

Implementation of integrated Food Law in India: The Way Ahead

1. Introduction

Access to safe food is not a luxury but is an essential component of food security. With the world becoming a global village and trade in food and other items on the rise, food grown and processed in one country is often sold across the world in diverse market. The supply chain for food products is complex and involves multiple stakeholders right from the farmers to the aggregators to primary processors, secondary processors storage and distribution companies etc. Therefore, food safety has become an issue and not only of global economic importance but also of domestic priority. In developing countries, consumption of unsafe food and water continues to be one of the major causes of preventable morbidity and mortality, especially due to mal-nutrition, food and waterborne diseases and associated economy loss to the individual family society and the nation (WHO 2009).

The proportion of people in developing countries living on more than 2 dollars a day has increased significantly over the past three decades from 31% in 1981 to 53% in 2005 (World Bank 2010). With the increase in economic growth, there has been rapid urbanization and in 2009, the proportion of urban dwellers crossed 50% and for first time in history the proportion of urban dwellers surpassed and rural (United Nations 2010). These patterns of economic growth and urbanization have also resulted in change in consumption patterns of various food materials. There has been a shift in preferences from cereals to more high ends products like fruits and vegetables, meat, milk, fish and poultry etc. These food items are, however, highly perishable and susceptible to food safety risks as they move along the food value supply chain prior to consumption. These drivers of change along the value chain have great impact on the international and national food safety & quality standards (**Figure No.1**).

In step with these worldwide patterns, in India also there has been an increase in spending on food and food products. The spending on food and food products amounts to 21% of India's GDP and constitutes the 31% of the Indian consumer's spending, which is the largest portion. A number of socio-economic factors are driving the growth in the sector:

- **Higher disposable income:** High economic growth has led to increased disposable income for the Indian middle class, which is switching over to healthy and processed products. It is estimated that disposable income is set to rise at an average rate of 8.5 % by 2015. Also, the middle class is estimated to reach a size of 582 million from its current size of 50 million by 2015.
- **Shift in demographic profile:** The median age of Indian population is 24 years and approximately 65% of Indian population is below 35 years of age. The large population of working age group forms a wider consumer base for processed products.
- **Increasing number of working women:** The number of working women, as a percentage of the total female population, has grown from 12% in 1961 to close to 25% in 2005 resulting in demand for convenience food.
- **Increasing incidence of lifestyle diseases:** Diabetes, obesity, heart ailments and asthma are on an increase leading to demand for healthy products.
- **Increased consumer awareness:** International exposure, increased consumer awareness driven by media is promoting new product categories across urban and rural India.
- **Emergence of organized food retail:** It is estimated that the total food and grocery retail space will grow at a CAGR of 6% over 2006-2011, with the organized share likely to increase from less than 1% currently to 6-6.5%. This will translate into more business opportunity for processed products as well as provide forward linkage to the industry.

With rising incomes and shifting consumption patterns, there is an increased demand for food safety and quality. In 2000 WHO members' states adopted a resolution to

recognize food safety is an essential public health function. By definition food safety encompasses actions aimed at ensuring that all food is as safe as possible. Food safety policies and actions need to cover entire food generally from production to consumption.

2. Food safety concerns down the Ages

Down the ages, Food safety and quality issues have been plaguing the human kind. The earliest recorded problem was the poisoning through lead pipes in Rome. Irish potato famine in 1845-46 led not only to the destruction of the potato crop but also millions of deaths due to the fungal disease and had a major impact on Irish history. The development of pasteurization technique in 1861 by Louis Pasteur was to overcome the food spoilage problem. Subsequent developments in science & technology have led to major breakthroughs in this important area. However, Rachael Carson's book "Silent Spring" published in 1960's brought to the fore the harmful effects of pesticides like DDT, microbial and toxic contamination and how they were entering the food chain.

With the improvement in food technologies, concerns about food safety were increasing. There was also an increase in trade in agricultural commodities and processed foods. Hence, the need was felt to harmonize the food standards.

3. Some International Standards governing Food Safety and Quality

3.1 Codex Alimentarius Commission

World over consumer protection, Food Safety and quality is guided by **Codex (Codex) Alimentarius Commission**. Codex Alimentarius (Codex) in Latin means Food Code or Food Book. The Eleventh Session of the Conference of FAO in 1961 and the Sixteenth World Health Assembly in 1963 both passed resolutions to establish the Codex Alimentarius Commission. The two bodies also adopted the Statutes and Rules of Procedure for the Commission.

According to the FAO, Article 1 of the Statutes of the Codex Alimentarius Commission, the objectives outline the following:

The Codex Alimentarius Commission shall ... be responsible for making proposals to, and shall be consulted by, the Directors-General of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) on all matters pertaining to the implementation of the Joint FAO/WHO Food Standards Programme, the purpose of which is:

- (a) protecting the health of consumers and ensuring fair practices in the food trade;
- (b) promoting coordination of all food standards work undertaken by international governmental and non-governmental organizations;
- (c) determining priorities and initiating and guiding the preparation of draft standards through and with the aid of appropriate organizations;
- (d) finalizing standards elaborated under (c) above and, after acceptance by governments, publishing them in a Codex Alimentarius either as regional or world wide standards, together with international standards already finalized by other bodies under (b) above, wherever this is practicable;
- (e) amending published standards, after appropriate survey in the light of developments.

3.2 Agreement on the application of Sanitary and Phytosanitary (SPS) Measures:

In 1995 Uruguay round of World Trade Organization (WTO) discussion revolved around reducing the barriers to agriculture trade. This resulted in creation of Agreement on Agriculture, which forbids use of agriculture-specific non-tariff measures such as import quotas and discretionary licenses, reducing the export subsidies and regulating production subsidies etc. However, there was concern that all these barriers reduction may be circumvented with some false protection measures in the form of Sanitary and Phytosanitary regulations. It was felt that this could be used as a protection tool by some member nations and may not always be applied in true spirit of safeguarding health of its citizens. So, to cover this concern, the agreement on the application of Sanitary and Phytosanitary (SPS) measures was created, which covers technical requirements resulting from food safety and animal and plant health measures. SPS agreement allows governments to put restrictions on trade, when necessary to protect human, animal or plant health from certain risks. It covers risks from unsafe food or beverages or risks from diseases carried by plants or animals.

3.3 International Organization for Standardization (ISO)

The Geneva based non-government International Organization for Standardization (ISO) is synonymous with quality management recognized world over. ISO 9001 is the mostly widely known and established quality management certification. With regard to Food Safety, the following are some of the important certifications:

- Food Safety management ISO 22000:2005 – Ideal for any organization in the food chain.
- Traceability in the feed and food chain ISO 22005:2007 – General principles and basic requirements for system design and implementation
- Food Safety management systems ISO/TS 22003:2007 – Requirements for bodies providing audit and certification of food safety management systems
- Food Safety management systems ISO 22004:2005 -- Guidance on the application of ISO 22000:2005

3.4 British Retail Consortium (BRC) Global Standards

BRC Global Standards developed by the U.K. trade organization is aimed at establishing standards for due diligence and supplier approval. Most UK based and many European and global retailers and brand owners will only consider doing business with suppliers who have gained certification against the appropriate BRC Global Standard. Apart from certification of standards, safeguards towards legal obligations too are met.

3.5 Hazard Analysis and Critical Control Points (HACCP)

HACCP is regarded as a comprehensive and scientific process control for eliminating contaminants. The following 7 principles further amplify the objective:

- **Analyze hazards:** Potential hazards associated with any food and measures to control those hazards are identified. The hazard could be biological, such as a

microbe; chemical, such as a toxin; or physical, such as ground glass or metal fragments.

- **Identify critical control points:** These are points in a food's production cycle from its raw state through processing and shipping to consumption by the consumer at which the potential hazard can be controlled or eliminated. Examples are cooking, cooling, packaging, and metal detection.
- **Establish preventive measures with critical limits for each control point:** For a cooked food, for example, this might include setting the minimum cooking temperature and time required to ensure the elimination of any harmful microbes.
- **Establish procedures to monitor the critical control points:** Such procedures might include determining how and by whom cooking time and temperature should be monitored.
- **Establish corrective actions to be taken when monitoring shows that a critical limit has not been met:** These include reprocessing or disposing of food if the minimum cooking temperature is not met.
- **Establish procedures to verify that the system is working properly:** These include testing time-and-temperature recording devices to verify that a cooking unit is working properly.
- **Establish effective record keeping to document the HACCP system:** This would include records of hazards and their control methods, the monitoring of safety requirements and action taken to correct potential problems. Each of these principles must be backed by sound scientific knowledge: for example, published microbiological studies on time and temperature factors for controlling food borne pathogens

4. Food Safety Laws in India: - At the time of India's independence, there were a multitude of food laws dating back to the 19th century and the early part of the 20th century. Further, till 1954, several states had their own food laws, which were at variance in terms of rules and specifications in different states and resulted in practical problems in interstate trade. It is against this backdrop that the Central Advisory Board appointed by the Government of India in 1937 and the Food Adulteration Committee

appointed in 1943 to review Food Adulteration recommended a central legislation. Thus, the key Act namely the Prevention of Food Adulteration Act (PFA) came into effect from 15th June, 1955 marking the beginning of the initial focus on Food Safety in India. As this act intends to protect consumers against adulterated food, it specifies standards for various food articles, aimed at safeguarding against impurities and adulteration affecting health and nutrition. The act also provides for fines and punishment (imprisonment) for contravention of the rules under the act.

Apart from PFA, there were other laws specifically governing the food sector:-

- a) Vegetable Oil Products (Control) Order, 1947
- b) Edible Oil Packaging (Regulation) Order, 1998
- c) Food Products order (FPO 1955)
- d) Milk and Milk Products Order (MMPO 1992)
- e) Meat Food Products Order (MFPO 1973)

Proliferating laws over the years with varying standards and enforcement agencies spread across various Ministries/Departments led to confusion in the minds of the consumers, traders, investors and manufacturers. Moreover, provisions regarding admissibility and levels of food additives and contaminants, food colours, preservatives etc, labeling requirements varied under these standards. They were often rigid and non-responsive to scientific advancements and enforced by multiplicity of inspectors under various laws.

Under PFA, the emphasis was on checking 'adulteration' whereas the global trend is on promoting food safety, Good Manufacturing practices (GMP) & process control viz., Hazard Analysis and Critical Control Points (HACCP). Furthermore, thin spread of manpower, food laboratories and other resources under various authorities administering these laws, was not conducive to effective fixation of food standards and their enforcement.

5. Integrated Food Law in India

The necessity of consolidating diverse orders and statutory requirements on Food Safety and allied issues, culminated in the birth of the Food Safety and Standards Act 2006 (FSSA) which inter-alia addresses the need to ensure

- Safe and wholesome food for human consumption
- Laying down Food Safety standards on scientific basis
- Unified law encompassing seven different laws presently governing Safety standards and regulations falling under separate nodal ministries
- All issues relating to manufacture, import, storage, distribution and sale (including labelling) are addressed comprehensively.
- Creation of infrastructure for testing and certification procedures
- Global standards for food, sanitary and phytosanitary measures, to promote recognition, co-ordination with governmental and non-governmental organizations world over

5.1 Food Safety and Standards Act 2006 (FSSA)

FSSA is a comprehensive legislation (passed by Parliament in August 2006) which takes care of the gamut of issues with the primary objective of providing safe, hygienic and quality food to the people. The Food Safety and Standard Act (FSSA), 2006 will be repealing seven different laws/orders being governed by different ministries, which to some extent will help addressing this problem of multiple agencies (**Figure No.2**).

The passing of this legislation has led to the creation of Food Safety and Standards Authority of India (FSSAI) in September 2008. The FSSAI is mandated with the laying down of science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food fit for human consumption. The Food Authority has a Chairperson and 14 members with representatives from Union Ministries, State Governments, Food Scientist, Food Industry, Consumer and Farmer organizations. The Authority would be assisted by Scientific Committee and Panels in fixing standards and by the Central

Advisory Committee in prioritization of work. The enforcement of the legislation would be through the State Commissioner of Food Safety and his officers and Panchayati Raj (village level institutions)/ Municipal bodies.

5.2 Main features of the FSS Act

The main features of the FSS Act are as follows:

- I. Shift from multi level and multi- departmental control to integrated line of command;
- II. single reference point for all matters relating to Food Safety & Standards, regulations and enforcement;
- III. shift from mere regulatory regime to self-compliance through Food Safety Management Systems;
- IV. responsibility on food business operators to ensure that food processed, manufactured or distributed is in compliance with the domestic food laws;
- V. provision for graded penalties depending on the gravity of offence and accordingly, civil penalties for minor offences/lapses and criminal action for serious offences;
- VI. in line with the international trends, proprietary food, novel food, GM food, dietary supplements, nutraceuticals etc brought into the ambit of the new act;
- VII. regulation of imported food in the country;
- VIII. provision for Surveillance, traceability and food recall;
- IX. envisages large network of food testing laboratories to address the growing need of having quality, reliable and modern food testing infrastructure;
- X. covers activities throughout the food supply chain, from primary production through distribution to retail and catering;
- XI. aims to harmonize domestic standards with international food standards;
- XII. focus on engaging with the stakeholders; and

XIII. ethics and sound science will drive this partnership in finding sustainable solutions for safe food production and consumption in the country.

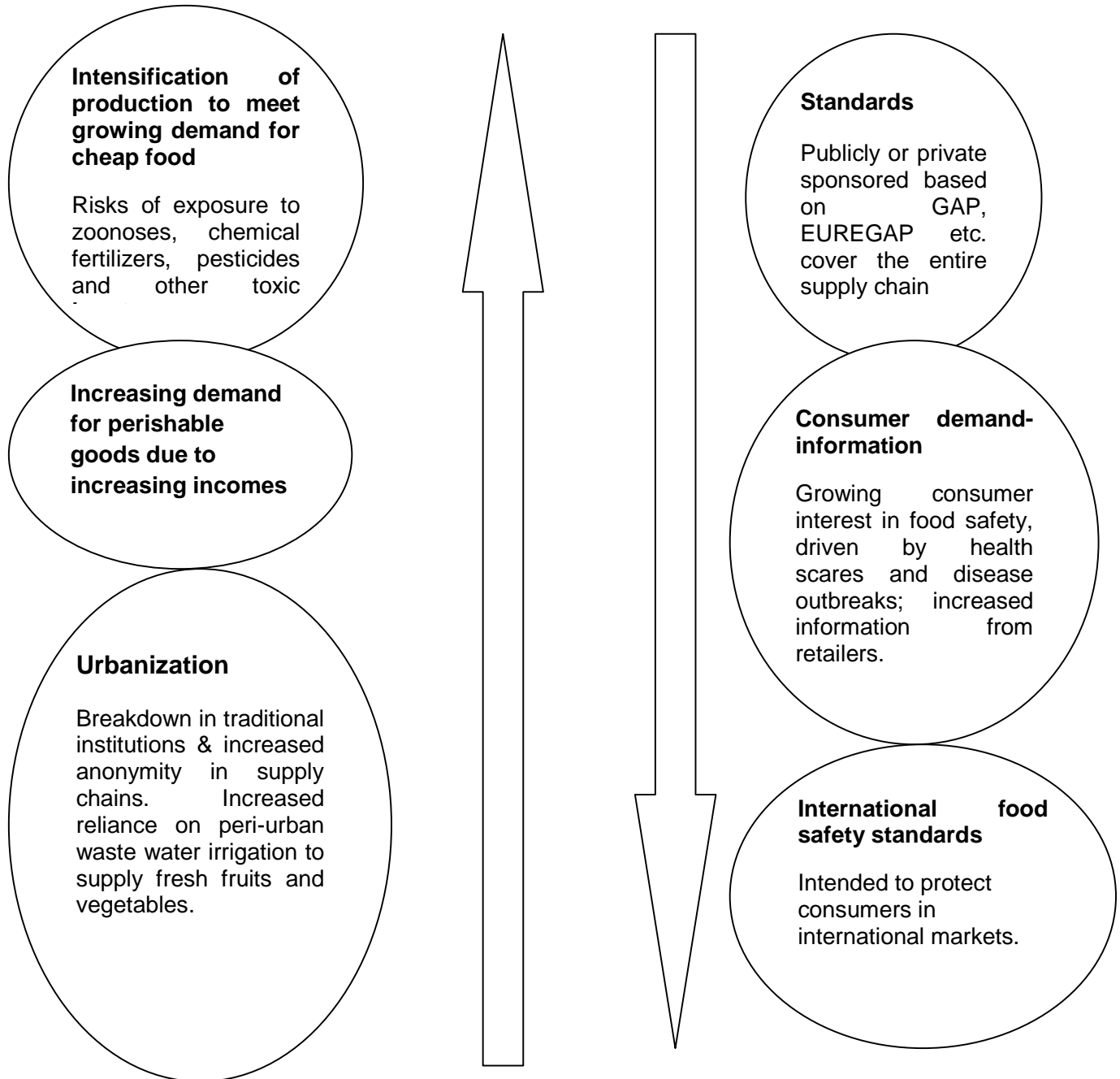
6. Challenges Ahead

Given the multiplicity of existing laws governing Food Safety, the need to create awareness about benefits of quality/hygienic food, setting up infrastructure (attendant administrative machinery) for testing, including country-wide accredited labs, etc. the task is not simple. The implementation of FSSA is formidable task considering the complexity, gravity and magnitude of the issues. Some of the immediate challenges before the Authority can be summarized as follows:

- i. Some of the major existing food laws will have to be repealed to pave way for the unified FSSA which is expected to adopt a viable and hassle free path to achieve total compliance on the Food Safety front.
- ii. Establishing the food safety Machinery across States and Union Territories would prove to be a major challenge as it requires huge investment not only for the setting up of the physical infrastructure but also trained manpower for manning the system. Lack of basic supporting infrastructure such as testing labs is a major impediment. Similarly, there is insufficient technical expertise and skilled manpower for implementation of legislation at the grass root level.
- iii. The difficult part is also bringing about a paradigm shift in the minds of the implementers to implement science based standards that focus on holistic implementation of food safety standards rather than focusing on checking of the 'adulteration' of food. Some older processes will have to be unlearnt before new ones are learnt.
- iv. Processes of the new act more detailed and require extensive capacity building focusing on trainings that are need based. The different level of functionaries would need to be trained based on their requirement and 'one shoe fits all' approach will not work.

- v. Poor general awareness towards the hazards associated with unsafe food practices and the best practices to be followed need to be addressed through national level campaigns with focused approach depending upon the stakeholder.
- vi. Implementation of traceability of product especially in the upstream processors of the food chain – from the farm gate to the processing unit is a major challenge considering the fact that the food processing industry in the country is dominated by the micro and small enterprises in the unorganized sector.
- vii. Creating an enabling environment focusing on transparency/Inclusive development Framework, capacity Building and Research & Development presents not only a challenge but also an opportunity to the country to implement a Food safety and management system that is science based and at par with international best practices.

Figure No. 1: Drivers of change along the value chain



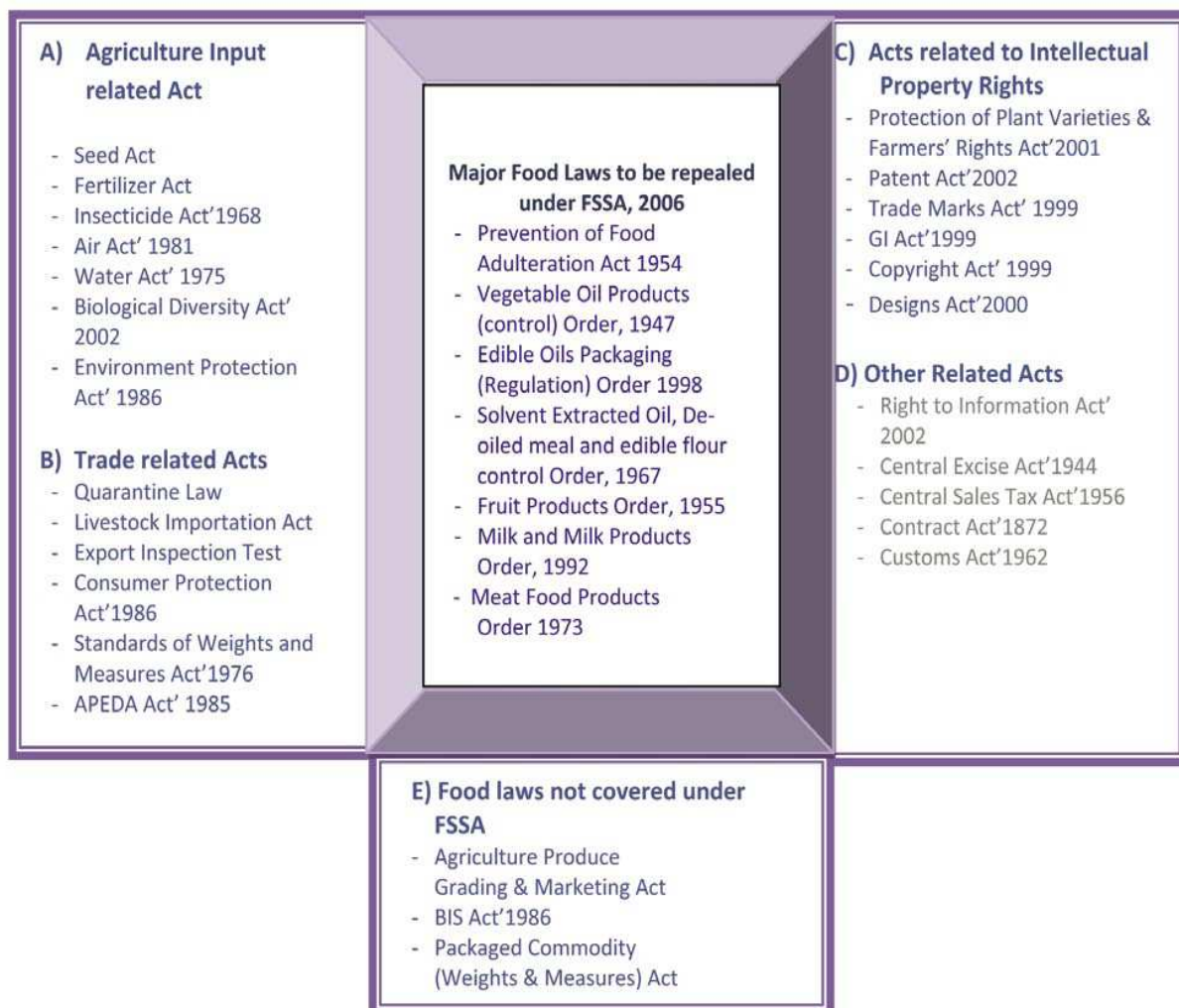


Figure. 2: Major Food Laws in India, which wholly or partially govern food and agri-business in India

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