

## India's Progress in Food Safety Standards

Mains Syllabus: GS II - Issues relating to development and management of Social Sector/Services relating to Health.

### Why in the News?

World Food Safety Day is observed on June 7.

### What is India's Journey in food safety?

- **Preventing Food Adulteration** - India's journey on food safety began with the Prevention of Food Adulteration (PFA) Act of 1954, which viewed food safety as a simple, binary issue — food being adulterated or not.
- This approach treated all contaminants alike, whether they were intentionally added adulterants, food additives, pesticide residues, veterinary drug residues, or even naturally occurring toxins.
- **Risk Based Approach** - Food Safety and Standards Act, 2006 established the Food Safety and Standards Authority of India (FSSAI).
- It draws on international best practices, particularly those of the Codex Alimentarius Commission such as
  - Maximum residue limits (MRLs) for pesticides
  - Defining safe levels for food additives
  - Adopting standards for contaminants
  - Veterinary drug residues
- By 2020, the FSSAI managed to develop and align India's food safety standards so that they were almost on a par with those in advanced countries.

### What are the challenges in India's food safety measures?

- **Lack of India-Specific Toxicological Studies** - Most safety standards, including o Maximum residue limits MRLs for pesticides and acceptable daily intake (ADI) values for food additives, are based on international data.
- This may not accurately reflect Indian dietary habits, agricultural practices or environmental conditions.
- **Absence of Total Diet Study (TDS)**- Such studies are essential to assess the cumulative exposure of consumers to various contaminants through their entire diet.
- Without TDS, India relies on fragmented data, which weaken the scientific basis of its safety standards.
- **Ineffective Risk Communication** - Technical terms such as MRLs and ADIs are expressed in minute quantities (parts per million, or ppm, or parts per billion, or ppb) - that are difficult for consumers to understand.
- These can lead to confusion, especially when safety limits are revised.

- For instance, the decision to revise the MRL for pesticides from a highly restrictive 0.01 mg/kg to a more practical 0.1 mg/kg led to public concern, with many interpreting it as a reduction in safety.
- **Regulation of Monosodium Glutamate (MSG)** - In India , It was only allowed in meat products, but its use has gradually been permitted in all foods, but with a mandatory warning label that it is unsafe for infants.
- This is in sharp contrast to other countries, where MSG is recognised as a safe food additive, and outdated warning labels have been removed.

*Naturally occurring compounds chemically identical to MSG, are abundant in everyday foods such as tomato, mushroom and garlic, as well as breast milk.*

### What lies ahead?

- India has made significant strides in food safety, but sustaining this progress requires targeted efforts.
- Investing in India-specific research, including localised toxicological studies and a comprehensive TDS, is vital to understand cumulative exposure to contaminants.
- Risk communication can be improved by simplifying scientific messages and replacing confusing labels, such as those for MSG, with clear, evidence-based information.
- Strengthening the capacity of risk assessors through continuous training ensures that they stay updated with the latest science for sound decision-making.

### References

[The Hindu | Maintaining India's progress in food safety standards](#)