

File No.10/QA/CB/FSSAI/2016
Food Safety and Standards Authority of India
(A Statutory Authority established under the Food Safety & Standards Act, 2006)
Quality Assurance Division
FDA Bhavan, Kotla Road, New Delhi-110 002

The ²⁵October, 2016

Subject: International Food Safety training Laboratory Network- India - reg.

Sir/^{Madam}.

FSSAI in collaboration with Global Food Safety Partnership is organizing training program in Singapore from 30.11.2016 to 13.12.2016 to train master trainers for Food Testing staff of India.

2. The pilot training will help create a set of master trainers in the country who in turn will deliver training to food testing personnel. The training program would be focused on pesticide residue analysis and Mycotoxins.
3. In this regard, you are requested to nominate one laboratory personnel from each lab located in your state in the prescribed application form for attending this training program latest by **4th November 2016**. The participants selected for the training will be finalized by FSSAI and will be informed by FSSAI well in advance.
4. This training program is open for FSSAI notified Central government labs, State government labs as well as some private food laboratories subject to they bearing their own travel and stay costs.
5. The boarding/lodging, TA/DA and associated expenses for all central and state government laboratories will be met by FSSAI.
6. The Master trainers trained under this program would be extensively utilized for in-country training programs across the country.
7. A copy each of information brochure and application form is enclosed.


25/10/16

R. K. Gupta
Head (QA)

Phone- 011-23220990

To,

1. Food safety Commissioners (All States and UTs)
2. Referral Laboratories
3. All FSSAI notified laboratories



International Food Safety Training Laboratory Network- India

By

Food Safety and Standards Authority of India in collaboration with Global Food Safety Partnership and Joint Institute for Food Safety And Applied Nutrition

30th November to 13th December 2016

Application Form

1. Name:
2. Date of Birth:
3. Sex: Male/Female:
4. Designation:
5. Present Employer address:
6. Correspondence address:

Fax:

E-mail:

Mobile:

7. Educational Qualification:

8. Work Experience in analytical Field: () years

S.No	Name of Organization	Field of Work	Period	
			From	To

Date:

Place:

Signature of the applicant

Recommendation of the forwarding Authority

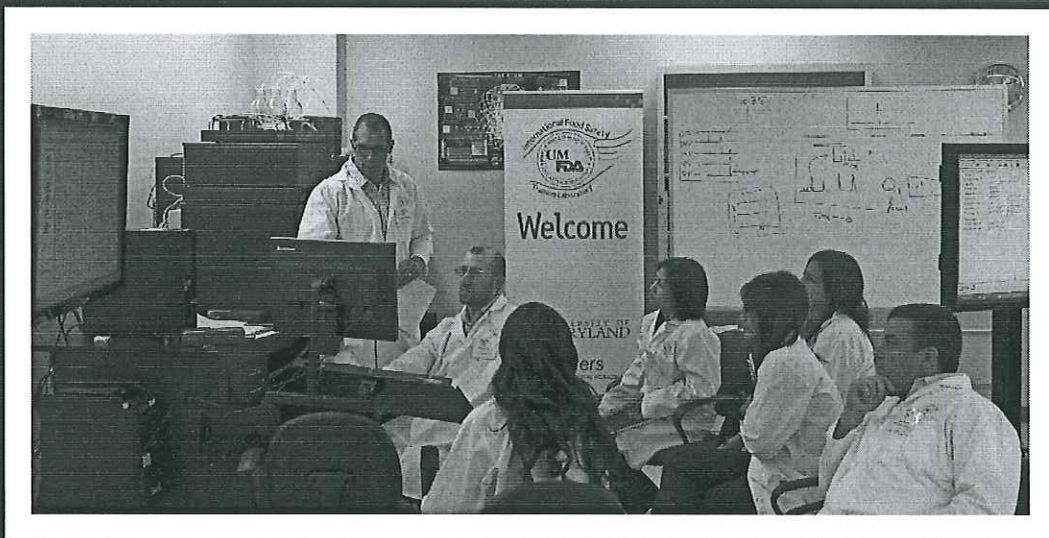
Date:

Signature

Name & Designation

GLOBAL FOOD SAFETY PARTNERSHIP (GFSP)

International Food Safety Training Laboratory Network –India–



Prepared by the GFSP Laboratory Capacity Building Task Group

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Rationale for Food Safety Testing

The roles of testing in the food safety system are fairly straightforward:

1. Provide quantitative data for risk assessment that is the basis for regulations
2. Enforcement of regulations, which is only possible when non-compliance can be demonstrated by test results.
3. Monitor changes of the risk (surveillance), which may be due to new practices or new threats to the food safety system such as environmental disasters or economic fraud

For businesses, the role of testing is to open trade markets and maintain the trust of trade partners. Laboratory testing is a quality control activity that is part of a quality assurance plan. Figure 1 illustrates the drivers for analytical testing along the food value chain as presented in the GFSP commissioned proposal to develop a framework for international food safety laboratories training and capacity building¹.

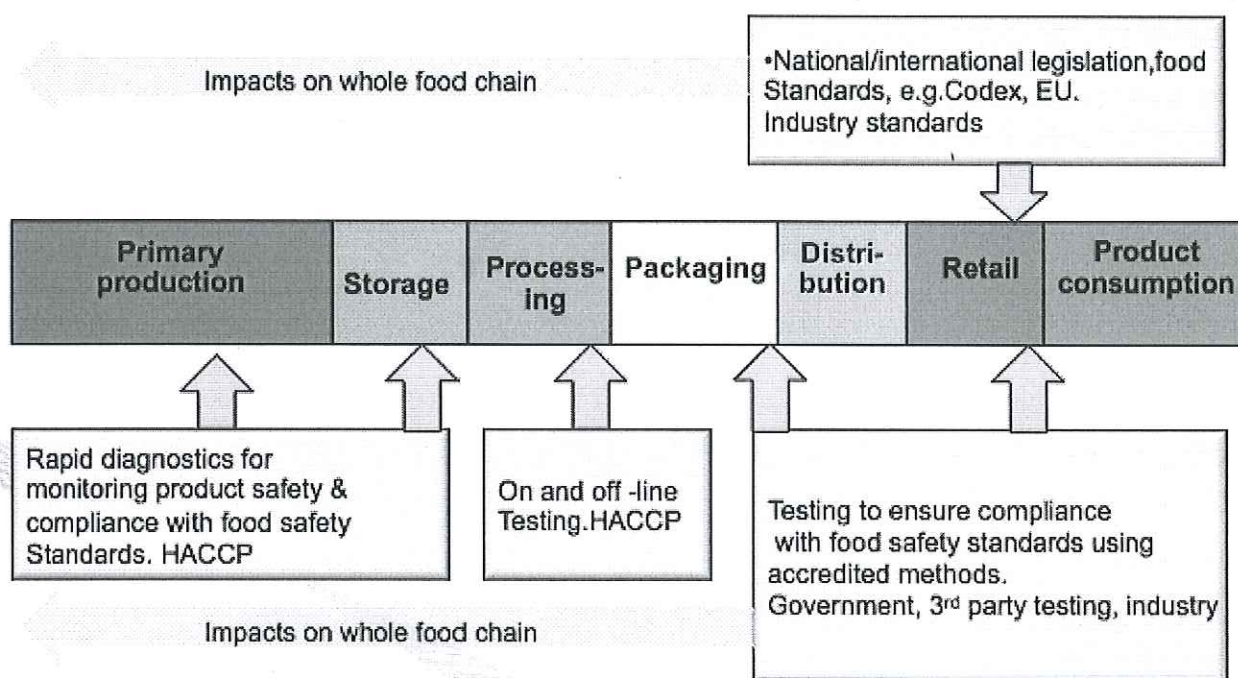


Figure 1: Drivers for analytical testing along the food value chain.

¹<http://documents.worldbank.org/curated/en/2014/01/19712282/proposal-develop-framework-international-food-safety-laboratories-training-capacity-building>

Model

Several models have been attempted to develop capacity in food safety laboratories. Following consultation with a variety of stakeholders with experience in this field, a pilot project was performed under the auspices of the GFSP in 2015. Following the pilot, stakeholders reflected on the model and refined it to include support far beyond the training activities.

The first block of the model includes the selection of future trainers and their training in a controlled environment that promotes networking opportunities and a broadening of the analysts' horizons from strictly lab procedures to a food safety systems perspective.

- Objective: Develop resources for long-term impact.

The second step involves these new trainers in a GFSP-support reproduction of training in their or a neighboring country. At this time, the host laboratory need not be a long-term partner as the objective is to transfer skills. This laboratory should however provide a very controlled environment.

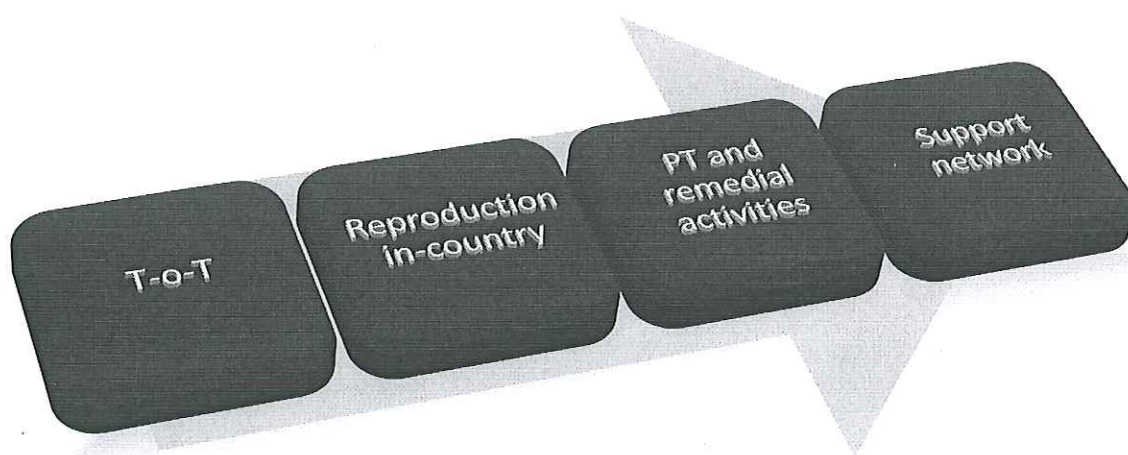
- Objective: Scale the develop skills where needed.

The third step is a verification of the learning through proficiency testing. This step includes follow up activities to correct problems that may have caused large variations in the results.

- Objective: Verify that the skill level needed is met.

Finally, the last step of the model is active participation in a support network. This final step will require partnerships with laboratories that can act as hosts for further training, with numerous subject matter experts to provide guidance to the members of the network, and coordination to arrange support activities (for example webinars, twinning opportunities, training, etc.).

- Objective: Multiplicative effect and long term impact.



Lessons Learned from Pilot Projects

Pilot projects focused on laboratory capacity building have been done by many different organizations and for many different combinations of topics and target markets. We gathered lessons learned.

1. E-Learning is not an effective tool for laboratory capacity and should be considered only for follow-up activities
2. In-country partner organization should be heavily involved, right from the start and name a senior point of contact in the local organization. Ideally, someone should also be designated for media interviews.
3. Training of trainers should be understood as the corner stone of the program
4. In-country training should be hosted by the new instructors (beneficiaries of T-o-T)
 - a. In-country training needs to be performed in a VERY well-controlled laboratory
 - i. New instructors do not have the kind of confidence needed to deal with instrumentation problems or missing supplies during the first reproduction.
 - ii. The host laboratory needs to be flexible, generous, and capable of offering technical support.
 - b. In-country partner should be responsible for the logistics costs of hosting the in-country training
 - i. GFSP funds should be used only to bring in subject-matter experts (honorarium and travel) and possibly travel for trainees from surrounding countries if it is a multi-country event.
 - b. Proficiency testing is mandatory to verify the skills transferred.
 - c. Follow-up training shall be arranged to address the reasons behind large variations in the PT results (if any).
5. In-country training should include an instructor from the T-o-T organization.
 - a. The "foreign" instructor should give lectures related to international trade in the reproductions of training
 - b. If the local instructors are not sufficiently senior in the host organization, the foreign instructor should remain during the entire reproduction to infuse confidence and ensure proficiency.
 - c. The "foreign" instructor should be responsible for providing the GFSP with a list of names of trainees with potential to become future instructors.
6. A one-day seminar on the subject of the training should be planned for each reproduction to facilitate the participation of more stakeholders (lab managers, industry dealing with regulatory requirements, etc).
 - a. This seminar is a uniting event, where local and international stakeholders from government, industry and academia could discuss and better understand the concepts of regulatory harmonization and trade impacts.
 - b. This seminar also provides a much needed broader understanding of the role of laboratory analysts in food safety.
 - c. This day is also a very good networking opportunity and probably the best fit for the inclusion of guest subject matter experts.
7. The intention to deliver reproductions of training should be communicated to other organizations involved in laboratory capacity building to ensure proper coordination of efforts.
 - a. Coordinating participants lists, the organizations involved, the subjects covered in prior training sessions and encouraging those who have received training before into instructor roles would be more beneficial for the local organizations.
 - b. Costs can be shared by combining events from multiple organizations.

3-Year Training Plan for India

Objective

Launch a train-the-trainer program focused on laboratory capacity building for food safety in India, and support the deployment of a sustainable training program in India.

Target Outcomes

1. Network of instructors resident in India to support broad deployment of training in the country and in the region;
2. Instructors up to date on instrumentation and methods capable of supporting decision-making and documentation of standards and practices in laboratory testing for food safety in India;

Priority Areas

Pesticide residues and mycotoxins

Partners

1. Lead partners
 - a. Local Lead: Food Safety and Standards Authority of India (FSSAI)
 - b. Global Food Safety Partnership (GFSP)
2. Contributing partners
 - a. University of Maryland, JIFSAN
 - b. Waters Corporation
 - c. Food Industry Asia
 - d. Others TBD

Proposed Program of Activities

This program will initially train 6-12 future instructors on fit-for-purpose methods for the determination mycotoxins and pesticide residues in food. The future instructors shall be selected by FSSAI and must meet the following minimum requirements:

- Current function as laboratory analyst using LC-MS or GC-MS
- Good communications skills, both oral and in writing
- Good organizational skills to arrange future training sessions for your organization and others in India
- Ability to understand English is a plus, but not essential
- Flexibility to travel and ability to obtain a visa for training in the U.S.

a) Mycotoxins in Food

- Principles of risk assessment for the establishment of MRLs
- International regulations related to mycotoxins and fit for purpose methods
- Chromatographic methods including HPLC with both fluorescence and mass spectrometric detection
- Sample preparation and processing
- Sample extraction and clean up including QuEChERS and dSPE
- Detection by modern instrumentation
- Data processing and review

- QA/QC

b) Pesticide Residues in Food

- Principles of risk assessment for the establishment of MRLs
- International regulations related to pesticides and fit for purpose methods
- Screening and confirmation methods (GC/MS/MS and LC/MS/MS)
- Sample preparation and processing
- Sample extraction and clean up including QuEChERS and dSPE
- Detection by modern instrumentation
- Data processing and review
- QA/QC

Monitoring and Evaluation

A combination of factual tests and surveys will be used to verify immediate knowledge transfer and satisfaction. The final evaluation of achievement of laboratory capacity will be assess through a formal proficiency testing scheme.

Timeline for Year 1

Activity	Month/year
1- Identify sponsors and POC at FSSAI	9/16
2- Identify future instructors (Mycotoxins)	10/16
3- T-o-T #1 (Singapore?)	12/16
4- Training #1 in India	4/17
5- Trainings #2-3 in India	6/17
6- Proficiency testing round	8/17
7- Evaluation of results, draft Y2-3 plan	9/17