

**CSIR-NATIONAL PHYSICAL LABORATORY
PROCUREMENT PLAN**

*(*Please read the note given at the end)*

A FOR THE FINANCIAL YEAR 2024-25

A (a) EQUIPMENT

(i) Equipment: Out of CSIR Infra Grant

| Sr. No. | Name Category of Equipment/ Vehicle Item | Quantity (Nos.) | Approximate Cost (Rs. In Lakhs) |
|---------|---|-----------------|---------------------------------|
| 1 | Small sine bar – 300 mm long | 1 | 0.30 |
| 2 | Retroreflector 150mm | 1 | 3.00 |
| 3 | Dehumidifier, Capacity: 30L /Day | 1 | 0.70 |
| 4 | Hydraulic Trolley | 1 | 1.50 |
| 5 | Micrometer | 1 | 1.40 |
| 6 | Precision DC Power Supply. | 1 | 5.00 |
| 7 | Digital portable Density meter. | 1 | 6.00 |
| 8 | Soldering rework station with specification | 1 | 3.00 |
| 9 | Dehumidifier | 1 | 1.20 |
| 10 | Programmable DC power supply | 1 | 2.00 |
| 11 | 10 kA AC high Current Source with accessories | 1 | 15.00 |
| 12 | Soldering station | 1 | 1.00 |
| 13 | Light source with different wavelengths | 1 | 3.50 |
| 14 | Mass flow controller | 1 | 2.50 |
| 15 | Fibre coupled Laser sources with 523 and 1064 nm wavelengths along with accessories | 1 | 3.50 |
| 16 | Pfeiffer DCU 400 Display controller including power supply | 1 | 2.50 |
| 17 | Polarizing microscope | 1 | 1.10 |
| 18 | CMOS Color Camera with Software | 1 | 1.10 |
| 19 | Portable weather monitor for field and balloon observation | 1 | 2.80 |
| 20 | Pump with mass flow controller | 1 | 0.70 |
| 21 | PID programmable temperature controller and 2" dia sputter source | 1 | 2.50 |
| 22 | PM1 Sampler | 2 | 2.00 |
| 23 | Centrifuge Machine | 1 | 1.50 |
| 24 | Single beam Visible Spectrophotometer | 1 | 1.50 |
| 25 | Ultrasonic sonicator | 1 | 1.00 |
| 26 | Digital pH meter | 1 | 0.50 |
| 27 | 3KVA online UPS with batteries | 1 | 0.75 |
| 28 | Ultrasonic Cleaner with timer & power controller | 1 | 0.30 |
| 29 | Desicator Cabinet | 1 | 2.25 |
| 30 | PM10 Sampler | 2 | 2.00 |
| 31 | Stainless Steel Syringe | 1 | 1.50 |
| 32 | Anemometer | 1 | 1.00 |

| | | | |
|----|---|---------|-------|
| 33 | Cabinet Desiccator | 1 | 1.00 |
| 34 | One Set of Pyranometer, UV Radio meter and Prygeometer with data logger | 1 | 15.00 |
| 35 | Climate chamber for controlled temperature and humidity | 1 | 1.50 |
| 36 | Repair of Optical table legs | 1 | 2.00 |
| 37 | DC motors of chillers of | 2 | 0.50 |
| 38 | O2 and H2O analyser of Glove box | 1 | 1.50 |
| 39 | High temperature Oven | 1 | 3.00 |
| 40 | Palletiser and hydraulic press | 1 | 1.40 |
| 41 | Ultrasonic Bath | 1 | 1.00 |
| 42 | High Resolution Multimeter | 1 | 1.50 |
| 43 | OVERHEAD MECHANICAL STIRRER | 1 | 0.40 |
| 44 | 3D Scanner for 3D Printer | 1 | 0.35 |
| 45 | Micro Dispenser controller DSD 55 | 2 | 0.50 |
| 46 | 3D Filament dry Storage cabinet - 160 Ltr. | 1 | 0.33 |
| 47 | High volt DC power Supply for Electrostatic Seperator | 1 | 1.50 |
| 48 | Precision high voltage DC Power supply | 1 | 3.85 |
| 49 | standalone power backup | 1 | 0.30 |
| 50 | UPS 5KVA with isolation transformer | 1 | 1.50 |
| 51 | Attenuator in 2.4 mm (3 dB, 10 dB) | 1 each | 1.00 |
| 52 | Attenuator in N-type (3 dB, 10 dB, 30 dB) | 1 each | 1.50 |
| 53 | Function Generator (Low Frequency) | 1 | 4.00 |
| 54 | RF Millivoltmeter with required TVCs at nominal voltages | 1 | 8.40 |
| 55 | Shielding Door | 1 | 0.95 |
| 56 | Antenna Positioner | 1 | 5.50 |
| 57 | DC Current source meter | 1 | 5.00 |
| 58 | Brush Cutter | 3 | 2.00 |
| 59 | Walk behind Lawn Mower Petrol Engine | 2 | 1.20 |
| 60 | Leaf Shredder | 2 | 1.40 |
| 61 | Pole Pruner | 2 | 1.30 |
| 62 | Leaf Blower | 2 | 1.50 |
| 63 | Water Pump | 1 | 0.30 |
| 64 | Lawn mower diesel operated 20" with 5HP engine | 2 | 1.50 |
| 65 | Fogging machine | 1 | 0.45 |
| 66 | Heavy duty garbage collect tricycle rikshaw (with metal body) | 3 | 0.60 |
| 67 | Heavy duty floor cleaning machine (cingo) with extra brush wheel pad | 2 | 1.50 |
| 68 | Heavy duty industrial vaccum cleaner | 2 | 1.00 |
| 69 | Window & split AC 5 star | 100 | 50.00 |
| 70 | Meger 5000 Volt | 1 | 1.00 |
| 71 | Sumersible pump 5HP | 2 | 0.80 |
| 72 | Ceiling fan BLDC 5 star | 50 | 1.50 |
| 73 | Data centre renovation | 1 | 25.00 |
| 74 | 2 Ton Tower Air Conditioner | 1 | 1.00 |
| 75 | Servers | 5 | 30.00 |
| 76 | Books (English & Hindi) | As req. | 2.50 |

| | | | |
|-----|---|--------|-------|
| 77 | Journal of Pure and Applied Ultrasonics, Open Source For You, Electronics For You, Collnet Journal of Scientometrics and Information Management | 1 | 0.15 |
| 78 | Rotary Pump | 1 | 2.00 |
| 79 | Hot Air Oven(12'x12'x12') | 1 | 0.40 |
| 80 | Infrared Thermometer | 1 | 0.10 |
| 81 | refurbished dry vacuum pump | 1 | 1.50 |
| 82 | Stability and Homgenity Chambers, Oven | 1 each | 7.00 |
| 83 | Vacuum pump/Suction pump | 02 nos | 0.50 |
| 84 | Bench Top laboratory Fume hoods | 01 nos | 1.50 |
| 85 | Auto titrator with wide range of pH,mV and high resolution of pH | 01 no | 3.00 |
| 86 | Ultrasonic cleaner bath | 1 | 0.50 |
| 87 | Gold smith furnace. DSO | 1 | 0.60 |
| 88 | Double distillation apparatus | 1 | 0.50 |
| 89 | Items for instrument development (power supply, vacuum pump, Fiber coupled laser source with different wavelengths with accessories | 1 each | 7.00 |
| 90 | Box Furnace | 1 | 3.00 |
| 91 | Air compressor | 1 | 0.50 |
| 92 | High back office executive chair | 1 | 0.07 |
| 93 | MFP Printer laserjet mono with duplex printing | 1 | 0.25 |
| 94 | chair | 2 | 0.24 |
| 95 | Water filter | 1 | 0.48 |
| 96 | Multifunction printer | 1 | 0.62 |
| 97 | 1 KVA UPS | 1 | 0.15 |
| 98 | Oil Purifier Room Heater | 5 | 0.70 |
| 99 | Printer | 1 | 0.70 |
| 100 | Executive Chair | 1 | 0.15 |
| 101 | Visitor Chair | 10 | 0.25 |
| 102 | Digital Barometer | 1 | 3.60 |
| 103 | Digital temperature and humidity meter | 1 | 4.00 |
| 104 | Dehumidifier | 1 | 2.30 |
| 105 | Digital Multimeter | 1 | 1.00 |
| 106 | Ultra precision capacitance bridge | 1 | 60.00 |

| | |
|-------------|---|
| (ii) | Equipment: Out of CSIR Funded Projects |
|-------------|---|

| Sr. No | Name Category of Equipment/ Vehicle Item | Quantity (Nos.) | Project Number/ Code | Approximate Cost (Rs. In Lakhs) |
|--------|--|-----------------|----------------------|---------------------------------|
| 1 | Incubator Analyzer | 1 | FTT 070507 | 15.00 |
| 2 | Neonatal Incubator | 1 | FTT 070507 | 7.00 |
| 3 | Temperature sensor | 1 | FTT 070507 | 1.25 |
| 4 | Hygrometer | 1 | FTT 070507 | 4.00 |
| 5 | Anemometer | 1 | FTT 070507 | 0.65 |
| 6 | Dry well | 1 | FTT 070507 | 9.00 |
| 7 | Humidity Chamber | 1 | FTT 070507 | 4.45 |
| 8 | Sound Calibrator | 1 | FTT 070507 | 0.65 |
| 9 | Wind tunnel | 1 | FTT 070507 | 4.00 |

| | | | | |
|----|---|---------|------------|---------|
| 10 | Anti-Vibration Table | 1 | FTT 070507 | 1.00 |
| 11 | Humidifier with dry air controller | 1 | MLP 201232 | 6.00 |
| 12 | Sheffield Head with sensors | 1 Set | MLP 201232 | 7.00 |
| 13 | IR Thermal Imager | 1 | MLP 201232 | 13.00 |
| 14 | Integrating Nephelometer | 1 | FTT 050502 | 20.00 |
| 15 | Optical Particle Counter | 1 | FTT 050502 | 20.00 |
| 16 | Tethered Balloon Kit | 1 | FTT 050502 | 2.50 |
| 17 | Light Weight PM Sampler | 2 | FTT 050502 | 1.00 |
| 18 | Denuder | 1 | FTT 050502 | 1.00 |
| 19 | Data acquisition system | 1 | HCP 52 | 7.00 |
| 20 | Dual Frequency Comb Based THz Comb. Consisting of : optical Frequency Comb (02) with THz emitter and detectors: ORS-Mini Ultrastable Laser System Beat Detection unit-02 Customized electronics module including THz emitters, Detectors, | 2,1,2,1 | MMP 015201 | 1014.00 |
| 21 | Sound Level Analyzer | 1 | NWP 100 | 4.00 |
| 22 | Multifucntion Sound Calibrator | 1 | NWP 100 | 3.00 |
| 23 | Hydraulic Pressure Gauge | 1 | NWP 100 | 5.00 |
| 24 | Printer (Multi Function), | 1 | NWP 100 | 0.80 |
| 25 | Check Master | 1 | NWP 100 | 10.00 |
| 26 | Muffle Furnance | 1 | NWP 100 | 2.00 |
| 27 | Civil and Electrical work for maintaining class rooms & Jigyasa Lab | As Req. | HCP 0101 | 2.00 |
| 28 | Electrometer | 1 | MLP 231932 | 23.00 |
| 29 | Power supply, incubator, waterbath, RO | 1 each | HCP 52 | 2.86 |
| 30 | Workstation, Printer | 1 each | HCP 52 | 1.00 |
| 31 | Lab bench | 3 | HCP 52 | 1.14 |
| 32 | Vector Network Analyzer (110GHz - 170GHz) two port along with base unit, calibration kit, adapter, enabled TDR option and appropriate Cables. (Output power upto +5dBm or higher) | 1 | MMP 015201 | 250.00 |
| 33 | Signal Generator with power (built in or additional) amplifier (D band, 110GHz-170GHz) with vector software | 1 | MMP 015201 | 250.00 |
| 34 | Spectrum Analyzer (D band, 110GHz-170GHz) | 1 | MMP 015201 | 150.00 |
| 35 | Data Server | 1 | FBR 010307 | 9.50 |

(iii) Equipment: Out of Externally Funded Projects (EFP)

| Sr. No | Name Category of Equipment/ Vehicle Item | Quantity (Nos.) | Project Number/ Code | Approximate Cost (Rs. In Lakhs) |
|--------|--|-----------------|----------------------|---------------------------------|
| 1 | Furniture for traceability Lab | As per Req | TSP 180932 | 5.50 |
| 2 | Antenna control unit | 1 | TSP 180932 | 6.60 |
| 3 | Works and services for IT | As per Req | TSP 180932 | 5.50 |
| 4 | Furniture for RRSls and DRC | As per Req | TSP 180932 | 9.00 |

| | | | | |
|----|--|------------|------------|--------|
| 5 | TWSTFT equipment | 1 | TSP 180932 | 150.00 |
| 6 | AC systems | As per Req | TSP 180932 | 20.00 |
| 7 | TV /Big Displays | As per Req | TSP 180932 | 60.00 |
| 8 | Multifunctional Printers | 10 | TSP 180932 | 4.00 |
| 9 | Office Computers | 20 | TSP 180932 | 25.00 |
| 10 | Rubidium frequency Standard | 2 | GAP 230732 | 30.00 |
| 11 | Time Interval Counter | 3 | GAP 230732 | 18.00 |
| 12 | GNSS receiver with Antenna & cable | 2 | GAP 230732 | 26.00 |
| 13 | Work station | 2 | GAP 230732 | 3.00 |
| 14 | Kernel Virtual Machine | 2 | GAP 230732 | 2.50 |
| 15 | White Rabbit Len Standalone kit | 2 | GAP 230732 | 15.00 |
| 16 | GNSS receiver with accessories | 2 | GAP 150132 | 6.00 |
| 17 | Dry Vacuum Pump | 1 | GAP 230932 | 11.00 |
| 18 | Dry Scroll Vacuum Pump | 1 | GAP 230932 | 3.16 |
| 19 | Softening point apparatus | 1 | GAP 230332 | 39.00 |
| 20 | Optical microscope | 1 | GAP 230332 | 25.00 |
| 21 | Polishing machine | 1 | GAP 230332 | 32.00 |
| 22 | Oxidation oven | 1 | GAP 230332 | 50.00 |
| 23 | Carbonization furnace | 1 | GAP 230332 | 50.00 |
| 24 | Upgradation in existing melt-spinning assembly | 1 | GAP 230332 | 15.00 |
| 25 | Minor Equipments, its accessories and installation | 1 | GAP 230332 | 15.00 |
| 26 | Power supply | 1 | GAP 231232 | 1.00 |
| 27 | Chamber | 1 | GAP 231232 | 12.00 |
| 28 | Sputter guns | 2 | GAP 231232 | 6.00 |
| 29 | Vacuum pumps | 1 | GAP 231232 | 3.00 |
| 30 | Laser interferometer | 5 | TSP 231232 | 310.00 |
| 31 | Mechanical Bed* | 6 | TSP 231232 | 110.00 |
| 32 | Microscopic High Resolution Camera and related accessories | 5 | TSP 231232 | 5.00 |
| 33 | Laptop / Desktop / laser printer with Dual Monitor | 5 | TSP 231232 | 5.00 |
| 34 | UPS system and batteries | As req. | TSP 180932 | 80.00 |
| 35 | Conductivity Meter | 1 | GAP 240332 | 1.00 |
| 36 | DC Power Supply (10 A) | 1 | GAP 240332 | 4.00 |
| 37 | Digital overhead stirrer | 1 | GAP 240332 | 0.50 |
| 38 | Digital hot plate stirrer | 1 | GAP 240332 | 0.30 |
| 39 | Waterbath with circulator | 1 | GAP 240332 | 0.20 |
| 40 | Mass comparator, 200 g, 1 micro gram | 1 | GAP 240232 | 70.00 |
| 41 | Rheometer Testing Facility for viscosity measurements | 1 | GAP 240232 | 65.00 |
| 42 | Absolute Gravimeter Testing Facility | 1 | GAP 240232 | 530.00 |
| 43 | Refractive Index Testing Facility | 1 | GAP 240232 | 20.00 |
| 44 | Guarded Hot plate Testing Facility | 1 | GAP 240232 | 395.00 |
| 45 | Moisture Testing Facility (Moisture Analyzer & Forced convection oven) | 1 | GAP 240232 | 30.00 |
| 46 | Clinical thermometer Testing Apparatus | 1 | GAP 240232 | 40.00 |
| 47 | Power Supply (AC) | 2 | GAP 240232 | 15.00 |

| | | | | |
|----|---|---|------------|--------|
| 48 | Photo current meter | 1 | GAP 240232 | 35.00 |
| 49 | Luminance Meter | 1 | GAP 240232 | 30.00 |
| 50 | Brinell Hardness Testing Machine | 1 | GAP 240232 | 120.00 |
| 51 | Optical based Low Force sensor as a new facility; Electro-optical components | 1 | GAP 240232 | 30.00 |
| 52 | Ultrasonic Pulse Velocity Tester with suitable transducers | 1 | GAP 240232 | 15.00 |
| 53 | Phased array Ultrasonic Flaw Detector Testing Facility | 1 | GAP 240232 | 30.00 |
| 54 | Up-gradation of Microphone Calibration Facility using Insert Voltage method in range 20 Hz to 25 kHz | 1 | GAP 240232 | 50.00 |
| 56 | Up-gradation of Acoustic Free-Field Calibration and Testing facility in frequency range of 125 Hz to 20 kHz | 1 | GAP 240232 | 180.00 |
| 57 | PVTt (Primary gas flow standard) | 1 | GAP 240232 | 300.00 |
| 58 | Aethalometer | 1 | GAP 161632 | 45.00 |
| 59 | Nephelometer | 1 | GAP 161632 | 45.00 |
| 60 | Gas Chromatograph | 1 | GAP 114732 | 26.00 |
| 61 | Water bath with shaker | 1 | GAP 114732 | 1.00 |
| 62 | PM2.5 Sampler | 1 | GAP 114732 | 1.25 |
| 63 | PM1.0 Sampler | 1 | GAP 114732 | 1.25 |
| 64 | Rubidium Frequency Standard | 4 | GAP 231032 | 20.00 |
| 65 | Data Server | 1 | GAP 231032 | 12.00 |

| | |
|--------------|--------------------|
| A (b) | CONSUMABLES |
|--------------|--------------------|

| Sr. No. | Category | Expected Procurement Value (Rs. In Lakhs) | | | |
|---------|---|---|-----------------------------|--|----------------------|
| | | Out of CSIR Infra Grant | Out of CSIR Funded Projects | Out of Externally Funded Project (EFP) | Total (Rs. In Lakhs) |
| 1 | Glassware | 6.72 | | 0.93 | 7.65 |
| 2 | Miscellaneous | 49.68 | 9.10 | 286.32 | 333.08 |
| 3 | Research & Development Accessories (R & D Consumable) | 98.55 | 92.00 | 84.35 | 179.97 |
| 4 | Electrical & Electronic Items | 14.30 | 26.00 | 12.60 | 23.40 |
| 5 | Computer Accessories | 10.46 | 0.65 | 0.81 | 11.27 |
| 6 | Cartridge | 3.70 | 0.20 | 0.30 | 4.00 |
| 7 | Software | 37.02 | 4.65 | 0.87 | 41.89 |
| 8 | Stationary | 0.46 | 0.51 | 1.73 | 1.20 |
| 9 | Chemical (Gases) | 9.52 | 1.68 | 4.11 | 13.31 |
| 10 | Chemical (Solid) | 27.73 | 4.67 | 41.66 | 44.37 |
| 11 | Batteries | 1.60 | | 0.50 | 2.10 |
| 12 | Job Work (Repair) | 102.32 | 10.87 | 30.44 | 134.75 |
| 13 | Annual Maintenance Contract (AMC) | 71.20 | | 5.00 | 76.20 |
| 14 | Furniture | 9.62 | | 0.05 | 9.65 |

| | |
|----------|---|
| B | FOR NEXT 2-4 FINANCIAL YEARS (2025-29) (From 01/04/2025 to 31/03/2029) |
|----------|---|

| | |
|--------------|------------------|
| B (a) | EQUIPMENT |
|--------------|------------------|

| Sr. No. | Name of Equipment / Item | Quantity (Nos.) | Approximate Cost (Rs. In Lakhs) |
|---------|---|-----------------|---------------------------------|
| 1 | Tabletop SEM-EDS | 1 | 70.00 |
| 2 | Upgrade of Microphone calibration and testing facility , Multifunction Acoustic Calibrator & Access | 1 | 50.00 |

| | |
|--------------|--------------------|
| B (b) | CONSUMABLES |
|--------------|--------------------|

| Sr. No. | Category | Expected Procurement Value (Rs. In Lakhs) |
|---------|---|---|
| 1 | R&D Consumables for closed loop systems (by equipment name) | |
| 2 | Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.) | |
| 3 | Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.) | |
| 4 | Glass wares (ex- name the different glass wares) | |
| 5 | Plastic wares (ex- Name the different plastic wares) | |
| 6 | Toner Cartridges. | |
| 7 | Batteries, etc. | |
| 8 | Gases (ex- tentative names) | |
| 9 | Maintenance/AMC/repairing of existing equipment | |
| 10 | Stationery items (ex- name a few) | |
| 11 | IT / software-related Items (Name the items required during year) | |
| 12 | Furniture (Name the items required during year) | |
| 13 | Electric Items (Name the items required during year) | |

Note:

- The above procurement plan is dynamic and could be revised as often as may be necessary with the approval of the Competent Authority.
- The procurement of the chemicals & consumables would be based on the need and ongoing requirement of R&D activities of Lab/Instt.
- The procurement is subject to the fund's availability/release of sufficient grant from CSIR / funding agency.
- The indicated procurement value is an estimate only.