CSIR-North East Institute of Science and Technology, Jorhat

Procurement Plan

For the FY 2024-25 & 2025-26

Sl No.	Instrument	Quantity	Cost Approx. in lakhs	Use	Type of Project (FTT/FBR/RDSF/MM projects or other HCP projects)
1	Laminar Flow Hood (Horizontal)	2	6	Cell/tissue/microbial culture work under aseptic conditions	NER MISSION/ BioProsCon Mission IHBT/FBR
2	GC with ECD/FID detector	1	55	For the PAHs and Petroleum hydrocarbon analysis	NER MISSION
3	PCR Machine	1	5	DNA work	BioProsCon Mission IHBT
4	Micro plate Reader	1	29	For nucleic acid, protein assay and kinetics, spectral scanning.	NER MISSION
5	Gel Doc System	1	11	Imaging of DNA and RNA	NER MISSION
6	Biosafety cabinet	1	8	For handling cells/microbes/callus aseptically	NER MISSION/ BioProsCon Mission IHBT
7	Shaker Incubator	2	18	For growth kinetic studies of microbial species and their cultivation process optimization	NER MISSION/BioProsCon Mission IHBT

8	TPH analyzer	1	25	For growth kinetic studies (kinetic data for kinetic modeling) of bacteria/fungus/algae and their cultivation process optimization	NER MISSION
9	Autoclave	1	4	For sterilization of medium and glass wares	NER MISSION
10	Refrigerator	5	5	For storage of bacterial plates, nucleic acids, chemicals and kits	FBR/NER MISSION
11	Deep freezer (-20oC)	2	5	For storage of bacterial plates, nucleic acids, chemicals and kits	FBR/NER MISSION
12	UV-Visible spectrophotometer with double beam	1	8	For daily analysis of microbial growth, kinetics	NER MISSION
13	Bioreactor	1	60	Required to test the bioremediation performance in lab scale	NER MISSION

14	Centrifuge	1	10	Centrifuge is required for separating microbial biomass and contaminants, concentrating and facilitating sample preparation in bioremediation work.	NER MISSION
15	Transcriptomic data analyzer	1	20	Transcriptomic data analysis	NER MISSION
16	Plant tissue culture facility	1	20	A medium capacity Plant Tissue Culture facility with biosafety components is essentially required for *in vitro* tissue culture regeneration of North East Indian rice cultivars, *Solanum lycopersicum* and *Pogostemon cablin* edited through CRISPR/Cas-system	GENOME EDITING MISSION

17	Temperature-controlled plant growth facility	1	35	A medium capacity temperature-controlled plant growth facility with programmable humidity and photoperiod is essentially required for growing of CRISPR-edited *S. lycopersicum*, North East Indian *Oryza sativa* Indica and *Pogostemon cablin* lines in all the seasons under	GENOME EDITING MISSION
18	ChemiDoc System	1	25	A ChemiDoc system with the latest features is essentially required for the detection and imaging of DNA, RNA, and Proteins of CRISPR-edited CRISPR-edited *S. lycopersicum*, North East Indian *Oryza sativa* Indica and *Pogostemon cablin* lines	GENOME EDITING MISSION

19	Double distilled water purification system	1	20	A medium capacity (Approx. 20 L/day) double distilled water purification system is essentially required in the division for the plant tissue culture and molecular biology work.	FTT
20	Automated ice flaking machine	1	4	An automated ice-flaking machine is required in the division for all works related with molecular biology work	FTT
21	Light microscope with imaging facility	1	5	A standard light microscope with an imaging facility is required in the division for quick observation and imaging of plant, bacterial, and fungal samples	FBR
22	Deep freezer (-80°C)	1	15	A 400 L capacity deep freezer (-80°C) is essentially required to store molecular biology constructs and plant pathogenic microbial samples.	FBR

23	Table top cold centrifuge	1	12	For DNA and RNA work of CRELs to be carried out under refrigerated conditions.	FIRST
24	Automated DNA extractor	1	10	For large-scale DNA isolation to screen CRISPR-positive transformants and editing lines of crop and medicinal plants	FIRST
25	BOD incubator	2	4	BOD analysis	FIRST
26	qRT-PCR	1	15	The equipment will be used for quantitative and qualitative real time gene expression analysis, as well as post-PCR (end point) analysis using the built-in- Peltier-based PCR machine. The machine's five color as post-PCR (end point) analysis using the built-in- Peltier-based PCR machine.	FBR/ NER MISSION
27	UV Transilluminator	1	1	For molecular cloning	FBR

28	Benchtop centrifuge	1	3	For various day to day molecular biology and plant tissue culture experiments	FBR
29	Pounch Making Machine	1	7	For measuring of diffusion rate	NER MISSION
30	Nebulizer	1	3	For measuring of diffusion rate	NER MISSION