

New Developments in Food Additives



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Food Additives



DEFINITION:

The term "food additive" means any substance, the intended use of which results or may reasonably be expected to result, directly or indirectly, in its becoming a component or otherwise affecting the characteristics of any food (including any substance intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food;....

if such substance is not Generally Recognized As Safe,

Finally: Value Addition



Types of additives

- **Natural** – found naturally, such as extracts from beetroot juice (E162), used as a colouring agent;
- **Manmade versions** – synthetic identical copies of substances found naturally, such as benzoic acid (E210), used as a preservative;
- **Artificial** – produced synthetically and not found naturally, such as nisin (E234), used as a preservative in some dairy products and in semolina and tapioca puddings.



Classes of Additives

Preservatives

- Prevents or slows down the growth of bacteria or fungi, so that food can be kept longer.

Flavouring agents

- Add taste or fragrant smells to make food more edible.

Antioxidants

- Slows down the oxidation of fat in food.
- Prevents oily or fatty food from becoming rancid.



FOOD ADDITIVES

Stabilizers

- Mixes two liquids that usually do not mix together.
- Prevents the sediment process in liquids.
- Provides a smooth and uniform structure.

Thickening Agent

- Thickens liquids such as soup and sauce.

Colouring Agents

- Colours food to make it look more attractive.

National Food Control System

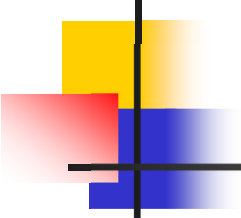
Prime Responsibilities:

1. Consumer Safety
2. Fair Trade Practices

Similar Objectives are **at**

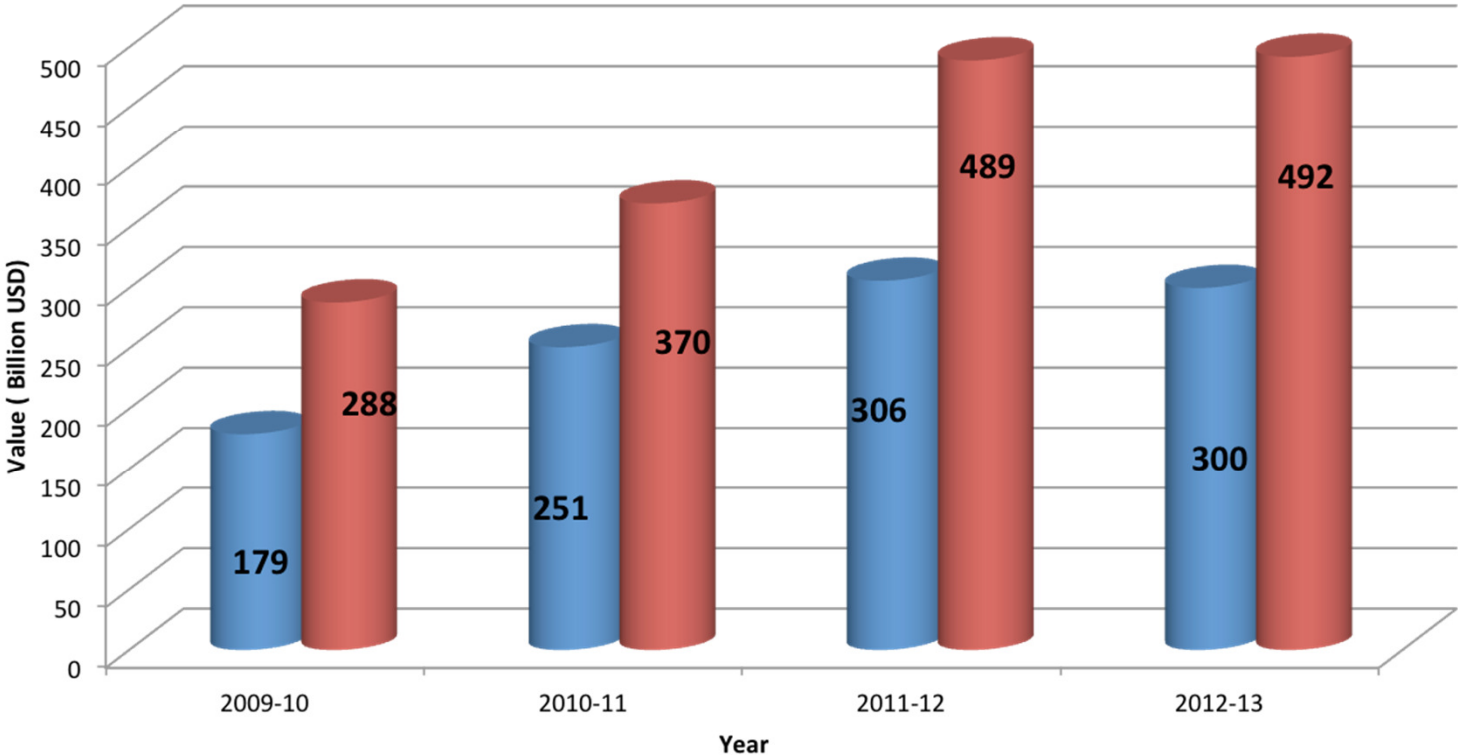
WTO, SPS, TBT, CODEX, OIE, IPPC





International Trade (Billion \$)

■ Export ■ Import





Industry Concerns: Food Additives

- Research and Development
- New Product Development
- Better Consumer Acceptability
- Market Access
- Market Competition
- Economic Considerations
- Product Durability & Stability

Ine world at our Local Grocery Shop





Human Laboratory

- Appearance: Eye
- Acceptance: Nose
- Texture : Touch
- Form : Ear
- Acceptatbity: Tounge



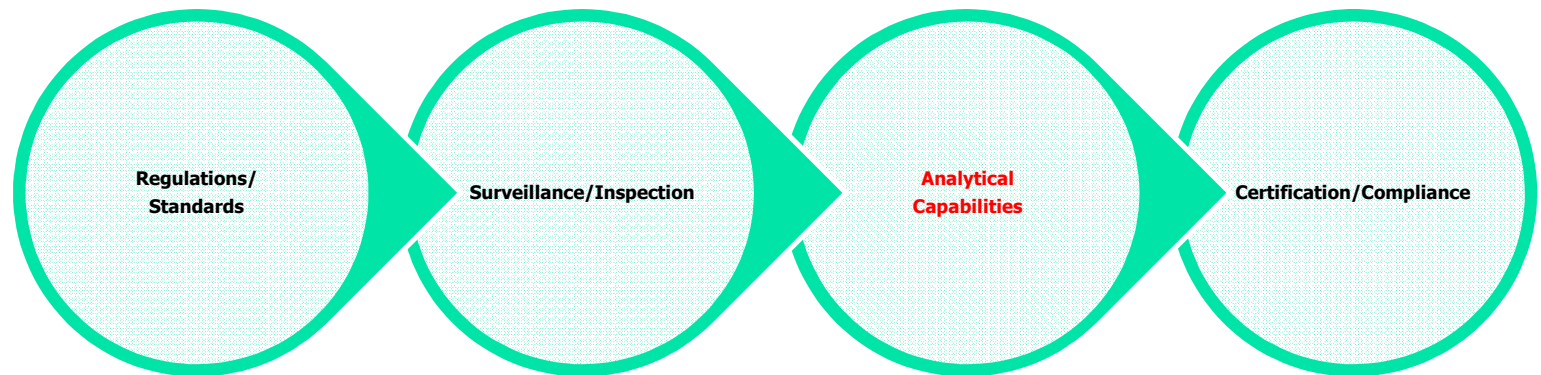


Regulator's Concerns

- Consumer Safety
- Safety Evaluation
- Toxicity
- Acceptable daily Intake
- Synergy Effect
- Food Basket
- International Standard
- Analytical Limitations



Important Pillars of NFCSC





Science at Codex

Decisions:

- The Food Standards, Guidelines and other Recommendations shall be based on the **Principle of Sound Scientific Analysis.**
- Codex Standards must **withstand the most Rigorous Scientific Scrutiny**



Principles of Developing Scientific Advice at Codex Alimentarius

- 1. Excellence:** International Expertise, Global Scientific Discussion and Best Practices
- 2. Independence :** Experts works in Individual Capacity; Declare Conflict of Interest
- 3. Transparency:** Access to the Reports, Evaluation and basic information
- 4. Universality:** Broad Base of Scientific Data, Institutions and all interested through the world are invited to make data available.



Expert Committees & Consultations

- **JECFA**
- **JMPR**
- **JEMRA**
- Biotech Assessment
- Acrlamide
- Malamine
- Antimicrobial Substances

JECFA : History and Background

- Since 1956
- Evaluation of:
 - Food Additives
 - Contaminants
 - Natural Occurring Toxins
 - Residues of Veterinary Drugs
- >1500 Food Additives; >40 Contaminants and NOTs; Approximately 90 VDRs



World Health
Organization



Food and Agriculture
Organization of
the United Nations



Food Additive Specifications

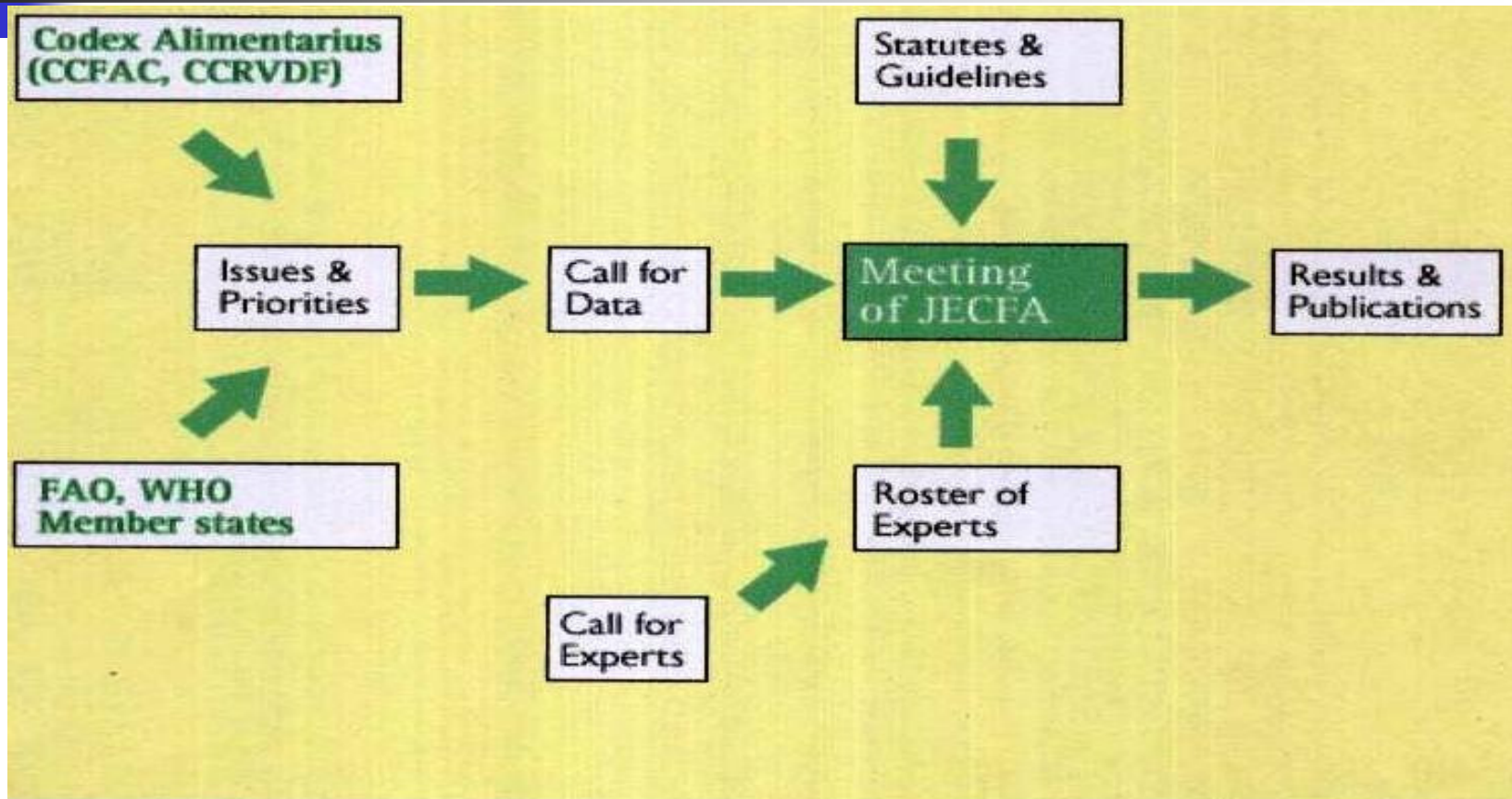
At JECFA:

(Independent Experts)

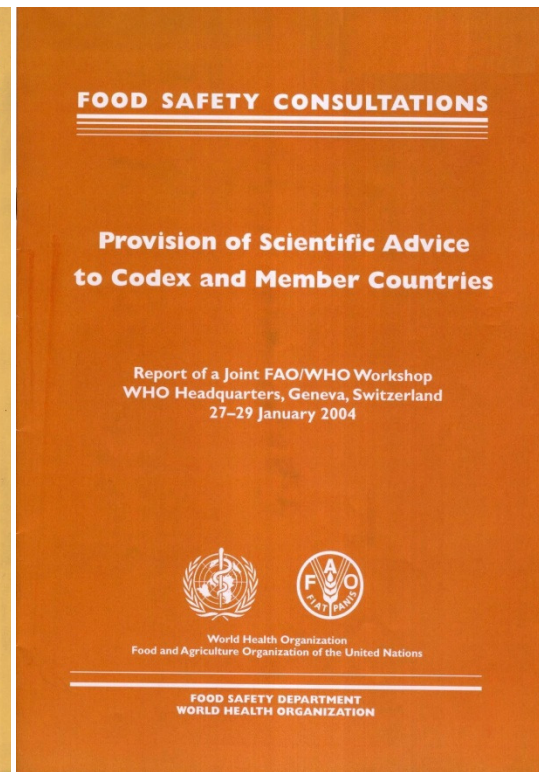
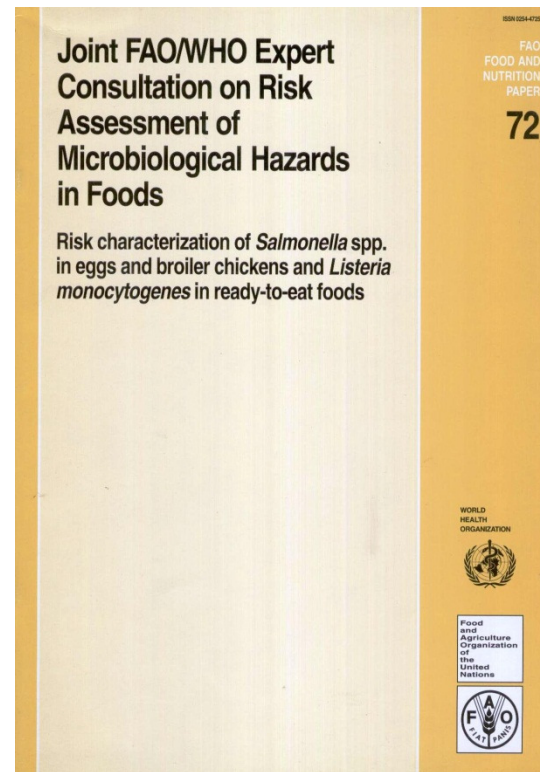
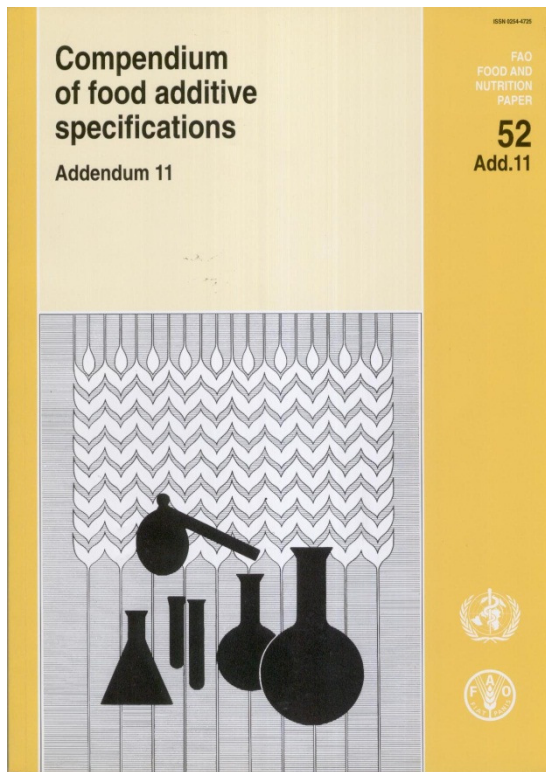
1. Chemists
2. Toxicologists
3. Nutritionists

Outcome: ADI and Specifications

Transparent Process



Outcome of Scientific Process





Science at FSSAI

Food Authority: (Rep. Relevant Stakeholders)

- Scientific Committee
- Scientific Panels
- Task Forces
- Product Approval
- NCCP and Codex Shadow Committees
- CAC for Implementation/Enforcement



Way Forward

- Capacity and Capability Building at FSSAI
- Practical Approach
- Rely on Self Compliance by FBOs



Conclusion

- Harmonization with International Standards
- Acceptance of International Practices
- Recognize Standards of other Standard Setting Bodies
- Fix Provisional Standards
- Expedite the Process



Thank You

Any



Export Inspection Council