

Government of Tripura
Directorate Industries & Commerce,
Geological & Mining Section,
Khejurbagan, Agartala, West Tripura
Pin-799006, Email: geologytripura@gmail.com,

Date :

The Director
National Mineral Exploration Trust (NMET)
Ministry of Mines
F-114, 1st Floor
Shastri Bhawan
New Delhi-110001
Email Id: nmet-mines@gov.in

Subject: - Financial Assistance for procurement of machinery / laboratory equipment / instruments etc. aimed at enhancing the exploration activities-reg.

Reference:- i) Your office email dated 21.12.2022.
ii) Your office email dated 14.09.2023.


Sir,

Kindly refer to the above noted subject and references. In this context, enclosed please find herewith the proposal of this department for financial assistance in procurement of machinery / laboratory equipment / instruments etc. aimed at enhancing the exploration activities and to achieve desired results, on the devised format as Annexure-A (Advance copy) for your kind information and necessary action.

In this regard, it is requested that 100% Financial Assistance may be provided to procure the proposed machinery / laboratory equipments / instruments.

Encl: - A/A

Yours faithfully,


19/10/2023

Joint Director/ Geologist
Department of Industries & Commerce

Annexure-A

2. Details of Proposed Items:-

A. Field Equipment's

S.No.	Name of the equipment	Rate (approx.)	Unit	Amount	Specifications	Availability within the Department	Justification
2.	Digital Camera	2.90 lacs	02	5.80 lacs	Effective Pixels: 30.4 MP Sensor Type: CMOS WiFi Available 4K at 30p + 4K Frame Grab	Nil	Field photographs of mineral deposits ,Engineering assignments for more clarity
3.	Brunton Compass	0.027 lacs	07	0.189lacs	Size : 3 inch	15 (old models, most are not working properly)	Field photographs of mineral deposits , Engineering assignments for more clarity
4.	Geological Hammer	0.020	07	0.14lacs		15	SQUARE FACE & POINTED TIP- Use pick to crack open rocks & hammer to drive chisels
5.	Handheld GPS	0.735 lacs	03	2.205lacs	Body size: 6.1 x 16.0 x 3.6 cm Display: 1.43" x 2.15" (3.6 x 5.5cm); 2.6" (6.6cm) Resolution: 160 x	Old Garmin GPS available	Record the coordinates of a specified location,

					240 pixels Display type: transflective color TFT Weight: 8.1 oz (230 grams) with battery Batteries used: Rechargeable NiMH pack (included) or 2 AA batteries (not included), NiMH or Lithium recommended Operating time: up to 16 hours Waterproof performance: IPX7 Internal memory/history: 16GB High-sensitivity GPS: GPS/GLONASS/Mic hibiki Complementary Interface: High speed USB and NMEA0183 compatible		
--	--	--	--	--	---	--	--

C. Chemical and Petrological Laboratory:-

S.No.	Name of the equipment	Rate (approx.)	Unit	Amount	Specifications	Availability within the	Justification
02.	Laboratory Electric Muffle Furnace	0.60 Lacs	01	0.60 Lacs	Interior dimensions: 6" × 6" × 12" (Dimensions are expressed in Width × Depth × Height) Temp. Range Ambient to 1200 °C Accuracy: ±100 °C	Nil	Required for determination of various radicals through gravimetry in the analysis of lime, quicklime, gypsum, rock samples, etc.
04.	Bomb Calorimeter Digital	0.50 lacs	01	0.50 lacs	Bomb capacity: 300ml	Nil	For determination of calorific value and sulphur content of coal
13.	POLARISCOPE	0.09 lacs	01	0.09 lacs	Power Voltage 110-220 V Rated Frequency 50 Hz		
14.	SPECTROSCOPE	1.10 lacs	02	2.20 lacs	Power 50 Watt Adjustable input light hole 2-28mm Built-in digital scale 400-700nm Voltage 12 V		
17.	Magneto Meter	0.35 lacs	04	1.4 lacs			
19.	Air Oven / Digital	0.40 lacs	01	0.40	Digital controller with		

	oven			lacs	constant air circulating fan. Temp upto 300° C dimension = 24 * 24 * 24		
21.	Multi parameter Water Tester (pH, Conductivity, TDS, salinity, Temperature)	0.20 lacs	03	0.60 lacs	Range		
					Resolution		
					Accuracy		
					Calibration		
					ATS		
					Electrode		
					Water & Dust Proof		
					Operating Temp		

D. Software for Map preparation and data analysis:

S.No.	Name of the equipment	Rate (approx.)	Unit	Amount	Specifications	Availability within the Department	Justification
1.	GIS Software	2.00 lacs (per year)	02	4.00 lacs (per year)	ArcGIS 10.8	Nil	To Prepare Geological Maps

F. Survey

S.No.	Name of the equipment	Rate (approx.)	Unit	Amount	Specifications	Availability within the Department	Justification
1.	Total Station	2.70 lacs	01	2.70lacs	Angle Measurement Accuracy 1 Sec	Nil	Required for surveying of Limestone,

					Distance measurement 300-500 meter Display Panel – Single and Double both display		Quartzite, Gypsum etc. minerals
--	--	--	--	--	--	--	------------------------------------

3. Justification for procurement: - The State of Tripura is one of the well known hub for exploration and production of Natural Gas. Department of Geology & Mining under Department Of Industries and Commerce is the nodal Organisation for activity related to Exploration and Mining.

Till date no significant amount of economic mineral resources were revealed. Therefore, the Mineral investigation data for different minerals such as sandstone, clay, Quartzite, hard rock, Coal, etc. in various Districts of Tripura is necessary. Accordingly a study for availability and quantification of minerals were proposed.

Besides, the Department has already submitted proposal for investigating slope stability of hills along the stretch of newly constructed National Highways. The objective of this project is to correctly analyze the slope stability, strengthen the guidance of engineering & construction related Departments (Like PWD, CPWD, NHIDCL etc) and ensure the safety of people's lives and property. Landslides are a common form of slope failure, which can result in significant damage to property and infrastructure, loss of life, and environmental impacts.

In order to achieve the desirable results, the above said Machinery/Laboratory Equipment /Instruments, etc are required. Moreover, these above said Laboratory Equipment / Instruments will strengthen the laboratories and help trained people to .

Utilization of instruments:- For above mentioned five year work projection w.e.f. 2022 to 2027, these required instruments shall help the department to enhance the exploration activities & achieve the desired results during the different stages of investigation such as G1/G2/G3/G4 for available natural resources and minerals etc.

From state Govt. a detail survey report of all the available mineral resources in the state has been planned. Also it may be mentioned here that as per Rule 9(2) b of Mineral Auction Rules, 2015, the area proposed for e-auction needs to be surveyed and demarcated with DGPS and Total Station Survey. The Department of Geology & Mining, Tripura has requested Geological Survey of India for the DGPS and Total Survey Station for the demarcation purpose. Moreover, for general survey / demarcation, identification of new quarry sites/blocks, ground water exploration, samples collection and up-dation of geological maps etc. instruments like Handheld GPS, Arc GIS software, Hand, etc, are very essential.

5. Strength (Geology & Mining Division) under Department of Industries & Commerce:-

Geology & Mining Division- 4