# National and International Food Regulatory Agencies

**Introduction**

Safety of food and water refers to all the hazards that arise from improper agricultural practices, lack of hygiene at all steps of food chain, defective control in food processing operations and intended and unintended contaminants. Inspite of food control system in place in many countries, morbidity due to consumption of contaminated food continues to haunt.

**Need for Food Quality Control**

Poor agricultural practices, indiscriminate use of pesticides, fertilizers and fumigants, poor post-harvest technologies, processing, inadequate facilities and infrastructure such as absence or shortage of safe water supply, electricity, storage facilities including cold stores, transport facilities, etc. compromise food safety. The food passes through several food handlers and middlemen increasing the risk of exposing food to unhygienic environments, contaminants and adulteration.

**Challenges for food control authority**

The increasing burden of food borne illnesses and emerging food borne hazards coupled with rapidly changing technologies in food production, processing and marketing all require an efficient food control system. Multiplicity of food laws, enforcement and standard setting agencies pervade different sectors of food resulting in confusion in the minds of consumers, traders and manufacturers. In this context, many countries have gone in for a comprehensive review of food legislation and structures responsible for administering food safety and quality and export-import issues and the trend is towards one law and one apex regulator.

1. **NATIONAL FOOD REGULATORY AGENCY**

Food Safety and Standards Authority of India, established under the Food Safety and Standards Act, 2006, is the regulating body related to food safety and laying down of standards of food in India. The objective of new Food Safety and Standards Act is to lay down science based standards for articles of food to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safety and wholesome food for human consumption. This Act brings together different issues and legislations pertaining to food safety and its control under a single law and under a single authority. The major benefits of this new Act would be harmonization of all Acts related to food industry, establishment of science based standards, removal of anomalies, clarity and uniformity with regard to novel foods including nutraceuticals, functional foods, establishment of food recall system that will ensure food safety and ultimately food security.

The main objectives are to protect public health by reducing risk of food borne illnesses, to protect consumers from unsanitary, unwholesome, mislabeled or adulterated food. Its aim is also to strengthen risk assessment, risk management and risk communication ultimately these

measures should contribute to economic development by maintaining consumer confidence in the food system and provide food regulatory foundation for domestic and international trade in food. The regulatory body has constituted scientific panels and working groups to help the authority in taking science based decisions.

## 2. INTERNATIONAL FOOD REGULATORY AGENCIES
**World Health Organization and Food and Agriculture Organization (WHO, FAO)**

The five key principles of food hygiene, according to WHO, are:

- Prevent cross-- contamination of food with pathogens spreading from people, pets, and pests
- Separate raw and cooked foods to prevent contaminating the cooked foods
- Cook foods for the appropriate length of time and at the appropriate temperature to kill pathogens
- Storage of food at the proper temperature
- Use safe water and raw materials

FAO and WHO provide expert scientific advice on many aspects of food quality, safety and nutrition relevant to the work of the Codex Alimentarius Commission. The FAO/WHO Expert Consultations provide independent scientific expert advice to the Commission and its specialist Committees and Task Forces although they are officially not a part of codex. The primary mission of the Codex Alimentarius is to ensure safe, good food for everyone, everywhere.

**Codex Alimenatrius**

The Codex Alimentarius is involved in setting up of international food standards, guidelines and codes of practice to contribute to the safety, quality and fairness in international food trade. Consumers can trust the safety and quality of the food products they buy. The importers can trust that the food they ordered will be in accordance with their specifications. Codex standards are based on the best available science assisted by independent international risk assessment bodies or ad-hoc consultations organized by FAO and WHO. The applications of codex recommendations are voluntarily adopted by member countries. Codex standards serve in many cases as a basis for national legislation. Codex members cover 99% of the worlds' population. More and more developing countries are taking an active part in the Codex process.

**Scientific basis for Codex work**

Codex committees, when developing standards, apply risk analysis and rely on the independent scientific advice provided by expert bodies organized by FAO/WHO. It gives an overview of risk analysis within the framework of Codex, and outlines the functions of the three FAO/WHO expert committees: the Joint FAO/WHO Expert Committee on Food Additives (JECFA); the Joint FAO/WHO Meeting on Pesticide Residues (JMPR); and the Joint FAO/WHO

Expert Meetings on Microbiological Risk Assessment (JEMRA); and on other scientific advice provided by FAO/WHO. Risk analysis is fundamental to the scientific basis of Codex food safety standards. It also provides information on how countries can request, access and contribute data to this process. It is due to its scientific basis that Codex texts are considered by WTO as the international reference for food safety standards.

**International Organization for Standardization (ISO)**

ISO 22000 is a standard developed by the International Organization for Standardization dealing with food safety. It is a general derivative of ISO 9000.The ISO 22000 international standard specifies the requirements for a food safety management system that involves the following elements:

- Interactive communication
- System management
- Prerequisite programs

The most effective food safety systems are established, operated and updated within the framework of a structured management system and incorporated into the overall management activities of the organization. This provides maximum benefit for the organization and interested parties. ISO 22000 has been aligned with ISO 9001 in order to enhance the compatibility of the two standards.

ISO 22000 integrates the principles of the Hazard analysis and critical control points (HACCP) system and application steps developed by the Codex Alimentarius Commission. By means of auditable criteria, it combines the HACCP plan with prerequisite program. ISO 22000 requires that all hazards that may be reasonably expected to occur in the food chain, including hazards that may be associated with the type of process and facilities used, are identified and assessed. During hazard analysis, the organization determines the strategy to be used to ensure hazard control by combining the prerequisite program and the HACCP plan.

ISO is developing additional standards that are related to ISO 22000. These standards will be known as the ISO 22000 family of standards. At the present time, the following standards make up the ISO 22000 family of standards:

- ISO 22000 is about **Food safety management systems w**hich are requirements for any organization in the food chain.
- ISO 22001 gives the **Guidelines on the application of ISO 9001:2000 for the food and drink industry** (replaces: ISO 15161:2001).
- ISO/TS 22002 deals with the **Prerequisite programs on food safety** in Food manufacturing
- ISO TS 22003 sets standards for **Food safety management systems** for bodies providing audit and **certification of food safety management systems.**
- ISO TS 22004 is for **Food safety management systems** - Guidance on the application of ISO 22000:2005**.**

- ISO 22005 gives guidelines to be followed on **Traceability in the feed and food chain** - General principles and basic requirements for system design and implementation.
- ISO 22006 is regarding **Quality management systems** - Guidance on the application of ISO 9002:2000 for crop production.
- ISO 22000 is also used in the Food Safety Systems Certification (FSSC) Scheme FS22000. FS22000 is a Global Food Safety Initiative (GFSI) approved scheme.

**United States-- Food and Drug Administration**

The FDA Food Safety Modernization Act (FSMA) aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it. The USFDA is directly concerned with all aspects covering food safety like **recalls, outbreaks & emergencies, safety alerts and advisories**, **outbreak investigations**, and keeping **food safe in emergencies.** Other activities are control, prevention and monitoring of foodborne Illness & Contaminants, packaging & labeling, information about ingredients, additives, contact substances, GRAS, allergens, and nutrition labeling. USFDA also regulates dietary Supplements and food defense (role in helping reduce the risk of malicious, criminal, or terrorist actions on the food supply). The US food system is regulated by numerous federal, state and local officials.

**Federal level regulation**

The Food and Drug Administration publishes the Food Code, a model set of guidelines and procedures that assists food control jurisdictions by providing a scientifically sound technical and legal basis for regulating the retail and food service industries, including restaurants, grocery stores and institutional foodservice providers such as nursing homes. Regulatory agencies at all levels of government in the United States use the FDA Food Code to develop or update food safety rules in their jurisdictions that are consistent with national food regulatory policy.

In the United States, the responsibilities of the food safety system are principally shared by two primary agencies namely the U.S. Department of Agriculture (USDA) and Food Safety and Inspection Service (FSIS). These two are the most important and responsible for the safety of meat, poultry, and processed egg products. The Food and Drug Administration (FDA) is responsible for virtually all other foods. The Food Safety and Inspection Service inspectors inspect meat, poultry and processed egg establishments. FSIS is vested with administering and enforcing the Federal Meat Inspection Act, the Poultry Products Inspection Act, and Egg Products Inspection Act, portions of the Agricultural Marketing Act, the Humane Slaughter Act, and the regulations that implement these laws. FSIS inspection program personnel inspect every animal before slaughter and each carcass after slaughter to ensure public health requirements are met.

**State and local regulation**

A number of U.S. states have their own meat inspection programs that substitute for USDA inspection for meats that are sold only in-state. For example, state health departments

have a role in investigating outbreaks of food-borne disease bacteria, as in the case of the 2006 outbreak of Escherichia coli O157:H7 (a pathogenic strain of the ordinarily harmless bacteria, E. coli ) from processed spinach. Health departments also promote better food processing practices to eliminate these threats.

In addition to the US Food and Drug Administration, several states that are major producers of fresh fruits and vegetables (including California, Arizona and Florida) have their own state programs to test produce for pesticide residues.

Restaurants and other retail food establishments fall under state law and are regulated by state or local health departments. Typically these regulations require official inspections of specific design features, best food-handling practices, and certificationof food handlers. In some places a letter grade or numerical score must be prominently posted following each inspection. In some localities, inspection deficiencies and remedial action are posted on the Internet.

## Health Canada

Maintaining the safety of Canada's food supply is a shared responsibility among government, industry and consumers. Health Canada is responsible to:

- Establish policies
- Set standards and provide advice and information on the safety and nutritional value of food
- Promote the nutritional health and well-being of Canadians by collaboratively defining, promoting and implementing evidence-based nutrition policies and standards
- Administer the provisions of the Food and Drugs Act that relate to public health, safety and nutrition
- Evaluate the safety, quality and effectiveness of veterinary drugs
- Control chemical and microbiological contaminants in foods
- Nutrition and healthy eating, including Canada's Food Guide
- Assuring the safety of novel foods (including genetically modified foods), and food additives
- Nutrition labelling
- Food consumption and nutrient intake

Health Products & Food Regulatory Modernization Health Canada strives to modernize the regulatory system for food and health products to keep the Canadians healthy.

## European Union

The parliament of the European Union (EU) makes legislation in the form of directives and regulations, many of which are mandatory for member states and which therefore must be incorporated into individual countries' national legislation. From 13 December 2014, new legislation - the **EU Food Information for Consumers Regulation** require food businesses to provide allergy information on food sold unpackaged, for example in catering outlets, deli

counters, bakeries and sandwich bars. The EU parliament is informed on food safety matters by the European Food Safety Authority. Individual member states may also have other legislation and controls in respect of food safety and can differ considerably in their internal structures and approaches to the regulatory control of food safety provided they do not prevent trade with other states.

The European Food Safety Authority (EFSA) was set up in January 2002, as an independent source of scientific advice and communication on risks associated with the food chain. EFSA was created as part of a comprehensive program to improve EU food safety, ensure a high level of consumer protection and restore and maintain confidence in the EU food supply. The European Food Safety Authority (EFSA) is the keystone of European Union (EU) risk assessment regarding food and feed safety. In close collaboration with national authorities and in open consultation with its stakeholders, EFSA provides independent scientific advice and clear communication on existing and emerging risks. EFSA is an independent European agency funded by the EU budget that operates separately from the European Commission, European Parliament and EU Member States.

**Independent scientific advice on food and feed safety**

In the European food safety system, risk assessment is done independently from risk management. As the risk assessor, EFSA produces scientific opinions and advice to provide a sound foundation for European policies and legislation and to support the European Commission, European Parliament and EU Member States in taking effective and timely risk management decisions.

EFSA's covers food and feed safety, nutrition, animal health and welfare, plant protection and plant health. In carrying out its work, EFSA also considers the possible impact of the food chain on the biodiversity of plant and animal habitats. The Authority performs environmental risk assessments of genetically modified crops, pesticides, feed additives, and plant pests. In all these fields, EFSA's most critical commitment is to provide objective and independent science-based advice and clear communication based on up-to-date scientific information and knowledge.

EFSA's independent scientific advice underpins the European food safety system. Due to this system, European consumers are among the best protected and best informed in the world as regards risks in the food chain.

**United Kingdom**

Foodstuffs in the UK have one of two labels to indicate the nature of the deterioration of the product and any subsequent health issues. EHO (environmental health online) Food Hygiene certification is required to prepare and distribute food. While there is no specified expiry date for such a certification it is suggested to renew it every five years.

**France**

Agencenationale de sécurité sanitaire de l'alimentation, de l'environnementet du travail (anses) is a French governmental agency dealing with food safety. ANSES is active in the fields of environmental and occupational health, food safety, animal health and well-being, and plant safety. Its main priority is to help protect the health and safety of the population, both in their working and consumer activities. Concerning human health, the Agency evaluates the nutritional and functional properties of foods as well as all the risks that individuals may be exposed to in the workplace, in the environment in general and through food.

**Germany**

The Federal Ministry of Food, Agriculture and Consumer Protection (BMELV)are a Federal Ministry of the Federal Republic of Germany. The authority aims to provide a balanced, healthy diet with safe food, distinct consumer rights and consumer information. A strong and sustainable agriculture as well as perspectives for the rural areas are important goals of the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). The Federal Office of Consumer Protection and Food Safety are under the control of the Federal Ministry of Food, Agriculture and Consumer Protection. It exercises several duties, with which it contributes to safer food and thereby intensifies health-based consumer protection in Germany. Food can be manufactured and sold within Germany without a special permission, as long as it does not cause any damage on consumers' health and meets the general standards set by the legislation. However, manufacturers, carriers, importers and retailers are responsible for the food they pass into circulation. They are obliged to ensure and document the safety and quality of their food with the use of in-house control mechanisms.

**Food Safety Authority Australia and New Zealand (FSANZ)**

Australia and New Zealand have a joint standards body for food safety. It is an independent statutory agency established by the Food Standards Australia New Zealand Act 1991. FSANZ is part of the Australian Government's Health portfolio. FSANZ develops standards that regulate the use of ingredients, processing aids, colorings, additives, vitamins and minerals. Their standards also include the composition of some foods, e.g. dairy, meat and beverages as well as standards developed by new technologies such as genetically modified foods. FSANZ is responsible for some labelling requirements for packaged and unpackaged food, e.g. specific mandatory warnings or advisory labels. FSANZ must ensure that labelling of packaged foods. Another main role of FSANZ is to manage food recall systems. When a product is declared to have safety issues like harmful bacteria or the presence of allergens the products needs to be removed from retail shelves (withdrawal) and people's homes to ensure the health and safety of consumers (recall).

**China**

The Chinese government oversees agricultural production as well as the manufacture of food packaging, containers, chemical additives, drug production, and business regulation. In recent years, the Chinese government attempted to consolidate food regulation with the creation of the State Food and Drug Administration in 2003.

**Japan**

The work is carried out under the Food Safety Basic Law (enacted in May 2003) and related laws including the Food Sanitation Law, the Abattoir Law, and the Poultry Slaughtering Business Control and Poultry Inspection Law. These include the regulation of the manufacture, import, and sale of food, food additives, and food apparatus and containers/packages. They also include the provision of related information to consumers and businesses. The administration of food safety is under the jurisdiction of the Department of Food Safety under the Pharmaceutical and Food Safety Bureau. Office of Health Policy on Newly Developed Food looks after labeling of specified uses, nutrition labeling standards, foods with health claims, dietary supplements, and safety assessment of genetically modified foods. Inspection and Safety Division carries out food inspection, health risk management, food poisoning, safety of poultry and livestock meat, dissemination and promotion of the HACCP approach. Office of Import Food Safety oversees the assurance of import food safety.

**Malaysia**

The Food Act 1983 and the Food Regulations 1985 are the Malaysian food legislations that form the backbone of the food safety program. The objective of the Food Act 1983 and the Food Regulations 1985 is to ensure that the public is protected from health hazards and fraud in the preparation, sale and use of foods and for matters connected therewith. It is enforced by the Ministry of Health and the Local Authorities. The legislation, applicable to all foods sold in the country either locally produced or imported, covers a broad spectrum from compositional standards to food additives, nutrient supplements, contaminants, packages and containers, food labeling, procedure for taking samples, food irradiation, provision for food not specified in the regulations and penalty. Food safety legislations enforced in Malaysia are applicable to domestic as well as imported foods.