HACCP Implementation in India

Experience of Certification Body

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What I will be covering..

- Indian Food Industry
- The HACCP History
- HACCP in current scenario
- Government initiatives
Indian Scenario

- 35 states
- Economy - US $ 1.843 trillion*
- GDP - 10.4% in 2010*
- Labour Force - 467 million *
- Agriculture sector share – 28%
- Biodiversity

* International Monitory Fund
## India ranks

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated Land</td>
<td>(55 Million Ha)</td>
</tr>
<tr>
<td>Milk</td>
<td>(91 Million T)</td>
</tr>
<tr>
<td>Cattle &amp; Buffaloes</td>
<td>(283 Million)</td>
</tr>
<tr>
<td>Tea</td>
<td>(980 Million Kg)</td>
</tr>
<tr>
<td>Arable land</td>
<td>(181 Million Ha)</td>
</tr>
<tr>
<td>Food Grains</td>
<td>(220 Million T)</td>
</tr>
<tr>
<td>Fruits &amp; Vegetables</td>
<td>(151 Million T)</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>(245 Million)</td>
</tr>
<tr>
<td>Sheep &amp; Goat</td>
<td>(182 million)</td>
</tr>
<tr>
<td>Coarse Grains including maize</td>
<td>(204 million T)</td>
</tr>
<tr>
<td>Edible oil seeds</td>
<td>(230 million T)</td>
</tr>
<tr>
<td>Fish &amp; Poultry</td>
<td>(6.3 &amp; 489 Million T)</td>
</tr>
</tbody>
</table>
Major food processing sectors

- Food Grain Milling: 34%
- Meat and Poultry Processing: 10%
- Dairy Products: 16%
- Fish Processing: 4%
- Alcohol Beverages: 3%
- Bread and Bakery: 20%
- Aerated Water/Soft Drinks: 9%
- Fruit and Vegetable Processing: 4%
The History of HACCP Implementation...

1990
- Globalization
  - Started with Fish & Meat industries, HACCP approval by Govt. bodies

2000
- Government schemes for HACCP implementation
  - Encouraged other industries for HACCP
  - Indian Standard IS 15000
  - Nation specific HACCP standards like Irish HACCP, Dutch HACCP, SA HACCP were used for certification.
  - **Codex HACCP, being guideline, is not certifiable.**
  - Essentially...**FOOD** industries

2005
  - Scope...Food Chain

2008
- GFSI approved standards certification like BRC Food, FSSC 22000, IFS

2011
- **Food Standards and Safety Act of India. Schedule IV**
The Food Safety and Standards Authority of India has been established under the Food Safety and Standards Act, 2006 as a statutory body for laying down science based standards for articles of food and regulating manufacturing, processing, distribution, sale and import of food so as to ensure safe and wholesome food for human consumption.
Sector Classification

Petty Food Manufacturer
- Small / Cottage industry
- Stall holder / Hawker
- Petty retailer of snacks/tea
- Dhaba
- Food Stalls / arrangements in religious gatherings, fairs
- Fish / Meat / Poultry Shop / Seller
- Home based canteens / dabba-walas
- Milk vendors

Manufacturer/ Processor

Storage / Warehousing

Distribution

Retailer
So, what are food safety licensing requirements?
What are licensing requirements?

- **Food Safety**
  - Compliance to GMP-GHP requirements as per Schedule IV
  - Plant Layout
  - Details of equipment & machinery
  - Water analysis report
  - Source of raw material procurement for milk and meat
  - FSMS Plan / certificate
  - Medical fitness certificates
  - Qualification details of production technical personnel

- **Legal**
  - Proofs
  - Nominee
  - Annual returns
## Schedule IV requirements

General Hygiene and Sanitary Requirements for

<table>
<thead>
<tr>
<th>Part I</th>
<th>Petty Food Business Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Food Manufacturer / Processor / Handler</td>
</tr>
<tr>
<td>B</td>
<td>Street Food Vendors and Units other than manufacturing / Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part II</th>
<th>Food Business Operators (FBO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part III</td>
<td>FBO in manufacture, processing, storing and selling of Milk and Milk products</td>
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</table>

<table>
<thead>
<tr>
<th>Part IV</th>
<th>FBO in manufacture, processing, storing and selling of Meat and Meat products</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Slaughter House</td>
</tr>
<tr>
<td>B</td>
<td>Meat Processing Units</td>
</tr>
<tr>
<td>C</td>
<td>Meat shops</td>
</tr>
</tbody>
</table>

| Part V   | FBO in catering / food service establishments |
### Part II: Requirements for FBO applying for license

<table>
<thead>
<tr>
<th>Location &amp; Surroundings</th>
<th>Food Testing Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layout &amp; design of food establishments</td>
<td>Audit, Documentation &amp; Records</td>
</tr>
<tr>
<td>Equipment</td>
<td>Sanitation and maintenance of establishments</td>
</tr>
<tr>
<td>Facilities</td>
<td>Personal Hygiene</td>
</tr>
<tr>
<td>Food operations &amp; control</td>
<td>Product information and consumer awareness</td>
</tr>
<tr>
<td>Management and Supervision</td>
<td>Training</td>
</tr>
</tbody>
</table>
Some pictures
Some pictures
Schemes by Governments

- Implementation: Reimbursement of 50% up to max of 25 lakhs
- Expansion/Up-gradation: 50 lakhs

- Implementation: Reimbursement of 33% up to max of 4 lakhs
- Expansion/Up-gradation: 10 lakhs
- Cold storage

- Qualification criteria for CB and Auditors (Food microbiology, Dairy technology, Food technology etc)
- CB Must have local accreditation
Codex HACCP vs Management System standards

**Food Safety Elements**

- HACCP system
  - Preparatory steps &
  - HACCP Principles
- Pre-requisite Program

**Management System Elements**

- Internal Audits
- Management Review
- Validation, Verification
- Traceability
Linkages with ISO 22000 based FSMS

C4: Control of Documents and Records
• Control of Forms, Annexures, Records

C5: Management Commitment
• SOP for top management
• FSMS Certificate / Plan for licensing

C6: Resource Management
• Personnel Training
• Technically qualified personnel for supervision
• Details of machinery & equipments

C7: Planning for safe production
• Schedule 4 – GMP/GHP requirements
• Product information and Consumer Awareness
• Food Product Standards - Limits for Contaminant, Toxin & Residue, Food Additives, Microbiology
• Sampling requirements

C8: Validation, Verification, Improvement
• Internal Audit
• Traceability & Product Recall plan
Everyone responsible for Food Safety

**Government**
- Food Legislation & Enforcement
- Guidelines for Industry/ Trade
- Information Gathering and Research
- Provision for Health related services
- Consumer Education
- **Introducing HACCP in the curriculum**

**Academia**
- Follow GMP-GHP requirements
- Quality Assurance
- Trained Managers and Food Handlers
- Appropriate Process and Technology
- Informative labeling

**Industry**
- Educated & Knowledgeable Public
- Active Consumer Groups & community participation

**Consumer**
Key Challenges:

- Appropriate understanding HACCP as per nature of the organization
- Improper implementation of Pre-requisites / Basic hygiene principles
- High / Heavy / Complicated documentation
- Perception that HACCP implementation requires high cost
HACCP Users...

- Food
- Personal Care
- Ayurvedic
- Tobacco
- Toothpaste
- Pet Foods
Summary

- Codex HACCP is the basic requirements to comply for compliance towards food safety
- Codex HACCP defines the technical requirements, however management system elements are essential for its continual maintenance.
- FSSAI has made Basic principles of Hygiene and food safety mandatory through its licensing requirements.
- It’s a shared responsibility of all.....
- Wider application
Thank you !!!

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