



International Conference on Best Practices in Food Safety Implementation

Summary of recommendations of International Conference organized by Food Safety and Standards Authority of India (FSSAI), The Energy Resources Institute (TERI) and Michigan State University (MSU)

March 19-20, 2013, India Habitat Center, New Delhi, India
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Policy Brief

WorldTAP: Accessing knowledge, information and technologies through training, capacity building and networking

Food security remains a very high priority for the government of India. Food safety is a critical component of food security globally. There can be no food security without a safer food supply. The Indian culture is diverse in its food habits. This diverse food culture goes back thousands of years and food habitats are mixed with the culture. The diverse food preferences of more than 1.2 billion people in India are largely served by “street vendors.” With the new trends of globalization and market-driven food systems, the demand for processed food is growing and new supermarkets are emerging. Under the Food Safety Act of 2006, the government of India established the Food Safety and Standards Authority of India (FSSAI). Since 2006, the FSSAI has been actively engaged in building a functional food safety system that is in-line with international treaties and standards.

In April 2010, the FSSAI in collaboration with the Energy and Resources Institute (TERI) and Michigan State University (MSU) hosted an international workshop on “Best Practices in Food Safety Implementation in the International Arena”

to share the experiences of the global community and assist in strengthening the food safety system in India. As a follow-up to this workshop, the FSSAI, TERI and MSU hosted the second international workshop from March 19 – 20, 2013, at the Habitat Center in New Delhi to continue the experience and information sharing and build global knowledge partnerships in food safety.

The workshop brought together a diverse group of more than 60 stakeholders representing various regulatory agencies, research institutes, private food industry, universities, NGOs, and non-profit organizations in India. In addition, six representatives from the USA and the Netherlands attended the workshop and shared their experience in food safety implementation. Four interactive sessions and panel discussions were held during the workshop. These sessions covered the following key topics:

- Session 1 - How should food safety be regulated?
- Session 2 - Science, technology and innovations in food safety
- Session 3 - Food safety in street food and retail supply chain



Participants of the International Conference on Best Practices in Food Safety Implementation.

- Session 4 - Challenges in food safety - adoption of global standards and food safety risk communication

The workshop was officially inaugurated by Shri K. Chandramouli, chairperson of the FSSAI, Dr. Ligia Noronha, executive director of TERI, and Dr. Karim Maredia, director of World Technology Access Program (WorldTAP) of MSU. Shri Chandramouli gave an overview of the role of the FSSAI in the implementation of the Food Safety and Standards Act, 2006. He strongly emphasized reaching out to the entire spectrum of the food industry to encompass everything from street vendors to modern food outlets. Shri Chandramouli also stressed the need for training and capacity-building to implement and harmonize the national food safety regulations that meet international standards as well as reaching out to consumers in a simple language to build their confidence and trust. Dr. Ligia from TERI stressed the need for the ecosystem approach to food safety and the need for collaboration across various sectors. Dr. Maredia further emphasized the need for international cooperation, collaboration and exchange of experiences and best practices.

The following sections summarize the four thematic sessions and the key recommendations.

Session I - How Should Food Safety be Regulated?

The food system in India is very complex, ranging from street vendors to modern restaurants and supermarkets. In India, there are more than 55 million food business operators spread out across the country in 28 states and seven Union territories. More than 80 percent of the food business operators fall under an unorganized sector with very little awareness on the importance of food safety issues.



Inauguration speech by FSSAI Chairperson Shri Chandramouli.

The FSSAI, established under the Ministry of Health and Family Welfare, is the country's primary food safety agency authorized by the Food Safety and Standards Act, 2006. While FSSAI is charged with development of policy and regulations, risk analysis, certification of laboratories, training, data collection and other functions, the Food Safety Authorities in each of the 28 states are responsible for much of the food safety enforcement at the local level.

Although India has established the basic infrastructure required for effective regulatory food safety governance, there are many areas yet to be addressed and strengthened. These include continued building of regulatory capacity throughout the country, training of staff, establishing standards, working with industry on training programs, monitoring industry compliance and adopting international standards. To that end, the following recommendations are made.

Key Recommendations:

- Harmonize the local food standards with international standards.
- Assess FSSAI and State Authority staff training needs, identify competencies and develop a





training curriculum that would meet the needs of regulators across the country.

- Develop training and awareness programs for the food business operators and regulators.
- In collaboration with various stakeholders, develop a plan to harmonize food safety regulations for domestic, imported and exported foods, utilizing international standards (i.e., Codex Alimentarius) to the extent feasible. The plan would establish priorities and phase-in for different industry segments and cover small, medium and large food businesses.
- Work with the food industry to develop food safety training programs that will assist different industry segments to come into compliance.
- Develop and maintain a database of food business operators across India.

Session 2 - Science, Technology and Innovation for Food Safety

This session discussed the changing landscape of food safety in the global food supply, changing science, media influence, new threats and new regulations on food safety. The session highlighted the

technological advances that are being utilized and explored in various aspects of food safety including tools for detecting microbial contamination, food adulteration, allergens (ELISA tests) and toxins harmful for human consumption, to name a few. Also discussed was DNA probe technology utilized for the detection of harmful bacteria in food processing plants to ensure good hygienic conditions before, during and after food is processed. In addition, the development of genomic solutions for food safety and labeling for traceability are now being increasingly utilized and these technologies will continue to evolve. The Indian food industry has rapidly adapted the technological advances in India and elsewhere, thus making food safety systems more rapid and efficient. The session also highlighted the Food Safety Modernization Act passed by the U.S. government in 2011, which is having impact on food safety systems around the world, especially countries that trade with the U.S.

Key Recommendations:

- Explore and utilize the new analytical and diagnostic tools; rapid testing methods and procedures; and new, emerging technologies for making food safety systems more efficient.
- Develop new grants and funding opportunities for research and innovation in food safety.
- Adopt innovations in educational systems for implementing food safety including introducing new courses, degree and certificate programs, online courses/modules and industry-based internships through public-private partnerships.
- Utilize innovations in labeling food products that align with the socio-cultural diversity in India.

Session 3 - Food Safety in Street Food and Retail Supply Chain

The landscape of the food system in India is very diverse, ranging from unorganized food businesses





- Require food businesses to obtain a license from FSSAI in order to operate.
- Initiate education on occupational hazards associated with heavy metals and pesticides in food.

Session 4 - Challenges of Food Safety – Adoption of Global Standards

India's growing middle class, along with its growing economy, make it an important force in the international marketplace. In order to capitalize on the increased potential for imports and exports, India should strive to meet the Codex Alimentarius standards for food safety, especially for those products it exports. A strong regulatory system that works closely with the exporting food sector can help assure that India develops a global reputation for safe food products. This session also highlighted the importance of risk communication with diverse groups of stakeholders and the general public. Additionally, the challenges related to food traceability and food recalls were discussed.

In order to assure that India capitalizes on its important role in the global marketplace and addresses issues related to risk communication traceability and recalls, the following recommendations are offered.

Key Recommendations:

- Develop food safety standards that are in line with Codex Alimentarius and other international standards bodies.
- Develop mechanisms to provide better coordination and cooperation among business stakeholders who function, or will function, in the international arena. Develop and execute implementation plans that include industry training, compliance monitoring and third-party certifications.
- Develop new programs on risk communication with various stakeholders and the general public that fit with the diverse cultures, food habits and socio-economic situations in India.
- Explore and adapt best practices in food traceability and recalls from international experiences.

representing street food vendors and food retail shops to emerging organized sectors representing fast food and high-end restaurants and supermarkets. The street food vendors and food retail operators represent over 80 percent of food businesses in India. In 2009, a national policy on street food vendors was adopted under the Ministry of Food Processing.

A large segment of population in India depends on street food and retail food operators. Usually street foods are prepared fresh on a daily basis and are more affordable compared to formal restaurants. It is estimated that more than 55 million street food vendors and food retail operators are doing business on streets in urban and rural areas across India. Because of its minimal investment need, many are drawn to the low-capital street food business. One presentation highlighted that 70 percent of the total population surveyed in Delhi city purchases street foods.

As consumer awareness of food safety issues grow, so grows the demand for safe and hygienic street foods. There is a need for regular inspection of regulatory compliance by street vendors and food retail operators. Inspection should include stall construction and sanitation, cleanliness of raw materials and water used in food preparations, cleaning procedures and waste disposal practices.

Key Recommendations:

- Harmonize laws and enhance coordination between ministries to strengthen the food retail supply chain.
- Organize focused workshops on improving safety and quality of food for both unorganized and organized sectors; promote "Street Food Festivals" to create greater awareness on food safety and hygiene issues.
- Formulate food safety regulations in consultation with street food vendors, retail food operators and the food industry.

A Way Forward

The conference participants strongly emphasized the need for all stakeholders to work together to build public trust and confidence in food safety systems.

FSSAI Chairperson Shri Chandramouli stressed that food safety issues related to street foods should be communicated in a simple and easily understandable language for the greater acceptance of regulatory and safety requirements. Dr. Nutan Kaushik from TERI suggested the organization of similar workshops at the state level across India and highlighted the need for more cooperation among various organizations in India. Dr. Karim Maredia from MSU emphasized the need for human resources development and expanded international collaborations for sharing experiences and best practices in food safety.

Based on the presentations and panel discussions at the four interactive thematic sessions, the stakeholders at the workshop made the following key recommendations for the way forward to strengthen food safety capacity in India.

1. Improve training and capacity-building programs for regulators, food business operators, laboratory analysts and other stakeholders with special focus on food safety management systems, risk assessment, risk management and risk communication.
2. Harmonize food safety regulations and standards for domestic food, imported food and for food products that are exported, including small, medium and large enterprises.
3. Develop and maintain a database of food business operators across India.
4. For street food safety, develop awareness and educational programs for street vendors and develop programs to motivate, reward and recognize street food vendors for their compliance with food safety regulations and standards.
5. Develop mechanisms for better coordination and cooperation among various stakeholders, government ministries and departments that are engaged in food safety implementation and enforcement.
6. Develop risk communication plans and programs for reaching out to all stakeholders.
7. Develop human resources and institutional capacity for monitoring, evaluation and impacts assessment of food safety programs.



8. Enhance food safety educational programs at higher education institutions; offer online programs to train a large pool of regulators and food officers; and develop food safety programs for school children.
9. Develop rapid alert systems for food recalls and emergencies related to food safety.
10. Develop new grants and funding opportunities for research and innovations in food safety.
11. Develop food safety standards that are in line with Codex Alimentarius and other international standard-setting bodies.
12. Upgrade existing laboratory infrastructure and establish new referral laboratories that meet international standards.
13. Collaborate with other countries. Expand professional exchanges and fellowship programs for FSSAI regulators, food officers and laboratory technicians to visit international food safety programs and attend various training sessions and conferences.



MSU and TERI teams visiting FSSAI head office in New Delhi.



Table 1: Institutions Represented at the Workshop

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| Food Safety and Standards Authority of India (FSSAI) | New Delhi | India |
| Tata Energy and Resources Institute (TERI) | New Delhi | India |
| Michigan State University (MSU) | East Lansing | USA |
| Marico India Pvt. Ltd | Mumbai | India |
| Netherlands Food and Consumer Product Safety Authority (NFCPSA) – Embassy of the Netherlands in India | New Delhi | India |
| Food and Agriculture Center of Excellence (FACE) | New Delhi | India |
| Confederation of Indian Industry (CII) – Institute of Quality (IQ) | Bangalore | India |
| National Association of Street Vendors of India (NASVI) | New Delhi | India |
| Public Health Engineering Department (PHED) | West Bengal | India |
| Federation of Indian Chambers of Commerce and Industry (FICCI) | New Delhi | India |
| International Food Information Council (IFIC) | Washington D.C. | USA |
| National Institute of Nutrition (NIN) | Hyderabad | India |
| U.S. Food and Drug Administration (FDA) – New Delhi Office | New Delhi | India |
| Central Food and Technology Research Institute (CFTRI) | Mysore | India |
| Quality Council of India (QCI) | New Delhi | India |
| Consumers Association of India (CAI) | New Delhi | India |
| Mother Dairy Cooperative | Delhi | India |
| Amar Chand Mangaldas Associates (ACMA) | New Delhi | India |
| Voluntary Organization in Community Enterprise (VOICE) | Mumbai | India |
| National Institute for Smart Government (NISG) | Hyderabad | India |
| Indira Gandhi National Open University (IGNOU) | New Delhi | India |
| Export Inspection Council (EIC) | New Delhi | India |
| GlaxoSmithKline (GSK) | Mumbai | India |
| Delhi University | New Delhi | India |
| United Phosphorous Limited (UPL) | Mumbai | India |
| Global Language of Business (GS1) | New Delhi | India |
| U.S. Agency for International Development – India Mission | New Delhi | USA |