

**CSIR-INDIAN INSTITUTE OF PETROLEUM, DEHRADUN  
PROCUREMENT PLAN**

<b>A</b>	<b>FOR THE FINANCIAL YEAR 2025-26</b>
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<b>A(a)</b>	<b>EQUIPMENT</b>
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<b>(i)</b>	Equipment: Out of CSIR Infra Grant (Notional/Divisional/OLP Project)
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Approximate Cost (Rs. In lakh)
1	2 & 3 wheeler EVs	1	5.00
2	2-wheeler petrol vehicle	1	1.50
3	3D scanner - estimated price of 7 lakhs	1	7.00
4	ACE unit	1	150.00
5	Advance Homer software	1	15.00
6	Air Conditioner	1	0.60
7	Air Release Tester	1	20.00
8	Analyser with Nitrogen Chemiluminescence Detector (NCD)	1	50.00
9	Apparent Viscosity of Grease	1	50.00
10	ATS furnace	1	9.00
11	Auto potentiometric titrator for RSH analysis	1	28.00
12	Autoclave	2	4.00

13	Automatic A4 size membrane casting machine	1	10.00
14	Automatic cutting and sample Polishing machine	1	5.00
15	Bench top distillation unit (200 ml)	1	30.00
16	Bomb Calorimeter	1	50.00
17	Calibrated Capillary Viscometers	30	10.00
18	Ceiling mic etc	3	15.00
19	Centrifuge refrigerated	1	7.00
20	Chemical Storage Cabinets	5	10.00
21	Chiller (upto -35 C)	2	20.00
22	CHNS Analyser	1	120.00
23	CO2/gas injection facility for existing reactor setup	1	16.00
24	Cold Filter Plugging Point Tester	1	40.00
25	Computer Printers	5	1.50
26	Computer workstation	3	60.00
27	Computer/ Workstation for simulation activities.	1	15.00
28	Conductivity Meter	1	5.00

29	Cryo Ball Mill	1	20.00
30	CSTR/ Batch reactor	1	20.00
31	Density meter	1	40.00
32	DHA	1	55.00
33	DI unit	1	30.00
34	Drone – 40 kg load carrying capacity	2	20.00
35	Drum Heater	1	1.00
36	Electronic Balance (0-2000 g)	2	3.00
37	ESD Safe workbenches	2	10.00
38	Experimental Briquetting unit with complete instrumentation and accessories	1	20.00
39	Experimental furnace for coal-biomass pulverized combustion system with instrumentation and accessories	1	30.00
40	Experimental Setup: High-pressure and low-temperature gas mixture freezing point and solubility setup	1	105.00
41	External Hard Disks	2	0.20
42	Extruder	1	5.00
43	Fabrication of the Hydrogen storage Testing device	1	22.00
44	Feed incubator	1	5.00

45	Fluorescence spectrophotometer (50% from P-50 and 50% from GAP 0164)	1	9.00
46	Four Ball Wear & EP Tester	1	120.00
47	Fume hood	3	22.00
48	Gas Flow Meter	2	1.50
49	Gas generators for hydrogen	2	10.00
50	Gas generators for nitrogen (0.5-10 lt/min)	6	25.00
51	Gas purification panel	1	1.00
52	Gas Regulators (High pressure/low pressure/BPR etc for gases)	40	30.00
53	GC Refinery Gas Analyser	1	50.00
54	GC-MS	1	72.00
55	GC-RGA (replacement basis)	1	45.00
56	Hard drives	2	0.20
57	Heater for Coke Drum	1	6.00
58	Heating Mantle	3	2.00
59	High Pressure & High Temperature Batch Reactor (Inconel/hastalloy C 276 corrosion resistance)	1	30.00
60	High pressure Batch reactor	1	40.00

61	High pressure fix bed reactor	1	150.00
62	High Shear/spindle Beach Mixer for Drilling fluids	1	2.00
63	High Temp. Valves	10	5.00
64	High temperature feed pump	2	10.00
65	High Vacuum Pump for Solvent Recovery	1	5.00
66	High-Pressure Bench scale Biomass Pyrolysis unit with liquid pumping facility	1	30.00
67	High-pressure gas panels with regulators	4	8.00
68	high-pressure hydrate reservoir mimicking lab-scale setup:	1	13.00
69	Hollow Fiber Membrane Spinning System	1	100.00
70	Hot air gun	2	0.25
71	Hot plate Magnetic stirrer	15+2+3+2	22.00
72	Hot Plates	6+2	4.00
73	HPLC	1	55.00
74	HPLC pump	2	12.00
75	HPLC system with ELSD	1	35.00
76	HPLC with UV/RID detector	1	40.00

77	HT-HP Filter Press/ Fluid Loss Equipment for Drilling fluids	1	10.00
78	Hydraulic jack for motor cycle	2	1.50
79	Incubator shaker	3	24.00
80	Ion chromatography	1	45.00
81	Jacketed Glass Crystallization System for Paraffin/ Micro Wax	1	10.00
82	Jaw Crusher	1	17.00
83	Karl fisher titrator	1	5.00
84	Kinematic Viscosity (-20 Deg C)	1	3.00
85	L3 Core switch	1	42.00
86	Lab scale mini spray dryer	1	15.00
87	Laboratory Vacuum Pumps	2	1.50
88	Mass flow meter/controller	2	5.00
89	Matlab software	1	22.00
90	Membrane cascade system for gas separation	1	20.00
91	MFC	8	15.00
92	MFCs (3+2 Nitrogen+1+1 Air+ 1 Hydrogen)	8	12.00

93	Mini Mixer, Extruder & Spheronizer	1	15.00
94	Muffle furnace/oven	4	25.00
95	Multi-channel electrochemical workstation (Multi-divisional request)	1	50.00
96	Multiple Gas Analyser (Customised for 1-TPD Pilot plant)	1	37.00
97	MWD XRF	1	40.00
98	Nano Ball mill with cryogenic facility	1	30.00
99	Network Attached Storage (NAS) Device	1	23.00
100	NMR 600 MHz	1	1150.00
101	Office Laptop	2+1+2	3.00
102	Oldershaw-silver plated and insulated distillation column for pyrolysis oil TBP fractionation study	1	10.00
103	Online GC Refinery Gas Analyser	1	55.00
104	Optical tensiometer that measures static and dynamic contact angles, static and semi-dynamic surface/interfacial tension and surface free energy: For EOR studies	1	15.00
105	Origin Perpetual license	2	1.00
106	Oxidation and thermal stability analyser	1	25.00
107	Oxidation stability	1	36.00
108	PCB Prototyping Machine	1	9.00

109	pH and Conductivity meter	1	1.00
110	pH Meter	1	2.00
111	pH meter	1	0.25
112	Plastic Crusher Machine	1	1.50
113	Reactor (1kg)	1	20.00
114	Reactor material	1	8.00
115	Reactor software and control panel upgradation	1	8.00
116	Recirculating Chiller bath	3+1	15.00
117	Refracto Meter	1	1.00
118	Refractometer	1	2.00
119	Rejuvenation of Reforming Rig	1	31.00
120	RO Potable water system	1	0.17
121	Rota Vapour	2	20.00
122	Rotary Vacuum Evaporator with all the accessories	1	3.00
123	Sievert apparatus	1	80.00
124	Silver strip corrosion	1	15.00



125	Solar irradiance meter	1	0.50
126	Solid State Induction Heater with reactor and Accessories	1	30.00
127	Solidworks software or any CAD modeling software - estimated price of 5 lakhs.	1	5.00
128	Sonicator/ultrasonic bath	5	2.00
129	Split tube furnace	1	12.00
130	Synthetic natural gas cylinders	2	1.50
131	Syringe pump	1	5.00
132	Thermal Shock Coolant Control Unit	1	68.50
133	Time-lapse camera for gas hydrate setup	1	1.00
134	Traverse	1	5.00
135	Ultrasonic bath	1	0.25
136	Ultrasonicator	1	0.70
137	Universal testing machine	1	10.00
138	UV Visible fluorescence Spectrophotometer	1	50.00
139	Vacuum filtration assembly	1	0.50
140	Vehicle Tracking Systems	10	5.00

141	Viscometer	1	8.00
142	Viscometer Baths with Cradles	2	12.00
143	Water Distillation Unit (Millipore Unit)	1	4.00
144	Weighing balance (heavy weight)	1	0.35
145	Wetgas flow meter	1	6.00

(ii)	<b>Equipment:</b> Out of CSIR Funded Projects (MLP/FTT etc.)
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Sr. No	Name Category of Equipment/Vehicle Item	Quantity (Nos.)	Project Number/Code	Approximate Cost (Rs. In lakh)
1	Ammonia Measurement device	1	Proposed for Mission Mode	40.00
2	Chassis Dynamometer	1	FCP 512402	385.00
3	Components for SCR system	1	Proposed for Mission Mode	10.00
4	Emission Analyser Upgradation (VEL)	1	FCP 512402	30.00
5	Gaseous Emission Measurement System Upgradation	1	FCP 512402	73.00
6	Hydrogen Engine	1	Proposed for Mission Mode	60.00
7	Particulate Measurement System	1	FCP 512402	184.00
8	Upgradation for E85 Compliant Emission Measurement	1	FCP 512402	95.00

(iii)	<b>Equipment: Out of Externally Funded Projects (EFP) (GAP/SSP/CNP/CLP)</b>
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<b>Sr. No</b>	<b>Name Category of Equipment/Vehicle Item</b>	<b>Quantity (Nos.)</b>	<b>Project Number/Code</b>	<b>Approximate Cost (Rs. In lakh)</b>
1	Biomass Pellet Durability Tester	1	GAP-0151	8.00
2	Biomass Pellet Strength Measurement System	1	GAP-0151	10.00
3	Hammer Mill and Crusher with Cyclone for Biomass size reduction	1	GAP-0151	5.00
4	Workstation	2	SSP-0191	6.00

<b>A (b)</b>	<b>CONSUMABLE</b>
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Sr. No.	Expected Procurement Value (Rs. In Lakhs)				
	Category	Out of CSIR Infra Grant	Out of CSIR Funded Projects	Out of Externally Funded Project (EFP)	Total (Rs. In Lakhs)
1	R&D Consumables for closed loop systems (by equipment name eg. Kits for alumina sequencer)	5	10	5	20
2	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)  Reference fuels for CFR engines such as ISO Octane, N-Heptane, Low Cetane, High Cetane, T-Fuel, U- Fuel, Toluene etc.	35	10	5	50
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.)  <ul style="list-style-type: none"> <li>Fuel for AFLAD facilities</li> <li>Calibration of air flow meter</li> <li>Calibration of fuel flow meter</li> <li>Servicing of TEL equipment</li> <li>Gas-room Servicing: Gas-room overhauling/repairing</li> <li>Servicing and Repair of flow meter (Magnetrol, 50-300 kg/hr)</li> <li>Fabrication and catalytic converter preparation</li> <li>Test-cell Maintenance and spares</li> </ul>	43	5	5	53
4	Glass wares (ex- name the different glass wares)	8.3	5	0	13.3
5	Plastic wares (ex- Name the different plastic wares)	5	2	0	7
6	Toner Cartridges.	2	0	0	2
7	Batteries, etc.	2.6	0	0	2.6
8	Gases (ex- tentative names) Operational Gases, Mixed Gases for calibration [Helium, Nitrogen, Hydrogen, Zero Air, 10%H <sub>2</sub> -	23	--	--	23

	Ar mixture, 10%NH3-He mixture]				
9	Maintenance/AMC/repairing of existing equipment	12	0	0	12
10	Stationery items (ex- name a few) [A4 papers, Pens, Registers, Log books]		--	--	1.5
11	IT / software-related Items (Name the items required during year)	16	--	--	16
12	Furniture (Name the items required during year)	--	--	--	--
13	Electric Items (Name the items required during yea	1	--	--	1
14	R&D Consumables for closed loop systems (by equipment name eg. Kits for Illumina sequencer)	--	--	--	--
15	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	--	--	--	--
16	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.)	--	--	--	--
17	Glass wares (ex- name the different glass wares)	--	--	--	--
18	Plastic wares (ex- Name the different plastic wares)	--	--	--	--
19	Toner Cartridges.	--	--	--	--
20	Batteries, etc.	--	--	--	--
21	Gases (ex- tentative names)	--	--	--	--
22	Maintenance/AMC/repairing of existing equipment	--	--	--	--
23	Stationery items (ex- name a few)	--	--	--	--
24	IT / software-related Items (Name the items required during year)	--	--	--	--
25	Furniture (Name the items	--	--	--	--

	required during year)				
26	Electric Items (Name the items required during yea	--	--	--	--
27	R&D Consumables for closed loop systems (by equipment name eg. Kits for Illumina sequencer)	5	5	5	15
28	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	1	1	1	3
29	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.)	12	5	3	20
30	Glass wares (ex- name the different glass wares)	--	--	--	--
31	Plastic wares (ex- Name the different plastic wares)	--	--	--	--
32	Toner Cartridges.	1	--	--	1
33	Batteries, etc.	--	--	--	
34	Gases (ex- tentative names)	5	3	2	10
35	Maintenance/AMC/repairing of existing equipment	3	2	2	7
36	Stationery items (ex- name a few)	0.2	--	--	0.2
37	IT / software-related Items (Name the items required during year)	0.1 LAN cables	--	--	0.1
38	Furniture (Name the items required during year)	20 Lab furniture	1 Chair	1 Chair	22
39	Electric Items (Name the items required during yea	--	--	--	--
40	R&D Consumables for closed loop systems (by equipment name eg. Kits for Illumina sequencer)	20			20
41	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing,	20			20

	Oligonucleotides, etc.)				
42	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.)	10	-	-	10
43	Glass wares (ex- name the different glass wares)	3	-	-	3
44	Plastic wares (ex- Name the different plastic wares)	3	-	-	2
45	Toner Cartridges.	3	-	-	2
46	Batteries, etc.	3	-	-	2
47	Gases (ex- tentative names)	6	-	-	6
48	Maintenance/AMC/repairing of existing equipment	20	-	-	20
49	Stationery items (ex- name a few)	1	-	-	1
50	IT / software-related Items (Name the items required during year)	1	-	-	1
51	Furniture (Name the items required during year)	6	-	-	6
52	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.