



## A STUDY IN PERSPECTIVE OF LAWS AND LEGAL TREND RELATED TO FOOD ADULTERATION

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**Abstract:** Adulteration is a very serious problem posing serious health risks in India. In every product there is adulteration. Starting from our daily groceries, it moves on to our life saving medicines. The sinners have not spared even infants' milk products. India has revamped its system of food law, from multi-level, multi-department to one strong food law system. It was created in 2006 by the Food Safety and Standards Act, 2006. Taking the current adulteration of the foodstuffs in India into account, the task force was set up to propose amendments to the Food Safety and Standards Act. Poor implementation of the current Food Safety and Standards Act, particularly in governments, was also a problem. Testing and analytical capability in India's official food security units is insufficient to handle a distribution system that feeds close to 1.3 trillion people. Efficient resource appropriation for regulatory units, institutional enhancement and capacity building, improved strategic and organisational co-ordination between institutions, student commitment to address adulteration by including adult forms, and easy steps to locate them in their curriculum. Using student power to train adulterants on the harm of adultery and to ensure that they are completely confidential in order to eliminate from India adulteration and the related problems.

**Keywords:** Foodstuff, Food Safety, Food Security, Resource, Adulterants, Adultery.

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### INTRODUCTION

Food is one of the basic necessities for sustenance of life. Pure, fresh and healthy diet is most essential for the health of the people. It is no wonder to say community health is national wealth. Food adulteration is an act of adding or mixing of poor quality, inferior, harmful, substandard, useless or unnecessary substances to food. This act of spoiling the nature and quality of food items is considered food adulteration. It

represents the degree of crime in society as adulterating foods are seen as a social evil. Many methods, which vary from easy to extremely complex procedures, are used in adulteration of foodstuffs. Food adulteration is caused by dishonesty but may also be caused by ignorance. Both trader's and consumer's knowledge and legal action must at the same time be taken to curb adulteration. Market movements must be consciously promoted in this direction. Studies



must be carried out to understand and identify the occurrence of adulteration styles (Beniwal and Khetarpaul, 1999; Anita and Neetu, 2013; Shruti *et al.*, 2014).

Food adulteration is one of the serious challenges in the Indian society. Despite various measures and penalties, the problem continues to remain a big challenge. The saddest part is those who engage in such dirty practice do not leave even infants' milk products and lifesaving medicines. For food to continue with its activities or elements, human life is enabled. The healthy body comes from a human being's consumption of healthy, fresh food. In reality, a good life's secret is to have food right now. The value of food makes the modern culture a filthy and unforgiving commercial and socio-economic offence against the adulteration of food. The 'Food and other food adulteration' is in reality an item of the Competition List of the Indian Constitution. The Indian Government introduced a Consumer Act (The Prevention of Food Adulteration Act 1954), to prevent this adulteration of foods.

The Food Adulteration Act of 1954 specifies that food adulteration must be avoided because there is an urgent need to curb the pervasive and increasingly spreading social anti-social and economic malaise. It is designed to avoid, curb and monitor food and food adulteration and to prosecute wrongdoers properly. It came into force on 1st June 1955 and includes all of India. The main goal is to minimize this evil at the very root stage, namely to curb the activities of small retailers or small vendors in society to cause food adulteration. The enforcement of this Act is stringent in nature and results in prosecution of non-compliance. In the case of the National Food Standards Committee, the Central Government, by notifying the Central Government of the activities allocated to the Central Food Laboratory in the official gazette, is composed of both. The general food regulations include laws relating to foodstuffs such as prohibition of imports of certain food products into India or prohibition on the production, selling, etc. of certain foodstuffs such as adulterated foodstuffs, malnourished foodstuffs, lists the banned products and includes a concise overview of them. The Central Government or State Government appoints a

public analyst or food inspector with specified qualifications for the areas agreed on by or under the Central Government or the State Government, as appropriate, to examine the food quality by making a notification in the official gazette. Anyone who has the responsibility for a physician and a chemist is a qualified person to be a public analyst in compliance with this Act. But if any person has a financial interest in manufacture, import, and selling of any food product, then no person may be nominated as a public analyst or as a food inspector. Under section 21 of the Indian Penal Code, 1860, a public analyst cannot be considered to be a public servant unless he is in either government service or government pay. A food inspector is, however, known to be a public servant since the inspector is legally subject to government appointments in this respect. If the analysis is completed, the public analyst shall send a report to the local (health) Authority in prescription form and, where foodstuffs examined are adulterated, the person concerned may initiate the proceedings in the way prescribed against them and inform them that, within a span often of days from the day on which a copy has been obtained from the person concerned may be sought by the court. The law also contains several different provisions, such as producers, distributors and distributors that guarantee the vendor in a prescribed manner before selling foodstuffs to him / her. The name of the person from whom such article is purchased shall be disclosed by the seller etc. Medical practitioners are expected to advise the specified officer of the incidence of food poisoning. The power of the relevant governments to make laws, give direction, as required, to all parties concerned, abrogating and safeguarding, etc., for violation of the provisions of this Act.

The Prevention of Food Adulteration Rules, 1955 are the rules material to the entire of India wherein it manages various angles relating to prevention of Food Adulteration like it's appropriateness to the entire of India, capacities and investigation of food tests by the Central Food Laboratory, the quality guidelines and its definitions, the capabilities, arrangements, obligations, powers and the working style of the Public Analysts and Food Inspectors, the system relating to the fixing, securing and dispatch of

tests, degree of shading, pressing and naming of the food articles, disallowance, guideline and conditions for deals, methodology for acquiring the permit available to be purchased of food articles, arrangements relating to use of various food articles like additives, toxic metals, crop pollutes and normally happening harmful substances or enemies of oxidants, emulsifying, balancing out and insect hardening operators, and so forth.

The distribution of impure or adulterated food for consumption is an act perilous to human life and health and involves sensitive facets of public welfare. It is a deceptive and treacherous enemy that internally erodes the vitality of a nutritionally deficient nation like ours and is in one sense a greater menace than a visible army of aggression at our frontiers. It is a dangerous and widespread malaise afflicting contemporary Indian society and has often led to large human tragedies. Unfortunately large segments of our population who live far beneath the subsistence level, to keep body and soul together are ready to consume that which may otherwise be thought of as not fit for human consumption. Even others who are comparatively better off find it difficult to withstand the daily rough and tumble of the market place. With one out of every five processed foods found contaminated, Jammu Kashmir and Ladakh stands at third rank among the northern areas in food adulteration with 19.4 percent samples of processed foods falling to meet the norms of Food Safety and Standards Act.

### **TYPES OF FOOD ADULTERATION**

In the last few decades, food adulteration has been one of the most severe problems. The government of India has invited several agencies to get rid of adulterants from food. The screening of adulterated and unadulterated foods is necessary for everyday living to ensure that no health issues are caused by such foods. Toxic contaminants are present in ppm level therefore, it's impossible to make sure wholesome food solely on visual examination. However, before the purchase, a visual inspection of the food will guarantee the absence of insects. In order to know the ingredients and their nutritional value the declaration on the label for packed food is also very important. It also helps to verify the food's

freshness and its length. The buyer must prevent food from a position that inhibits hygiene. Food bought in unhygienic locations can result in different illnesses. No unhygienic conditions should be used to buy the fruit which is peeled off or cut before stellation. The buying of certified food from a known shop is always better. At various festivals people often overuse various colors of composite food that cause toxicity. An initial risk analysis on the basis of the type of contamination, purpose of the manufacturer and processing method can be performed before using any type of intentional or non-intentional adulterant into three types namely intended adulterants, metallic contamination and accidental adulterants.

#### **1. Intended Adulterants**

Adulteration is an intentionally adulterated adulteration of food. It refers to the addition of lower substances with similar properties to the food they are applied to. They are also hard to detect. The adulterant can be in essence physical or biological. It is the most dangerous type of adulteration because of the quantities of nutrients and foreign substances added to foodstuffs, which are manufactured by corporations that literally forget humanity behind the money making mindset. According to Lakshmi (2012), apple juice, coffee, orange juice, saffron, honey, milk and olive oil are the seven most probable food ingredients for intentional or economic food adulteration or fraud based on review of the first public database developed in the United States for information collected in the Journal on the risk factors for food fraud.

#### **2. Metallic Contamination**

Metals may also present as residues in food because of the environmental presence of them as a result of human activities, such as agricultural, manufacturing or vehicle exhausts and food processing and storage pollution and so on. Such adulterants become part of food during processing accidentally.

#### **3. Accidental Adulterants**

However, before the purchase, a visual inspection of the food will guarantee the absence of insects. In order to know the ingredients and their nutritional value the declaration on the label for

packed food is also very important. It also helps to verify the food's freshness and its length. The buyer must prevent food from a position that inhibits hygiene. Food bought in unhygienic locations can result in different illnesses. No unhygienic conditions should be used to buy the fruit which is peeled off or cut before stellation. The buying of certified food from a known shop is always better.

### **ADULTERANT'S IMPACT**

It is very normal nowadays to hear or read news of food products adulterated and these products are sold out openly and eaten by people, who trigger different risks to health. The news shows how urea, soap and other dangerous chemicals are adulterated in milk and milk products. Vegetables are also injected for overnight development. Steroids were injected into a hen in chickens for a very short period of time. The bacteriological profile of street foods in Mangalore, whose results were widely accepted, was also created (Bhaskar *et al.*, 2004). Meat adulteration leads to many healing problems in humans. Few health threats include stomach pain, body ache, anaemia, paralysis and increased tumour, pathological injuries to very major organs, skin and eye abnormalities. Therefore, food adulteration should be very significant because of its effect on the public's health importance. People are depressed by heart disease, kidney failure, skin disease, asthma attacks and alternative chronic diseases. The people are unfortunate victims of this swinging and uncurbed adulteration trade (Balwan and Kour, 2021; Balwan *et al.*, 2021a, 2021b).

### **Impact of Food Adulteration on Enterprises, Farmers/Producers and Consumers**

#### **1. Impact of Food Adulteration on enterprises**

The loss of customer confidence in their goods, the recall and degradation of defective goods, the expenditure of lawsuits and the rise in the price of insurance and the costs relating to the repair or maintenance of equipment affect businesses. In the mass media, a mistake of a supplier is invariably published, casting doubt on the credibility of that business. This not only affects the sales of the specific goods but can also be used to ban / discontinue automatically the sales of

several other items supplied to the warehouses or retailers of the company. There are many, deep and far reaching impacts of such restrictions on the food production industry. A manufacturer that relies on a foodstuff that has been banned does not only suffer economic losses to the commodity being affected, but also losses of public trust in sales. The resulting harm to the brand can be catastrophic, and recovery can take time and costs as customers are converted to the product of other suppliers (IOS,1972; ICMSF, 1986; Praveen *et al.*, 2014).

#### **2. Impact of Food Adulteration on Farmers/Producers**

The weakest link of the chain of industry can be affected by adulteration not only for large businesses, but also for farmers or producers (such like dairy, honey, coffee, wheat, etc.). Many farmers have suffered tremendous losses, feed expenses and a shortage of milk cow triggered by mass sales or slaughter, for example, for the Chinese dairy scandal and lack of acceptance of goods (Frazier and Westthroff, 2006).

#### **3. Impact of Food Adulteration on Consumers**

Human health is very vulnerable to adulteration of food. Diarrhoea, abdominal pain, nausea, vomiting, eye trouble, headaches, cancer, anaemia, insomnia, muscle paralysis and damage to brain are associated with harmful effects of food adulteration (Nageswara *et al.*, 1989; Abraham *et al.*, 1997; Bhatia *et al.*, 1999). Stomach disorder, giddiness, liver disorder, gastrointestinal problems, respiratory failure, edema, Cardiac arrest are also due to food adulteration (Anita and Neetu, 2013). It is found that in fruit and vegetables different chemicals and colors are extremely toxic to health. Calcium carbide used to mature fruits quicker in mangoes, bananas, copper sulphate, oxytocin, a hormone that is used to improve the growth in pumpkin, watermelon, brinjal, gourds and cucumber. In apples and pears, wax provides shine. Cheap green colors that contain chemicals like metallic plates give fresh colour to bitter gourds and leafy vegetables (Babu and Shenolikar, 1995; Ankleshwaria and Shah, 1999). In excessive fruit and vegetable production, pesticides and herbicides are used. Consumption of chemically charged fruit and vegetables can be devastating

for the digestive system, the lungs, and the liver (Anyawu and Jukes, 1990; Acharya and Shah, 1999). Oxytocin, the birth hormone, can cause brain damage (Anita and Neetu, 2013; Ashok, 2017). The people are the unfortunate people who are victims of this trade in adulteration (Anita and Neetu, 2013; Balwan and Kour, 2021; Balwan *et al.*, 2021a).

## **Role of Government against Food Adulteration**

### **1. The Prevention of Food Adulteration Act, 1954**

Food adulteration is a rising issue in India, where even basic food products, such as milk, ghee and Spices are rampantly adulterated. Another malfeasance is misbranding where marketers are packaging their goods in a way that looks like an already successful product to sell their products and raise the profits. It is also misbranding to make false claims on product packaging or advertising. To stop such abuse of goods, consumer rights must be killed and stringent penalties levied on offenders must be understood under the provisions of the Food Adulteration Act, 1954. Consumers' lack of understanding contributes significantly to this rising problem. The Act was passed by this House in 1954 to provide for the prevention of food adulteration, in accordance with the Rules on the Prevention of Food Adulteration 1955, adopted as an extension of the Act in 1955. The PFA Act generally includes food specifications, general sampling methods, food analysis, approved officer powers and the essence of punishments and other food-related parameters. It includes criteria related to food additives, condom, colouring, packaging and marking, prohibition and sales legislation, etc. The Central Committee of Food Standards (CCFS) recommendation was made by the central government under the Ministry of Health and Familial Welfare, consisting of representatives of different regions of the country, and integrates the amendment to PFA regulations, much like the FPO. The recommendation State governments and local authorities are enforcing the provisions of the PFA Act and Regulations as set out in the regulations. India is protected from impure, unhealthy and fraudulent footstools by the Basic Law (1954 PFA) and the 1955 PFA Laws, as amended). PFA standards and rules are equally

relevant for domestic products and imports and cover various food processing and distribution aspects. This involves the colour of food, conservators, residues of pesticides, packaging and markings and selling control. The Ministry of Health and Family Welfare will provide more information. All goods imported must comply with the rules set out in the Act, including the rules on labelling and marketing regulations. The main objective of the PFA is to set regulatory standards for primary foods, a part of the Indian diet. It often seems that the PFA rules are drawn up in a way which goes well beyond simply specifying minimum product quality requirements, prescribing recipes for the manufacture of food products. There is a mechanism in place to change the Rules of Procedure, but it takes time. The Central Food Quality Committee, headed by the General Health Services Chief, is Syrups, a decision-making body (Patel *et al.*, 1976; Shah *et al.*, 1996; Kannan *et al.*, 1997; Kalra *et al.*, 1999; Pandit *et al.*, 2002; Pratima *et al.*, 2005; Singh, 2020).

### **2. Food Safety and Standards Act 2006**

It often seems that the PFA rules are drawn up in a way which goes well beyond simply specifying minimum product quality requirements, prescribing recipes for the manufacture of food products. There is a mechanism in place to change the Rules of Procedure, but it takes time. The Central Food Quality Committee, headed by the General Health Services Chief, is Syrups, a decision-making body. This Act provides for the FSSA to be an autonomous entity under "The Indian Ministry of Health and Family Welfare". Working projects, FSSA provides the required technical and administrative support for the scientific committees and commissions, ensures that FSSA fulfils its tasks according to user requirements, draws up income and expenditure reports and implements the budget while maintaining and establishing communication with the central government and ensuring the implementation of the budget. The FSSA shall set up a Central Consultative Committee, and this Committee shall advise the FSSA to draw up work programme proposals, prioritise work, identify possible risks, pool the information and other functions provided for by the Regulations.

- 1) Ensuring the acceptable standard of human and health security and defending the interests of consumers, including fair practise in all forms of food.
- 2) Manage risk on the basis of risk assessment.
- 3) Adopt steps to mitigate risk to ensure sufficient health security levels.
- 4) The step taken shall be proportionate and there shall be no more trade restrictions than necessary.
- 5) The acts taken are updated within an adequate time period.
- 6) The FSSA shall take suitable measures to warn the general public about risk to health in the event that the public is suspected of eating contaminated food.
- 7) If a lot of food does not meet food safety requirements, it is concluded that the whole shipment does not meet these requirements.

The FSSA shall be empowered to recognize any food security agency conducting systems based on food safety management systems consisting of good manufacturing practises, good hygiene practises, risk analysis and crises controls, or any other such regulation, which conduct system- and functionally independent audits of food safety measures (Balwan and Saba, 2021).

A Commissioner of Food Safety, appointed officers (district levels) and food safety officials are appointed by the Food Safety Authority in the State (Health Ministers) to carry out programmes under this Statute. The FSSIA will report the testing and calibration laboratories to food laboratories and research institutions accredited by the National Accreditation Board. More food laboratories may also be recognised by this Act. FSSA, 2006 is an Act enacted in line with changing time and needs and in strengthening legislation in food safety and the establishment of the Indian Food Safety and Standards Authority. The Act was important to establish a unique regulatory body for the regulations, regulation and compliance of food so that the consumer, retailers, suppliers and investors could negotiate with a single agency and have no ambiguity due to various food laws.

### 3. Responsibilities of Food Safety Authority

It is the Food Authority's duty that the production, processing, distribution, selling and import of foods be supervised and controlled to guarantee healthier and safer food. By regulation, the Food Authority may indicate:

- a) Standards and guidelines on food items and the setting up of a suitable framework to enforce different standards notified in compliance with this Act.
- b) The restricted uses of food additives, crop pesticides, pesticide residues, veterinary pharmaceutical residues, heavy metals, manufacturing aids, my co-toxins and antibiotics, and the radiation of food; food additives.
- c) Mechanisms and recommendations for the accreditation of food security management system accredited certifying the food companies.
- d) The protocol for quality control and compliance in relation to any food product imported into India.
- e) The quality management mechanism and implementation of all foodstuffs imported into India.
- f) The system used by compliance agencies for sampling, analysis and information exchange.
- g) Conduct an enforcement survey and administration in the country of this Act.
- h) Standards on the etiquette of food including health statements, nutritional conditions, unique nutritional uses and food systems; and
- I) The way where and the method subject to which hazard examination, hazard-evaluation, hazard correspondence and danger the executives will be embraced.

### WHO Assessment of Asian Regional Policy on Food Safety

In south-east Asian countries, food adulteration continues to pose a concern, with informal food processing and distribution structures etc. in most of the communities deeply embedded. The contamination of mustard oil in 1998 with the use

of argemone oil and of melamine manufactured milk / baby formula in 2008 are examples of adulteration. These incidents raised questions about food safety for consumers and policymakers.

WHO Regional Food Strategy Report notes that most food regulations and standards in the Asian region remain voluntary, and that regulatory compliance is generally poor. Food law enforcement agencies and legislation do not have a simple identification of the extent of authority and operating procedures. Food protection frameworks and regulations for the manufacture of food for export differ from food for domestic consumption, where compliance levels vary. Efforts to harmonise food regulations between members of the South Asian Regional Cooperation Association (SAARC) and the Southeast Asian Nations Association (SAAN) have been made. Several others have embraced and incorporated the idea of a 'farm-to-table' strategy. In many WHO Member States, however, food control practises continue to focus on reactive procedures with the emphasis on facilities and product analysis rather than on preventive activities. A recurring issue is the low degree of compliance. Food inspectors are still not adequately qualified in many WHO Member States and they are too few to have a very positive effect on monitoring. In most Member States, the human resources component of food inspection remains a neglected problem. In some Member States, Community awareness of food security and consumer protection legislation has been developed. In India, consumer groups, delegates from the Consumer Protection Board attending the Shadow National Codex Committee participated in a variety of technical

Sub-committees on food safety. The Consumer Complaint Service was founded in Indonesia to deal with consumer complaints and other food quality and safety issues. Thailand's Consumer Foundation collected and sent food samples from the market to the laboratories of local universities for study as part of a joint initiative between academia and consumers. Mobile food courts in Bangladesh have also taken the views and preferences of a customer coalition into

consideration. However, the overall extent of customer involvement in national food safety programmes and national Codex activities as stakeholders appears to be limited (Praveen *et al.*, 2014; Mir *et al.*, 2020).

## RELATED CASES

From June 2016 to February 2017 there were 1722 complaints received by FSSAI, of which the maximum of 1307 were for food packaging purposes. Another 415 complaints were about packaging or pick-ups, 98 about adulteration of food and 74 about food packages that were out of stock. The Government of Canada warned citizens in September 1998 not to take food cooked or processed in Indian oil because it could be adulterated with argemone. Scores were killed or disabled in northern India as unscrupulous traders mixed the deadly argemone oil into mustard oil in order to raise revenue.

### a) Case 1

A commercial shop for the regular products was inspected in Chennai, and the result has shown that the products sold were adulterated and sold in the brand name. Approximately 70% is observed in oils and ghee and 10% in masala products (Abhirami and Radha, 2015). To enhance the colour of the turmeric powder and to add saw dust, adulterants including metanil yellow (an artificial colour) will be introduced to increase turmeric powder to gain benefit.

### b) Case 2

In a research / evaluation on the effect of media in the region of Varanasi, India, Bhatt *et al.* (2012) conducted a food practise assessment. Results showed that all groups in a study on food-adulterer, regardless of age, income and religion, were less susceptible to adulterer, regardless. The study takes into account that, despite having an understanding of the good media and knowledge of food practises, food practise lags behind over the ages.

### c) Case 3

A greatest 4,119 samples were discovered corrupted and misbranded in Uttar Pradesh, trailed by 1458 in Punjab, 1412 in Madhya Pradesh, 1243 in Gujarat, 1162 in Maharashtra and 1047 in Tamil Nadu. The punishment of Rs.

10.93 crore has been forced in 2,795 cases, and greatest fine of Rs. 5.98 crore was forced for cases announced in the state of Uttar Pradesh (Press Trust of India, 2015).

## CONCLUSION

People need to be very cautious when they buy products from stores and malls. They should check for standards like ISI standard mark, Agmark for quality products, FSSAI standard mark, date of packing and date of expiry etc. If none of the prescribed standard marks is there, then they should totally avoid buying such products. There are so many things in our everyday lives that are hygiene-free and polluted. We polluted much of our things. The food we consume is also adulterated. Now there is an issue of adulteration. The response is that food adulteration is intentionally referred to as the contamination of low quality, inexpensive and non-edible or poisonous foods. The substance called adulterant that decreases or degrades the quality of the foodstuff. Adulteration provides merchants with a lot of easy money, but can ruin many lives. Adulteration of food can lead to gradual poisoning and different forms of diseases that can even lead to death. Adulteration is unhealthy and unhygienic for use in foods used in our everyday lives. Vanaspati ghee in desi ghee is a clear example of food adulteration. The traders use it to their economic advantage without realising its effect on our country's popular population, which absorbs it. Our government has made several committees and legislation in order to discourage it. In our country, it still prevails to a large extent. Adulteration in common food products should be carefully tested to avoid the harmful effects of humans. The government must focus on dealing strictly with those who engage in food adulteration. One way of doing this is by hiking the penalty, including making it analogous to attempt to murder in some extreme cases of adulteration.

*Eat Healthy, Live Long!*

## CONFLICT OF INTERESTS

Authors declare that they have no conflict of interest.

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