on which they enter upon their offices, and shall be eligible for re-appointment for a further period of three years:
- (a) PROVIDED that the Chairperson shall not hold office as such after he has attained the age of sixty-five years a Member other than ex officio Member shall hold office as such after he has attained in the case of a Member, the age of sixty-two years.
 - (b) Substituted by the Food Safety and Standards Act, 2008 w. e. f. 7-2-2008.
- (2) The salary and allowances payable to, and the other terms and conditions of service of, the Chairperson and Members other than ex officio Members shall be such as may be prescribed by the Central Government.

- (3) The Chairperson and every Member shall, before entering upon his office, make and subscribe to an oath of office and of secrecy in such form and in such manner and before such authority as may be prescribed by the Central Government.
- (4) Notwithstanding anything contained in sub-section, the Chairperson or any Member may-
 - (a) relinquish his office by giving in writing to the Central Government a notice of not less than three months; or
 - (b) be removed from his office in accordance with the provisions of section 8.
- (5) The chairperson or any Member ceasing to hold office as such shall not represent any person before the Food Authority or any States Authority in any manner.

Removal of Chairperson and Members of Food Authority

- (1) The Central Government may, by order, remove from office the Chairperson or any other Member, if the Chairperson or any Member-
 - (a) has been adjudged an insolvent; or
 - (b) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude; or
 - (c) has become physically or mentally incapable of acting as a Member; or
 - (d) has acquired such financial or other interests as is likely to affect prejudicially his functions as a Member; or
 - (e) has so abused his position as to render his continuance in office prejudicial to the public interest.
- (2) No Member shall be removed under clauses (d) and (e) of sub-section (1) unless he has been given a reasonable opportunity of being heard in the matter.

Officers and other employees of Food Authority

- (1) There shall be a Chief Executive Officer of the Food Authority, not below the rank of Additional Secretary to the Government of India, who shall be the Member Secretary of the Authority, to be appointed by the Central Government.
- (2) The Food Authority may, with the approval of the Central Government, determine the number, nature and categories of other officers and employees required to the Food Authority in the discharge of its functions.
- (3) The salaries and allowances payable to and other conditions of service of, the Chief Executive Officer, officers and other employees shall be such as may be specified by regulations by the Food Authority with the approval of the Central Government.

Lecture – 7

7. Establishment and Functions of Central Advisory Committee, Scientific Panels, Scientific Committees. Duties and functions of Food Authority

Central Advisory Committee

The Food Authority shall, by notification, establish a Committee to be known as the Central Advisory Committee. The Central Advisory Committee shall consist of one member each to represent the interests of food industry, agriculture, consumers, relevant research bodies in the food sector and ten Commissioners of Food Safety on a rotation basis and the Chairman of the Scientific Committee shall be ex-officio member. The Chief Executive Officer shall be the ex-officio Chairperson of the Central Advisory Committee.

Functions of Central Advisory Committee:

1. It shall ensure close cooperation between the Food Authority and the enforcement agencies, organizations operating in the field of food.
2. It shall advise the Food Authority on:
 - (a) The performance of its duties under this section, in particular in drawing up a proposal for the Food Authority's work program.
 - (b) On the prioritization of work
 - (c) Identifying potential risks and
 - (d) Pooling of knowledge.
3. It shall meet regularly at the invitation of the Chair or at the request of at least a third of its members, and not less than three times a year and its operational procedures shall be specified in the Authority's internal rules and shall be made public.
4. The representatives of the concerned Central Government departments may participate in the deliberations of the Central Advisory Committee.

Scientific Panels

- (1) The Food Authority shall establish Scientific Panels, which shall consist of independent scientific experts.
- (2) The Scientific Panel shall invite the relevant industry and consumer representatives in its deliberations.
- (3) Without prejudice to the provisions of sub-section (1), the Food Authority may establish as many Scientific Panels as it considers necessary in addition to the Panels on:-
 - (a) food additives, flavorings, processing aids and materials in contact with food;
 - (b) pesticides and antibiotics residues;
 - (c) genetically modified organisms and foods;

- (d) functional foods, nutraceuticals, dietetic products and other similar products;
 - (e) biological hazards;
 - (f) contaminants in the food chain;
 - (g) labelling;
 - (h) method of sampling and analysis.
- (4) The Food Authority may from time to time re-constitute the Scientific Panels by adding new members or by omitting the existing members or by changing the name of the panel as the case may be.

Scientific Committee

- (1) The Food Authority shall constitute Scientific Committee which shall consist of the Chairpersons of the Scientific Panels and six independent scientific experts not belonging or affiliated to any of the Scientific Panels.
- (2) The Scientific Committee shall be responsible for providing the scientific opinions to the Food Authority, and shall have the powers, where necessary, of organising public hearings.
- (3) The Scientific Committee shall be responsible for the general co-ordination necessary to ensure consistency of the scientific opinion procedure and in particular with regard to the adoption of working procedures and harmonization of working methods of the Scientific Panels.
- (4) The Scientific Committee shall provide opinions on multi-sectoral issues falling within the competence of more than one Scientific Panel, and on issues which do not fall within the competence of any of the Scientific Panel.
- (5) Wherever necessary, and particularly in the case of subjects which do not fall within the competence of any of the Scientific Panel, the Scientific Committee shall set up working groups and in such cases, it shall draw on the expertise of those working groups when establishing scientific opinions.

Functions of Scientific Committee and Scientific Panels:

- 1) The Scientific Committee and Scientific Panels shall be responsible for providing the scientific opinions of the Food Authority, each within their own spheres of competence, and shall have the possibility, where necessary, of organizing public hearings.
- 2) The Scientific Committee shall be responsible for the general coordination necessary to ensure the consistency of the scientific opinion procedure, in particular with regard to the adoption of working procedures and harmonization of working methods.
- 3) The Scientific Committee shall be composed of the Chairs of the Scientific Panels and six independent scientific experts who do not belong to any of the scientific panels.
- 4) The Scientific Panels shall be composed of independent scientific experts.

- 5) When the Food Authority is established, the following Scientific Panels shall be set up:
- The Panel on food additives, flavorings, processing aids and materials in contact with food.
 - The Panel on plant health, plant protection products and their residues.
 - The Panel on genetically modified organisms.
 - The Panel on dietetic products, nutrition and allergies.
 - The Panel on biological hazards.
 - The Panel on contaminants in the food chain and
 - The Panel on labeling
- 6) The Scientific Committee and the Scientific Panels shall each choose a Chair from among their members.

Duties and Functions of Food Authority

- (1) It shall be the duty of the Food Authority to regulate and monitor the manufacture, processing, distribution, sale and import of food so as to ensure safe and wholesome food.
- (2) Without prejudice to the provisions of sub-section (1), the Food Authority may by regulations specify-
- (a) the standards and guidelines in relation to articles of food and specifying an appropriate system for enforcing various standards notified under this Act;
 - (b) the limits for use of food additives, crop contaminants, pesticide residues, residues of veterinary drugs, heavy metals, processing aids, my co-toxins, antibiotics and pharmacological active substances and irradiation of food;
 - (c) the mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses;
 - (d) the procedure and the enforcement of quality control in relation to any article of food imported into India;
 - (e) the procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories;
 - (f) the method of sampling, analysis and exchange of information among enforcement authorities;
 - (g) conduct survey of enforcement and administration of this Act in the country;
 - (h) food labelling standards including claims on health, nutrition, special dietary uses and food category systems for foods; and

- (i) the manner in which and the procedure subject to which risk analysis, risk - assessment, risk communication and risk management shall be undertaken.

(3) The Food Authority shall also-

- (a) provide scientific advice and technical support to the Central Government and the State Governments in matters of framing the policy and rules in areas which have a direct or indirect bearing on food safety and nutrition;
- (b) search, collect, collate, analyze and summarize relevant scientific and technical data particularly relating to-
 - (i) food consumption and the exposure of individuals to risks related to the consumption of food;
 - (ii) incidence and prevalence of biological risk;
 - (iii) contaminants in food;
 - (iv) residues of various contaminants;
 - (v) identification of emerging risks; and
 - (vi) introduction of rapid alert system;
- (c) promote, co-ordinate and issue guidelines for the development of risk assessment methodologies and monitor and conduct and forward messages on the health and nutritional risks of food to the Central Government, State Governments and Commissioners of Food Safety;
- (d) provide scientific and technical advice and assistance to the Central Government and the State Governments in implementation of crisis management procedures with regard to food safety and to draw up a general plan for crisis management and work in close co-operation with the crisis unit set up by the Central Government in this regard;
- (e) establish a system of network of organisation with the aim to facilitate a scientific co-operation framework by the co-ordination of activities, the exchange of information, the development and implementation of joint projects, the exchange of expertise and best practices in the fields within the Food Authority's responsibility;
- (f) provide scientific and technical assistance to the Central Government and the State Governments for improving co-operation with international organisations;
- (g) take all such steps to ensure that the public, consumers, interested parties and all levels of panchayats receive rapid, reliable, objective and comprehensive information through appropriate methods and means;
- (h) provide, whether within or outside their area, training programmes in food safety and standards for persons who are or intend to become involved in food businesses, whether as food business operators or employees or otherwise;

- (i) undertake any other task assigned to it by the Central Government to carry out the objects of this Act;
 - (j) contribute to the development of international technical standards for food, sanitary and phyto-sanitary standards;
 - (k) contribute, where relevant and appropriate, to the development of agreement on recognition of the equivalence of specific food related measures;
 - (l) promote co-ordination of work on food standards undertaken by international governmental and non-governmental organisations;
 - (m) promote consistency between international technical standards and domestic food standards while ensuring that the level of protection adopted in the country is not reduced; and
 - (n) promote general awareness as to food safety and food standards.
- (4) The Food Authority shall make it public without undue delay-
- (a) the opinions of the Scientific Committee and the Scientific Panel immediately after adoption;
 - (b) the annual declarations of interest made by members of the Food Authority, the Chief Executive Officer, members of the Advisory Committee and members of the Scientific Committee and Scientific Panel, as well as the declarations of interest if any, made in relation to items on the agendas of meetings;
 - (c) the results of its scientific studies; and (d) the annual report of its activities.
- (5) The Food Authority may, from time to time give such directions, on matters relating to food safety and standards, to the Commissioner of Food Safety, who shall be bound by such directions while exercising his powers under this Act.
- (6) The Food Authority shall not disclose or cause to be disclosed to third parties confidential information that it receives for which confidential treatment has been requested and has been acceded, except for information which must be made public if circumstances so require, in order to protect public health

Lecture-8

8. *General principles to be followed in the administration of FSSA (III). General provisions as to articles of food in the FSSA (IV). Special responsibility as to safety (VI). Analysis of food (VIII). Offences and penalties (IX)*

GENERAL PRINCIPLES OF FOOD SAFETY

General principles to be followed in administration of Act:

- (1) The Central Government, the State Governments, the Food Authority and other agencies, as the case may be, while implementing the provisions of this Act shall be guided by the following principles, namely:
 - (a) endeavor to achieve an appropriate level of protection of human life and health and the protection of consumers' interests, including fair practices in all kinds of food trade with reference to food safety standards and practices;
 - (b) carry out risk management which shall include taking into account the results of risk assessment, and other factors which in the opinion of the Food Authority are relevant to the matter under consideration and where the conditions are relevant, in order to achieve the general objectives of regulations;
 - (c) where in any specific circumstances, on the basis of assessment of available information, the possibility of harmful effects on health is identified but scientific uncertainty persists, provisional risk management measures necessary to ensure appropriate level of health protection may be adopted, pending further scientific information for a more comprehensive risk assessment;
 - (d) the measures adopted on the basis of clause (c) shall be proportionate and no more restrictive of trade than is required to achieve appropriate level of health protection, regard being had to technical and economic feasibility and other factors regarded as reasonable and proper in the matter under consideration;
 - (e) the measures adopted shall be reviewed within a reasonable period of time, depending on the nature of the risk to life or health being identified and the type of scientific information needed to clarify the scientific uncertainty and to conduct a more comprehensive risk assessment;
 - (f) in cases where there are reasonable grounds to suspect that a food may present a risk for human health, then, depending on the nature, seriousness and extent of that risk, the Food Authority and the Commissioner of Food Safety shall take appropriate steps to inform the general public of the nature of the risk to health, identifying to the fullest extent possible the food or type of food, the risk that it may present, and the measures which are taken or about to be taken to prevent, reduce or eliminate that risk; and
 - (g) where any food which fails to comply with food safety requirements is part of a batch, lot or consignment of food of the same class or description, it shall be presumed until the contrary is proved, that all of the food in that batch, lot or consignment fails to comply with those requirements.

- (2) The Food Authority shall, while framing regulations or specifying standards under this Act-
- (a) take into account prevalent practices and conditions in the country including agricultural practices and handling, storage and transport conditions and international standards and practices, where international standards or practices exist or are in the process of being formulated, unless it is of opinion that taking into account of such prevalent practices and conditions or international standards or practices or any particular part thereof would not be an effective or appropriate means for securing the objectives of such regulations or where there is a scientific justification or where they would result in a different level of protection from the one determined as appropriate in the country;
 - (b) determine food standards on the basis of risk analysis except where it is of opinion that such analysis is not appropriate to the circumstances or the nature of the case;
 - (c) undertake risk assessment based on the available scientific evidence and in an independent, objective and transparent manner;
 - (d) ensure that there is open and transparent public consultation, directly or through representative bodies including all levels of panchayats, during the preparation, evaluation and revision of regulations, except where it is of opinion that there is an urgency concerning food safety or public health to make or amend the regulations in which case such consultation may be dispensed with: PROVIDED that such regulations shall be in force for not more than six months;
 - (e) ensure protection of the interests of consumers and shall provide a basis for consumers to make informed choices in relation to the foods they consume;
 - (f) ensure prevention of fraudulent, deceptive or unfair trade practices which may mislead or harm the consumer and unsafe or contaminated or sub-standard food.
- (3) The provisions of this Act shall not apply to any farmer or fisherman or farming operations or crops or livestock or aquaculture, and supplies used or produced in farming or products of crops produced by a farmer at farm level or a fisherman in his operations.

GENERAL PROVISIONS AS TO ARTICLES OF FOOD

- (1) **Use of food additive or processing aid:** No article of food shall contain any food additive or processing aid unless it is in accordance with the provisions of this Act and regulations made there under.

For the purposes of this section, "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.

- (2) **Contaminants, naturally occurring toxic substances, heavy metals:** No article of food shall contain any contaminant, naturally occurring toxic substances or toxins or

hormone or heavy metals in excess of such quantities as may be specified by regulations.

(3) Pesticides, veterinary drugs residues, antibiotic residues and micro-biological counts:

- (a) No article of food shall contain insecticides or pesticides residues, veterinary drugs residues, antibiotic residues, solvent residues, pharmacological active substances and micro-biological counts in excess of such tolerance limits as may be specified by regulations.
- (b) No insecticide shall be used directly on article of food except fumigants registered and approved under the Insecticides Act, 1968.
- (c) "pesticide residue" means any specified substance in food resulting from the use of a pesticide and includes any derivatives of a pesticide, such as conversion products, metabolites, reaction products and impurities considered to be of toxicological significance and also includes such residues coming into food from environment;
- (d) "residues of veterinary drugs" include the parent compounds or their metabolites or both in any edible portion of any animal product and include residues of associated impurities of the veterinary drug concerned.]

(4) Genetically modified foods, organic foods, functional foods, proprietary foods:

Save as otherwise provided under this Act and regulations made there under, no person shall manufacture, distribute, sell or import any novel food, genetically modified articles of food, irradiated food, organic foods, foods for special dietary uses, functional foods, nutraceuticals, health supplements, proprietary foods and such other articles of food which the Central Government may notify in this behalf.

- (a) "Foods for special dietary uses or functional foods nutraceuticals or health supplements" means:
 - (i) foods which are specially processed or formulated to satisfy particular dietary requirements which exist because of a particular physical or physiological condition or specific diseases and disorders and which are presented as such, wherein the composition of these foodstuffs must differ significantly from the composition of ordinary foods of comparable nature, if such ordinary foods exist and may contain parts in the form of powder, concentrate or extract or minerals or vitamins or proteins or metals or their compounds or amino acids or substances from animal origin or a dietary substance for use by human beings to supplement the diet by increasing the total dietary intake;
 - (ii) a product that is labelled as a "Food for special dietary uses or functional foods or nutraceuticals or health supplements or similar such foods" which is not represented for use as a conventional food and whereby such products may be formulated in the form of powders, granules, tablets, capsules, liquids, jelly and other dosage forms but not parenterals, and are meant for oral administration;
 - (iii) such product does not include a drug as defined in ayurvedic, siddha and unani drugs or does not claim to cure or mitigate any specific disease, disorder

or condition (except for certain health benefit or such promotion claims) as may be permitted by the regulations made under this Act;

- (iv) does not include a narcotic drug or a psychotropic substance
- (b) "genetically engineered or modified food" means food and food ingredients composed of or containing genetically modified or engineered organisms obtained through modern biotechnology, or food and food ingredients produced from but not containing genetically modified or engineered organisms obtained through modern biotechnology;
- (c) "organic food" means food products that have been produced in accordance with specified organic production standards;
- (d) "proprietary and novel food" means an article of food for which standards have not been specified but is not unsafe:

PROVIDED that such food does not contain any of the foods and ingredients prohibited under this Act and the regulations made there under.

(5) Packaging and labelling of foods:

- (a) No person shall 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 may be specified by regulations:

PROVIDED that the labels shall not contain any statement, claim, design or device which is false or misleading in any particular concerning the food products contained in the package or concerning the quantity or the nutritive value implying medicinal or therapeutic claims or in relation to the place of origin of the said food products.

- (b) 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.

(6) Restrictions of advertisement and prohibition as to unfair trade practices:

- (a) No advertisement shall be made of any food which is misleading or deceiving or contravenes the provisions of this Act, the rules and regulations made there under.
- (b) No person shall engage himself in any unfair trade practice for purpose of promoting the sale, supply, use and consumption of articles of food or adopt any unfair or deceptive practice including the practice of making any statement, whether orally or in writing or by visible representation which-
 - (i) falsely represents that the foods are of a particular standard, quality, quantity or grade-composition;

- (ii) makes a false or misleading representation concerning the need for, or the usefulness;

General Principles of Food Safety:

The Food Authority, the Central Government, the State Governments and other agencies, while framing regulations and specifying food safety standards or while enforcing or implementing the provisions of this Act shall be guided by the following principles:

- (a) Food safety standards shall aim at achieving the general objectives of a high level of protection of human life and health and also consumers' interests, including fair practices in all kind of food trade.
- (b) While specifying standards under this Act, the food authority will take into account international standards.
- (c) The Food Authority shall specify food standards on the basis of risk analysis.
- (d) The Food Authority shall undertake risk assessment based on the available scientific evidence and in an independent, objective and transparent manner.
- (e) Risk management shall take into account the results of risk assessment, the opinions of the Food Authority, other factors relevant to the matter under consideration including the precautionary in order to achieve the general objectives of regulations.
- (f) Provisional risk management measures necessary to ensure the high level of health protection may be adopted.
- (g) The measures shall be reviewed within a reasonable period of time, depending on the nature of the risk to life or health identified and the type of scientific information needed to clarify the scientific uncertainty and to conduct a more comprehensive risk assessment.
- (h) The regulations shall aim at the protection of the interests of consumers and shall provide a basis for consumers to make informed choices in relation to the foods they consume.
- (i) The regulations shall aim at the prevention of:-
 - (i) Fraudulent or deceptive practices;
 - (ii) The adulteration of food; and
 - (iii) Any other practices which may mislead the consumer.
- (j) The Food Authority shall ensure that there is open and transparent public consultation, directly or through representative bodies, during the preparation, evaluation and revision of regulations.
- (k) In cases where there are reasonable grounds to suspect that a food may present a risk for human health, then, depending on the nature, seriousness and extent of that risk, public authorities shall take appropriate steps to inform the general public of the nature of the risk to health, identifying to the fullest extent possible the food or type of

food, the risk that it may present, and the measures which are taken or about to be taken to prevent, reduce or eliminate that risk.

SPECIAL RESPONSIBILITIES AS TO FOOD SAFETY

(1) Responsibilities of the food business operator:

- (a) Every food business operator shall ensure that the articles of food satisfy the requirements of this Act and the rules and regulations made there under at all stages of production, processing, import, distribution and sale within the businesses under his control.
- (b) No food business operator shall himself or by any person on his behalf manufacture, store, sell or distribute any article of food which is unsafe or misbranded or sub-standard or contains extraneous matter or a license is required, except in accordance with the conditions of the license or 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 or in contravention of any other provision of this Act or of any rule or regulation made there under.
- (c) No food business operator shall employ any person who is suffering from infectious, contagious or loathsome disease.
- (d) No food business operator shall sell or offer for sale any article of food to any vendor unless he also gives a guarantee in writing in the form specified by regulations about the nature and quality of such article to the vendor:

PROVIDED that a bill, cash memo, or invoice in respect of the sale of any article of food given by a food business operator to the vendor shall be deemed to be a guarantee under this section, even if a guarantee in the specified form is not included in the bill, cash memo or invoice.

- (e) Where any food which is unsafe is part of a batch, lot or consignment of food of the same class or description, it shall be presumed that all the food in that batch, lot or consignment is also unsafe, unless following a detailed assessment within a specified time, it is found that there is no evidence that the rest of the batch, lot or consignment is unsafe:

PROVIDED that any conformity of a food with specific provisions applicable to that food shall be without prejudice to the competent authorities taking appropriate measures to impose restrictions on that food being placed on the market or to require its withdrawal from the market for the reasons to be recorded in writing where such authorities suspect that, despite the conformity, the food is unsafe.

(2) Liability of manufacturers, packers, wholesalers, distributors and sellers:

- (a) The manufacturer or packer of an article of food shall be liable for such article of food if it does not meet the requirements of this Act and the rules and regulations made there under.

(b) The wholesaler or distributor shall be liable under this Act for any article of food which is

- supplied after the date of its expiry; or
- stored or supplied in violation of the safety instructions of the manufacturer; or
- unsafe or misbranded; or
- unidentifiable of manufacturer from whom the article of food have been received; or
- stored or handled or kept in violation of the provisions of this Act, the rules and regulations made there under; or
- received by him with knowledge of being unsafe.

(c) The seller shall be liable under this Act for any article of food which is

- sold after the date of its expiry; or
- handled or kept in unhygienic conditions; or
- misbranded; or
- unidentifiable of the manufacturer or the distributors from whom such articles of food were received; or
- received by him with knowledge of being unsafe.

(3) Food recall procedures:

- (a) If a food business operator considers or has reasons to believe that a food which he has processed, manufactured or distributed is not in compliance with this Act, or the rules or regulations, made there under, he shall immediately initiate procedures to withdraw the food in question from the market and consumers indicating reasons for its withdrawal and inform the competent authorities thereof.
- (b) A food business operator shall immediately inform the competent authorities and co-operate with them, if he considers or has reasons to believe that a food which he has placed on the market may be unsafe for the consumers.
- (c) The food business operator shall inform the competent authorities of the action taken to prevent risks to the consumer and shall not prevent or discourage any person from co-operating, in accordance with this Act, with the competent authorities, where this may prevent, reduce or eliminate a risk arising from a food.

Every food business operator shall follow such conditions and guidelines relating to food recall procedures as the Food Authority may specify by regulations.

A few more responsibilities for Food Safety:

(1) Prohibition of manufacture, sale of certain articles of food: No person shall himself or by any person on his behalf manufacture for sale or store, sell or distribute:

- i. Any adulterated food
- ii. Any misbranded food
- iii. Any article of food for the sale of which a license is prescribed, except in accordance with the conditions of the license.
- iv. Any article of food the sale of which is for the time being prohibited by the Food Authority in the interest of public health.
- v. Any article of food in contravention of any other provision of this Act or of any rule or regulation made under the act.
- vi. any adulterant.

(2) Prohibition on Placing Unsafe Food in Market:

- a) It shall be the duty of every food business operator to ensure that the food shall not be placed on the market if it is unsafe.
- b) The food shall be deemed to be unsafe if
 - (i) It is injurious to health.
 - (ii) Unfit for human consumption.
- c) In determining whether any food is unsafe, regard shall be had to -
 - (i) The normal conditions of use of the food by the consumer and at each stage of production, processing and distribution and
 - (ii) The information provided to the consumer, including information on the label, or other information generally available to the consumer concerning the avoidance of specific adverse health effects from a particular food or category of foods.
- d) In determining whether any food is injurious to health, regard shall be had -
 - (i) Not only to the probable immediate or short - term or long - term effects of that food on the health of a person consuming it, but also on subsequent generations.
 - (ii) To the probable cumulative toxic effects.
 - (iii) To the particular health sensitivities of a specific category of consumers where the food is intended for that category of consumers.
- e) Food is said to be unfit for human consumption, if the food is unacceptable for human consumption according to its intended use, for reasons of contamination,

whether by extraneous matter or otherwise, or through putrefaction, deterioration or decay.

- f) Where any food which is unsafe is part of a batch, lot or consignment of food of the same class or description, it shall be presumed that all the food in that batch, lot or consignment is also unsafe, unless following a detailed assessment there is no evidence that the rest of the batch, lot or consignment is unsafe.

(3) Food Safety and Labeling Requirements:

- a) The food business operators at all stages of production, processing and distribution within the businesses under their control shall ensure that articles of food satisfy the requirements of this Act which are relevant to their activities and shall verify that such requirements are met.
- b) The food business operators shall ensure that the labeling 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.
- c) The Central and the State food safety authorities shall enforce this Act, and monitor and verify that the relevant requirements of law are fulfilled by food business operators at all stages of production, processing and distribution.
- d) The authorities shall maintain a system of control and other activities as appropriate to the circumstances, including public communication on food safety and risk, food safety surveillance and other monitoring activities covering all stages of production, processing and distribution.

(4) Traceability: Every Food Business Operator shall ensure traceability of articles of food as follows:

- a) The food business operators shall be able to identify any person from whom they have been supplied with a food or any substance intended to be, or expected to be, incorporated into a food and to this end, such operators shall have in place systems and procedures which allow for this information to be made available to the competent authorities on demand.
- b) The food business operators shall have in place systems and procedures to identify the other businesses to which their products have been supplied and this information shall be made available to the competent authorities on demand.
- c) The food business operator shall ensure that the food which is placed on the market or is likely to be placed on the market in the country shall be adequately labeled or identified to facilitate its traceability, through relevant documentation or information in accordance with the relevant requirements of more specific provisions.

(5) Special Responsibilities of food business operators in relation to food safety:

- a) If a food business operator considers or has reason to believe that a food which it has imported, processed, manufactured or distributed is not in compliance with the food safety requirements or injurious to human health, it shall immediately initiate procedures to withdraw the food in question from the market and consumers indicating the reasons for its withdrawal where the food has left the immediate control of that initial food business operator and inform the competent authorities
- b) A food business operator shall immediately inform the competent authorities and cooperate with them, if it considers or has reasons to believe that a food which it has placed on the market may be injurious to human health.
- c) The food business operator shall inform the competent authorities of the action taken to prevent risks to the consumer and shall not prevent or discourage any person from cooperating, in accordance with this Act, with the competent authorities, where this may prevent, reduce or eliminate a risk arising from a food.
- d) The food business operator shall not employ in his work any person who is suffering from infectious, contagious or loathsome disease.
- e) The food business operator shall sell such article of food to any vendor unless he also give a warranty in writing in the prescribed form about the nature and quality of such article to the vendor :

Provided that a bill, cash memorandum, or invoice in respect of the sale of any article of food given by a food business operator to the vendor shall be deemed to be a warranty under this section, even if a warranty in the prescribed form is not included in the bill, cash memorandum or invoice.

ANALYSIS OF FOOD

1) **Recognition and accreditation of laboratories, research institutions and referral food laboratory:**

- a) The Food Authority may notify food laboratories and research institutions accredited by National Accreditation Board for Testing and Calibration Laboratories or any other accreditation agency for the purposes of carrying out analysis of samples by the Food Analysts under this Act.
- b) The Food Authority shall, establish or recognize by notification, one or more referral food laboratory or laboratories to carry out the functions entrusted to the referral food laboratory by this Act or any rules and regulations made there under.
- c) The Food Authority may frame regulations specifying-
 - (i) the functions of food laboratory and referral food laboratory and the local area or areas within which such functions may be carried out;

(ii) the procedure for submission to the said laboratory of samples of articles of food for analysis or tests, the forms of the laboratory's reports thereon and the fees payable in respect of such reports; and

(iii) such other matters as may be necessary or expedient to enable the said laboratory to carry out its functions effectively.

2) **Recognition of organisation or agency for food safety audit:** The Food Authority may recognize any organisation or agency for the purposes of food safety audit and checking compliance with food safety management systems required under this Act or the rules and regulations made there under.

3) **Food Analysts:** The Commissioner of Food Safety may, by notification, appoint such persons as he thinks fit, having the qualifications prescribed by the Central Government, to be Food Analysts for such local areas as may be assigned to them by the Commissioner of Food Safety:

PROVIDED that no person, who has any financial interest in the manufacture or sale of any article of food, shall be appointed to be a Food Analyst under this section:

PROVIDED FURTHER that different Food Analysts may be appointed for different articles of food.

4) **Functions of Food Analyst:**

a) On receipt of a package containing a sample for analysis from a Food Safety Officer or any other person, the Food Analyst shall compare the seal on the container and the outer cover with specimen impression received separately and shall note the conditions of the seal there on:

PROVIDED that in case a sample container received by the Food Analyst is found to be in broken condition or unfit for analysis, he shall within a period of seven days from the date of receipt of such sample inform the Designated Officer about the same and send requisition to him for sending second part of the sample.

b) The Food Analyst shall cause to be analysed such samples of article of food as may be sent to him by Food Safety Officer or by any other person authorized under this Act.

c) The Food Analyst shall, within a period of fourteen days from the date of receipt of any sample for analysis, send-

(i) where such sample is received under section 38 or section 47, to the Designated Officer, four copies of the report indicating the method of sampling and analysis; and

(ii) where such sample is received under section 40, a copy of the report indicating the method of sampling and analysis to the person who had purchased such article of food with a copy to the Designated Officer:

PROVIDED that in case the sample cannot be analysed within fourteen days of its receipt, the Food Analyst shall inform the Designated Officer and the

Commissioner of Food Safety giving reasons and specifying the time to be taken for analysis.

- d) An appeal against the report of Food Analyst shall lie before the Designated Officer who shall, if he so decides, refer the matter to the referral food laboratory as notified by the Food Authority for opinion.

5) Sampling and analysis:

- a) When a Food Safety Officer takes a sample of food for analysis, he shall –
- (i) give notice in writing of his intention to have it so analysed to the person from whom he has taken the sample and to the person, if any, whose name, address and other particulars have been disclosed;
 - (ii) except in special cases as may be provided by rules made under this Act, divide the sample into four parts and mark and seal or fasten up each part in such a manner as its nature permits and take the signature or thumb impression of the person from whom the sample has been taken in such place and in such manner as may be prescribed by the Central Government:

PROVIDED that where such person refuses to sign or put his thumb impression, the Food Safety Officer shall call upon one or more witnesses and take his signature or thumb impression, in lieu of the signature or thumb impression of such person;
 - (iii) send one of the parts for analysis to the Food Analyst under intimation to the Designated Officer, send two parts to the Designated Officer for keeping these in safe custody and send the remaining part for analysis to an accredited laboratory, if so requested by the food business operator, under intimation to the Designated Officer.
- b) When a sample of any article of food or adulterant is taken, the Food Safety Officer shall, by the immediate succeeding working day, send the sample to the Food Analyst for the area concerned for analysis and report.
- c) Where the part of the sample sent to the Food Analyst is lost or damaged, the Designated Officer shall, on a requisition made to him, by the Food Analyst or the Food Safety Officer, despatch one of the parts of the sample sent to him, to the Food Analyst for analysis.
- d) An article of food or adulterant seized, unless destroyed, shall be produced before the Designated Officer as soon as possible and in any case not later than seven days after the receipt of the report of the Food Analyst.
- e) In case of imported articles of food, the authorized officer of the Food Authority shall take its sample and send to the Food Analyst of notified laboratory for analysis who shall send the report within a period of five days to the authorized officer.
- f) The Designated Officer, the Food Safety Officer, the authorized officer and the Food Analyst shall follow such procedure as may be specified by regulations.

Sealing, Fastening and Dispatch of Samples

1. **Manner of sending sample for analysis:** Samples of food for the purpose of analysis shall be taken in clean dry bottles or jars or in other suitable containers which shall be closed sufficiently tight to prevent leakage, evaporation, or in the case of dry substance, entrance of moisture and shall be carefully sealed.
2. **Bottles or containers to be labeled and addressed:** All bottles or jars or other containers containing samples for analysis shall be properly labeled and the parcels shall be properly addressed. The label on any sample of food sent for analysis shall bear.
 1. Code number and serial number of the local (Health) authority.
 2. Name of the sender with official designation if any
 3. Omitted
 4. Date and place of collection
 5. Nature of articles submitted for analysis
 6. Nature and quantity of preservative, if any added to the sample

If the sample is taken from Agmark sealed container the label shall bear the following additional information

- i) Grade
 - ii) Agmark label No. / Batch No.
 - iii) Name of packaging station
3. **Manner of packaging and sealing the sample:** All samples of food sent for analysis shall be packed, fastened and sealed in the following manner namely.
 - i) The stopper shall be securely fastened so as to prevent leakage of the contents in transit.
 - ii) The bottle, jar or other container shall be completely wrapped in fairly strong thick paper. The ends of the paper shall be neatly folded in and affixed by means of the gum or other adhesive.
 4. **Manner of dispatching containers of samples:** The containers of the sample shall be dispatched in the following manner, namely
 - i) The sealed container of one part of the sample for analysis and a memorandum in Form VII shall be sent in a sealed packet to the public analyst immediately but not later than the succeeding working day by suitable means.
 - ii) The sealed containers of the remaining two parts of the sample and two copies of the Memorandum in form VII shall be sent in a sealed packet to the local (Health) Authority immediately but not later than the succeeding working day by any suitable means.
 - iii) The sealed container of one of the remaining two parts of the sample and a copy of the Memorandum in form VII kept with local (Health) authority shall within a period

of 7 days, be sent to the public analyst on requisition made by him to it by any suitable means.

5. **Memorandum and impression of seal to be sent separately:** A copy of the Memorandum and specimen impression of the seal used to seal the packet shall be sent, in a sealed packet separately to the public analyst by any means immediately but not later than the succeeding working day.
6. **Addition of preservatives to samples:** Any person taking a sample of any food for the purpose of analysis under the Act may add a preservative as may be prescribed from time to time to the sample for the purpose of maintaining it in a condition suitable for analysis.
7. **Preservative in respect of Milk and Cream:** In case of samples of ice cream and mixed ice cream the preservative used shall be the liquid commonly known as formalin, that is to say a liquid containing about 40% of formaldehyde in aqueous solution in the proportion of 0.6 ml for 100ml or 100gms.
8. **Nature and quantity of the preservative to be noted on the label:** Wherever any preservative is added to a sample, the nature and quantity of the preservative shall be clearly noted on the label to be affixed to the container.

Quantity of sample to be sent to the public analyst: The quantity of sample of food to be sent to the public analyst/ Director for analysis shall be as specified.

OFFENCES AND PENALTIES

General provisions relating to offences:

- (1) A person may render any article of food injurious to health by means of one or more the following operations, namely:
 - (a) adding any article or substance to the food;
 - (b) using any article or substance as an ingredient in the preparation of the food; (c) abstracting any constituents from the food; or
 - (c) Subjecting the food to any other process or treatment, with the knowledge that it may be sold or offered for sale or distributed for human consumption.
- (2) In determining whether any food is unsafe or injurious to health, regard shall be had to-
 - (a) (i) the normal conditions of use of the food by the consumer and its handling at each stage of production, processing and distribution;
 - (ii) the information provided to the consumer, including information on the 19.bel, or other information generally available to the consumer concerning the avoidance of specific adverse health effects from a particular food or category of foods not only to the probable, immediate or short-term or long-term effects of

that food on the health of a person consuming it, but also on subsequent generations;

- (iii) to the probable cumulative toxic effects;
 - (iv) to the particular health sensitivities of a specific category of consumers where the food is intended for that category of consumers; and
 - (v) also to the probable cumulative effect of food of substantially the same composition on the health of a person consuming it in ordinary quantities;
- (b) the fact where the quality or purity of the article, being primary food, has fallen below the specified standard or its constituents are present in quantities not within the specified limits of variability, in either case, solely due to natural causes and beyond the control of human agency, then such article shall not be deemed to be unsafe or sub-standard or food containing extraneous matter.

General provisions relating to penalty: While adjudging the quantum of penalty under this Chapter, the Adjudicating Officer or the Tribunal, as the case may be, shall have due regard to the following:

- (a) the amount of gain or unfair advantage, wherever quantifiable, made as a result of the contravention,
- (b) the amount of loss caused or likely to cause to any person as a result of the contravention,
- (c) the repetitive nature of the contravention,
- (d) Whether the contravention is without his knowledge, and (e) any other relevant factor.

Penalty for selling food not of the nature or substance or quality demanded: Any person who sells to the purchaser's prejudice any food which is not in compliance with the provisions of this Act or the regulations made there under, or of the nature or substance or quality demanded by the purchaser, shall be liable to a penalty not exceeding five lakh rupees:

PROVIDED that the persons covered under sub-section (2) of section 31, shall for such non-compliance be liable to a penalty not exceeding twenty-five thousand rupees.

Penalty for sub-standard food: Any person who whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is sub-standard, shall be liable to a penalty which may extend to five lakh rupees.

Penalty for misbranded food:

- (1) Any person who whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is misbranded, shall be liable to a penalty which may extend to three lakh rupees.

- (2) The Adjudicating Officer may issue a direction to the person found guilty of an offence under this section, for taking corrective action to rectify the mistake or such article of food shall be destroyed.

Penalty for misleading advertisement:

- (1) Any person who publishes, or is a party to the publication of an advertisement, which-
- (a) falsely describes any food; or
 - (b) is likely to mislead as to the nature or substance or quality of any food or gives false guarantee, shall be liable to a penalty which may extend to ten lakh rupees.
- (2) In any proceeding the fact that a label or advertisement relating to any article of food in respect of which the contravention is alleged to have been committed contained an accurate statement of the composition of the food shall not preclude the court from finding that the contravention was committed.

Penalty for food containing extraneous matter: Any person whether by himself or by any other person on his behalf manufactures for sale or stores or sells or distributes or imports any article of food for human consumption containing extraneous matter, shall be liable to a penalty which may extend to one lakh rupees.

Penalty for failure to comply with the directions of Food Safety Officer: If a food business operator or importer without reasonable ground, fails to comply with the requirements of this Act or the rules or regulations or orders issued there under, as directed by the Food Safety Officer, he shall be liable to a penalty which may extend to two lakh rupees.

Penalty for unhygienic or unsanitary processing or manufacturing of food: Any person who, whether by himself or by any other person on his behalf, manufactures or processes any article of food for human consumption under unhygienic or unsanitary conditions, shall be liable to a penalty which may extend to one lakh rupees.

Penalty for possessing adulterant:

- (1) Subject to the provisions of this Chapter, if any person who whether by himself or by any other person on his behalf, imports or manufactures for sale, or stores, sells or distribute any adulterant shall be liable-
- (a) where such adulterant is not injurious to health, to a penalty not exceeding two lakh rupees;
 - (b) where such adulterant is injurious to health, to a penalty not exceeding ten lakh rupees.
- (2) In a proceeding under sub-section (1), it shall not be a defense that the accused was holding such adulterant on behalf of any other person.

Penalty for contraventions for which no specific penalty is provided: Whoever contravenes any provisions of this Act or the rules or regulations made there under, for the contravention shall be liable to penalty which may extend to two lakh rupees.

Punishment for unsafe food: Any person who, whether by himself or by any other person on his behalf, manufactures for sale or stores or sells or distributes or imports any article of food for human consumption which is unsafe, shall be punishable –

- (a) where such failure or 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;
- (b) 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;
- (c) 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;
- (d) 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 ten lakh rupees.

Punishment for interfering with seized items: If a person without the permission of the Food Safety Officer, retains, removes or tampers with any food, vehicle, equipment, package or labelling or advertising material or other thing that has been seized under this Act, he shall be punishable with imprisonment for a term which may extend to six months and also with fine which may extend to two lakh rupees.

Punishment for false information: If a person, in connection with a requirement or direction under this Act, provides any information or produces any document that the person knows is false or misleading, he shall be punishable with imprisonment for a term which may extend to three months and also with fine which may extend to two lakh rupees.

Punishment for obstructing or impersonating a Food Safety Officer: If a person without reasonable excuse, resists, obstructs, or attempts to obstruct, impersonate, threaten, intimidate or assault a Food Safety Officer in exercising his functions under this Act, he shall be punishable with imprisonment for a term which may extend to three months and also with fine which may extend to one lakh rupees.

Punishment for carrying out a business without license: If any person or food business operator (except the persons exempted from licensing under sub-section (2) of section 31 of this Act), himself or by any person on his behalf who is required to obtain license, manufactures, sells, stores or distributes or imports any article of food without license, shall be punishable with imprisonment for a term which may extend to six months and also with a fine which may extend to five lakh rupees.

Punishment for subsequent offences:

- (1) If any person, after having been previously convicted of an offence punishable under this Act subsequently commits and is convicted of the same offence, he shall be liable to –
 - (a) twice the punishment, which might have been imposed on a first conviction, subject to the punishment being maximum provided for the same offence;

(b) a further fine on daily basis which may extend up to one lakh rupees, where the offence is a continuing one; and

(c) his license shall be cancelled.

(2) The Court may also cause the offender's name and place of residence, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

Compensation in case of injury or death of consumer:

(1) Without prejudice to the other provisions, if any person whether by himself or by any other person on his behalf, manufactures or distributes or sells or imports any article of food causing injury to the consumer or his death, it shall be lawful for the Adjudicating Officer or as the case may be, the court to direct him to pay compensation to the victim or the legal representative of the victim, a sum –

(a) not less than five lakh rupees in case of death;

(b) not exceeding three lakh rupees in case of grievous injury; and (c) not exceeding one lakh rupees, in all other cases of injury:

PROVIDED that the compensation shall be paid at the earliest and in no case later than six months from the date of occurrence of the incident:

PROVIDED FURTHER that in case of death, an interim relief shall be paid to the next of the kin within thirty days of the incident.

(2) Where any person is held guilty of an offence leading to grievous injury or death, the Adjudicating Officer or the court may cause the name and place of residence of the person held guilty, the offence and the penalty imposed to be published at the offender's expense in such newspapers or in such other manner as the Adjudicating Officer or the court may direct and the expenses of such publication shall be deemed to be part of the cost attending the conviction and shall be recoverable in the same manner as a fine.

(3) The Adjudicating Officer or the court may also -

(a) order for cancellation of license, re-call of food from market, forfeiture of establishment and property in case of grievous injury or death of consumer;

(b) issue prohibition orders in other cases.

Offences by companies:

(1) Where an offence under this Act which has been committed by a company. every person who at the time the offence was committed was in-charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

PROVIDED that where a company has different establishments or branches or different units in any establishment or branch, the concerned Head or the person in-charge of such establishment, branch, unit nominated by the company as responsible for food safety shall be liable for contravention in respect of such establishment, branch or unit:

PROVIDED FURTHER that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

- (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Penalty for contravention of provisions of this Act in case of import of articles of food to be in addition to penalties provided under any other Act:

- (1) Any person who imports any article of food which is in contravention of the provisions of this Act, rules and regulations made there under, shall, in addition to any penalty to which he may be liable under the provisions of the Foreign Trade (Development and Regulation) Act, 1992 (22 of 1992) and the Customs Act, 1962 (52 of 1962) be also liable under the Act and shall be proceeded against accordingly.
- (2) Any such article of food shall be destroyed or returned to the importer, if permitted by the competent authority under the Foreign Trade (Development and Regulation) Act, 1992 (22 of 1992) or the Customs Act, 1962 (52 of 1962), or any other Act, as the case may be.

Lecture-9

9. *Enforcement of FSSA (VII). Food Safety Officer (FSO)/ Food Inspector (Called so by PFA Act) - Powers, Duties and functions of FSO*

ENFORCEMENT OF THE ACT

Authorities responsible for enforcement of Act:

- (1) The Food Authority and the State Food Safety Authorities shall be responsible for the enforcement of this Act.
- (2) The Food Authority and the State Food Safety Authorities shall monitor and verify that the relevant requirements of law are fulfilled by food business operators at all stages of food business.
- (3) The authorities shall maintain a system of control and other activities as appropriate to the circumstances, including public communication on food safety and risk, food safety surveillance and other monitoring activities covering all stages of food business.

- (4) The Food Safety Officers shall enforce and execute within their area the provisions of this Act with respect to which the duty is not imposed expressly or by necessary implication on some other authority.
- (5) The regulations under this Act shall specify which of the Food Safety Officers are to enforce and execute them, either generally or in relation to cases of a particular description or a particular area, and any such regulations or orders may provide for the giving of assistance and information, by any authority concerned in the administration of the regulations or orders, or of any provisions of this Act, to any other authority so concerned, for the purposes of their respective duties under them.
- (6) The Commissioner of Food Safety and Designated Officer shall exercise the same powers as are conferred on the Food Safety Officer and follow the same procedure specified in this Act.

Commissioner of Food Safety of the State:

- (1) The State Government shall appoint the Commissioner of Food Safety for the State for efficient implementation of food safety and standards and other requirements laid down under this Act and the rules and regulations made there under.
- (2) The Commissioner of Food Safety shall perform all or any of the following functions, namely:-
 - (a) prohibit in the interest of public health, the manufacture, storage, distribution or sale of any article of food, either in the whole of the State or any area or part thereof for such period, not exceeding one year, as may be specified in the order notified in this behalf in the Official Gazette;
 - (b) carry out survey of the industrial units engaged in the manufacture or processing of food in the State to find out compliance by such units of the standards notified by the Food Authority for various articles of food;
 - (c) Conduct or organize training programmes for the personnel of the office of the Commissioner of Food Safety and, on a wider scale, for different segments of food chain for generating awareness on food safety;
 - (d) ensure an efficient and uniform implementation of the standards and other requirements as specified and also ensure a high standard of objectivity, accountability, practicability, transparency and credibility;
 - (e) sanction prosecution for offences punishable with imprisonment under this Act;
 - (f) Such other functions as the State Government may, in consultation with the Food Authority, prescribe.
- (3) The Commissioner of Food Safety may, by order, delegate, subject to such conditions and restrictions as may be specified in the Order, such of his powers and functions under this Act (except the power to appoint Designated Officer, Food Safety Officer and Food Analyst)

Licensing and registration of food business:

- (1) No person shall commence or carry on any food business except under a license.
- (2) Nothing contained in sub-section (1) shall apply to a petty manufacturer who himself manufactures or sells any article of food or a petty retailer, hawker, itinerant vendor or a temporary stall holder or small scale or cottage or such other industries relating to food business or tiny food business operator; but they shall register themselves with such authority and in such manner as may be specified by regulations, without prejudice to the availability of safe and wholesome food for human consumption or affecting the interests of the consumers.
- (3) Any person desirous to commence or carry on any food business shall make an application for grant of a license to the Designated Officer in such manner containing such particulars and fees as may be specified by regulations.
- (4) The Designated Officer on receipt of an application may either grant the license or after giving the applicant an opportunity of being heard and for reasons to be recorded in writing, refuse to grant a license to any applicant, if he is satisfied that it is necessary so to do in the interest of public health and shall make available to the applicant a copy of the order.
- (5) Every license shall be in such form and subject to such conditions as may be specified by regulations.
- (6) A single license may be issued by the Designated Officer for one or more articles of food and also for different establishments or premises in the same area.
- (7) If the articles of food are manufactured, stored, sold or exhibited for sale at different premises situated in more than one area, separate applications shall be made and separate license shall be issued in respect of such premises not falling within the same area.
- (8) An appeal against the order of rejection for the grant of license shall lie to the Commissioner of Food Safety.
- (9) A license unless suspended or cancelled earlier shall be in force for such period as may be specified by regulations.

Prohibition orders:

- (1) If –
 - (a) any food business operator is convicted of an offence under this Act; and
 - (b) the court by or before which he is so convicted is satisfied that the health risk exists with respect to that food business,

the court, after giving the food business operator an opportunity of being heard, may by an order, impose the following prohibitions, namely:-

- (i) a prohibition on the use of the process or treatment for the purposes of the food business;
 - (ii) a prohibition on the use of the premises or equipment for the purposes of the food business or any other food business of the same class or description;
 - (iii) a prohibition on the use of the premises or equipment for the purposes of any food business.
- (2) The court may, on being satisfied that it is necessary so to do, by an order, impose a prohibition on the food business operator participating in the management of any food business, or any food business of a class or description specified in the order.
- (3) As soon as practicable after the making of an order, the concerned Food Safety Officer shall-
- (a) serve a copy of the order on the food business operator; and
 - (b) in the case of an order under sub-section (1), affix a copy of the order at a conspicuous place on such premises used for the purposes of the food business and any person who knowingly contravenes such an order shall be guilty of an offence and be punishable with a fine which may extend to three lakh rupees.
- (4) The concerned Food Safety Officer shall with the approval of the Designated Officer issue a certificate to the effect that the food business operator has taken sufficient measures justifying lifting of the prohibition order, within seven days of his being satisfied on an application made by the food business operator for such a certificate or the said officer shall –
- (a) determine, as soon as is reasonably practicable and in any event within fourteen days, whether or not he is so satisfied; and
 - (b) if he determines that he is not so satisfied, give notice to the food business operator of the reasons for that determination.
- (5) A prohibition order shall cease to have effect upon the court being satisfied, on an application made by the food business operator not less than six months after the prohibition order has been passed, that the food business operator has taken sufficient measures justifying the lifting of the prohibition order.
- (6) The court shall give a direction on an application by the food business operator, if the court thinks it proper so to do having regard to all the circumstances of the case, including in particular, the conduct of the food business operator since the making of the order; but no such application shall be entertained if it is not made –
- (a) within six months after the making of the prohibition order; or
 - (b) within three months after the making by the food business operator of a previous application for such a direction.

Emergency prohibition notices and orders:

- (1) If the Designated Officer is satisfied that the health risk condition exists with respect to any food business, he may, after a notice served on the food business operator (in this Act referred to as an "emergency prohibition notice"), apply to the Commissioner of Food Safety for imposing the prohibition.
- (2) If the Commissioner of Food Safety is satisfied, on the application of such an officer, that the health risk condition exists with respect to any food business, he shall, by an order, impose the prohibition.
- (3) The Designated Officer shall not apply for an emergency prohibition order unless, at least one day before the date of the application, he has served notice on the food business operator of the business of his intention to apply for the order.
- (4) As soon as practicable after the making of an emergency prohibition order, the Designated Officer shall require the Food Safety Officer to –
 - (a) serve a copy of the order on the food business operator of the business; or
 - (b) affix a copy of the order at a conspicuous place on such premises used for the purposes of that business and any person who knowingly contravenes such an order shall be guilty of an offence and shall be punishable with imprisonment for a term which may extend to two years and with fine which may extend to two lakh rupees.
- (5) An emergency prohibition order shall cease to have effect on the issue by the Designated Officer of a certificate to the effect that he is satisfied that the food business operator has taken sufficient measures for justifying the lifting of such order.
- (6) The Designated Officer shall issue a certificate under sub-section (5) within seven days of an application by the food business operator for such a certificate and on his being not satisfied, the said officer shall give notice to the food business operator within a period of ten days indicating the reasons for such decision.

Notification of food poisoning: The Food Authority may, by notification, require registered medical practitioners carrying on their profession in any local area specified in the notification, to report all occurrences of food poisoning coming to their notice to such officer as may be specified.] Notes on clauses

Designated Officer: The functions to be performed by the Designated Officer shall be as follows, namely:-

- (a) to issue or cancel license of food business operators;
- (b) to prohibit the sale of any article of food which is in contravention of the provisions of this Act and rules and regulations made there under;
- (c) to receive report and samples of articles of food from Food Safety Officer under his jurisdiction and get them analysed;
- (d) to make recommendations to the Commissioner of Food Safety for sanction to launch prosecutions in case of contraventions punishable with imprisonment;

- (e) to sanction or launch prosecutions in cases of contraventions punishable with fine;
- (f) to maintain record of all inspections made by Food Safety Officers and action taken by them in the performance of their duties;
- (g) to get investigated any complaint which may be made in writing in respect of any contravention of the provisions of this Act and the rules and regulations made there under;
- (h) to investigate any complaint which may be made in writing against the Food Safety Officer;
- (i) to perform such other duties as may be entrusted by the Commissioner of Food Safety.

Food Safety Officer

The Commissioner of Food Safety shall, by notification, appoint such persons as he thinks fit, having the qualifications prescribed by the Central Government, as Food Safety Officers for such local areas as he may assign to them for the purpose of performing functions under this Act and rules and regulations made there under.

The State Government may authorize any officer of the State Government having the qualifications prescribed under sub-section (1) to perform the functions of a Food Safety Officer within a specified jurisdiction.

Powers of Food Safety Officer:

(1) The Food Safety Officer may-

(a) take a sample-

- (i) of any food, or any substance, which appears to him to be intended for sale, or to have been sold for human consumption; or
- (ii) of any article of food or substance which is found by him on or in any such premises, which he has reason to believe that it may be required as evidence in proceedings under any of the provisions of this Act or of the regulations or orders made there under; or

(b) seize any article of food which appears to the Food Safety Officer to be in contravention of this Act or the regulations made there under; and

(c) keep it in the safe custody of the food business operator such article of food after taking a sample, and in both cases send for analysis to a Food Analyst for the local area within which such sample has been taken:

PROVIDED that where the Food Safety Officer keeps such article in the safe custody of the food business operator, he may require the food business operator to execute a bond for a sum of money equal to the value of such article with one or more sureties as the Food Safety Officer deems fit and the food business operator shall execute the bond accordingly.

- (2) The Food Safety Officer may enter and inspect any place where the article of food is manufactured, or stored for sale, or stored for the manufacture of any other article of food, or exposed or exhibited for sale and where any adulterant is manufactured or kept, and take samples of such-articles of food or adulterant for analysis.
- (3) Where any sample is taken, its cost calculated at the rate at which the article is usually sold to the public shall be paid to the person from whom it is taken.
- (4) Where any article of food seized is of a perishable nature and the Food Safety Officer is satisfied that such article of food is so deteriorated that it is unfit for human consumption, the Food Safety Officer may, after giving notice in writing ,to the food business operator, cause the same to be destroyed.
- (5) The Food Safety Officer shall, in exercising the powers of entry upon, and inspection of any place. under this section, follow, as far as may be, the provisions of the Code of Criminal Procedure, 1973 (2 of 1974) relating to the search or inspection of a place by police officer executing a search warrant issued under that Code.
- (6) Adulterant found in the possession of a manufacturer or distributor of, or dealer in, any article of food or in any of the premises occupied by him as such and for the possession of which he is unable to account to the satisfaction of the Food Safety Officer and any books of account or other documents found in his possession or control and which would be useful for, or relevant to, any investigation or proceeding under this Act, may be seized by the Food Safety Officer and a sample of such adulterant submitted for analysis to a Food Analyst:

PROVIDED that no such books of account 'or other documents shall be seized by the Food Safety Officer except with the previous approval of the authority to which he is subordinate.

- (7) Where the Food Safety Officer takes any action he shall, call one or more persons to be present at the time when such action is taken and take his or their signatures.
- (8) Where any books of account or other documents are seized, the Food Safety Officer shall, within a period not exceeding thirty days from the date of seizure, return the same to the person from whom they were seized after copies thereof or extracts there from as certified by that person in such manner as may be prescribed by the Central Government have been taken:

PROVIDED that where such person refuses to so certify and a prosecution has been instituted against him under this Act, such books of account or other documents shall be returned to him only after copies thereof and extracts there from as certified by the court have been taken.

- (9) When any adulterant is seized under, the burden of proving that such adulterant is not meant for purposes of adulteration shall be on the person from whose possession such adulterant was seized.
- (10) The Commissioner of Food Safety may from time to time issue guidelines with regard to exercise of powers of the Food Safety Officer, which shall be binding:

PROVIDED that the powers of such Food Safety Officer may also be revoked for a specified period by the Commissioner of Food Safety.

Liability of Food Safety Officer in certain cases: Any Food Safety Officer exercising powers under this Act or the rules and regulations made there under whom -

- (a) Vexatiously and without any reasonable ground seizes any article of food or adulterant; or
- (b) Commits any other act to the injury of any person without having reason to believe that such act is necessary for the execution of his duty, shall be guilty of an offence under this Act and shall be liable to penalty which may extend to one lakh rupees:

PROVIDED that in case any false complaint is made against a Food Safety Officer and it is proved so, the complainant shall be guilty of an offence under this Act and shall be punishable with fine which shall not be less than fifty thousand rupees but may extend to one lakh rupees.

Purchaser may have food analysed:

- (1) Nothing contained in this Act shall be held to prevent a purchaser of any article of food other than a Food Safety Officer from having such article analysed by the Food Analyst on payment of such fees and receiving from the Food Analyst a report of his analysis within such period as may be specified by regulations:

PROVIDED that such purchaser shall inform the food business operator at the time of purchase of his intention to have such article so analysed:

PROVIDED FURTHER that if the report of the Food Analyst shows that the article of food is not in compliance with the Act or the rules or regulations made there under, the purchaser shall be entitled to get refund of the fees paid by him under this section.

- (2) In case the Food Analyst finds the sample in contravention of the provisions of this Act and rules and regulations made there under, the Food Analysts shall forward the report to the Designated Officer to follow the procedure laid down in section 42 for prosecution.

Power of search, seizure, investigation, prosecution and procedure thereof:

- (1) The Food Safety Officer may search any place, seize any article of food or adulterant, if there is a reasonable doubt about them being involved in commission of any offence relating to food, and shall thereafter inform the Designated Officer of the actions taken by him in writing:

PROVIDED that no search shall be deemed to be irregular by reason only of the fact that witnesses for the search are not inhabitants of the locality in which the place searched is situated.

- (2) Save as in this Act otherwise expressly provided, provisions of the Code of Criminal Procedure 1973 (2 of 1974) relating to search, seizure, summon, investigation and prosecution, shall apply, as far as may be, to all action taken by the Food Safety Officer under this Act.

Procedure for launching prosecution:

- (1) The Food Safety Officer shall be responsible for inspection of food business, drawing samples and sending them to Food Analyst for analysis.
- (2) The Food Analyst after receiving the sample from the Food Safety Officer shall analyze the sample and send the analysis report mentioning method of sampling and analysis within fourteen days to Designated Officer with a copy to Commissioner of Food Safety.
- (3) The Designated Officer after scrutiny of the report of Food Analyst shall decide as to whether the contravention is punishable with imprisonment or fine only and in the case of contravention punishable with imprisonment, he shall send his recommendations within fourteen days to the Commissioner of Food Safety for sanctioning prosecution.
- (4) The Commissioner of Food Safety shall, if he so deems fit, decide, within the period prescribed by the Central Government, as per the gravity of offence, whether the matter be referred to -
 - (a) a court of ordinary jurisdiction in case of offences punishable with imprisonment for a term up to three years; or
 - (b) a Special Court in case of offences punishable with imprisonment for a term exceeding three years where such Special Court is established and in case no Special Court is established, such cases shall be tried by a court of ordinary jurisdiction.
- (5) The Commissioner of Food Safety shall communicate his decision to the Designated Officer and the concerned Food Safety Officer who shall launch prosecution before courts of ordinary jurisdiction or Special Court, as the case may be; and such communication shall also be sent to the purchaser.

Lecture – 10

10. *Prevention of Food Adulteration Act & Rules (PFA Act), 1954. Definition. Object of the act. Central committee for food standards*

Prevention of Food Adulteration Act

Prevention of food adulteration act of 1954 has been in force since June 1, 1955.

According to PFA act an article of food shall be deemed to be adulterated:

1. If the article sold by a vendor is not of the nature, substance or quality demanded by purchaser and is to his prejudice, or is not of the nature, substance or quality which it purports or is represented to be
2. If the article contains any other substance which affects , or if the article is so processed as to affect injuriously the nature, substance or quality thereof
3. If any inferior or cheaper substance has been substituted wholly or in part for the article so as to affect injuriously the nature as substance or quality thereof

4. If any constituent of the article has been wholly or in part abstracted so as to affect injuriously the nature , substance or quality thereof
5. If the article had been prepared, packed or kept under unsanitary conditions whereby it has become contaminated or injurious to health
6. If the article consists wholly or in part of any filthy, putrid disgusting, rotten, decomposed, or diseased animal or vegetable substance or is insect- infested or otherwise unfit for human consumption
7. If the article is obtained from a diseased animal
8. If the article contains any poisonous or any ingredient which renders its contents injurious to health
9. If the container of the article is composed, whether wholly or in part of any poisonous or deleterious substance which renders its contents injurious to health.
10. If any coloring matter other than that prescribed in respect thereof and in amounts not within the prescribed limits of variability is present in the article
11. If the article contains any prohibited preservative or permitted preservative in excess of the prescribed limits
12. If the quality or purity of the article falls below the prescribed standards or its constituents are present in quantities which are in excess of the prescribed limits of variability.

Lecture – 11

11. *Analysis of Food - Public Analysts & Food Inspectors. Powers of the food Inspectors. Procedures to be followed by the Food Inspectors. Report of public analyst. (PFA Act 1954 and Part IV of PFA Rules, 1955) Sealing, fastening and dispatch of samples*

Food Inspector

- (1) The State Commissioner of Food Safety, shall, by notification, appoint such persons as it thinks fit, having the prescribed qualifications as Food Inspectors for such areas as it may assign to them for the purpose of performing its functions under this Act.
- (2) The State Government may authorize any officer of the State Government having the prescribed qualifications to perform the functions of a Food Inspector within the specified jurisdiction.

Powers of Food Inspector:

1. To take sample of any food article from
 - a. Any person selling such article
 - B. Any person who is in the course of delivering or preparing to deliver such article to a purchaser or consignee

c. A consignee after delivering of any such article to him.

2. To send such sample for analysis to the public analyst (PA) of local area. When the food inspector wants to lift suspected food the shop keeper must first be told. There should be a witness present when the food inspector lifts the sample. 150g of the sample is necessary to be sent for analysis. 600gms of sample is collected usually and sent to Ripon Buildings, Corporation of Chennai, or Kings Institute, Guind, Chennai or Central Food Laboratory, Kolkata or Central Food Technological Research Institute, Mysore.

There is a certain procedure to collect the sample and seal it in a bottle. The sealed bottle has a label on it in which the code number of the inspector, address of the shop and date and time of collection are written.

3. The Food Inspector may enter and inspect any place where article of food is manufactured, or stored for sale, or stored for the manufacture of any other article of food, or exposed or exhibited for sale and where any adulterant is manufactured or kept, and take samples of such articles of food or adulterant for analysis.
4. Where any sample is taken, its cost calculated at the rate at which the article is usually sold to the public shall be paid to the person from whom it is taken.
5. If any article intended for food appears to Food Inspector to be in contravention of this Act, he may, with the approval of the Designated Officer, seize and carry away or keep in the safe custody of the vendor such article in order that it may be dealt with as here in after provided and he shall, in either case, take a sample of such article and submit the same for analysis to a Food Analyst; Provided that where the Food Inspector keeps such article in the safe custody of the vendor he may require the vendor to execute a bond for a sum of money equal to the value of such article with one or more sureties as the Food Inspector deems fit and the vendor shall execute the bond accordingly.
6. Where any article of food seized under sub-section (4) is of a perishable nature and the Designated Officer is satisfied that such article of food is so deteriorated that it is unfit for human consumption, the said Designated Officer may, after giving notice in writing to the vendor, cause the same to be destroyed.
7. The Food Inspectors shall, in exercising the powers of entry upon, and inspection of any place under this section, follow, as far as may be, the provisions of the Code of Criminal Procedure 1973, relating to the search or inspection of a place by a police officer executing a search warrant issued under that Code.
8. Any adulterant found in the possession of a manufacturer or distributor of, or dealer in, any article of food or in any of the premises occupied by him as such and for the possession of which he is unable to account to the satisfaction of the Food Inspector and any books of account or other documents found in his possession or control and which would be useful for, or relevant to, any investigation or proceeding under this Act, may be seized by the Food Inspector and a sample of such adulterant submitted for analysis to a Food analyst.

9. Where the Food Inspector takes any action under clause (a) of sub-section (1), sub-section (2), sub-section (4) or sub-section (7), he shall, call one or more persons to be present at the time when such action is taken and take his or their signatures.
10. Where any books of account or other documents are seized under sub-section (6), the Food Inspector shall, within a period not exceeding thirty days from the date of seizure, return the same to the person from whom they were seized after copies thereof or extracts there from as certified by that person in such manner as may be prescribed have been taken: Provided that where such person refuses to so certify and a prosecution has been instituted against him under this Act, such books of account or other documents shall be returned to him only after copies thereof and extracts there from as certified by the court have been taken.
11. When any adulterant is seized under sub-section (7), the burden of proving that such adulterant is not meant for purposes of adulteration shall be on the person from whose possession such adulterant was seized.
12. The State Commissioner of Food Safety may from time to time issue guidelines with regard to exercise of powers of the Food Inspectors, which shall be binding.
13. Any Food Inspector exercising powers under this Act or under the rules and regulations made there-under whom
 - (a) Veraciously and without any reasonable grounds of suspicion seizes any article of food or adulterant; or
 - (b) Commits any other act to the injury of any person without having reason to believe that such act is necessary for the execution of his duty;

Shall be guilty of an offence under this Act and shall be punishable for such offence with fine which may extend to twenty five thousand rupees.

Public Analyst

The Central or State Government may, by the notification of the official gazette, may appoint such persons as it thinks fit, having the prescribed qualifications to be public analyst for such local areas as may be assigned to them:

PROVIDED that no person who has any financial interest in the manufacture, import or sale of any article or food shall be appointed to be a public analyst under this section:

PROVIDED further that different public analysts may be appointed for different articles of food.

Report of Public Analyst:

- (1) The public analyst shall deliver a report in the prescribed form to Local (Health) Authority, the result of analysis of any article of food submitted to him.
- (2) On the receipt of report, if analysis report suggests that the food is adulterated, the Local (Health) Authority shall prosecute the concerned persons within ten days from the date of receipt of the copy of the report.

- (3) The certificate issued by the Director of Central Food Laboratory shall supersede the report given by the public analyst in case of any discrepancy.
- (4) Any document purporting to be report signed by a public analyst can be used as a evidence of facts in the court of law unless superseded by the Director of Central Food Laboratory.

Lecture-12

12. *Powers of Court (Section 14 to 25 of PFA Act, 1954)*

Powers of Court

Notwithstanding anything contained in the Code of Criminal Procedure, 1973 (2 if 1974), all offences shall be tried summary way by a Judicial magistrate of the first class specially empowered in this behalf by the State Government or by a Metropolitan Magistrate and the provisions of sections 262 to 265 of said code shall, as far as may be, apply to such trial:

Provided that in case of any conviction in a summary trial under this section, it shall be lawful for the magistrate to pass a sentence of imprisonment for a term not exceeding one year:

Provided further that when at the commencement of, or in the course of, a summary trial under this section it appears to the magistrate that the nature of the case is such that a sentence of imprisonment for a term exceeding one year may have to be passed or that it is, for any other reason, undesirable to try the case summarily, the magistrate shall after hearing the parties, record an order to that effect and thereafter recall any witness who may have been examined and proceed to hear or rehear the case in the manner provided by the said Code.

Lecture-13

13. *Consumer Protection Act, 1986 and Consumer Protection Rules, 1987. - Need, Scope, Functions and Enforcement*

Consumer Protection Act, 1986

- This Act may be called as the Consumer Protection Act, 1986.
- It extends to the whole of India except the state of Jammu and Kashmir.
- It shall come into force on such date as the Central Government may, by notification, appoint and different dates may be appointed for different states and for different provisions in this Act.
- Save as otherwise expressly provided by the Central Government notification, this Act shall apply to all goods and services.

Objects of the Central Protection Council: It shall be to promote and protect the rights of the consumers such as –

- (a) The right to be protected against marketing of goods and services which are hazardous to life and property
- (b) The right to be informed about the quality, quantity, potency, purity, standard and price of goods or services to protect the consumer against unfair trade practices
- (c) The right to be assured, wherever possible, to access to a variety of goods and services at competitive prices
- (d) The right to be heard and to be assured that the consumer's interests will receive due consideration at appropriate forums
- (e) The right to seek redressal against unfair trade practices or restrictive trade practices or unscrupulous exploitation of consumers and
- (f) The right to consumer education.

Objects of the State Protection Council: It shall be to promote and protect within the State the rights of consumers laid down in the objects of the Central Protection Council.

- (a) The State Government shall establish for every district, by notification, a council to be known as the District Consumer Protection Council.
- (b) The District Consumer Protection Council shall consist of the Collector of the district called as the chairman, other official and non-official members representing the interests prescribed by the State Government.
- (c) The District Council shall meet as and when necessary but not less than two meetings every year.

Powers to remove difficulties:

- (1) If any difficulty arises in giving effect to the provisions of the Act, the central government makes such provisions not inconsistent with the provisions in the Act, to be necessary or expedient for removing the difficulty:

Provided that no such order shall be made after the expiry of a period of two years from the commencement of the Act.

- (2) Every order made under this section shall, as soon as may be after it is made be laid before the Parliament.
- (3) If any difficulty arises in giving effect to provisions of the consumer protection (amendment) act, 2002, the central government may, by order, do anything not inconsistent with such provisions for the purpose of removing the difficulty.

Lecture-14

14. *Environment (Protection) Act, 1986. - Need, Scope, Functions and Enforcement*

The Environment (Protection) Act 1986

- An Act to provide for the protection and improvement of environment and for matters connected with it.
- This act is regulated by the ministry of environment and forests, Department of Environment and forests and wildlife, Government of India. Under this act it is mandatory for every food manufacturer to discharge plant waste in to main stream to obtain a No Objection Certificate (NOC) from respective state pollution control board.
- The objective is to protection and improvement of environment and the prevention of hazards to human beings, other living creatures, plants and property.
- Environment includes water, air, and land and the inter relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro-organisms and property.
- Environmental pollution means any solid, liquid or gaseous substance present in such concentration as may be or tend to be injurious to environment. Handling means the manufacture, processing, treatment, package, storage, transportation, use, collection, distribution, conversion, offering for sale, transfer.
- Hazardous substance means any substance or preparation which by reason of its chemical or physio-chemical properties or handling is liable to cause harm to human beings, other living creatures, plants, micro-organisms, property or the environment.
- Occupier in relation to any factory or premises means a person who has control over the affairs of the factory or the premises and includes in relation to any substance the person in possession of the substance. Prescribed means prescribed by the rules made under the Act.

RULES TO REGULATE ENVIRONMENTAL POLLUTION:

- (1) The Central Government may, by notification in the Official Gazette, make rules in respect of all or any of the matters.
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:
 - (a) the standards of quality of air, water or soil for various areas and purposes;
 - (b) the maximum allowable limits of concentration of various environmental pollutants (including noise) for different areas;
 - (c) the procedures and safeguards for the handling of hazardous substances;
 - (d) the prohibition and restrictions on the handling of hazardous substances in different areas;
 - (e) the prohibition and restriction on the location of industries and the carrying on process and operations in different areas;

- (f) the procedures and safeguards for the prevention of accidents which may cause environmental pollution and for providing for remedial measures for such accidents.

Lecture-15

15. The Insecticides Act, 1968. - Need, Scope, Functions and Enforcement

The Insecticide Act, 1968

- This act is regulated and governed by directorate of plant protection, quarantine and storage under the ministry of agriculture.
- The Act envisages safe use of insecticides so as to ensure that the leftover chemical residues do not pose any health hazard.

Powers of Insecticide Inspector: An insecticide inspector shall the power to -

- enter and search, at all reasonable times and with such assistance, if any, as he considers necessary, any premises in which he has reason to believe that an offence under this Act or the rules made there under has been or is being or is about to be committed, or for the purpose of satisfying himself that the provisions of this Act or the rules made there under or the conditions of any certificate of registration or license issued there under are being complied with;
- to require the production of, and to inspect, examine and make copies of, or take extracts from, registers, records or other documents kept by a manufacturer, distributor, carrier, dealer or any other person in pursuance of the provisions of this Act or the rules made there under and seize the same, if he has reason to believe that all or any of them may furnish evidence of the commission of an offence punishable under this Act or the rules made there under;
- to make such examination and inquiry as he thinks fit in order to ascertain whether the provisions of this Act or the rules made there under are being complied with and for the purpose stop any vehicle;
- to stop the distribution, sale or use of an insecticide which he has reason to believe is being distributed, sold or used in contravention of the provisions of this Act or the rules made there under, for a specified period not exceeding twenty days, or unless the alleged contravention is such that the defect may be removed by the possessor of the insecticide, seize the stock of such insecticide;
- to take samples of any insecticide and send such samples for analysis to the Insecticide Analyst for test in the prescribed manner; and
- to exercise such other powers as may necessary for carrying out the purposes of this Act or the rules made there under.

The provisions of the Code of Criminal Procedure, 1973 (2 of 1974), shall, as far as may be, apply to any search or seizure under this Act as they apply to any search or seizure made under the authority of a warrant issued under section 94 of the said code. An Insecticide Inspector may exercise the powers of a police officer under [section 42 of

the code of Criminal Procedure, 1973 (2 of 1974)], for the purpose of ascertaining the true name and residence of the person from

Lecture-16

16. *The Export (Quality Control and Inspection) Act, 1963. - Need, Scope, Functions and Enforcement*

Export (Quality Control and Inspection) Act, 1963

- The Export (Quality Control and Inspection) Act, 1963 was amended in 1984.
- This act provides sound development of export trade in India through quality control and inspection as well as for matters connected therewith.
- The powers vested with the Export Council are –
 - (a) To recognize or establish marks to denote conformity with standard specifications
 - (b) To obtain information from exporters
 - (c) To enter, inspect, search, and seize commodities and conveyances
 - (d) Confiscation of conveyance
 - (e) Confiscation or penalty not to interfere with other punishment
- The council has been constituted to check the quality of a number of materials meant for export. The council has powers to reject any food which does not measure up to the standards prescribed for the food. Canned food such as mango juice, pineapple juice, frozen food like shrimp are subjected to scrutiny by this body before export.
- The Act was framed by the Dept of Commerce, Government of India to promote and regulate the export trade through export inspection council (EIC), Export inspection Agency (EIA), and Agricultural and Processed Food Products Export Development Authority (APEDA). Under this act, exportable commodities have to be notified for compulsory pre-shipment inspection, but in some circumstances it is exempted from pre-shipment inspection.
- The Export inspection council is responsible for the operation of this Act, a large number of exportable commodities have been notified for compulsory pre-shipment inspection. The quality control and inspection of various export products is administered through a network of more than 50 offices located around major production centers and ports of shipment.
- In addition, organizations may be recognized as agencies for inspection and / or quality control. Recently the government has exempted agriculture and food products, fruit products and fish and fishery products from compulsory pre-shipment inspection; provided that the exporter has a firm letter from the overseas buyer stating that the overseas buyer does not require pre-shipment inspection from official Indian inspection agencies.

Lecture-17

17. Fruit Products Order, 1955 (FPO). - Need, Scope, Functions and Enforcement

Fruit Product Order

- The Government of India promulgated a fruit products order in 1946. In 1955 the order was revised under the essential commodities act. This order is operated by the Food and nutrition board of the ministry of Food Processing industries.
- The Fruit Product Order (FPO) lays down statutory minimum standards in respect of the quality of various fruits and vegetable products and processing facilities at manufacture, storage and sale. The PFA and FPO are enforced by the Department of Health.
- The Agricultural marketing Advisor is authorized by law to issue a license for manufacturing fruits and vegetable products, after due inspection of the factory for hygiene, sanitation and quality of formulation.
- Periodic inspection by Government inspectors in registered establishments is carried out to ensure conformity of standards by processors.
- Packaging fruits and vegetables of a standard below the minimum prescribed standards is an offence punishable by law.
- Manufacture of labeling of fruit and vegetable products can be carried out only after a valid license is issued by the licensing officer after himself satisfying with regard to the quality of product, sanitation, personnel, machinery and equipment, work area as required in the order.
- Licensor is empowered to put the FPO specification mark on the product.
- The labels on the final product are required by law to display the FPO license number. Fruit and vegetable products, not conforming to the FPO specifications are considered adulterated.
- The FPO specifications cover list of constituents, a method of presentation permissible colors in the preparation and also minimum quality requirement of the product. An expert committee known as the Central Food Product Advisory Committee deals with all matters relating to the FPO.
- The main objective of the PFA and FPO standard is to determine the minimum level of quality that can be attained, under the farming, manufacturing and retailing conditions in India.
- When qualities above the minimum are attained they are identified by other standards set up by the Government, through the Directorate of Marketing Inspection. These cover definitions of quality for various agricultural products such as cereals, oils, butter, ghee, legumes etc.
- Depending on their quality the products are grade in four categories as ordinary, fair, good and special (4-1).

The order lays down specifications and quality control requirements on production and marketing of the following food products.

- Fruit juice, pulp concentrate, squashes, cordials, crush, fruit syrups, nectar, aerated water containing fruit juice or pulp and read to serve beverages
- Fruit nectar, canned mango pulp (natural and sweetened), and sweetened aerated beverages with no fruit juice or pulp or containing less than 10% fruit juice or pulp
- Sweetened aerated water with 10% or more fruit juice or pulp
- Barley waters (lemon, orange, grape fruits)
- Synthetic syrups, ginger cocktails, ginger beer, ginger ale and sharbats
- Bottled and canned fruits and vegetables
- Jams and fruit cheese
- Fruit jellies and marmalades
- Candied and crystallized or 'glazed fruit and peel'
- Preserves
- Fruit chutneys
- Tomato juices and soups
- Vegetable soups
- Tomato puree and paste
- Tomato ketchup and sauce
- Sauces other than soya bean sauce and tomato sauce
- Soya bean sauce
- Tamarind concentrate
- Brewed and synthetic vinegar
- Pickles in vinegar
- Pickles in citric juice or in brine
- Oil pickles
- Sun dried and dehydrated fruits
- Mango cereal flakes
- Sun dried and dehydrated vegetables

- Dehydrated onions

Other than these specifications, the order also lays down specific requirements in regard to the following:

- Containers and labeling requirement
- Limits of poisonous metals in fruit products
- List of permissible harmless food colors
- Limits for permitted preservatives in fruit products
- Other permitted additives

Lecture-18

18. *Milk and Milk Product Order, 1992 (MMPO).- Need, Scope, Functions & Enforcement*

Milk and Milk Products Order, 1992

- The Milk and milk products order (MMPO) 1992 is exercised under the essential commodities Act and is regulated by the ministry of Agriculture through the department of Animal husbandry and Dairying and fisheries.
- According to this order, it is essential for a dairy plant to process more than 10,000 liters of milk per day or handle more than 500 tones of milk solids per annum.
- The production, collection, transportation, distribution and supply of milk and milk products are controlled by the Milk and Milk Products Order, 1992.
- The order sets sanitary requirements for dairies, machinery and premises and includes quality control, certification, packing, marking and labeling standards for milk and milk products. The standards specified in the order also apply to imported products.
- Every person the business of handling, processing or manufacturing milk or milk products should provide proper labeling based on the certification by a certified officer.
- The label on the package of milk or milk products should contain –
 - (a) The name, trade name or description of the article contained in the package
 - (b) The name and business address the holder of registration certificate and number
 - (c) The net weight or number or volume of contents as may be the case
 - (d) The batch or code number, except in case of package less than 60g or 60ml.
 - (e) The day, month and year of manufacture of the packing milk and month and year of manufacture for packing of milk products
 - (f) The date of manufacture for packages containing sterilized milk and infant milk food

- A holder of registration shall not pack milk or milk products other than those processed or manufactured by him or, those obtained from any other person holding registration certificate.

General conditions of sanitary and hygiene for Dairy Establishments: Every dairy establishment have the following:

- Facilities for hygienic handling and protection of non-packed raw material
- Appropriate protection from pests, rodents, insects and other vermin. They shall be systematically destroyed continuously
- Instruments and working equipment intended to come in direct contact with raw material will be made water tight and non-corrosive as they are intended for human consumption
- Appropriate facilities for cleaning and disinfecting of equipment and instruments especially cleaning in place (CIP) system
- An adequate waste disposal system which is hygienic and approved by the Pollution Control Board
- Supply of potable water or non-portable water is permitted if does not indirectly risk contamination of the dairy products
- Appropriate number of changing rooms with smooth, waterproof, washable walls and floor
- Lockable room or secure place for storage of detergents, disinfectants and similar substances
- Room with adequate capacity for storing raw materials and dairy products.
- Working area should be maintained hygienically
- The production of heat treated milk or manufacture of milk based products, which might pose a risk of contamination to other dairy products shall be carried out in a clearly separate working area
- Adequate ventilation and lighting in accordance with Factory Act, 1948.
- Adequate number of facilities with hot and cold running water
- Facilities for cleaning tools, equipment and installations
- Products which have not undergone same treatment shall be placed together to avoid cross contamination.

Lecture-19

19. *The Plants, Fruits and Seeds (Regulation of Imports in India) Order, 1989. - Need, Scope, Functions and Enforcement*

Plant Food and Seed (Regulation of import into India) order, 1989

- The Plant Food and Seed (Regulation of import into India) order came to affect on 27th October 1989 and was amended in 1992.
- Plant food and seed (PFS) order issued and amended by the Department of Agriculture and Cooperation, Ministry of Agriculture.
- Amendment in PFS Order, 1992 banned import of plants and plant materials even for consumption purpose unless accompanied by an import permit and official phytosanitary certificate issued by the Agriculture Ministry.
- “Nursery” means an orchard or any other place, facility, glass house, screen house utilized for raising plants.
- “Plant” means any plant or part thereof, whether living or dead, trees, shrubs, nursery stock and includes all vegetatively propagated materials
- “Pest” means any fruit or plant or animal life or any pathogenic agent, injurious or potentially injurious to plants and to plant products and includes any insect, mite, nematode, snail, bacterium, fungus, virus, viroid, mycoplasma like organism (MLO), phanerogam or weed
- All consignment so fruits, plants and seeds shall be imported into India with a valid permit issued to be transported by land, sea or air
- For obtaining a permit, samples should be sent in triplicates atleast one month in advance to competent authority
- It is the responsibility of importer to follow the concerned precautions like quarantine or fumigation or disinfestations
- Consignments for importing should be packed in correct packing materials as directed and not in hay or straw or materials of plant origin.
- No consignment shall be imported unless accompanied by official Phytosanitary certificate issued by the authorized officer of the country of origin of the consignment

Lecture-20

20. *Edible Oils Packaging (Regulation) Order, 1998. - Need, Scope, Functions & Enforcement*

The Edible Oils Packing (Regulation) Order, 1998

- The order came into force on 17th September 1998 and is regulated by the Department of Sugar and Edible oil under Ministry of Food and Consumer affairs.
- “Edible oil” means vegetable oils and fats but does not include any margarine, vanaspati, bakery shortening and fat spread as specified in PFA and rules made there under, for human consumption

Terms and Conditions of Certificate of Registration:

1. The business premises where the edible oils are stored or packed for sale, shall be maintained in proper hygienic condition
2. No registered packer shall employ any person who is suffering from infectious or contagious diseases which is likely to affect packing in hygienic conditions
3. Every registered packer shall maintain a register showing the quantity receive, packed for sale, and sold, in the form as specified by the State Government
4. The registered packer shall pack and sell edible oils, which shall be free from any adulterant and labelled
5. No article, which is not intended for human consumption shall be stored or sold in the same premises where such edible oils are stored or packed

Vegetable Oils Products (Regulation Order) 1998:

- It controls the manufacture, trade and distribution of vegetable oil including the quality. This order supersedes the vegetable oil order (control), 1947 and vegetable oil products (standards of quality order, 1975). BIS certification for the tin plates used for vanaspati packing is deleted. This order specifies the standards desired for edible oils and hydrogenated fats to be marketed.
- **Solvent extracted oils, De-oiled meal and edible flour control order 1967:** It applies for oils and fats and deals with the licensing manufacture distribution and trade of solvent extracted edible oils and quality and operated by Directorate of vanaspati, vegetable oil and fats.
- This order provides for compulsory licensing of manufacturing units. The specifications of the edible oils produced by solvent extraction method have been laid down under the said order. The packing and labeling of such oils are also laid down under SEO order.
- **Edible Oil Packaging (Development and regulation) Order, 1998:** This order is regulated by the Department of sugar and edible oil under ministry of food and consumer affairs.

Lecture-21

21. Meat Food Products Order, 1973 (MFPO).- Need, Scope, Functions & Enforcement

Meat Food Products Order

Regulation for the production of meat products are covered by the Meat Food Products Order, 1973.

The Directorate of Marketing and Inspection at the ministry of Agriculture is the regulatory for the order, which is equally applicable to domestic processors and importers of meat products. The order -

1. Species sanitation and hygiene requirements for slaughter houses and manufacture of meat products.
2. It also contains packing, marking and labeling provisions for containers of meat products.
3. Defines the permissible quantity of heavy metals, preservatives and insecticide residues in meat products.

Ministry of Food processing industries administers Meat Food Products order (MFPO), 1973 which ensure quality and hygienic production of meat food products including fish products

Meat food products are regulated through licensing under MFPO, 1973. Provision of MFPO requires on four stages of inspection by qualified veterinary doctors for hygienic production of meat products

- Ante-mortem inspection of animals before slaughter
- post-mortem inspection of animals after slaughter
- in-process physical inspection of meat, sanitary and hygienic processing in licensed unit
- sampling and analysis of meat products in meat testing laboratories for various parameters

Consumer needs to know that processed meat food products may contain safe and permitted preservatives and additives as indicate in the label. He needs to check 'ingredients', 'expiry' and 'best before' date and insist on cash memo while purchasing. Consumer needs to understand that if the meat food product is contaminated, adulterated or sub- adulterated, legal remedies are available for penalizing the offenders. It is illegal to transport meat unless it has been prepared and processed according to the provisions of the order and carries the mark of inspection.

It provides means to:

- Detect and destroy meat of diseased animals
- Ensure that the preparation and handling of meat and meat products be conducted in a clean and sanitary manner

- Prevent the use of harmful substances in meat foods
- See that every cut of meat is inspected before sale to ensure its wholesomeness

The order also lays down rules and conditions for procedure to be adopted for the selection of disease-free animal, slaughter house practices for further treatment of the meat so as to maintain the meat in a wholesome manner and devoid of pathogens.

Lecture-22

22. *Standards of Weights and Measures Act, 1976. - Need, Scope, Functions & Enforcement*

The Standards of Weights and Measures Act, 1976

- The Standards of Weights and Measures, 1956 was first enactment by which the uniform standards of weights and measures, based on the metric system were established.
- Based on the suggestions of General Conference of Weights and Measures (CGPM) International organisation of Legal Metrology (OIML), the 1956 act was replaced by a comprehensive legislation, The Standards of Weights and Measures, 1976
- The Act is a result of Governmental efforts to introduce standards for weighing and measuring commodities to protect consumer interest.
- The Standards of Weights and Measures are administered by the ministry of Consumer affairs, Food and Public Distribution
- All weights or measures must be recorded in metric units and certain commodities can only be packed in specified quantities (weight, measure or number). These include baby and weaning food, biscuits, bread, butter, coffee, tea, vegetable oils, milk powder, wheat and rice flour.

Salient features of this Act are as follows:

- Establishment of weights and measures based on SI units, as adopted by the CGPM and recognized by OIML
- Provide to prescribe specification of measuring instruments used in commercial transaction, industrial production a measurement involved in public health and human safety.
- Regulation of the inter-state trade and commerce in weights and measures and commodities sold, distributed or supplied by weights and measures
- Regulation of pre-packed commodities sold or intended to be sold in the course of inter-state and commerce
- Approval (before manufacture) of models of weights and measuring instruments intended to be manufactured after, the commencement of proposed legislation

- Control and regulation of export and import of weights and measures and commodities in packed form
- Establishment of an Indian Institute of Legal Metrology to provide training in legal metrology to inspectors and others
- Surveys and collection of statistics for facilitating planning and enforcement of proposed legislation
- Inspection of weighing and measuring instruments during their use to prevent fraudulent practices
- Powers of inspectors to search , seize and forfeiture of non-standard weight or measure
- Power to file case in the court of prosecution
- Power to compound certain cases before or after the institution of the prosecution cases
- Appeal provisions
- Prescribed fee for various services rendered
- Power to make rules for implementing the provisions of this Act

Standards Weights and Measures (Packaged commodities) Rules, 1977: When commodities are sold or distributed in packaged form in the course of inter-state trade or commerce, it is essential that every package must have a –

- Plain and conspicuous declaration thereon showing the identity of the commodity on the package
- The net quantity in terms of standard units of weights and measures and if in No.s the accurate number therein
- The unit sale price of the commodity and the sale price of that particular package of that commodity
- The names of manufacturer, and also of the packer and distributor should also be mentioned on the package
- In this regard the packaged commodities rules were framed in 1977 extended to the whole of India.

The rules do not apply to:

- (a) Packages for exclusive use of any industry as raw material or for the purpose of servicing any industry
- (b) Commodities (excluding drugs and medicine) whose net weight is 20g or less or 20ml or less, if sold by weight or measure
- (c) Any package containing fast food items packed by restaurant / hotel and the like

- (d) Drugs covered under the Drugs (price control) order 1995
- (e) Agricultural farm products in packages of above 50 kg
- (f) Central government may, on an application being made may permit any manufacturer / packer from these rules in case of introductory / innovation / trail packs

Lecture-23

23. The Essential Commodities Act, 1955. - Need, Scope, Functions & Enforcement

Essential Commodities Act, 1955

The main objective of this act is to supply of essential commodities to the public by proper regulation, prevention of black marketing and making it available to the public at reasonable price. This act has been amended upto 24.12.1986 and is under the Legislative Department, Ministry of Law, Justice and Company Affairs.

The essential commodities mean any of the following classes of commodities:

- Cattle fodder including oil cakes and other concentrates
- Coal including coke and other derivatives
- Component parts and accessories of automobiles
- Cotton and woolen textiles
- drugs
- Food stuffs including edible oilseeds and oils
- Iron and steel including manufactured products of iron and steel
- Paper including newsprint, paper board and straw board
- Petroleum and petroleum products
- Raw cotton whether ginned or un-ginned and cotton seed
- Raw jute
- Any other class of commodity which the Central Government by notified order declares to be essential commodity.

Salient features of this Act are as follows:

- (1) In its endeavor to ensure availability of essential commodities to the consumers and to protect them from exploitation by unscrupulous traders, the Government of India has armed itself with the Essential Commodities Act, 1955 and the Prevention of Black marketing and Maintenance of Supplies of Essential Commodities Act, 1980 (PBM Act,1980)

- (2) The Essential Commodities Act, 1955 provides for the regulation and control of production, distribution and pricing of commodities which are declared as essential for maintaining or increasing supplies or for securing their equitable distribution and availability at fair prices. The enforcement/ implementation of the provisions of the Essential Commodities Act, 1955 lies with the State Governments and UT Administrations.
- (3) The list of essential commodities has been reviewed from time to time with reference to the production and supply of these commodities and in the light of economic liberalization in consultation with the concerned Ministries / Departments administering these commodities. The number of essential commodities has been brought down to 7 at present through such periodic reviews. The Central Government have also been empowered to add, remove and modify any essential commodity in the public interest in consultation with the State Governments. However, addition / modification of any essential commodity will depend on when there is a scarcity or non-availability of the commodity in a situation like war, natural calamities, disruption or threat of disruption of supply of such essential commodities, which cannot be tackled through normal trade channels requiring Central Government's intervention under the said Act.
- (4) To enable the State Governments/UT Administrations to continue to take effective action for undertaking de-hoarding operations under the Essential Commodities Act, 1955, it was also decided with the approval of the competent authority to impose restrictions by keeping i respect of edible oils, edible oilseeds, rice, paddy and sugar. These Orders have been extended from time to time.
- (5) The Prevention of Black marketing and Maintenance of Supplies of Essential Commodities Act, 1980 is being implemented by the State Governments/UT Administrations for the prevention of unethical trade practices like hoarding and black-marketing etc. The Act empowers the Central and State Governments to detain persons whose activities are found to be prejudicial to the maintenance of supplies of commodities essential to the community. Detentions are made by the States/UTs in selective cases to prevent hoarding and black-marketing of the essential commodities. Under the provisions of this Act, the State Governments are required to report the facts together with the grounds of detention and other particulars relating to it, to the Central Government within seven days of approval of the State Government

Lecture-24

24. *Optional food standards. Their scope, Need - Procedure to obtain that standard (ISO 9000, 14000 etc.)*

ISO 9000 Quality Management System

- It is looked at as a system with minimum quality requirements.
- A quality system is a mechanism by which a company can organize and manage its resources to achieve, sustain and improve quality economically.

Benefits of ISO 9000 quality system:

- It enables the user to identify and plan tasks and their method of performance.
- It provides the means of identifying and resolving problems and preventing their re-occurrence, thereby improving conformance.
- It cuts down the poor quality cost.
- It generates objective evidence to demonstrate the quality of products and the effectiveness of the systems and thus builds up confidence among customers.
- This standard demands training for all personnel performing activities effecting quality and hence improved performance.
- Reduces fire-fighting operations and better job satisfaction.
- Registration to ISO 9000 is a necessary prerequisite in different countries.
- It is not a product standard and hence can be used for any type of industry and for companies employing very few persons as well as whose work force runs in to thousands.
- Marketing advantages, recognition and publicity.
- Reduces liability risks.

Essential steps to ISO 9000:

- Acceptance by top management of quality as a vital element in the business
- Consultation with the workers' representatives to explain the concept and benefits of ISO 9000.
- Training task force members in the various aspects of ISO 9000 and the methodology for its implementation
- Writing down work instructions, procedures, and manuals complying with the various clauses of the standard
- Preparing a quality manual setting out the company's policy and ensuring that these are better understood by all employees.

- Training staff and work men in the methods and procedures.
- Implementing the document system and subjecting to a trial for few months.
- Conducting internal audits to assess its compliance with the ISO 9000 standard and taking corrective action.
- Arranging a preliminary audit by an external audit team.
- Arranging formal assessment by an accredited certification or registration body.

ISO 14000 Quality Management Systems

ISO 14000 is designed to provide a structure for the management of environmental compliance. The ISO 14000 series comprises numerous individual generic standards, which may be broadly classified according to the following six categories: Environmental Management Systems (EMSs), Auditing, Labeling, Performance Evaluations, Life Cycle Assessment, and Environmental Aspects of Product Standards.

The most familiar standard in the 14000 series is ISO 14001, entitled "Environmental Management Systems, Specification with Guidance for Use." Before being published in its final form, 14001 was widely distributed and closely studied as a draft international standard. Organizations will be able to register only to this one standard; all other standards in the series are guidelines to help companies set up, audit, and improve their environmental management systems.

Like ISO 9000, ISO 14000 is neither industry- nor product-specific. The anticipated benefits of registration to this new international standard include:

- Worldwide focus on environmental management.
- Promotion of a voluntary consensus standards approach.
- Harmonization of national rules, labels, and methods through minimization of trade barriers and complications and promotion of predictability and consistency.
- Demonstrated commitment to maintaining and moving beyond regulatory environmental-performance compliance.

By implementing ISO 14000, any company can become truly competitive by:

- Decreasing costs through increased efficiencies.
- Creating and maintaining new market opportunities in areas such as Europe, which may eventually make registration to the standards a necessary condition of doing business within their jurisdiction.
- Demonstrating environmental leadership.
- Improving both its own corporate image and community goodwill.
- Enhancing credibility through registration by an independent third party accredited by the appropriate national body, such as the RAB in the United States, or the Japanese Accreditation Board.
- Streamlining/simplifying its EMS.

Preparing for ISO 14000: Many are conducting gap analyses - that is, evaluating their existing EMSs in relation to the requirements of the current ISO 14001 draft international standard. This enables them to develop road maps for achieving registration by effectively integrating ISO 14001 into their present environmental, quality, and corporate management systems. Of the companies that have already performed gap analyses, roughly 41% feel that their existing EMS is either close or very close to meeting the ISO 14001 standard, according to a survey carried out by ML Strategies Inc.

A number of companies in almost every industry are adopting a wait-and-see attitude, holding off on seeking registration until such time as industry conditions demand it. As a result, the first of these companies to register will be those whose customers insist on it. But while these organizations delay taking action, many others will gain competitive advantage and get a jump on the future by registering before their customers require it.

Benefits of ISO 14000: The ISO 14000 standards are practical tools for organizations who are not satisfied with mere compliance with legislation – which may be perceived as a cost of doing business. They are useful tools for proactive organizations who understand that implementing a strategic approach can bring return on investment in environment-related measures.

The systematic ISO 14001:2004 approach requires the organization to take a hard look at all areas where its activities have an environmental impact. A properly designed ISO 14001:2004 Environmental Management System (EMS) allows efficient identification of opportunities for cost savings. It can trigger procedural and/or technological changes that reduce the total cost of a product or improve its value.

Some of the benefits of implementing an ISO 14000 Environmental Management System (EMS) in accordance with the ISO 14000 standards include:

1. Operational Benefits

- Efficiency, discipline and operational integration with ISO 9000
- Greater employee involvement in business operations with a more motivated workforce
- Easier to obtain operational permits and authorizations
- Assists in developing and transferring technology within the company
- Helps reduce pollution
- Fewer operating costs
- Savings from safer workplace conditions
- Reduction of costs associated with emissions, discharges, waste handling, transport and disposal
- Improvements in the product as a result of process changes

2. Environmental Benefits

- Minimizes hazardous and non-hazardous waste
- Conserves natural resources - electricity, gas, space and water with resultant cost savings

- Prevents pollution and reduces wastage

3. Marketing Benefits

- Demonstrates to customers that the firm has met environmental expectations
- Meets potential national and international government purchasing requirements
- Delivers profits from marketing "green" products
- Provides a competitive marketing tool
- Improves international competitiveness

4. Financial Benefits

- Improves the organization's relationship with insurance companies
- Elimination of costs associated with conformance to conflicting national standards
- Process cost savings by reduction of material and energy input Safer products
- Satisfying investor / shareholder criteria
- Helps reduce liability and risk
- Improved access to capital

Hazard Analysis and Critical Control Point (HACCP)

- Hazard analysis and critical control point (HACCP) system has been recognized by the codex Alimentarius Commission as a tool to ensure the safety of food.
- HACCP is a scientifically based protocol that is applied directly to the food procurement, production and distribution process.
- HACCP / ISO 22000 food safety management system is a scientific, rational and systematic approach to identify, assess and control hazards during production, processing, manufacturing and use of food.
- HACCP is a preventive system used by the food industry to ensure food safety, pharmaceutical safety etc., which addresses physical, chemical and biological hazards as a means of prevention rather than finished product inspection.
- HACCP includes steps designed to prevent problems before they occur and to correct deviations through a systematic way as soon as they are detected.
- HACCP system controls hazardous elements in the food system such as contaminants, pathogenic microorganisms, physical objects (glass, metal and bone), chemicals (toxins, heavy metals and pesticide residues), raw materials, processing conditions, use directions for the consumer or storage condition. So HACCP consists of plan and system.
- HACCP plan is a written document that is based on the principles of HACCP and that delineates procedure to be followed.

- HACCP presents a good opportunity for the food industry for upgrading quality and bringing uniformity and consistency in their supplies to international market.

The standard approach to HACCP is that specified by the codex Alimentarius, 1997, and follows seven basic principles:

1. Conduct a hazard analysis
2. Determine the critical control points
3. Establishment of specifications for critical limits
4. Development of monitoring and testing system to control critical point.
5. Establishment of corrective actions when monitoring indicates that a particular CCP is not under control
6. Establish record keeping procedures for verification to confirm that the HACCP system is under control
7. Verification of HACCP system to confirm efficacy.

Benefits of implementing HACCP/ ISO 22000:

1. A preventive approach to food safety
2. Can help and identify process improvements and reduced customer complaints
3. Reduces the need for and the cost of end product testing
4. Is complementary to quality management system such as ISO 9000
5. Enhances customer satisfaction/ reduces dissatisfaction
6. Facilitates better understanding of food packaging safety issues throughout the organization
7. Improves the organizations image
8. Requires regular testing of data.
9. Improves internal and external communications

Lecture-25

25. AGMARK

Directorate of Marketing Inspection (DMI): The DMI enforces the Agricultural Products (grading and marketing) Act, 1937. Under this Act, Grade Standards are prescribed for agricultural and allied products. These are known as Agmark standards. Grading under the provisions of this Act is voluntary. Manufacturers who comply with standard laid down by DMI are allowed to use Agmark labels on their products.

AGMARK

The word Agmark is derived from Agricultural Marketing. The Agmark standard was set up by the DMI of 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, color, 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.

Salient features of Agmark standard:

- (1) Quality standards for Agricultural commodities are framed based on their intrinsic quality.
- (2) Food safety factors are being incorporated in the standards to compete in world trade.
- (3) Standards are being harmonized with international standards keeping in view the WTO requirements.
- (4) Check is kept on the quality of certified products through 23 laboratories and 43 offices spread all over the country

The grades incorporated are grades 1, 2, 3 and 4 or special, good, fair and ordinary.

Before affixing the AGMARK label there are 4 stages:

- (1) Preliminary testing
- (2) From the product, inspecting officers take representative samples
- (3) Technically qualified and experienced officers test the samples and assign Agmark quality grades.
- (4) After wards the commodity is packed using Agmark label or Agmark replica on pouches/ containers.

Even after sending the distributing markets, Agmark products are subjected to continuous inspection. The certificate of "Authorization" is granted only to those in the trade having adequate experience and standing in the market. The staff of the DMI or of the state Government is generally present at the time of selection of goods, their processing, grading and packing before applying the appropriate AGMARK labels.

Products available under AGMARK are pulses, wheat products, vegetable oils, ground spices, whole spices, milk products, honey, compounded asafetida, 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.

The Directorate of marketing and inspection of central government has 21 laboratories and 50 sub offices spread all over the country. The central AGMARK laboratory at Nagpur continuously carries out research and development works in this field.

Agricultural Produce (Grading and marketing) Act, 1937: This enactment often referred to as AGMARK Act and later amended is now called the APGM Act, 1986. The implementing body for the act is the DMI which is attached to the Department of Rural Development, Ministry of Agriculture.

The salient features of the Act are:

- Consumer protection measures
- Authorized packers
- Laboratory for analysis
- Chemists
- Power to obtain information
- Supply of un-Agmarked goods

The detailed procedures for all these features are listed in the amended act 1986, which were notified in June 1989 replacing the 1937 rules. Information on AGMARK offices and product testing laboratories available through five regional offices at Delhi, Mumbai, Kolkata, Chennai and Guntur.

Lecture-26

26. Bureau of Indian Standards (BIS)

Bureau of Indian Standards

Various committees including representatives from the government, consumers and industry, formulate the Indian Standards Institution (ISI). Safety performance and reliability are assured when the product is ISI marked. ISI is now known as Bureau of Indian standards. Bureau of Indian standards operates a certification mark scheme under the BIS Act, 1986. Standards covering more than 450 different food products have been published.

The organization runs a voluntary certification scheme known as ISI mark for certification of processed food items. Standards are laid for vegetable and fruit product, spices and condiments, animal products and processed foods.

Once these standards are accepted, manufacturers whose products conform to these standards are allowed to use BIS label on each unit of their product. The products are checked for quality by the BIS in their own network of testing laboratories at Delhi, Mumbai, Kolkata, Chennai, Chandigarh and Patna or in a number of public and private laboratories recognized by them.

The certification scheme is basically voluntary in character but some of the items require compulsory BIS certification under PFA. They are food colors, food additives, infant milk food, infant formula, milk and cereal based weaning food, milk powder and condensed milk.

The activities are twofold the formulation of Indian standards in the processed foods sector and the implementation of standards through promotion and through voluntary and third party certification systems.

BIS has on record standards for most of processed foods. In general these standards cover raw materials permitted and their quality parameters, hygienic conditions under which products are manufactured and packing and labeling requirements. Manufacturers complying with standards laid down by the BIS can obtain and "ISI" mark that can be exhibited on product packages.

Salient features / functions of the Bureau:

- Standard formulation
- Certification: Product, quality, management system, Eco mark, environmental management system, hazard analysis and critical control points.
- Laboratory: testing, calibration and management
- Standards: Promotion
- Consumer affairs and
- Awareness and training program.

Lectures-27 & 28

27. *Codex Alimentarius*

28. *Scope of Codex Alimentarius and Codex Standards*

Codex Alimentarius Commission

- Codex Alimentarius Commission was established in 1962. The Codex Alimentarius which means “Food law” or “Food code” in Latin. The Codex Alimentarius Commission develops food standards, guidelines and related texts such as codes of practice under the joint FAO/WHO food standards program. It is also called Codex harmonized international standards due to involvement of both FAO and WHO.
- The dual objectives of the Codex Alimentarius commission are to protect the health of consumers and to facilitate the international trade.
- It brings all together all the interested parties like scientists, technical experts, governments, consumers and industry representatives to help develop standards for food manufacturing and trade.
- These standards, guidelines and recommendations are recognized worldwide for their vital role in protecting the consumers and facilitating international trade.
- The codex contact point in India is the Directorate General of Health Services (DGHS) in the ministry of Health; however the ministry of food processing industries is closely associated with the activities of Codex Alimentarius.

Salient features of Codex Alimentarius:

- Protecting health of the consumers and ensuring fair trade practices
- Promoting coordination of all food standards work undertaken by international governmental and non- governmental organizations
- Determining priorities and initiating and guiding the preparation of draft standards
- Finalizing the standards
- Amending published standards
- Submission of proposal for a standard
- A decision by the commission or the executive committee
- Preparation of a proposed draft standard by subsidiary body
- Adoption of standard by the commission
- Addition of CODEX STANDARD in the Codex Alimentarius.

The Codex secretariat is located at Rome and is financed jointly by the FAO and the WHO. At present there are 170 countries, including India as Codex members and this covers

98 per cent of the world's population. The codex commission meets every two years either in Rome or in Geneva.

Codex can be divided in to three main groups

1. The commodity standards committee work vertically dealing with food products such as processed fruits and vegetables , fats and oil, fresh fruit and vegetables, natural mineral water, cocoa products and chocolates, fish and fishery products, sugar, milk, products, cereal and meat products.
2. The general subject committees work horizontally on standards such veterinary drug residues, food additives and contaminants, pesticide residues, hygiene, labeling, inspection and certification systems, analysis and sampling, nutrition and foods for special dietary uses.
3. The six regional coordinating committees are based in Africa, Asia, Europe, Latin America and Caribbean, North America and South West Pacific and the near East.

Codex decisions are not binding on its members not has any formal legal status, prior to the signing of the General Agreement on Tariff and trade, GATT in December 1994. Foods everywhere will ultimately be influenced by codex in many different dimensions- in safety standards, food additives, pesticide uses, labeling of pre- packed foods, international trade, competition and pricing, be the foods locally grown or imported from the other side of the world.

CODEX ALIMENTARIUS PROCEDURAL MANUAL: Criteria for the establishment of work priorities:

When a Codex Committee proposes to elaborate a standard, code of practice or related text within its terms of reference, it should first consider the priorities established by the Commission in the Medium-Term Plan of Work, any specific relevant strategic project currently being undertaken by the Commission and the prospect of completing the work within a reasonable period of time. It should also assess the proposal against the criteria set out below.

If the proposal falls in an area outside the Committee's terms of reference the proposal should be reported to the Commission in writing together with proposals for such amendments to the Committee's terms of reference as may be required.

Criteria applicable to commodities:

- (a) Consumer protection from the point of view of health and fraudulent practices.
- (b) Volume of production and consumption in individual countries and volume and pattern of trade between countries.
- (c) Diversification of national legislations and apparent resultant or potential impediments to international trade.
- (d) International or regional market potential.
- (e) Amenability of the commodity to standardization.

- (f) Coverage of the main consumer protection and trade issues by existing or proposed general standards.
- (g) Number of commodities which would need separate standards indicating whether raw, semi processed or processed.
- (h) Work already undertaken by other international organizations in this field.

Lectures – 29 to 31

29. *Codex standards for Cereals & Pulses*

30. *Codex standards for Fruits and Vegetables*

31. *Codex standards for Meat and Poultry products*

Codex standards for Cereals and Pulses

Codex Standard for Cereals: Insect or vermin damaged grains – Kernels with obvious weevil-bored holes or which have evidence of boring or tunneling, indicating the presence of insects, insect webbing or insect refuse, or de-germed grains, chewed in one or more than one part of the kernel which exhibit evident traces of an attack by vermin having an abnormal colour. Grains have natural colour modified by bad weather conditions, contact with the ground, heat, and excessive respiration.

These grains may be dull, shriveled, swollen, puffed, or bloated in appearance exhibiting obvious signs of sprouting and frost-damaged grains. Grains which are damaged by frost and may appear bleached or blistered and the seed coat may be peeling. Germs make dead or discolored and broken kernels.

Codex Standard for Pulses: The standard applies to the whole, shelled or split pulses which are intended for direct consumption. The standard does not apply to pulses intended for factory grading and packing, industrial processing, or to those pulses intended for use in the feeding of animals. It does not apply to fragmented pulses when sold as such, or to other legumes for which separate standards may be elaborated.

Pulses are dry seeds of leguminous plants which are distinguished from leguminous oil seeds by their low fat content. The pulses covered by this standard are: Beans of phaseolus species, lentils of lens culinaris and lens esculenta Moench, peas of Pisium sativum, field beans of Vicia faba, cow peas of Vigna unguiculata.

Quality factors: General:

- Pulses shall be safe and suitable for human consumption
- Pulses shall be free from abnormal flavor, odor, and living insects.
- Pulses shall be free from filth.

Quality factors: Specific:

- In case of pulses sold without their seed coat, the maximum moisture content shall be 2 percent.
- Pulses shall have not more than 1 per cent extraneous matter.

Contaminants:

- Pulses shall be free from heavy metals in amounts which may represent a health hazard to health.
- Pulses shall comply with those maximum residues limits and maximum mycotoxin limits established by the Codex Alimentarius commission.

Hygiene:

- When tested by appropriate methods of sampling and examination, the products: shall be free from micro-organisms in amounts which may represent a hazard to health; shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health.

Codex standards for Fruits and Vegetables:

- Usually fruits and vegetables may have pesticide residue due to their excess usage. Hence proper washing is advised.
- Food additive "Sulphite" used in dried fruits should not exceed 1000mg/Kg weight as per Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Codex standards for Meat and Poultry products:

- Erythrosine (ethyl lauroyl arginate) a food color is used to enhance the appearance of meat and poultry products.
- Many countries allow an ADI of 0.1 to 0.4 mg per Kg of body weight as proposed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) but a few countries have banned its usage as the processors are not adhering to ADI.

Lecture- 32

32. *Recommended International Code of hygiene for various food products*

Recommended International Code of Hygiene for various Food Products

People have the right to expect the food that they eat to be safe and suitable for consumption. Food borne illness and injury are the at best unpleasant, at worst can be fatal. The general principle laid a firm foundation on ensuring food hygiene. It recommends a HACCP based approach where ever possible to enhance food safety.

The Codex General Principles of Food Hygiene:

- Identify the essential principles of food hygiene applicable throughout the food chain to achieve the goal of ensuring that food is safe and suitable for human consumption
- Recommend a HACCP based approach as a means to enhance food safety
- Indicate how to implement those principles
- Provide guidance for specific codes which may be needed for sectors of food chains, processes, commodities to amplify the hygiene requirements specific to those areas.

Role of Government, Industry and Consumers:

Governments can consider the following and decide as to how best the implementation of the general principles can be done to –

- Protect consumers adequately from illness or injury caused by food, policies need to consider the vulnerability of populations or of different groups within the population
- Provide assurance that food is suitable for human consumption
- Maintain confidence in internationally traded food
- Provide health education programs which effectively communicate the principles of food hygiene to industry and consumers

Industry should apply the hygiene practices set –

- Provide food which is safe and suitable for consumption
- Ensure that consumers have clear and easily understood information by way of labeling and other appropriate means to enable them to protect their food from contamination and growth or survival of food borne pathogens by storing, handling and preparing it correctly
- Maintain confidence in internationally traded food

Consumers should recognize their role by following relevant instructions and applying appropriate food hygiene measure.

Control of Food Hazards: Food hazards can be controlled through the use of system such as HACCP. They include –

- Identify any step in the operations which can be critical for safety of food
- Implement effect control procedures at those steps
- Monitor control procedures to ensure the continuing effectiveness
- Review control procedures periodically and whenever the operations change

Time and Temperature Control: Inadequate food temperature control is one the most common causes for food borne illness or food spoilage. Such controls include time and temperature of cooking, cooling, processing and storage. Systems should be in place that temperature is controlled effectively where it is critical to the safety and suitability of food. Temperature control system should take into account:

- The nature of the food like water activity, pH and the initial level and types of micro organisms
- The intended shelf life of the product
- The method of packing and processing
- The intended used of the product like ready to eat or ready to cook or ready to process

Areas which are to be looked into under International Codex for Hygiene are:

- Primary production should be managed in a way that ensure that food is safe and suitable for its intended use
- Potential sources of contamination from the environment should be considered to avoid the presence of harmful or unacceptable substances in foods
- Proper handling, storage and transportation should be adapted.
- Care should be taken to prevent deterioration and spoilage through appropriate measures through temperature and humidity
- Establishment design and facilities should be such that contamination is minimized
- Equipment should function in accordance with its intended use
- Adequate and safe water supply should be there
- Drainage and waste disposal facilities should be provided
- Personal hygiene should be given utmost priority
- Temperature control like proper heating, cooling, refrigeration and freezing should be continuously monitored.

- Air quality, ventilation and lighting should be maintained to control humidity and avoid contaminations
- Storage facilities should have proper temperature and humidity to avoid pests and microbial growth
- Packaging design and material should be such that the products are adequately protected to minimize contamination, prevent damage and accommodate proper labeling
- Proper documentation enhances the credibility of the food safety control system of an organization

Miscellaneous

Food laws and Regulatory agencies in India

(a) Solvent extracted oil, de-oiled meal & edible flour (control) order, 1967	Directorate of Vanaspati Ministry of food and Civil supplies	Mandatory for export/ internal trade	Solvent- extracted oil, de-oiled meal and edible flour.
(b) Vanaspati (Control) order, 1975	-do-	-do-	Vanaspati, Bakery shortening, etc.
Meat food products order, 1973	Directorate of marketing & inspection	Mandatory for export, internal trade	Low and processed meat food products
Sugar (control) order, 1996	Directorate of Sugar, ministry of Agriculture	Mandatory for export / internal trade	Sugar

The standards of weights and measures Act, 1976	Directorate of legal metrology, Ministry of commerce.	Mandatory	Issues certificate for proper scale and puts penalties for incorrect measures
The consumers Protection Act, 1986	Ministry of food and civil supplies	State and district consumer court.	Deals with complaints of the consumers regarding less weight, poor quality adulteration and higher prices

Act/order & Year of introduction	Implementing agency	Kind of legislation	Items covered
Agricultural products (Grading and Marketing) Act 1937	The Directorate of Marketing & inspection	Voluntary for internal trade	Ghee , Butter, vegetable oils, spices, honey, eggs, cereals& pulses, wheat atta, fruits & vegetables, sugarcane, Gur Bura, oilcakes, essential oil, fibers, tobacco, etc.
		Compulsory for export of notified products	Dried fruits(Walnut), spices like black pepper, cardamom, chili, ginger, Turmeric, onion and garlic, celery seed, pulses, vegetable oils etc.,

Food Standardization and Regulation Agencies at State Level

Bureau of Indian standards	Issues the certificate with BIS mark for various food and agricultural products testifying to genuines of the quality
Directorate of marketing and inspection	Agmark seal is issued which is a stamp of good quality
Food Corporation of India	It has laid down specifications for food commodities for internal purchase and procurement
Public distribution system	Every state under the ministry of food and civil supplies has PDS through fair-price shops dealing with distribution of rice , flour, sugar, kerosene, oil, cloth etc to regulate the price and quality of food stuffs in the region

Army supply corporation	It gives various specifications for supply of food commodities to ASC
Central insecticide board	It works under the department of agriculture of every state which controls the use of insecticides applied to food crops as affected to pest control and at the same time safe to human beings, domestic animals and wild life.
Weights and measuring department	Every state has its own department dealing with inspected weights and measures of all dealing business shops to correct scale and issuing certificate for proper scale and puts penalties for incorrect measures.
Consumers courts	Now there is a consumers court in every state along with its district sub-courts dealing with complaints of the consumers regarding less weight, poor quality, adulteration and higher prices

Central Dept of Food processing industries	Issues license for establishing industries relating with food processing and packaging of food products
Government food dept	Central and state food departments under the ministries of food and civil supplies formulate specifications for cereals pulses and selects food stuffs for purchase and procurement operations
State food and drug administration	Works under the health department of every state. These are law enforcing authorities to check food adulteration

Central food laboratories (CFL): Government of India has established four central food laboratories serving as appellate laboratories for analysis of food supplies. These are:

1. Central Food Laboratory, Kolkata
2. Food Research and Standardization Laboratory, Ghaziabad
3. Public Health Laboratory, Pune
4. Central Food Technological Laboratory, Mysore

Setting up of international standards for the purpose of food safety depends up on the following agreements:

1. Agreement on agriculture (AOA)

2. Agreement on the application of sanitary and phyto-sanitary measures (SPS agreement)
3. Agreement on Technical Barriers on Trade (TBT agreement)
4. International Health Regulation (2005)

List of Main International Standards and Statutes:

1. International Standards Organization (ISO)
2. Codex Alimentarius Commission (CAC)
3. World Health Organization (WHO)
4. Food and Agricultural Organization (FAO)
5. World Trade Organization (WTO)
6. World Organization for Animal Health (WOAH)
7. European Union Standards (EU standards)
8. Food and Drugs Administration (FDA),USA
9. International Plant Protection Organization (IPPO)
10. Convention on Bio Diversity (CBD)
11. International Commission on Microbiological Specifications for Foods (ICMSF)