

SoFTeL

Strengthening of Food Testing Laboratories*





Six Initiatives of The Scheme

FSSAI is committed in its endeavour to ensure science based standards for articles of food. Food testing becomes an integral part of Food Safety Regulation and Enforcement. A network of food testing laboratories (State Food Testing Labs, and Referral labs) has been established across the country.

However, the testing facilities available in these laboratories are facing challenges in terms of - 1) availability of sophisticated analytical equipment and 2) trained scientific and technical manpower.

In order to strengthen and develop a robust Food Testing Laboratory network in the country, FSSAI has formulated a scheme for Strengthening of Food Testing Laboratories (SOFTeL) in the country. The scheme consists of a bouquet of six initiatives.





Food Testing Laboratory ecosystem in India.

Introduction

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders and other food related issues that have hitherto been handled in various Ministries and Departments. FSSAI has been created for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption.

Food testing laboratories are an integral part of food safety regulatory system. FSSAI has inherited 72 State food testing laboratories notified under Prevention of Food Adulteration Act (under the transition provision under Section 98 of FSS Act, 2006), for primary testing and surveillance.

Section 43 (1) of FSS Act, 2006, provides that the Food Authority may notify food laboratories and research institutions accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) or any other accreditation agency for the purposes of carrying out analysis of samples by the Food Analysts under this Act.

Section 43 (2) of FSS Act, 2006, also provides that the Food Authority may establish or recognise by notification, one or more referral food laboratory or laboratories to carry out the functions entrusted to the referral food laboratory by this Act or any rules and regulations made thereunder.

Food Testing labs are involved in multiple functions like;

- Enforcement of food laws by virtue of testing food against the prescribed quality and testing parameters;
- In surveillance activities to ensure that the food products sold are standardized and also complying with the existing standards,
- Assist in testing of imported food thereby ensuring a transparent mechanism of trade and also testing for regulatory compliance.
- Apart from this, the laboratories form the basis of all risk assessment which is the core of development of food standards.

These laboratories can be used by the regulator, consumer and also Food Business Operators (FBOs) to ensure compliance of food laws at all levels.

Currently there are 198 laboratories which are utilized by FSSAI for testing of food samples. These include:

- (i) 72 laboratories functioning under the State/ Union Territory Government (utilized for primary analysis of sample by the Food Analyst under FSS Act, 2006).
- (ii) 112 laboratories NABL (ISO 17025) accredited private laboratories notified by FSSAI for the purpose of carrying out primary analysis of samples under FSS Act, 2006.
- (iii) 14 Referral Laboratories notified by FSSAI for the purpose of referral testing under FSS Act, 2006/ Rules & Regulations, 2011 (i.e. analysis of appeal samples). These come under various Central Government Ministries/ Departments.

Details of the laboratories are attached at Annex I.



Assessment of the Current Status of Food Testing Labs

In order to strengthen and develop a robust Food Testing Laboratory network in the country and for determining the area of work requiring immediate attention for the same, FSSAI undertook a baseline survey of State Food Testing Laboratories from September 2013 to Jan 2014 in which various teams travelled across the country to assess these labs by using the finalized assessment tool (objective checklist); to find the gaps which can be filled with a final objective of accreditation of all these 72 labs by NABL against ISO 17025 which is the International Standard for Laboratory Accreditation. These 72 State/Public Food Laboratories existed in PFA regime and were taken over under FSS Act, 2006 in the transition provision. It was found that at present only 62 state food laboratories were functional across the country.

The first priority in supply of safe food would be assured by testing the food items for the safety parameters such as Pesticide residues, Heavy metals, naturally occurring toxic substances (NOTS) and Microbiological parameters which have a direct impact on the human health. During the baseline assessment, it was found that the testing facilities for these safety parameters are not available in the majority of state food testing labs. Further, the gap study indicated that in the State Food Testing Laboratories there is an urgent need to upgrade these laboratories both in terms of testing infrastructure, availability of trained scientific and technical manpower for food testing and put in place a more reliable laboratory management and operating procedure.

The need for strengthening of State food testing Labs has also been commented upon by the Honorable courts and media. Recently, Hon'ble High Court, Bombay while hearing Writ Petition (L) No. 1688 of 2015 made the following observations:

“the laboratories where the food samples were tested were either not accredited by NABL or not recognized by the food authority under section 43(1) of the Act or even if they were accredited or notified, they were not accredited to make analysis in respect of lead in the samples.”

FSS Act-2006 has also laid emphasis on the role of the food analyst and the standard of food testing laboratories. It has therefore become imperative to put in place a reliable food testing laboratory system in the country. With these objectives in mind, FSSAI has formulated a comprehensive scheme for the strengthening and upgradation of Food Testing Laboratory ecosystem in country.



Scheme for strengthening of Food Testing Laboratories

FSSAI has taken a 360° view of the Food testing Laboratory ecosystem in the country while formulating this scheme. The scheme focuses on all aspects of food testing system including strengthening of state food labs and referral labs, capacity building of food analysts and other technical personnel engaged in the analysis of food (both within and outside the Government), and incentivisation of the states for using the testing facilities already available in the FSSAI notified labs, thereby reducing the burden on the government labs. The scheme also envisages involving schools and colleges in our endeavor to ensure safe and wholesome food by generating awareness among the school and college going youth through exposure to the food testing in their internal labs. The SoFTeL scheme has six major components viz.



- Strengthening of State Food Testing labs
- Strengthening of Referral Food Testing Labs
- Support for Mobile Food labs
- Capacity Building of Food Testing Laboratories Personnel:
- Incentivising States to utilise the facilities available in FSSAI Notified Labs
- School Food & Hygiene Programme

An Empowered Committee chaired by Chairperson, FSSAI will oversee the implementation of the scheme. The composition of the Empowered Committee is as under:

| | | |
|----|---|------------------|
| 1 | Chairperson, FSSAI | Chairman |
| 2. | CEO, FSSAI | Member |
| 3 | Nominee of Secretary, Department of Health and FW* | Member |
| 4 | Chairman, Scientific Panel of Method of Sampling and Analysis | Member |
| 5 | Representative of NABL | Member |
| 6 | One Food Technologist to be nominated by FSSAI | Member |
| 7 | Representative of MoFPI. | Member |
| 8 | Head (QA), FSSAI | Member Secretary |

* Department of Health and FW may have more than one nominee, if deemed necessary. The Empowered Committee may nominate any other expert as member of the Empowered Committee.

Terms of reference of the Empowered Committee:

- To consider the proposals received from the States/UTs for upgradation of Food Labs for approval of total cost and release of funds; and establish cost norms for each component.
- Approve State-wise allocation for various activities;
- To oversee the progress of upgradation from time to time and suggest remedial actions for fast tracking;



(iv) To approve the cluster of Districts for each Mobile Food Laboratory, proposed by the State/UT and release of funds for Mobile labs;

(v) Inter-se allocation of funds for various activities under the scheme; and

(vi) To take all such decisions as may be required from time to time for successful implementation of the Scheme.

Strengthening of State Food Testing labs

The objective here is to equip at least one of the Food testing Laboratories in each State/UT and two labs in larger States. A total of 45 State labs are proposed to be strengthened under the scheme. Equipping these labs with latest state-of-the-art analytical instruments would enable them to:

- Analyse the regulatory and surveillance samples drawn by the FSO within the shortest possible time frame.
- Analyze the safety parameters in food samples such as Heavy metals, Pesticide residues, Antibiotic and drug residues and Naturally occurring toxic substances along with Microbiological tests.
- Reduce the time taken from sample collection to sample analysis
- Ensure compliance of FSSAI standards on food
- Enable the laboratory to achieve NABL accreditation within 2 years from the date of release of final installment.
- Become a resource point for training and facility up-gradation for other existing Government/Public Food testing laboratories in the State
- Introduce online laboratory data management system through Laboratory Information Management System (LIMS)

FSSAI will provide the support to the States food testing labs for procurement of following major equipment facilities and other related head under the scheme:

| Upgradation of State Food Testing Laboratory | Estimated Cost (Rupees in crore) |
|---|--|
| Setting up of Microbiological Laboratory | 1.00 (One Time) |
| Inductively Coupled Plasma Mass Spectrometer (ICP-MS) along with all accessories and sample preparation facility | 1.50 (One time) |
| Gas Chromatograph Tandem Mass Spectrometer GC MS/MS with all accessories and Sample Preparation facility | 1.50 (One time) |
| Liquid Chromatograph Tandem Mass Spectrometer LC MS/MS with all accessories and Sample Preparation facility | 2.50 (One Time) |
| Infrastructure for sophisticated equipment in terms of appropriate laboratory space and other utilities, civil works and UPS etc. | 0.50 (One time) |
| Professional Services | 0.45 (Rs. 0.15 crore per yr. for 3 yrs.) |
| Consumables | 0.30 (Rs. 0.10 crore per yr. for 3 yrs.) |
| Contingency | 0.30 (Rs. 0.10 crore per yr. for 3 yrs.) |
| Total cost Upgradation of One State Food Testing Laboratory | Rs. 8.05 crore |
| Establishment cost of New food testing lab in NE States (Excluding land Building) | Rs. 3.00 crore |

Details with respect to the proposals received so far from the States till date are attached at Annex 2.





Procurements of Major Equipment:

- a. FSSAI will constitute an Empowered Committee under the Chairmanship of Chair Person, FSSAI.
- b. FSSAI will finalise the technical specifications of each of the equipment with the approval of the Empowered Committee.
- c. Invite tenders for empanelment and rate contract with reputed manufactures / suppliers.
- d. FSSAI will also finalize the requirements for Microbiology Lab.
- e. Empowered Committee to examine the proposals received from the States and accord approval.
- f. Funds would be released by FSSAI to the States as per the approval of the Empowered Committee.
- g. States will procure equipment from any of the empaneled manufacturers / suppliers and setup microbiology lab.
- h. States to ensure installation and commissioning of equipment.

Expectations/Contribution from the States

Active partnership of the States/UTs would be of utmost importance in the successful implementation of this vision. States in partnership with FSSAI will be responsible for providing the following inputs:

Strengthening of State Food Testing labs

- Information about the State food lab(s) to be upgraded in 'Form A' enclosed along with.
- Appropriate building space (Dust free rooms) for installation of sophisticated instruments.
- Suitable laboratory furniture in the lab proposed to be upgraded.
- Suitable water and electrical supply along with arrangements for suitable power back up.
- Suitable firefighting arrangement in the laboratory proposed to be upgraded.
- Qualified scientific manpower for operation and maintenance of the equipment's being provided under the scheme.
- Qualified scientific manpower for Microbiological laboratory being provided under the scheme.
- Funds for regular supply of consumables, chemicals, reagents and reference standards as per the requirements of analysis.
- General laboratory equipment and consumables other than those being provided under the scheme.
- Proper housekeeping of the upgraded laboratory including waste disposal.
- NABL accreditation of the upgraded laboratory by utilizing the support being provided under the scheme for this purpose.
- Enter into an MOU with FSSAI as per the draft enclosed.



Establishment of New Food Lab in 4 NE States: There is no food testing lab in four States in the North Eastern Region viz. Arunachal Pradesh, Manipur, Mizoram and Sikkim. Accordingly, support would also be provided for establishment of one new food testing lab each in these four States. These states are requested to provide the following:

- Appropriate building Space with electrical and water supply for housing the Food Testing Laboratory.
- Qualified scientific and technical manpower for operation of the laboratory.

Strengthening of Referral Food Testing Labs

Strengthening of Referral Food Testing laboratories has been proposed with a view to develop apex level referral labs with high end testing facilities as per FSSR by utilizing the existing testing facilities in various established laboratories under the Government/Public sector to enable them to carry out the referral and appeal testing functions under the FSSR.

One-time funding support will be provided to the referral labs towards bridging the gaps in the existing and required test facilities as per FSSR for maximum of one or two major equipment facilities subject to a ceiling of Rs. 3.00 crore.

Support for Mobile Food labs

The scheme envisages establishment of Mobile Food Testing labs (One for every 20 districts in the State, with at least one Mobile lab in each State / UT) (Total 62 Nos.). The cluster of districts for each mobile lab would be decided in consultation with the respective State/UT Government. Mobile labs would be executing the functions of surveillance and creating awareness regarding the food safety in remote areas in the State, large public congregations, schools and consumer organisations and provide on the spot test facilities for qualitative adulteration of common food items like ghee, milk, khoya, sweets, edible oil, non-permitted food colours in various foods like namkeens, spices, prepared foods etc. District wise calendar of 15 days for each Mobile lab would be worked out by the FSC incharge in the State / UT. Mobile labs would be operated by the respective State / UTs Governments or their agencies / NGOs / Trusts / Societies as decided by the State / UT. Grahak Suvidha Kendras established by Ministry of Consumer Affairs could also be utilised for this purpose.

Mobile food testing laboratories are expected to give consumers in the remote and interior areas easy access to the facilities for checking the common adulterants in the food items. Since the food testing laboratories are established only in major cities, there is a difficulty in testing samples of perishable items from the small towns and villages. Testing for common adulterants can instil confidence in the local population while strengthening the hands of enforcement machinery by screening large number of samples for common adulterants. The available data can then be used to carry out enforcement activity in a targeted manner. The mobile labs can also be used to transport samples picked from remotes areas to the nearest food testing laboratory. Education of the consumers in various aspects of food safety laws and common hygiene practices through the utilization of mobile food testing labs can help in overall goal of supply of safe and nutritious food in the country.



The mobile food labs will have quick adulteration detection facilities and rapid test equipment for food items of mass consumption like:

- Milk.
- Packaged Drinking Water.
- Oil

| Mobile Food Testing Labs | Estimated Cost |
|---|--|
| Procurement of Vehicle for Mobile Lab and Refurbishment thereof Plus Laboratory Equipment | 0.20 per Mobile Lab (One Time) |
| POL and Consumables for Mobile Lab for three years | 0.15 (Rs. 0.05 crore per year for three years) |
| Total cost of one Mobile Lab | Rs. 0.35 crore |

Expectations/Contribution from the States

- Identification of cluster of districts for each mobile testing lab to be provided to FSSAI.
- Identification of appropriate agency for operation of the mobile food testing labs
- Procurement of vehicle and equipping them as per the specifications provided by FSSAI
- Share details of mobile labs already operational in the States, if any, like testing facilities available in the mobile labs, mode of operation etc.
- Requisite manpower (including scientific) for running and operation.



Capacity Building of Food Testing Laboratories Personnel:

Capacity building is an essential component of strengthening and up-gradation of Food Testing Laboratories eco-system in the country. The ultimate objective of this activity is to ensure that all the State Food testing laboratories attain the NABL accreditation and bring them at par with best of the laboratories in the country. All the State Food testing labs and referral labs would be eligible to participate in this programme. In order to establish an effective and qualified network of food analysts in the country, FSSAI Notified labs would also be encouraged to participate in the capacity building programme.

Credible food testing is at the heart of effective compliance of standards and regulations and hence essential for ensuring food safety. This requires not only good testing facilities, but even more importantly skilled and competent food testing personnel. Hence there is a need for training and capacity building component as an essential component of strengthening and up-gradation of Food Testing Laboratories system in the country. Food analysts and other laboratory staff need to be well versed with the latest analytical techniques and methods. Trained manpower is perhaps the most critical input required for ensuring quality test results. To achieve the desired results, it is proposed to carry out the training in a targeted manner in two modules.



- General training for food testing personnel.
- Specialized training in food testing focused on operation of sophisticated equipment.

In this regards, a web based system, FoTEST is being developed for managing the training. A first model training program is also being planned to be held in November 2016 at Mumbai which will then be replicated all over the country. Training Partners, Trainers and Trainees would register on the portal. Each scientific and technical personnel to undergo mandatory training

State Food Testing Labs would also be encouraged to obtain NABL Accreditation by providing them handholding support and cost towards NABL accreditation fees. A sum of Rs. 15 crore has been earmarked for capacity building programmes over a period of three years.

Expectations/Contribution from the States

- Identify Training needs of the State Food Labs personnel
- Nominate Labs personnel for training
- TA/DA of nominated lab personnel
- NABL Accreditation of Lab

Incentivising States to utilise the facilities available in FSSAI Notified Labs

Significantly large food testing infrastructure has been established by the Private Sector which is NABL compliant and has also been recognised by FSSAI under the FSSR 2011. Utilisation of this vast infrastructure in the enforcement activities would cut down delays and bring in transparency. This will also help in reducing burden on Government infrastructure and also bring down costs. States would be encouraged to undertake surveillance activities in specified food categories by using the test facilities of FSSAI notified labs. For this purpose, States/UT would be



incentivized to meet the cost towards the testing charges by the FSSAI notified labs. A sum of Rs. 10 crore has been earmarked for this purpose over a period of three years.

Expectations/Contribution from the States



The objective here is to encourage the States to undertake surveillance activities in specified food categories. For this purpose, States/UT would be incentivized to meet the cost towards the testing charges by the FSSAI notified labs. The states are requested to provide the details of food items which are required to be tested on a priority basis at present and for which sufficient testing facilities are currently not available in the state food testing labs. The food products can be chosen on the basis of volume of consumption/production, complaints received and intelligence gathering. These samples could be tested in FSSAI notified labs and test reports will be available to states in a shorter time frame, thereby reducing the burden on the State Food Testing labs. This exercise will complement the existing surveillance and enforcement mechanisms of the states.

| Name of State/UT | Details of food products category/item wise proposed for surveillance. | Number of samples proposed to be drawn in 2016-17. | Number of samples proposed to be drawn in 2017-18. |
|------------------|--|--|--|
| | | | |

School Food & Hygiene Programme

The primary objective of establishing basic food testing facility in schools is to disseminate information about the basic understanding of the FSSR and general hygiene and safety practices and involve schools and college youth in our endeavor to ensure safe and wholesome food.

A state level competition can be organized focused on the basic aspects of Personal Hygiene, Basics of food safety and Quick Tests for detection of food adulteration. The schools who qualify in the competition can be selected for the support to be provided.

It is proposed to cover 500 schools/colleges across the country for establishing basic facilities at level-1 with a grant of Rs. 3.00 lakh each and another 1000 schools/colleges to establish facilities for food testing at level-2 with a grant of Rs. 1.00 lakh each over a period of three years.



| School / Colleges Food Labs | Rupees in Lakh |
|---|-------------------------------|
| Establishment of Basic (Level-1) food testing facilities in 500 Schools/Colleges | Rs. 3.00 Lakh each (One time) |
| Establishment of Basic (Level-2) food testing facilities in 1000 Schools/Colleges | Rs/ 1.00 lakh each (One time) |

Expectations/Contribution from the States

Each State/UT to take steps towards identification of a defined number of Schools/colleges for implementation of the School/College Food and Hygiene programme. The Schools/colleges could be identified by organizing quiz competition on issues related to food safety and nutrition and the funds available under this component could be given as award for providing basic food testing facilities and generating awareness.



Form A

Gap Analysis of State Food Labs for Upgradation

A. Details of State Lab

1. Name of the State :
2. Total number of State labs:
3. State lab proposed for upgradation
 - a. Name:
 - b. Address:
 - c. Contact Person:
 - d. Ph.:
 - e. E-mail:
 - f. NABL Accreditation Status Yes No
 - If Yes :
 - Date of Accreditation
 - Validity
 - Major commodities covered under scope :
(Attach copy of the scope)
 - g. Details of samples analyzed (during last 3 years)

| Sr. No. | Year | Food Category | No. of samples | Parameters |
|---------|------|---------------|----------------|------------|
| | | | | |
| | | | | |

(Form - A) Gap Analysis of State Food Labs for Upgradation

B. Infrastructure Details

1. Total area of the lab (sq. ft.)
2. Total covered area of the lab (sq. ft.)
3. Different sections in the existing food lab
and the covered area (sq.ft) allocated
for the respective sections
4. Attach Lay out of the laboratory indicating different sections
.....
.....
5. Services available:
 - i. Electrical
 - a. Connected load (KVA)
 - b. DG Set (capacity in KVA)
 - c. Un interrupted power supply (UPS)
Capacity in KVA
 - d. Air conditioners (nos., type & capacity)
 - e. HVAC / AHU
 - f. Any other
 - ii. Water supply & disposal
 - a. Water Distillation units (nos. and capacity)
 - b. Water Purification Systems (nos. and capacity)
 - c. Waste water disposal
 - iii. Gas supplies
 - a. Gas cylinders (Number & type)
 - b. Gas generators (Number & type)

iv. Safety systems

- a. Fire detectors (type - smoke / heat)
- b. Fire extinguishers (Nos. & Type)
- c. Hydrant system
- d. Sand buckets (nos.)
- e. Safety Showers (nos)



Gap Analysis of State Food Labs for Upgradation

Gap analysis of state food labs for upgradation

- f. Fume hoods (nos. & size)
- g. Distillation hoods (nos. & size)
- h. Eye washers (nos.)
- i. Any other

6. Lab Furniture

- a. Type of furniture (Concrete shelves or modular)
- b. Solvent / acids storage cabinets (nos. & capacity)
- c. Chemical storage cabinets (nos. & capacity)
- d. Any other

C. Equipment Details

Provide section wise detailed information about the equipment available :

| Sr. No. | Section | Name of the equipment and no. of units | Make and model | Broad configuration | Date of purchase | Calibration status | AMC / CMC / extended warranty status | Applications | In working condition or not |
|---------|---------|--|----------------|---------------------|------------------|--------------------|--------------------------------------|--------------|-----------------------------|
| | | | | | | | | | |
| | | | | | | | | | |

Note :

From Section mean, Analytical Lab, Wet Chemistry Lab, Food Lab, Dairy Lab, Microbiology Lab etc.,
 Configuration means components like HPLC, GC etc., the detectors available.

D. Constraints being faced by the state lab

F. Any other information, the state lab would like to share

Name :
 Designation
 Date

Signature

Draft Memorandum of Understanding

This Memorandum of Understanding (the Memorandum) is signed on this day of by and between Food Safety and Standards Authority of India, hereinafter referred as FSSAI and the State of.....hereinafter referred as STATE for the purpose of implementation of the scheme for upgradation of food testing system in the State of

This Memorandum of Understanding (the Memorandum) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the purpose of implementation of the scheme in the STATE.

The FSSAI and STATE ofhave reached upon an understanding as follows: -

A. Role of Fssai, New Delhi

- FSSAI will carry out rate contract for the equipment's mentioned in Annex A attached along with and provide the States with the name of the shortlisted vendors with whom the P/O can be placed by the States as per their suitability. The funds towards procurement of the equipment's will be provided by the FSSAI to the State Governments.
- FSSAI will also provide funds for the upgradation of the laboratory (number as per Annex) to the states under the following heads:
- Infrastructure for sophisticated equipment in terms of renovation of appropriate laboratory space and other utilities, civil works and UPS etc. **0.50 (One time)**

| | |
|-----------------------|---|
| Professional Services | 0.45 (Rs. 0.15 crore Per Year for three years) |
| Consumables | 0.30 (Rs. 0.10 crore Per Year for three years) |
| Contingency | 0.30 (Rs. 0.10 crore Per Year for three years) |

A. ROLE OF State of.....

States will place purchase order on any one of the shortlisted equipment manufacturers/suppliers and make arrangements for the following:

1. Effective utilization of the grant/funds given by FSSAI for the purpose for which it was granted and to ensure timely progress of project work and submit the utilization certificate as per GFR.
2. Building space (Dust free) along with suitable electrical and water supply and Air conditioning for the installation of various equipment .
3. In case of Four North Eastern States, Arunachal Pradesh, Manipur, Mizoram and Sikkim, the respective states will provide:
 - Appropriate building Space with electrical and water supply for housing the New Food Testing Laboratory.
 - Qualified scientific and technical manpower for operation of the laboratory.
4. Suitable laboratory furniture in the lab proposed to be upgraded
5. Suitable building space for the setting up/upgradation of Microbiological laboratory.
6. Proper water supply (RO, Distilled and Double distilled) and electrical supply along with arrangements for power back up suitably.
7. Firefighting arrangement in the laboratory proposed to be upgraded. Safety features as eye washers and

body washer will be provided in the laboratory.

8. Qualified manpower for operation of the equipment's being provided under the scheme.
9. Qualified manpower for Microbiological laboratory
10. Qualified manpower for administration including sample cell and IT support for laboratory.
11. Funds for regular supply of consumables, chemicals, reagents and reference standards as per the requirements of analysis.
12. Proper calibration of the equipment available in the laboratory.
13. General laboratory equipment and consumables other than those being provided under the scheme.
14. Proper housekeeping of the upgraded laboratory including waste disposal (Chemical and microbiological wastes) along with proper storage of remnant samples.
15. NABL accreditation by utilizing the support being provided towards the same and regular renewal in future.
16. Introduction of LIMS and linking it with FSSAI network for data sharing on a real time basis.
17. Make available the upgraded laboratory for imparting training for other state/FSSAI notified labs in the state/region.
18. Participation of laboratory personnel in the training program which will be organized by FSSAI.
19. Open to Inspection/Audit of the upgraded laboratory during the process of upgradation and after completion of work of upgradation.
20. Supply sufficient number of Surveillance and Enforcement samples to the upgraded laboratory.
21. State will take the full responsibility for operation of the upgraded laboratory.

B. MONITORING

- The comptroller and Auditor General of India, at his discretion shall have the rights of access to the books and accounts of the State for the grants received from FSSAI for this purpose.
- FSSAI will have the right to seek information from time to time with regard to the progress made and utilization of facilities so created and also carry out visits to the upgraded laboratory and Mobile laboratory as and when felt suitable.
- The FSSAI may terminate the grant at any stage if it is convinced that the grant has not been properly utilized or appropriate progress has not been made.

C. TERMINATION

The agreement shall continue in force unless and until terminated mutually agreed by the parties. The parties will remain bound by the relevant conditions of this MOU in respect of the tasks performed under this MOU.

| | |
|--|---|
| Signed by Shri for and on behalf of FSSAI | Signed by Shri for and on behalf of State of |
|--|---|

| Sr. No. | State / UT | Number of State / Public Food Laboratories | Number of Referral Food Labs* | Number of NABL Accredited Private Labs notified by FSSAI |
|---------|---------------------------|--|-------------------------------|--|
| 1. | Andaman & Nicobar Islands | 1 | - | - |
| 2. | Andhra Pradesh | 1 | 1 | 1 |
| 3. | Assam | 1 | - | - |
| 4. | Bihar | 1 | - | - |
| 5. | Chhattisgarh | 1 | - | - |
| 6. | Daman & Diu | - | - | 1 |
| 7. | GNCT of Delhi | 1 | - | 15 |
| 8. | Goa | 1 | - | - |
| 9. | Gujarat | 6 | 1 | 6 |
| 10. | Haryana | 2 | - | 11 |
| 11. | Himachal Pradesh | 1 | - | 1 |
| 12. | Jammu & Kashmir | 2 | - | - |
| 13. | Jharkhand | 1 | - | - |
| 14. | Karnataka | 4 | 2 | 11 |
| 15. | Kerala | 3 | 1 | 6 |
| 16. | Madhya Pradesh | 3 | - | 4 |
| 17. | Maharashtra | 11 | 2 | 19 |
| 18. | Meghalaya | 1 | - | - |
| 19. | Nagaland | 1 | - | - |
| 20. | Odisha | 1 | - | 1 |
| 21. | Puducherry | 1 | - | - |
| 22. | Punjab | 3 | - | 3 |
| 23. | Rajasthan | 8 | - | 5 |
| 24. | Tamil Nadu | 7 | 2 | 12 |
| 25. | Telangana | 1 | 2 | 6 |
| 26. | Tripura | 1 | - | - |
| 27. | Uttar Pradesh | 3 | 2 | 4 |
| 28. | Uttarakhand | - | - | 1 |
| 29. | West Bengal | 5 | 1 | 5 |
| | Total | 72 | 14 | 112 |

Annexure-II

| Number of Labs proposed to be upgraded Statewise | | | | | |
|--|-------------------|----------------------------------|---|---------------------------|-----------------------------|
| S. No. | State/UT | State Food Testing Labs | Mobile Food Labs | | |
| | | Existing State Food testing Labs | Tentative No. of State Labs proposed to be upgraded | Total Number of Districts | No. of Mobile labs proposed |
| 1 | Andhra Pradesh | 1 | 1 | 13 | 1 |
| 2 | Arunachal Pradesh | 0 | 1\$ | 17 | 1 |
| 3 | Assam | 1 | 1 | 27 | 2 |
| 4 | Bihar | 1 | 2 | 38 | 2 |
| 5 | Chhattisgarh | 1 | 1 | 27 | 2 |
| 6 | Goa | 1 | 1 | 2 | 1 |
| 7 | Gujarat | 6# | 2# | 33 | 2 |
| 8 | Haryana | 2 | 2 | 21 | 2 |
| 9 | Himachal Pradesh | 1 | 1 | 12 | 2 |
| 10 | J&K | 2 | 2 | 22 | 3 |
| 11 | Jharkand | 1 | 1 | 24 | 2 |
| 12 | Karnataka | 4 | 2 | 30 | 2 |
| 13 | Kerala | 3 | 2 | 14 | 1 |
| 14 | Madhya Pradesh | 3 | 2 | 51 | 3 |
| 15 | Maharashtra | 11* | 2* | 36 | 2 |
| 16 | Manipur | 0 | 1\$ | 9 | 2 |
| 18 | Meghalaya | 1 | 1 | 11 | 2 |
| 19 | Mizoram | 0 | 1\$ | 8 | 2 |
| 20 | Nagaland | 1 | 1 | 11 | 2 |
| 21 | Odisha | 1 | 1 | 20 | 2 |
| 22 | Punjab | 3 | 1 | 22 | 2 |
| 23 | Rajasthan | 8 | 2 | 33 | 2 |
| 24 | Sikkim | 0 | 1\$ | 4 | 1 |
| 25 | Tamil Nadu | 7 | 2 | 32 | 2 |

| Number of Labs proposed to be upgraded Statewise | | | | | |
|--|----------------------|----------------------------------|---|---------------------------|-----------------------------|
| S. No. | State/UT | State Food Testing Labs | Mobile Food Labs | | |
| | | Existing State Food testing Labs | Tentative No. of State Labs proposed to be upgraded | Total Number of Districts | No. of Mobile labs proposed |
| 26 | Telangana | 1 | 1 | 10 | 1 |
| 27 | Tripura | 1 | 1 | 8 | 2 |
| 28 | Uttar Pradesh | 3 | 2 | 75 | 4 |
| 29 | Uttarakhand | 1** | 1 | 13 | 1 |
| 30 | West Bengal | 5 | 2 | 20 | 1 |
| 31 | GNCT Delhi | 1 | 1 | 11 | 3 |
| 32 | Puducherry | 1 | 1 | 4 | 1 |
| 33 | Chandigarh | 0 | 1 | 1 | 1 |
| 34 | Andaman & Nicobar | 1 | 1 | 3 | 1 |
| 35 | Lakshadweep | 0 | 0 | 1 | 1 |
| 36 | Daman & Diu | #Included in Gujarat | 0 | 2 | 1 |
| 37 | Dadar & Nagar Haveli | *Included in Maharashtra | 0 | 1 | |
| TOTAL | | 72+1 | 45 | 676 | 62 |

** Uttarakhand has State food testing lab at Rudarpur, which is not included in 72 State Food Testing Labs earlier notified under PFA Act.

\$ Funds would be provided under this scheme for establishment of New Labs in these four NE States.

Up-gradation of State / Public Food Testing Laboratories

| S. No. | State/UT | No. of Labs proposed to be upgraded | Proposals received | Location of Laboratory | Remarks |
|--------|-----------------------------------|-------------------------------------|--------------------|---|--|
| 1. | Andhra Pradesh | 1 | | | |
| 2. | Arunachal Pradesh | 1 | | | Communicated to provide land in district of Papum Pare |
| 3. | Assam | 1 | 1 | State public health laboratory, Guwahati | |
| 4. | Bihar | 2 | | | |
| 5. | Chhattisgarh | 1 | 1 | State Food Testing Laboratory, Raipur | |
| 6. | GNCT Delhi | 1 | 1 | Food laboratory, Department of food safety, Delhi | |
| 7. | Goa | 1 | 1 | Food laboratory, Department of food safety, Bambolim | |
| 8. | Gujrat, Daman & Diu | 2 | 1 | Food and Drug Laboratory, Vadodara | |
| 9. | Haryana | 2 | | | |
| 10. | Himachal Pradesh | 1 | | | |
| 11. | J&K | 2 | | | |
| 12. | Jharkand | 1 | | | |
| 13. | Karnataka | 2 | 2 | a.State Food Laboratory, Bangalore b. Divisional Food Laboratory, Kalaburagi | |
| 14. | Kerala | 2 | 1 | Regional Analytical Laboratory, Calicut | |
| 15. | Madhya Pradesh | 2 | 1 | State Food Testing Laboratory, Bhopal | Communicated to consider indore division plan also for upgradation (Land allotted) |
| 16. | Maharashtra, Dadar & Nagar Haveli | 2 | | | |
| 17. | Manipur | 1 | | | |
| 18. | Meghalaya | 1 | 1 | Food testing Laboratory, Pasteur institute, Shillong | |

| S. No. | State/UT | No. of Labs proposed to be upgraded | Proposals received | Location of Laboratory | Remarks |
|--------------|-------------------|-------------------------------------|--------------------|---|---|
| 19. | Mizoram | 1 | | | Communicated a floor in building owned by the Department of Health and Family welfare can be used for food laboratory |
| 20. | Nagaland | 1 | | | |
| 21. | Odisha | 1 | | | |
| 22. | Punjab | 1 | | | |
| 23. | Rajasthan | 2 | | | |
| 24. | Sikkim | 1 | 1 | State Food Laboratory, Sikkim | |
| 25. | Tamil Nadu | 2 | 2 | a. Food analysis laboratory, Chennai b. Food analysis laboratory, Madurai | |
| 26. | Telangana | 1 | | | |
| 27. | Tripura | 1 | | | |
| 28. | Uttar Pradesh | 2 | | | |
| 29. | Uttarakhand | 1 | | | |
| 30. | West Bengal | 2 | 2 | a. West Bengal Public Health Laboratory, Kolkata b. Siliguri Food Testing Laboratory, Darjeeling | |
| 31. | Andaman & Nicobar | 1 | 1 | State Food Laboratory, South Point | |
| 32. | Chandigarh | 1 | | | |
| 33. | Puducherry | 1 | | | |
| TOTAL | | 45 | | | |



The logo for FSSAI, featuring the word 'fssai' in a stylized font with a green leaf above the 'i'.

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**FOOD SAFETY AND STANDARDS
AUTHORITY OF INDIA**

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