Showcasing of Mobile Food Testing Laboratories (MFTLs)* *at Regional /Branch Offices of FSSAI

The Food Safety and Standards Authority of India (FSSAI) is pleased to announce that *Mobile Food Testing Laboratories (MFTLs)* will be showcased at its Regional/Branch Offices in Ghaziabad, Chennai, Kolkata, and Ahmedabad (Gujarat) on **17th and 18th December 2025**. These mobile labs are equipped with modern food testing equipment to strengthen on-the-spot food safety surveillance and analysis.

Invitation to Prospective Bidders

FSSAI invites prospective vendors, manufacturers, and suppliers to witness the capabilities of MFTLs and explore future procurement opportunities.

All interested bidders are urged to:

* *Visit the Government e-Marketplace (GeM) portal* and register themselves under the relevant category to participate in the upcoming procurement processes.

* Review the tentative *year-wise procurement plan* and full details regarding MFTLs attached at **Annexure 'A'**.

Don't Miss the Opportunity!

Engage with FSSAI in advancing food safety infrastructure and contribute to a healthier India.

Issued in public interest by Food Safety and Standards Authority of India (FSSAI).

Annexure-A

5 Year Procurement Plan of FSWs	
A	**Mobile Food testing Labs**
1	Procurement of Vehicle for Mobile Lab and Refurbishment thereof Plus Laboratory Equipment

Estimated procurement plan 2025-2030.

Sl. No.	Component	2025-26	2026-27	(2027-2030)*		Grand Total 2025-2030
1	No. of Vehicles to be procured	236	256	60 (Tentative)	100 (Tentative)	652

State-Wise Deployment of Mobile Food Testing Laboratories (Food Safety on Wheels)			
States/UTs	**No. of FSW Already Procured**	**No. of FSW to be procured (FY 2025-26)**	**No. of FSW to be Procured (2026-27)**
Andaman and Nicobar Islands	2	2	0
Andhra Pradesh	4	11	11
Arunachal Pradesh	3	0	24
Assam	23	0	12
Bihar	5	0	33
Chandigarh	2	0	0
Chhattisgarh	9	10	14
Daman & Diu and Dadar & Nagar Haveli	1	2	0
Delhi	3	0	8
Goa	2	0	0
Gujarat	32	3	0
Haryana	5	0	17
Himachal Pradesh	12	0	0
Jammu and Kashmir	8	12	0
Jharkhand	3	11	10
Karnataka	1	31	0
Kerala	12	1	1
Ladakh	1	0	1
Lakshadweep	0	0	1
Madhya Pradesh	15	40	0
Maharashtra	2	25	9

States/UTs	No. of FSW Already Procured	No. of FSW to be procured (FY 2025-26)	No. of FSW to be Procured (2026-27)
Manipur	2	8	6
Meghalaya	8	4	0
Mizoram	2	2	7
Nagaland	3	5	8
Odisha	1	3	26
Puducherry	1	0	1
Punjab	23	0	0
Rajasthan	34	16	0
Sikkim	1	5	0
Tamil Nadu	6	0	32
Telangana	8	17	8
Tripura	2	6	0
Uttar Pradesh	36	22	17
Uttarakhand	3	0	10
West Bengal	30	0	0
TOTAL	**305**	**236**	**256**

**Note: ***Approximately 160 FSWs are proposed to be procured during 2027–2030. State-wise procurement of these mobile laboratories will be done and their allocation will be decided separately.

Tentative list of Equipment with Specification for MFTLs- The proposed equipment list with specifications is shared to facilitate the design layout of the MFTLs, ensuring efficient space utilization and smooth installation.

S No	Equipment	Specification/description
1	Rapid Milk Screening Apparatus	1. Raw Milk Quality and Adulteration Screening Analyzer should be a portable instrument, based on the Advanced FTIR Technology approved by global bodies like AOAC INTERNATIONAL (Association of Official Analytical Chemists), IDF (International Dairy Federation) 141:2013(E) and ISO (International Standards Organization) or RAFT Committee of FSSAI. 2. It should use the recommended FTIR technology for Milk Parameter analysis like Fat, SNF and Protein. 3. It should include an inbuilt calibration including a detailed “fingerprint” of milk’s chemical composition. 4. It should compare the spectrum of the Sample Raw Milk

		with the spectrum of Pure Raw Milk that is built-in the FTIR analyser using statistical techniques called the Principal Component Analysis (PCA) and stimulated emission pumping (SEP) (commonly used techniques in spectroscopy). 5. After comparison and differentiation, it should display the abnormality in sample milk. 6. The Raw Milk Quality and Adulteration Screening Analyzer should be able to give a DIRECT Measurement of FAT, SNF and PROTEIN and not a software calculated display. 7. It should be able to screen maximum number of common adulterants by the same FTIR technique at different concentration levels like Added Water, Urea, Ammonium Sulphate, Sucrose, Maltodextrin, Glucose, Sorbitol, Melamine, Sodium Chloride, Sodium Citrate, Starch, Hydrogen Peroxide, Formaldehyde, Detergents, Sodium Carbonate, Sodium bicarbonate, Vegetable Oil when mixed with Chemical Emulsifiers and Qualify the Milk as Abnormal Milk. It should display Milk Abnormality or name of the chemicals when such chemicals are present in Milk at various concentrations. 8. SNF and Protein calibrations should be de-sensitized towards the presence of common adulterants, therefore assuring the results of SNF and Protein are not affected by the presence of these adulterants. 9. FTIR spectrophotometer should be able to analyze raw unhomogenized Milk sample for Fat, SNF & Protein in the range of minimum to maximum range of a. 0-12% Fat b. 0-8% Protein c. 0-14% SNF 10. Accuracy of the FTIR spectrophotometer milk parameters to be submitted by the manufacturer. a. Fat ≤ 0.14 SD b. Protein ≤ 0.10 SD c. SNF ≤ 0.14 SD 11. Repeatability of the FTIR spectrophotometer milk parameters to be submitted by the manufacturer. a. Fat ≤ 0.05 SD b. Protein ≤ 0.05 SD

		c. SNF ≤ 0.10 SD 12. The analysis time should be maximum 40–50 seconds. 13. Instrument warm up time Maximum 20-30 minutes. 14. Sample Temperature Raw Milk should able to be measured in a temperature range of 5-50° C. 15. Sample Volume Should be less than 5 ml. 16. Display LCD, Graphical Display. 17. **Built-in Diagnostics:** Optics Test, Cuvette test, Stability test, Cleaning Message display, Error Message display. 18. **Manuals:** Instrument should be supplied with Quick Guide, User Manuals. 19. **Training and Installation:** Training and Installation services should be offered along with the Instrument. 20. Warranty: Minimum 05 years from the date of installation.
2	Digital balance	Capacity: 300g/0.01g
		Readability: 0.01g
		Repeatability : ± 0.03g
		Power Supply : AC Adapter 9V / 500 mA
		Warranty: 5 years from the date of installation.
		Note: Externally calibrated weight box shall be provided for internal checking of weighing balance accuracy.
3	Digital Multi-Parameter Hand Held Meter (pH, Conductivity, TDS and Temperature)	Range: pH: 0 to 14.00,
		TDS: 0 to 1000 ppm or better **Conductivity:** 0.00 -20.00 mS/cm or better mV: -1000 to 1000 mV or better
		Temperature: 0.0 to 60.0 °C, 32 to 140.0 °F
		Power : DC 1.5 V x 4 battery (UM-4/AAA), Auto power off after 10 minutes
		Warranty: Minimum 5 years from the date of installation.
		Provisions should also be made for future upgradation, considering continuous advancements in analytical technology.
4	Digital refractometer/ Butyrorefracto meter- Portable	**Sugar Content / Temperature Range:** 0 to 85% Brix or better Refractive index: 1.3330 to 1.5000 or better
		Temperature Range: 0 to 75°C or better (32 to 167°F or better) Sugar Content Resolution/Accuracy: 0.1% Brix/ ±0.5% Brix or better Refractive index Resolution /Accuracy: 0.0001 / ± 0.0003 or better.
		Temperature Resolution/Accuracy: 0.1°C (0.1°F)/ ±0.5 °C (± 1 °F) or better Measurement Time: approximately 3 seconds or better.
		Display: LCD
		Battery Type /Life: 9V or AAA / approximately 5000 readings
		Warranty: Minimum 5 years from the date of installation.
		Note: The provision of Digital Refractometer/Butyrorefractometer (Portable) for future upgradations be planned periodically in line with technological advancements to maintain accuracy, consistency, and

		compliance with updated FSSR and analytical practices.
5	Hot plate	**Size:** 10"x12" rectangular or 10"x10" CIRCULAR **Note:** Suitable for standard FSWs applications.
		Body: M.S. body with S.S. top **(corrosion-resistant and easy to clean).**
		Power Supply: 220/230 Volts AC, 50 Hz, Single Phase
		Power Rating: 1.5 KW (energy-efficient model preferred).
		Temperature Control: Digital temperature controller with indicator.
		Safety Features: Overheat protection, energy-efficient heating element, and insulated body.
		Warranty: Minimum 5 years from the date of installation.
		Note: Provision of future upgradations be planned periodically to adopt the latest technology and maintain efficiency in laboratory operations.
6	Mixer grinder (small)	At least 3 jars, 500 W power consumption To operate at 3 different speeds Power Supply 50Hz : 220-240V. Mixer grinder (small) with advanced, energy-efficient models equipped with improved performance, safety, and power optimization features.
		Jar Material: Stainless steel
		Warranty: 5 years from the date of installation.
7	Water Bath	Water Bath (Concentric Ring Lid Type) may be installed for the testing specific food products, such as MSG. 1) **Temperature range:** 27° to 100°C 2) **Volume:** Approx. 12 litre 3) **Temperature setting mode:** Touch mode. 4) **Temperature control mode:** PID 5) **Temperature Display Mode:** 3 digit display. 6) **Wall type:** Triple-walled construction made up of complete SS 304. The chamber of the water bath consists of SS 316 grade. 7) **Holes:** Four 8) **Row:** 1/2 (Suitable for setup in FSW). 9) **Heating Mode:** Bottom Heating.
8	Digital Thermometer with Probe	To measure the internal temperature of all foods including frozen foods.
9	Total Polar Compounds (TPC) meter	To check the total polar compounds. (a) Measuring Range: 0 to 40% TPM. (b) Accuracy: ±2 % TPM (+40 to +190 °C) (c) 0.5% TPM (+40 to +190 °C) (d) **Alarm features:** Upper and lower TPM limit value freely adjustable, visual alarm via 3-colour display backlighting (green, orange, red), values and illumination flash in the display until the measurement is ended (Auto Hold). (e) **Display Type:** LCD/LED
10	Fume Hood Chemical Section	Approx. size of Body Outer Size. Fume Hood (WxDxH) in mm 800x620x1130 (Without Base

	with Exhaust System & Glove Ports & Attached Lab Blender in The Work Station	Stand).
		Approx. size of Inner Chamber Size. Fume Hood working area (WxDxH) in mm 780x540x775.
		Specification of FUME HOOD Cabinet: Main Body made up of Electro-galvanized steel with antimicrobial Powder Coating. The construction materials of fume hood is used as type 304 or 316 stainless steel.
		Front Door: Fume hood equipped with vertical sashes (Manual acrylic window).
		Illumination: Minimum 20w florescent.
		Highly recommended for exhaust of toxic gases, acidic/alkaline fumes, chemical vapours, removable of odours etc. from the hood working area.
		These fume hoods are designed in ductless pattern.
		Electric Supply Socket: Two sockets to be located on the side panel for optimum convenience of using small electrical devices inside the cabinet.
		Front Counter balanced Sash/Shutter: A vertical rising sash/ shutter consist of a thick toughened transparent glass/Acrylic window for a clear inside view. The sash should be counter balanced for smooth and light weight operation for easier access to work zone and enhanced user safety.
		The front facing panel is fitted with 15/5 Amp socket with switched for exhaust system and fluorescent light.
		To work on 220 / 230 volts A.C. Supply.
		Warranty: Minimum 5 years from the date of Installation.
11	Computer System	**Computer, Software & Printer:** The desktop computer system may be replaced with a **laptop (**of configuration Processor: Intel core i5 or better; Operating system: Windows 10 or above, professional.; RAM: 8GB or more; Hard disk Drive size: 1000 GB or more; Mouse) along with a suitable Wi-Fi enabled LaserJet multifunction (Print, Copy & Scan) printer. **Warranty:** Minimum 5 years from the date of installation.
12	Printer	
13	Other Equipment/ Tools	Basic tools for simple repairs (screwdrivers, wrenches etc.)
		Emergency kit (extinguisher, towing cable, emergency sign, emergency light)
		First-aid kit
14	GPS Tracker	**GPS based Vehicle Tracking Devices**: GPS-based Vehicle Tracking Devices (Intangles make) shall be installed in the *Food Safety on Wheels (FSW)* units to enable real-time location monitoring and operational tracking. The system shall support GPS integration through **open API** for seamless data sharing and centralized monitoring.
15	Hot Air Oven	**Chamber Capacity:** Approximately *50–100 liters* (or suitable capacity based on workload and space availability).
		Temperature Range: Ambient +5 °C to *250 °C* (minimum),

		with uniform temperature distribution.
		Temperature Control: Digital PID controller with an accuracy of ±1 °C.
		Construction: Double-walled, corrosion-resistant stainless-steel chamber with proper insulation to minimize heat loss.
		Power Requirement: Compatible with standard single-phase 230 V AC supply, with energy-efficient operation.
		Safety Features: Over-temperature protection, auto cut-off, and proper air circulation system (forced convection).
		Accessories: Removable shelves/trays and provision for calibration.
16	Refrigerator	**Capacity:** Approximately *80-100 liters* (single door) or suitable capacity based on workload and space availability.Top brands may be procured
		Brand: Top brands shall be preferred viz. LG, Samsung, Haier,Bosch, whirpool etc.
17	Eye wash pump	Suitable eye wash pump shall be provided near the wash basin.
18	Fire extinguisher	ABC type
19	Television/Smart LED Display Unit	**Type** - Smart LED.
		Brand: Top brands shall be preferred viz. Sony, Samsung, LG, Panasonic, Toshiba etc.
		Screen Size - 40 Inches
		Screen Resolution - 1920 x 1080 (Full HD) **Note:** To ensure optimal visibility and reduce glare during summer conditions, a **sunscreen or anti-glare protection** shall be provided for the **Digital TV display.**
		Projector Setup: Projector, larger screens, and advanced sound systems suitable for training & awareness purpose shall be provided. **Specification:** 1. **Projector: ≥8,000–12,000 ANSI lumens,** preferably laser. 2. **Screen: High-gain or ALR screen** (gain ≥1.5–1.8). 3. **Lens: motorized zoom & lens shift.** 4. **Aspect ratio:** 16:9 5. **Connectivity: 2× HDMI, LAN, RS232.** 6. **Resolution:** 4K preferred for clarity. 7. **Sound:** 2 × 500 W powered speakers. 8. **HDBaseT extenders** for long cable runs. 9. **Protective cover/housing** and fan vents for heat dissipation. 10. **Wireless mics**, stands, cables and sandbags for screen stability. 11. **Weather protection**: housing, covers, cable protection.

		12. **Projection Distance:** Normal 13. **Industry Standards:** Rec. 709 etc.
20	BOD Incubator-Portable Type	**Temp. Range:** 5°C to 60°C (Resolution 0.1°C) Temp. Accuracy: ±0.5°C at 37 °C
		Force Convention Type
		MOC Outer: Made of Stainless Steel (SS-304)
		MOC Inner: Chamber and trays made of Stainless Steel (SS-304) Capacity: 28 L
		Warranty: 5 years from the date of installation.
21	Clean Air Biological Section Cabinet (**Laminar Air Flow)**	**Approx. size of Body Outer Size.** 1) Laminar Air Flow (WXDXH) in mm 710x610x1040
		Approx. size of Inner Chamber Size. 1) Laminar Air Flow working area (WxDxH) in mm – (625 x 515 x 450).
		Specification for Laminar Air Flow:
		Completely made of 304 grades S.S. workbench covered with 304 SS grade perforated sheet, microprocessor control digital display with filter alarm.
		Microprocessor based switch for blower and fluorescent light, UV light with LCD system.
		Pre Filter 99.00% down to 5 micron.
		HEPA Filter: ISO 14644 Class 5 (Class 100), 99.97%-99.99% down to 0.3micron, mesh guard for protection of HEPA filters.
		Air flow: Vertical.
		Noise Level: 60 decibel ±5%.
		Velocity: 0.35-0.50m/sec.
		Work Table: 304 Grade S.S. & Cock for gas on work table.
		Front Door: Acrylic.
		UV lamp: 15/30w Philips Holland.
		Illumination: 20/40w florescent tube with defogger. Power: 230V, 50Hz.
		Air Flow Type: Constant Air Volume type with automatic by pass.
		Interior Construction and Liners: Standard Model with thick Water/Heat/Fire Resistant Phenolic Resin lamination.
		Support Base with storage cabinet.
		The storage cabinet at base to store chemical or apparatus and fitted with exhaust port connected internally to, work in tandem with the main exhaust system.
		Electric Supply Socket: Two sockets to be located on the side panel for optimum convenience of using small electrical devices inside the cabinet.
22	Rapid Analytical Food Testing (RAFT) kits	The following comprehensive set of Rapid Analytical Food Testing (RAFT) kits, approved by FSSAI, will be provided to enable immediate, on-the-spot screening of food quality and safety parameters:
		a) Rapid Analytical Food Testing (RAFT) kit for the detection of Total Aflatoxin in Food and Food products.

		b) Qualitative Rapid Analytical Food Testing (RAFT) kit for the residual antibiotics in food and Food products.
		c) Rapid Analytical Food Testing (RAFT) kit for Iodine Value measurement in edible oils and fats.
		d) Rapid detection of microbiological parameters in different Food and water matrices (milk and milk products, fruits/vegetables & their products, confectionary items, Meat & Meat Products, Fish and Fisheries Products, spices etc. i. Kit should be free from sample pre-treatment should have provision for direct inoculation of samples, Kit should be based on measurement of catalytic Activity of redox enzymes in the metabolic pathways of bacteria through a redox indicator that changes Colour according to the oxidative state of the medium. ii. Kits/ system should be automated and fully control by software and live results / analysis should be available in real time on mobile as well in cfu/ ml or cfu/gm as per FSSAI norms, no human intervention should be possible during analysis, it should be with self-dispose of types after analysis (no separate sterilization process needed after analysis. iii. It shall have a capacity to run all type of food Samples at same time with different bacterial Parameters with dedicated incubation temperature as per FSSAI norms (TVC 30/37°C , E. coli 44°C etc.), minimum 8 samples at a time and provision should be there for extension up to 50 samples. iv. Rapid kit shall be capable of screening for normal bacterial parameters (TPC, Coliform etc) as well as for pathogens (Escherichia coli, salmonella, Listeria monocytogenes, Staphylococcus aureus etc.) v. The Reader shall be enable to real-time monitoring to control using AI or ML or mobile app.
		Note: a) Rapid Kit shall possess any National/International validation certificate. b) Rapid kit must have FSSAI RAFT approval and ensure the fulfilled the fit for purpose of FSSR. c) Any accessories associated with the Kit shall be

		supplied. d) Minimum one year or shelf life period, whichever is applicable shall be covered under warranty including auxiliary equipment. e) The initial supply of any reagents and chemicals necessary for the testing and calibration of the Rapid Analytical Food Testing (RAFT) kit analyzer shall be provided by the supplier. **Any RAFT kit(s) that receive approval from the RAFT Committee at a later stage may also be incorporated into the Food Safety on Wheels (FSW) unit, as and when approved by the competent authority.**
Note: The standard warranty clause will be applicable for a minimum period of **five (5) years from the date of installation.**		