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]