

Request for Tender to Carry Out Survey, Demarcation and Geo-reference of Forest Boundary using DGPS in Notified Forests Of Meghalaya Forest Divisions

No. MWP/205/CAMPA/DoFB/2021-22/205

Dated Shillong, the 2nd July, 2021

Forests and Environment Department, Government of Meghalaya invites tender from organizations/firms (Government or Private) to **Carry out Survey, Demarcation and Geo-reference of Forest Boundary using DGPS in Notified Forests of Meghalaya Forest Divisions**

A detailed notice can be downloaded from the website of the Department (<http://megforest.gov.in>).

Interested parties may submit the proposal in a sealed cover containing separately sealed envelopes for Technical Bid and Financial Bid in the formats given in the aforementioned detailed notice on or before 03.00 PM on 06th August, 2021. The sealed covers containing the Tender and Technical Bids will be opened at 3.30 PM on 06th August, 2021. There will be a Pre-Bid Conference on 15/07/2021.

**Working Plan Officer,
Working Plan Division,
Forest Colony, Lawmali, Meghalaya, Shillong**

(Email: workingplandivision.megh@gmail.com)

GOVERNMENT OF MEGHALAYA

Request for Tenders

For

**Survey, Demarcation and Geo-Referencing of Forest Boundary using DGPS in
NOTIFIED FORESTS of MEGHALAYA FORESTS DIVISIONS**

Tender Notice No DoFB/01 tender/2021-22

**OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS
(RESEARCH & TRAINING, CLIMATE CHANGE)
SHILLONG, MEGHALAYA**

**NOTICE INVITING TENDER
FOR CARRYING OUT**

**SURVEY, DEMARCATION AND GEO-REFERENCING OF FOREST BOUNDARY
USING DGPS IN NOTIFIED FORESTS OF MEGHALAYA FORESTS DIVISIONS**

Notice inviting tender

Tender Notice No:DoFB/01 tender/2021-22

Department of Forest, Government of Meghalaya intends to carry out DGPS Survey of Notified Reserve and Protected forests in various forest division in the state of Meghalaya. Therefore, tenders are invited from the reputed agencies involved in such works, interested agencies/organisation may download the Tender document from the website: <http://www.megforest.gov.in/>

The agencies/bidder are advised to study the tender document carefully. Submission of Bids shall be deemed to have been done after careful study and examination of the Tender document with full understanding of its implication. This tender document is not transferable.

Sl No	Details/ Specification of the work	Estimated quantity	Cost of Tender document (in Rupees)	Tender processing Fee	Earnest Money Deposit (in Rupees) (Offline mode Bank Demand draft/Bank Guarantee of a nationalized bank)
1	2	3	4	5	6
01	Survey, Demarcation and Geo-Reference of Forest Boundary using DGPS in NOTIFIED FORESTS of MEGHALAYA FORESTS DIVISIONS with reference to the Ground control points (GCP), existing GCP of SOI, Govt. Of India tri-junction points using DGPS and supply	Identification & demarcation of forests boundary pillars by DGPS Survey and documentation of forests records including clear marking of approximately 305.58 square kms (approx..)and preparation of Geo-reference maps in various forest division in the state of Meghalaya	Rs. 500.00	Rs. 2000.00	Rs.1,00,000.00

	& erection of Stone Monoliths for Control Stations in various Forest Division in The State of Meghalaya.				
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Tender Scheduled/Programme:

Sl No.	Activity	Date/Time: Duration
1	Date and time for Issue/Publishing of Tender	2/07/21 at 17:00 hrs
2	Pre Bid Conference	15/07/21 at 12:00 hrs Venue: Conference Hall of the O/o Principal Chief Conservator of Forests & HoFF, Sylvan House, Lower Lachumiere, Shillong , Meghalaya - 793001
3	Re-Issue of Tender after Amendment/ Addendum (if necessary)	19/07/21 at 17:00 hrs
4	Start Date and Time for Bid Submission	19/07/21 at 17:00 hrs
5	Closing Date and Time for Bid Submission	06/08/21 at 15:00 hrs
6	Date and Time for Opening of Technical Bids	06/08/21 at 15:30 hrs
8	Date and Time for Opening the Financial Bids	To be notified after Technical Evaluation

- Detailed description of the item and instruction for submitting your offer can be downloaded from website <http://www.megforest.gov.in/>
- Tender fee/cost has to Rs. 5000.00 to be paid through in the form of Demand draft from a nationalized bank in favour of “ Working Plan Officer, Shillong” payable at Shillong.
- Tender processing Fee (TPT) amount Rs.2000.00 to be paid in the form of Demand draft from a nationalized in favour of “ Working Plan Officer, Shillong” payable at Shillong.
- EMD payable is Rs,100,000.00 (Rupees One lakh only) EMD can be paid/submitted through in the form of Demand draft from a nationalized bank and should be submitted before the opening of the Technical Bid, at the Office of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali,, Shillong.
- Bids along with necessary online payment (Tender processing Fee) must be submitted through a demand draft in favour of “ Working Plan Officer, Shillong” payable at Shillong.

- The bidders shall submit their eligibility and qualification details, certificate as mentioned in the section etc..
- The bidders shall upload the scanned copies of all the relevant certificate, documents etc, in support of their eligibility criteria/technical bids and other certificates/documents .
- The bidder shall sign on the supporting statements documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. The bidder shall attach all the required document for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.
- For support related to tendering process, bidders may contact at following address www.workingplandivision.megh@gmail.com or may visit the link <http://www.megforest.gov.in/>
- Corrigendum/ Addendum, if any will be published on the departmental website
- For further details, the undersigned's office can be contacted at e-mail: www.workingplandivision.megh@gmail.com

Principal Chief Conservator of Forests,
Climate Change, Research & Training,

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The tender document contains the following:-

Annexure-1	Tender Document
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GLOSSARY OF TERMS

- AOI: Area of Interest
- DFO: Divisional Forest Officer
- DGPS: Differential Global Positioning system
- GNSS: Global Navigation satellite System
- NAVSTAR: Navigation Satellite and Ranging: The GPS satellite System
- GLONASS: Globalnaya Navigatsionnaya Sputnikovaya Sistema (Russian)
- GPS: Global positioning system
- RTK: Real Time Kinematic
- GIS: Geographic Information system
- PCCF: Principal Chief Conservator of Forests
- SOI: Survey of India
- WL: Wildlife
- FD: Forest Department
- NRSC: National Remote Sensing Centre
- ETS: Electronic Total station
- MFD: Meghalaya Forest Department

Invitation of Tender for Selection of Sustainable agency for carrying out survey, Demarcation and Geo-reference of Forest Boundary using DGPS in Notified Forest Of Meghalaya Forest Divisions and supply & erection of stone monoliths for control stations.

1. Project background

The Meghalaya Forest Department has decided to carry out using DGPS or total stations survey of notified forest land and digitization of forest boundary to bring it to the GIS platform. Primarily the survey will be done using DGPS in all identified forest division. Preparation of Geo-Reference map of cadastral sheet and photograph of each boundary pillars and reading of each boundary pillar in geographic co-ordinates system-WGS84 datum of respective Universal Transverse Mercator Grid zone. It is intended to undertake DGPS survey work covering approximately 305.58 sq km across various Forest Division in Meghalaya during the financial year 2021-22 using DGPS instrument. The final number of boundary pillars to be offered for DGPS/ETS survey work will be decided at the time of award of work, and the same is liable to further changes as per performance of selected bidders and the requirement by the technical committee of the department during the course of the year.

For undertaking the above task of Geo-reference of cadastral map, Satellite data and digitization of forest boundary pillars, Meghalaya Forest Department needs support from agency/organisation/ company, having experience in the area of **Land Survey/ survey of the forest boundary using DGPS technology**. The present requirement is for the precise determination of Geo-coordinates of each boundary pillar, boundary of forest area and supply of geo-reference Cadastral map.

2. Tender Details

Minimum Eligibility Criteria

2.1 Minimum eligibility Criteria (For Technical bid): Bidder has to qualify against each criterion & certificate to be attached for with each:

1. The bidding organisation must be in GIS and Survey business for a minimum period of 10 (Ten) years. Conclusive documentary evidence in the form of past work orders with completion certificate in the name of the organisation must be furnished as supporting.
2. The bidding organisation must submit the Tender Fee of Rs 500/-only through a demand draft in favour of “Working Plan Officer, Shillong” payable at Shillong.
3. The bidding organisation must submit the earnest Money Deposit (EMD) for Rs. 100,000 (One lakhs only) to the Office of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong. For offline submission of EMD : the EMD should be the form of Demand Draft from a Nationalised bank and should be submitted before the opening of the Technical Bid, Shillong. The Demand draft should be drawn in the name of “**Working Plan Officer, Shillong**” at Meghalaya, payable at Shillong.
4. The bidding organisation must submit copy of the PAN card along with copies of Income tax returns for the last three financial years (2017-18, 2018-19, 2020-21).
5. The bidding organisation must submit copy of their GST registration along with copies of GST Returns (GSTR-1) for the last three months.
6. The bidding organisation must submit copy of their provident Fund registration with the concerned EPFO office along with the copies of the annual returns of last Three years.
7. The bidder firm should have ISO 9001 certificate and copy of the same also be submitted.
8. The bidder should have affiliation/recognition from ISRO/NRSC/FSI/SOI or any Government Department for undertaking DGPS survey. For this purpose the bidder should submit the relevant certificate obtained from the competent authority.
9. The bidder/Agency shall submit undertaking/self-declaration that the proprietor/partner(s)/Directors of the bidding agency has not been convicted or charge sheeted by any court of law and it has not been blacklisted as per the performa as given at **Annexure-13**.
10. The bidding organisation must have annual average turnover of Rs. 2.0 crores (Rupees Two Crores) from DGPS survey and GIS business excluding the supply of hardware and OEM (Original Equipment manufacturer) software in last three assessment years (2007-18, 2018-19, 2020-21)
11. Copies of balance sheet, profit and loss account and Auditor certified Annual turnover statement indicating revenue from DGPS Survey and GIS business for the last 3 years must be enclosed as supporting document. As per performa given in **Annexure-9**.
12. The bidding organisation must be NET worth positive. Original Auditor Certificate must be enclosed. As per the performa given in **Annexure-10**.

13. The bidding organisation must have surveyed a minimum of at least 5000 points or 500 Sq. km of Forests lands using DGPS for cumulatively over a period of last 5(five) years, using DGPS survey, for Government Organisation in India, bidder should enclosed in the performa as given at **Annexure-14**. The bidder firm should have also be provided a certificate of satisfactory completion of previous projects undertaken by them as per **Annexure-17**.
14. The bidding organisation should have minimum 10 (Ten) numbers each of experienced DGPS surveyors and GIS professional under the regular payroll of the Organisation. List of the professionals with their Academic Certificate and professional profiles and bidders shall provide details in performa in **Annexure-15**.
15. The bidding organisation should have a combination of minimum infrastructure 2 base stations 9 Dual Frequency DGPS and 6 Rovers. All the equipment should be in working condition. Copy of purchase should be submitted as Annexure.
16. Bidder shall be declared for the consideration of his/her Technical evaluation if all the documents as listed in the given at **Annexure-3is submitted**.
17. As nature of work is highly technical, prior experience of DGPS in forestry is needed. Thus, there will be no relaxation of work experience and technical expertise for all start ups firm, Micro and Small Enterprise (MSEs).

2.2 Scope of Work.

- a) The scope of work includes identification & demarcation of Forest boundaries by DGPs Survey wherever necessary and documentation of Forests records including clear marking of forests boundary and preparation of geo-reference maps for approximately **305.58 square km** under various Forest Division in the state of Meghalaya. The agency will prepare and supply Geo-reference maps in the scale 1:10000 along with report consisting of all readings and photograph at each boundary pillar as evidence for notified forests land in GIS usable format in geographic coordinates System- WGS84 datum of the respective zone.
- b) Submission of Raw data (for base and Rover) as well as post processed differentially corrected (for Rover) DGPS readings/data at each boundary pillars along the periphery DGPS reading in RHINEX and Native format (eight decimal places) with area and perimeter.
- c) The survey shall be performed using DGPS in post processed mode and readings shall be duly geo-referenced using GCPs collected by dual/Single frequency DGPS receivers. The accuracy of any surveyed points should be within one meter.
- d) Moreover, the Geo-reference maps should be superimposed on satellite imagery (Less than 2 Meter resolution) .and it is the responsibility of surveying agency to procure the satellite imagery.
- e) Field training about the procedure of the DGPS Survey will be imparted to the field staff & officers in the concerned forest division in the State.
- f) The agencies are expected to perform following activities:
 - (i) to collect the precise geo-coordinates of the boundary pillars in the forest area.

- (ii) To survey all the boundary pillars and also the survey the missing boundary pillars of the forest area using DGPS from the temporary GCP in each identified forest division in the State.
- (iii) To prepare and supply of Geo data in .shp and .kml format.
- (iv) Reading and photograph of each boundary pillar in GIS usable format (E00 format with WGs 84 datum)
- g) One set of hard copy of maps and readings of each location in MS excel (latitude and longitude in WGS84 datum in Degree Minutes and Seconds format) should be submitted to the respected DFO of the identified forest Division in the State.
- h) At place of missing boundary pillar a pit of size 2'X2'X3' should be dug. Photograph of the pit/boundary pillar, irrespective of its condition, will be taken. The respective DFO will construct boundary pillar immediately.
- i) The agency will submit monthly report to the concerned officials (concerned Divisional Forest Officer and to the Principal Chief Conservator of Forest – (CC, R&T, Shillong) of the Forest Department.
- j) The agency will procure the GST (Great Trigonometric survey) point of FSI/SOI at their own cost.
- k) To maintain the accuracy of measurement using DGPS as follows:

2.3. DGPS Survey:

1. Accuracy level (DGPS)

(a) RTK (Real Time Kinematic)

Horizontal -10mm+1ppm or better.

Vertical - 15mm+1ppm or better.

(b) Kinematic

Horizontal -10mm+1ppm or better.

Vertical - 15mm+1ppm or better.

(c) Static

Horizontal -3mm+0.5ppm.

Vertical - 5mm+0.5ppm.

Initialization time typically <10 Seconds

Initialization reliability typically >99.9%

2. The survey shall be carried along the boundaries which are shown by the concerned local forest officer of the Forest Department.
3. DGPS readings at each station along the periphery shall be taken by a Rover with a minimum observation period of 20 minutes. Differentially correct the DGPS rover data with base stations/ control point data.
4. Establishment of Base stations (Control points):
 - Base stations to be fixed by Multi/Dual frequency DGPS receivers with SOI Control Point as reference to be obtained by the surveying agency from SOI and Village tri-junction points.
 - The minimum observation time for base station shall be 12 Hours from nearest SOI control point.

- Required number of control Points (C.P) shall be established in such a way that the distance between the DGPS base station and C.P. shall be less than 50 km (for dual frequency DGPS Rovers) and less than 10 km (for single frequency DGPS Rovers)
 - Geo-reference the Data using GCPs (GCPs shall be collected using dual frequency DGPS receivers in real-time/post processed mode as per procedure.
5. **Rovers shall be of dual/multiple frequency DGPS receivers within a radius of 50 km from the base stations.** In case **Single Frequency DGPS receivers** are used they should be used **within 10 km radius** of fixed base stations. Readings of boundary pillars shall be taken with a minimum observation period of 20 minutes to differentially correct the DGPS rover data with base stations / control point data.

2.4 Conditions to be observed for survey.

- i) The survey shall be conducted with similar instrument as far as possible.
- ii) DGPS instrument used for survey must be set-in to Geographic Coordinate System-WGS84 Datum.
- iii) Raw Data (**for Rover and Base**) as well as post- processed differentially corrected DGPS readings for rover) for each Survey Stations shall be submitted to forest department every week or as soon as the work is completed, whichever is earlier.

2.5 Procedure for affixing a few missing boundary pillars:

- i) With the help of foreword & backward Bearings of the adjacent existing boundary pillar/s the location of the missing pillar/s can be easily arrived at.
- ii) Procedure for affixing boundary pillars of a block where almost all the pillars are missing. In case of those forest blocks where almost all the forest boundary pillars have disappeared/are missing, the chain & compass , survey readings will not be of much use in the absence of any identifiable field mark/reference point. Hence, it is proposed to take up this work using the latest technologies like GPS & GIS.

The following procedure is suggested using GPS & GIS, generically:-

- a) Verification of Reserves Forest notification and filling up of missing data, if, any: schedules as appended to the Gazette notification, should be verified for correctness of bearings and measurements (angles and distance)
- b) Verification of the closing error, if any, The closing error should be verified by using Auto CAD/Cogo Cad software, and the area arrived at should be matched with the recorded area in the surveyed sketch & Gazette Notification, if the areas do not tally, the same should be sorted out by visiting the field. The software is easy to use & can be used by any person who has the knowledge of plotting using computers, correction may be applied/carried out, if closing error exist, before proceeding to step (c), such closing error if any, may be approved by the DFO and Circle Head or Principal Chief conservator of Forests concerned.
- c) One or more surveyed stations mentioned in the map/Notification should be identified on the ground jointly by the team consisting of Forest,

Revenue, Survey & Settlement officials. Preference shall be given to the stations having natural features which can be clearly identified on the ground like village Tri-junction points, from the description of the forest boundary given. Joint-inspection notes/proceedings to this effect, shall be drafted & recorded duly signed by all the members of the team present during the joint inspection exercise. It should be ensured that the stations so identified is exactly the same station which was located during the formation of Block and not moved since then.

- d) Using the Differential Global positioning system (DGPS) Latitude and Longitude readings of the identified station (in step c) should be taken & recorded. This reading may be corrected with the help of base files to obtain greater accuracy.
- e) Survey field book data (Bearings & distances) may be converted into differentially corrected Geographic co-ordinates(Lat-Longs & distance), using the data obtained at step(d). Data processing can be carried out using appropriate methodology and software.
- f) Now with the help of the data generated in step e, all boundary pillar/survey stations could be correctly located with the help of real time DGPS instrument.

2.6 Deliverables

- I. Details of the Primary Controls Points (at least 4 PCP) in the study area, 2 nos of nearby SOI GCPs (4 hour concurrent observation using Dual frequency DGPS device)
- II. Details of Secondary Controls Points at least 8 numbers on forest boundary.
- III. Details of device used, observation with SBAS/GBAs correction (RTK/PPS precision for DGPS observation: less than 50 cm, observation time: PPS – 5 to 15 mins, RTK as per requirement).
- IV. .SHP files and KML file of geo-reference boundary and coordinates table in .XLS file.
- V. Geo-referenced maps in Geo PDF files and reports in PDF file (1 hard copy to be submitted for authentication purpose).
- VI. DGPS coordinates of boundary pillars.
- VII. Forest boundary map after reconciliation with the revenue map
- VIII. DGPS coordinates of missing pillars.
- IX. GCPs and Geo reference forest boundary overlaid on high resolution satellite image.
- X. Readings and photograph of each boundary pillars in GIS usable format (E00 format with WGS 84 datum)
- XI. All maps in pdf and jpg formats
- XII. Submission of Raw Data (for Base and Rover)as well as post processed differential corrected(for rover) DGPS reading/data in RINEX and native format (8 decimal place in degrees for latitude and longitude including height above MSL and HAE in cm).

- XIII. The agency will prepare and supply Geo-reference maps in the scale 1:10000 in hard and soft copy maps, with area, perimeter and attributes.
- XIV. One set of hard copy of maps and reading of each location in Ms Excel and latitude and Longitude in WGS84 datum and height above MSL and HAE in cm) certified by the respective FBO, RO, ACF & DFO CCFs/CFs of circles in 1:10000 scale, **subject to maximum A0 size.**

Note:

The Geo co-ordinates list and other attributes of all the boundary pillars along with Great trigonometrically Survey points shall be submitted to the concerned DFO and to the Principal Chief Conservator of Forest (Research & Training), Shillong in the state of Meghalaya and cannot be used by the agency for any other purpose, for which the agency has to submit a declaration .

3.0. Bid submission procedure:

3.1 Bidders are advised to submit their bids strictly on the specifications, terms and conditions contained in the tender document and subsequent revisions/ amendments, if any. The bids should be submitted along with covering letter as given at **Annexur-2**

3.2 The bids shall be prepared by typing or printing in English on White paper in consecutively numbered pages duly signed by the authorized signatory with agency/firm/organisation/company seal affixed on each page. Any part of the bid, which is not specifically signed by the authorized signatory and not affixed with Agency/firm/organisation/company seal, shall not be considered for the purpose of evaluation. The bidder shall also enclose the information about the bidding firm as per **Annexure-6.**

3.3 Original copy of tender document, amendments/ revision to tender document including minute of meeting(s), issued by the Forest department, if any, shall be signed and submitted along with the bids.

3.4 All the Performa must be on the bidder's official letterhead (if specified). Any change in wording of the Performa will not be allowed. The bidder shall submit a declaration as given in **Annexure-7.**

3.5 The bids shall contain no erasers or overwriting except as necessary to correct errors made by bidder. The person signing the proposal shall initial each such corrections.

3.6 Complete bid document including all enclosures should be submitted at the office of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong and must be signed by the company's authorized signatory with seal of the company/firm/organisation before uploading in the website.

3.7 The bidders should submit the bids with proper entry in technical bid format and financial bid format as available in the <http://www.megforest.gov.in/> website.

3.8 Technical Bid should not contain price of any item or activity. Such cases, even if found anywhere, shall not be given any consideration.

3.9 In case of any contradiction between figures and words, the words shall be considered final.

3.10 The price bids should not contain any technical matter or other matter except price. After opening of Technical bids, financial bids of only technically qualified agency/firms/organisation/companies will be opened on the scheduled date and time as per the schedule of events.

3.11 All documents mentioned in the clause () above, shall be fully secured and put into a sufficiently large envelope which should be sealed and super-scribed “**Technical Proposal for carrying out survey, Demarcation and Geo-reference of Forest Boundary using DGPS in notified forest of Meghalaya Forest Divisions**”

3.12 Similarly, the Financial Proposal shall be submitted in a format enclosed. In the Financial Proposal the applicant Organisation shall quote the lowest possible amount payable to the applicant Organisation for undertaking the Study. The amount quoted by the applicant Organisation shall be inclusive of all taxes, levies, cess, institutional charges etc. The Financial Proposal shall be put into a separate envelope which should be sealed and super-scribed “**Financial Proposal for carrying out survey, Demarcation and Geo-reference of Forest Boundary using DGPS in notified forest of Meghalaya forest Divisions**”

3.13 Both the sealed envelopes containing Technical Proposal or Financial Proposal shall be put into a sufficiently large envelope which should be sealed and super-scribed “**Technical & Financial Proposals for carrying out survey, Demarcation and Geo-reference of Forest Boundary using DGPS in notified forest of Meghalaya Forest Divisions**”

3.14 The envelope containing the Technical Proposal and Financial Proposal shall be addressed to the **Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong, Meghalaya – 793001.**

3.15 Full address of the applicant Organisation shall be affixed on left bottom corner of the envelope containing the proposal.

3.16 The envelope containing the completed Technical Proposal and Financial Proposal shall reach the office of the **Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong, Meghalaya – 793001** on or before 03.00 PM on 06th August 2021. If desired, the applicants may put the envelope containing Technical Proposal and Financial Proposal directly in a Tender Box kept at the reception counter at the office of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong, Meghalaya - 793001. All proposals received by the office of the Working Plan

Officer, Working Plan Division, by hand or by post on or before the afore-mentioned due date and time shall be put in the afore-mentioned Tender Box after making an entry in a register kept in this office.

- 3.17 Immediately at the prescribed due date and time for the receipt of the proposals, the Tender Box will be sealed in the presence of the representatives of the applicant Organisations. In no case proposals received after due date and time shall be accepted. Working Plan Officer, Working Plan Division and any other authority in the State of Meghalaya shall not be responsible for any delay in the submission of a proposal. All proposals received after the due date and time shall be returned to the respective applicant Organisations without opening the same.
- 3.18 Due to any unavoidable reason(s), if the office of the Working Plan Officer, Working Plan Division remains closed on the last date prescribed for receipt of the proposal, the proposals will be received during the next working day at the same venue up to the same time.
- 3.19 The PCCF (CC, R&T) will decide the Forest division where survey will be carried out.

4.0- PRE-BID CONFERENCE:

- 4.1 There will be a Pre-Bid Conference, the interested bidders or their representatives may attend the pre-bid conference.
- 4.2 Tender documents may be downloaded before the Pre-bid conference.
- 4.3 The Bidders' designated representatives may attend the Pre-Bid Conference, before submission of their Bid, at their own cost, which will be held at the following venue and time:-

Venue: Conference Hall of the O/o Principal Chief Conservator of Forests & HoFF, Sylvan House, Lower Lachumiere, Shillong , Meghalaya - 793001.

15/07/21 at 12:00 hrs

- 4.4 In view of outbreak of covid-19, pre-bid conference may be attended in virtual mode also.** For details of the same contact e-mail: **workingplandivision.megh@gmail.com.**

- 4.5 Purpose of this conference is to clarify issues and to answer questions on any matter related to Tender
- 4.6 Bidder may send their queries via email not later than 13/07/2021.

4.7 The Principal Chief Conservator of Forests, (CC, R&T) will decide for issuing necessary Amendment/ Addendum to the Tender Document clauses or Specification as outcome of the deliberation of Pre-Bid Conference.

4.8 Non-attendance at the Pre-Bid Conference will not be a cause for disqualification of a Bidder. But, no individual query will be entertained after the Pre-bid conference is over and Amendment/ Addendum (if necessary) are issued as outcome of the Pre-Bid Conference.

4.9 IMPORTANT: ONCE THE PRE-BID CONFERENCE IS OVER AND ISSUES ARE CLARIFIED, NO QUERY OR OBJECTION OR COMPLAIN SHALL BE ENTERTAINED IN REGARD TO THIS TENDER ENQUIRY TERMS AND CONDITION. ABSENCE IN PRE-BID CONFERENCE SHALL NOT BE COSIDERED AS JUSTIFICATION FOR MAKING QUERY OR OBJECTION OR COMPLAIN.

5.0 OPENING OF THE PROPOSALS

5.1 The proposals shall be opened by an officer or a committee of officers duly authorised by the PCCF (CC, R&T) in this regard, in the presence of the representatives of the applicant Organisations who wish to remain present, at the office of the PCCF (CC, R&T), Sylvan House, Lower Lachumiere, Shillong-793001 Meghalaya at 3.30 PM on 6th August 2021.

5.2 Due to any unavoidable reason(s) if the office of the PCCF (CC, R&T) remains closed on the date prescribed for opening of the proposals, the proposals shall be opened on the next working day without any change in the venue and time.

5.3 Following procedure shall be adopted for opening of the proposals:

5.3.1 Immediately after opening of the tender box, total number of proposals received and the name of applicant Organisations will be announced to all the representatives of the applicant Organisations who are present during the opening of the proposals and the same will also be entered in the tender opening minute register.

5.3.2 The sealed envelopes containing separately sealed Technical Proposal and Financial Proposal received from various applicant Organisations will be opened one by one in the same order in which they have been entered in the tender opening minute register. The sealed envelopes containing Technical Proposals and Financial Proposals shall be segregated and shall be initialled by the officer or group of officers authorised for opening of the proposals and without opening all sealed envelopes containing Financial Proposals will be put into a separate envelope which should be sealed

and superscribed “survey, Demarcation and Geo-reference of Forest Boundary using DGPS in notified forest of Meghalaya Forest Divisions”

5.3.3 Envelopes containing Technical Proposals will however be opened in the same order in which they have been entered in the tender opening minute register. After opening the sealed cover, each page of the Technical Proposals will be initialled by the officer or group of officers authorised for opening of the proposals and details of the same will be entered in the tender opening minute registers.

6.0. Technical Bid Evaluation Criteria.

Sl No.	Parameter	Max score	Supporting document to be submitted by the bidder	Technical scoring criteria and supporting documents
1	Quality Certificate	10	Valid ISO 9001:2015 certificate Valid Capability Maturity Model Integration (CMMI) Level 3 Certificate	<ul style="list-style-type: none"> • ISO 9001: 2015 for Geoinformatics & DGPS survey works or equivalent domains 3 marks • CMMI Level 3 for geoinformatics & DGPS survey works or equivalent domains 7 marks
2	Average Annual turnover IT and GIS Business in last three financial years (2015-16, 2016-17, 2017-18)	10	Copies of Audited Balance sheet with original Auditor certified turnover statement	<ul style="list-style-type: none"> • Up to 10 crore: 5 Marks • >10 to <12 crore : 7 Marks • >=12 crore: 10 Marks
3	Past Experience in successful completion of DGPS survey of land using DGPS for Forestry/Mining for Government Departments over a period of last 5(five) years	20	Work order with completion certificate/payment certificate	<ul style="list-style-type: none"> • 5000 points or 500 Sq.km: 5 Marks • 25000 points or 2500 Sq.km: 10 Marks • 55000 points or 5500 Sq.km: 15 Marks • 75000 points or 7500 Sq.km: 20 Marks
4	Past Experience in successful completion of DGPS survey of land using DGPS for Government Departments with	20	Work order with completion certificate/payment certificate	<ul style="list-style-type: none"> 1 project : 4 marks 2 project : 8 marks 3 project : 12 marks 4 project : 16 marks 5 project : 20 marks

	Projects value not less than 50 lakhs over a period of last 5 (five) years			
5	The bidder should have a combination of minimum infrastructure of Base station (Dual Frequency DGPS) and rovers (Single/Dual frequency DGPS)	10	Copy of purchase Order to be provided	<ul style="list-style-type: none"> • Min 10 Base station with in 20 Rovers : 5 marks • Min 15 Base station with in 20 Rovers : 10 marks • Min 20 Base station with in 20 Rovers : 15 marks
6	Approach & Methodology	4	Document to be uploaded	Uploaded along with the tender document
7	Presentation of the organisation capability and capacity, execution and deployment plan and showcasing the execution of past DGPS surveys in forest sector projects in India	6	Power point presentation to be made by the bidder on the date decided by the tender Committee	Data for presentation will be decided on the date of opening of technical bid and conveyed to the bidder by the Tender committee, separated through the e-procurement (e-tender) portal
8	Proof of concepts	20		Bidder have to prove effectiveness of technique by performing field trial. The field area shall be communicated by Forest Department during Technical bid opening.

6.1 Evaluation Procedure.

- Bidders who have submitted the valid Bid security, i.e EMD, Tender document fee & NIT declaration as per requirement shall be considered for further evaluation. Absence of these documents may lead to summary rejection of the bid.
- The eligibility Criteria will be evaluated by Tender Committee and those that qualify will be considered for further evaluation.
- The Tender Committee would perform the Technical Evaluation for qualified bidders. In order to facilitate the evaluation, the marking scheme presented is an indication of the relative importance of the evaluation. Bidders securing a minimum of **70% marks** in the Technical Evaluation will only be considered for Price Bid evaluation.
- After qualifying in Technical Evaluation, qualified bidders will only be considered for Price Bid evaluation.
The basis of price bid evaluation shall be “**Quality cost based selection (QCBS)**” with 70:30 ratio, where the weightage on the Technical part will

be 70 percent and the 30 percent weightage to be given in commercial/price quoted.

- **That is, the bidder with the highest total score will be declared successful bidder.**

7 Important Dates

Interested bidders may quote their offers as per details mentioned below:

1	Name of Work	DGPS survey of forest boundary with reference to the Ground Control Points (GCP), existing GCP of SOI, Govt of India tri-junction points (Tihada) using DGPS
2	Tentative quantity	Identification & Demarcation of forest boundary pillars by DGPS Survey and documentation of forest records including clear marking of approximately 305.58 square kms and preparation of Geo-reference maps in various forest division in the state of Meghalaya
3	Earnest money	EMD payable is Rs. 100,000/- (Rs.One lakh). For offline The EMD should be in the form of Demand Draft from a nationalised bank and should be submitted before the opening of the Technical bid, at the office of the Working Plan Division, Forest Colony, Lawmali Shillong. The Demand Draft should be drawn in the name of “Working Plan Officer,” payable at Shillong.
4	Time of completion	6 months from the date of issue of work order or as decided by the competent authority/Tender inviting Authority (Principal Chief Conservator of Forest, Research & Training and Working Plans, Shillong.)
6	Date and time for Issue/Publishing of Tender	2/07/21 at 17:00 hrs
7	Pre Bid Conference	15/07/21 at 12:00 hrs Venue: Conference Hall of the O/o Principal Chief Conservator of Forests & HoFF, Sylvan House, Lower Lachumiere, Shillong , Meghalaya - 793001
8	Re-Issue of Tender after Amendment/ Addendum (if necessary)	19/07/21 at 17:00 hrs
9	Start Date and Time for Bid Submission	19/07/21 at 17:00 hrs
10	Closing Date and Time for Bid Submission	06/08/21 at 15:00 hrs
	Date and Time for Opening of Technical Bids	06/08/21 at 15:30 hrs
	Date and Time for Opening the Financial Bids	To be notified after Technical Evaluation

- **Work which may be specified in the work order may be changed based on pro rata basis.**

8 Instruction to Bidder/Agency

- The **Department of Forest**, Government of Meghalaya invites bids from interested and eligible agencies/firm/organisation/ company for the aforesaid work as per terms & conditions mentioned in the tender document. This is an invitation for submission of bids to provide comprehensive services as listed in the scope of the work of this document but not restricted to those mentioned here, related to requirement.
- This Tender document comprises total **48pages**. In addition, any other documents/instruction/amendments/revision issued (only through by Department of Environment, Forest & Climate Change, Government of Meghalaya to the Bidder till the due date of opening of the bids shall also be deemed to be integral part of the Tender document. Failure to furnish all the information as per the Tender document in every respect will be at the bidder's risk.
- The agency shall submit the Tender Document with fee of Rs. 500/- (Rupees five hundred only) along with tender processing fee and EMD at the office of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, Shillong.
- Technical bid and Financial Bid should be submitted in the Format as given in the website <http://www.megforest.gov.in/> This tender document is not transferable.
- The Bids are required to be submitted on the agencies letter head, wherever mentioned, with due signature at every page.
- The agency should submit documentary proof of the criteria in their tender document as indicated in the Check as given at **Annexure-3**
- Department of Environment, Forest & Climate Change, Government of Meghalaya represented by the Principal Chief Conservator of Forests, Shillong, Meghalaya, reserves the right to accept or reject any or all bids without assigning any reason thereof. It also reserves the right to seek further information/details from the bidder(s).
- Please note that this is a tender and selection will be done after technical evaluation and financial evaluation. Financial bids will only be opened of the bidders who qualify the technical qualification.
- Agencies/Firm/Organisation if found to have indulged in any corrupt or fraudulent practices their bids will not be taken up for consideration.
- Department of Environment, Forest & Climate Change, Government of Meghalaya represented by the Office of the Principal Chief Conservator of Forests, (CC, R&T) , Meghalaya, Shillong, may call any or all the agencies/bidders subject to satisfying technical criteria to make a presentation on their strength and capabilities, past experience on similar type projects and their proposed view on the project.
- The agency/bidder shall be responsible for all the cost associated with the preparation of the bids, the Department of Environment, Forest & Climate

Change, Government of Meghalaya shall not be responsible in any way for such cost, regardless of the conduct or outcome of this process.

- Submission of the bids does not entitle the agencies/bidders to meet technical criteria. Department of Environment, Forest & Climate Change, Government of Meghalaya represented by the Principal Chief Conservator of Forests, (CC, R&T), Meghalaya reserves the right to vet and verify any or all information submitted by the agency/ bidder.
- Department of Environment, Forest & Climate Change, Government of Meghalaya represented by the Office of the Principal Chief Conservator of Forests, (CC, R&T) Shillong, Meghalaya, Shillong reserves the right to change, modify, add or alter the Tender document/bidding process.
- No exclusive rights will be provided nor should be assumed by the agency/bidder at any stage.
- Bids prepared in accordance with the procedure enumerated in Tender Notice document should be submitted at the office of the Working Plan Division, Forest Colony, Lawmali, Shillong not later than the date and time laid down in the schedule of events as mentioned above.
- The detailed schedule of events is as per this document. Department of Environment, Forest & Climate Change, Government of Meghalaya represented by the Office of the Principal Chief Conservator of Forests, (CC, R&T), Meghalaya, Shillong shall not be responsible for non-receipt of the bid/bids due to any reason whatsoever.
- The agencies/organisation quoting abnormally low/high price may be rejected from consideration during the financial bid analysis.

9 Earnest Money

- Bidders shall Submit Earnest Money deposit (EMD), along with technical bid for an amount of Rs. 100,000/- (Rupees One Lakhs). **EMD should be in the form of Demand Draft/ Bank Guarantee from a nationalised bank** and should be submitted before the opening of the Technical Bid, **at the office** of the Working Plan Officer, Working Plan Division, Forest Colony, Lawmali, , Shillong. The demand draft should be drawn in the name of **Working Plan Officer, Shillong payable at Shillong.**
- The earnest money shall be returned to all unsuccessful bidders, within thirty days from the date of completion of tender process.

9.1 The Earnest money shall be forfeited if

- Any bidder withdraws his bid from his bid during the validity period.
- The successful bidder fails to furnish his acceptance of the order within fifteen days of placement of work order.

- The bidder fails to successfully complete the work within the stipulated time frame. Delay in completion due to extreme and unavoidable situations shall have to get approved by Department of Environment, Forest & Climate Change, Government of Meghalaya. This approval shall also have a cut-off date by which the entire work shall have to be completed.

10 Security Deposit

- i) Before award of the work, finally selected agency for the particular piece of Job/work, the agency would be required to deposit a security deposit/performance guarantee of an amount equal to 5% of total amount payable by the department to the agency after successfully completion of the job.
- ii) This security deposit may be given either in the shape of a Bank draft or bank guarantee issued by a nationalised bank in favour of the “Working Plan Officer, Shillong” payable at Shillong, Meghalaya and submitted at the office of the Working Plan Division, Forest Colony, Lawmali, Meghalaya, Shillong. The EMD deposited by the successful bidder will be refunded to him after deposition/Submission of security.
- iii) The security deposit will be refunded after successful completion of the assigned job and verification by third party (GIS Cell of the Forest Department).
- iv) However, if the work is left unfinished or not done to the satisfaction of the forest department within the stipulated time, to be mentioned in the work order and in the event of its non-extension, the security deposit would be forfeited.

11 Authority of Person Signing the documents

A person signing the bid document or any document forming part of the bid document shall be deemed to warrant that he has authority to sign such document and if on enquiry it appears that the person signing the document had no authority to do so, Department of Forest, Government of Meghalaya represented by the Office of the Principal Chief Conservator of Forests, (CC, R&T), Meghalaya, Shillong may without prejudice to other civil and criminal remedies, cancel the bid and hold the signatory liable for all cost and damages. For this purpose Power of Attorney in the Performa as prescribe at **Annexure-8** shall be submitted.

12 No Claim of compensation for Submission of Bid

The Bidder whose agency is not selected shall not be entitled to claim any cost, charges or expenses in connection with his/her/their submission of bid, even though Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, Research & Training, may decide to withdraw the Notice inviting tender.

13 Validity of Bids

1. Unless otherwise specified, the bidder shall keep his bids valid initially for a period of Six months from the last date of submission of the bid.
2. The office of the Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, Research & Training, Shillong shall have the Authority to extend the period of the Contract, for the assigned job to the agency/Firm, at the same tender rate for another one year.

14 Other Terms & conditions

- Insertion, post-script, addition and alteration shall not be recognized.
- Incomplete bids not submitted as per requirement shall be rejected.
- Bidders shall submit their bids strictly as per terms and conditions of the tender documents without any deviation.
- If at any point of time any of the documents/information submitted by the bidders is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected/cancelled at the at the risk of the bidder.
- Failure to furnish all information and documentary evidence as stipulated in the bid document or submission of a bid that is not substantially responsive to the bid document in all respect shall be summarily rejected.
- Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, Research & Training and, Meghalaya, Shillong, reserves the right to reject part or whole of the bid/order without assigning any reason thereof, postpone the date of receipt and opening of the bids or cancel the bid without bearing any liability, whatsoever, consequent upon such decision.
- Issuance of Tender document shall not be construed that the bidders would be automatically considered qualified.

15 General Terms & Conditions

15.1 Introduction

The instruction/information contained in the Tender documents are for guidance and compliance of the intending bidder. Bidders are advised to obtain clarification in the pre-bid conference on the scheduled date at the designated Address/Venue, if any, prior to the submission of their bid, failing which it will be deemed that the stipulation made in the Tender documents have been read, understood and are acceptable to the Bidder/Agency.

Bidder shall bear all cost associated with the preparation and submission of the bid, journey undertaken by them and subsequent bidding process till the empanelment of suitable bidder and the Department of Forest, Government of Meghalaya represented by the Office of the Principal Chief Conservator of Forest, Research & Training and Shillong in no case shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

15.2 Price

The price bid will be submitted as per the **Annexure-5** of the tender document. The bidder shall quote his price as per schedule of items of work. The contract price rates shall be firm and shall not be subject to any variation except for statutory variations of taxes and duties during the contractual completion period. The price shall be inclusive of all taxes, duties, cess and levies including GST etc, as on the opening date of price bid.

15.3 Completeness of bids.

All activities including safety and protection device as required shall be deemed to have been included in the bids, whether such items are specifically mentioned in the Tender notice document or not.

15.4 Compliance with regulations

The bidder shall comply with all applicable laws or ordinance, codes, approved standards, rules and regulation and shall procure all necessary and/or other statutory bodies and Government permits, registration & licences etc. at his own cost. The agency/organisation/firm/company shall leave the Department of Forest, Environment & Climate Change Government of Meghalaya harmless as a result of any infractions thereof.

15.5 Agreement

The selected agency/firm/organisation/company shall have to enter into agreement executed in a prescribed format with the office of the Principal Chief Conservator of Forest, Research & Training, Meghalaya, Shillong, within 7 working days of award of the tender. The Office of the Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, (CC, R&T), Meghalaya, will issue the work order within 7 working days of agreement and the concerned agency/ firm/organisation/company should start the work within 7 working days of issue of work order.

15.6 Income Tax and GST

Without prejudice to the obligation of the bidders under law, any income tax which the Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, Research & Training, Meghalaya may be required to deduct by Law/statute, shall be deducted at source and shall be paid to income tax authorities on account of the bidders, Department of forest, Government of Meghalaya represented by the office the Principal Chief Conservator of Forest, Research & Training, Shillong, Meghalaya shall provide a prescribed certificate to the agency for such deduction of tax at source

15.7 Force majeure conditions.

In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by them under the agreement, relative obligation of the party affected by such majeure shall be treated as suspended during which force majeure condition last

The term force majeure shall have herein mean riots (other than among the bidders employees) civil commotion, war (whether declared or not), invasion, act of foreign enemies hostilities, rebellion, insurrection, military coup to usurp power, Naxalite activities, acts of God such as earthquake, lightning, floods, fires not caused by bidders negligence and other cause which the bidders has no control and accepted as such by the Department of Forest, Government of Meghalaya represented by the office of the Principal Chief Conservator of Forest, Research, and Training, Shillong whose decision shall be final and binding.

15.8 Jurisdiction of the court.

All dispute would be settled within Meghalaya jurisdiction of court of law only

15.9 Payment.

- i. No advance shall be given
- ii. Payment would be made by the Working Plan Officer
- iii. Payment would be made in four instalment, mentioned below:
 - a) 15% on completion of GCP network and geo-referencing of satellite image
 - b) 20% on collection of all secondary source data and geo-reference with respect to satellite images. SOI map and forest block traverse map if any, analysis of notified area with available map area
 - c) 40% DGPS survey and submission of data and draft map submission
 - d) 25% final submission of Geo-reference map and DGPS observation data.

15.10 Verification of surveyed data

- ❖ Verification of DGPS survey will be done by the concerned DFO at the time of survey.
- ❖ Verification of survey data will be done by the (Principal Chief Conservator of Forests (CC, R&T) after report submission.

15.11 Responsibilities of Meghalaya Forest Department

- ❖ The concerned forest division shall provide details of notified forest blocks and cadastral maps indicating the boundaries of forest to be surveyed and mapped if available.
- ❖ Meghalaya Forest Department shall coordinate the work with the consultant team.

- ❖ The field Officers (RFO)/Admin/Foresters/Forest Guard) shall support the agency to locate, identify and demarcate the notified forest boundaries, with reference to the Gazette Notification, demarcation registers and other records to locate the boundaries described in the Gazette Notification
- ❖ The boundaries located by field officers shall be authenticated by respective DFOs
- ❖ Respective DFOs shall provide the PF/RF maps and also facilitate interaction/coordination with the revenue officials.
- ❖ On prior request Meghalaya Forest Department shall provide logistic support like accommodation subject to their availability, on rates par with touring forest officials.

15.12 Roles of various Officers of the Meghalaya Forest Department: -

Sl No	Designation	Roles
1	Responsibility of concerned Circle Head or Conservator of Forests	<ul style="list-style-type: none"> a) Random test checking of 05% in respective Circle. b) All test checking and verification to be completed within 25 days from submission of coordinates by agency.
2	Responsibility of concerned Division Forest Officer	<ul style="list-style-type: none"> c) In charge officer of entire work from forest department. d) Prepare a team of Forest official who will coordinate with agency to carryout DGPS survey e) Random even test checking of 10% survey stations/BPs and boundaries in each reserves Forests. f) Interaction/coordination with revenue, LRDC, and other stakeholder agencies. g) All test checking and verification to be completed within 25 days from submission of coordinates by agency.
3	Responsibility of concerned ACF	<ul style="list-style-type: none"> a) Random even Test checking 30% survey stations/BPs and boundaries in each reserves Forests. b) All test checking and verification to be completed within 25 days from submission of coordinates by agency
4	Responsibility of concerned RFO	<ul style="list-style-type: none"> c) Test checking 100% survey stations/BPs and boundaries in each reserves Forests. d) All test checking and verification to be completed within 25 days from submission of coordinates by agency
5	Responsibility of concerned Forest Department team	<ul style="list-style-type: none"> a) Providing local support in carrying out the survey, identification of stations, Boundary pillars and boundaries. b) Interaction/coordination with revenue officials, and other stake holders.

		<ul style="list-style-type: none"> c) In-charge of work in his/her range d) Providing existing cadastral map / relevant map etc, boundary notification if any.
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15.13 Responsibility of the Firm:

- a) The firm shall deploy sufficient teams along with all logistics and equipments to carry out the survey and mapping of notified forest area.
- b) Each team shall comprise of DGPS/TS operators and supervisor
- c) The firm shall help the department in ascertaining the location of the BPs with the help of available records.
- d) Agency shall have to take observation of all pillars which will be identified by concerned forest official.
- e) Agency shall have to suggest the concerned DFO regarding the increase in boundary pillars in forest area wherever it is required, whereas DFO will take final decision for the increase in number of pillars for survey work.

16 Qualifications and Role of various member of survey teams.

Sl No	Designation	Qualification and roles
1	DGPS/ETS operator	<ul style="list-style-type: none"> a) Diploma/ ITI or B Tech or equivalent. b) Experience in handling of DGPS, Total station and the associated software for downloading and processing data
2	Team leader	<ul style="list-style-type: none"> a) B.Tech in Civil engineering/ Water resources, Remote Sensing/ Geo informatics/GIS/CS/IT/environmental Sciences or equivalent. b) MSc in Geo Science/ Physics/ electronics/mathematics/ statistics computer Science/IT/environmental Science or equivalent. c) MCA or equivalent. d) 2 years experience in handling of DGPS, Total station and the associated software for downloading and processing data. e) 1.5 years experience in the field of signal/image Processing/GIS (for B tech)/ MCA/M.Sc in any image processing and GIS software.
3.	Project leader (to supervise 4- 5 team)	<ul style="list-style-type: none"> a) B.Tech in Civil water resources, Remote sensing/ Geo informatics/GIS/CS/IT/environmental Sciences or equivalent. b) MSc in Geo Science/ Physics/ Electronics/Mathematics/ Statistics computer Science/IT/environmental Science or equivalent. c) MCA or equivalent.

		<p>d) 3years experience in handling of DGPS, Total station and the associated software for downloading and processing data.</p> <p>e) 3 years experience in the field of signal/image Processing/GIS (for B.Tech)/ MCA/M.Sc in any image processing and GIS software.</p>
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17 Delivery Period:

	Description	Timeline
The delivery schedule of from the date of issue of the letter of Award of the contract	Demarcation, survey and Geo-reference of Forest Boundary using DGPS in Forest Divisions)	Within 1 year of the award of the contract

18 Liquidated Damages

If the vendor fails to attain the above objectives of the application upgradation / its launching or any part thereof within the prescribed time for completion under clause 15.0 or any extension thereof(due to delays not attributes to the vendor), the vendor shall pay to the purchaser liquidated damages equals to the amount computed @ ½ (half) percent per week or part thereof of Contract Price. The aggregate amount of such Liquidated damages shall in no case exceed 5% of the Contract Price. However, cost compensation for any time extension shall not be paid.

19 Deviation and Approval

Once achieved the milestone, there may be changes that may happen which are due to the constraints as imposed by circumstances which that might not have been envisaged at the time of proposing the project. For all such changes, a deviation request is generated by Agency or DFO/CF. The proposed change, reason for the proposed change, the various documents that will be affected by the change, including on design and cost and time shall not affect the objective of the project and such change requests, if any, shall be approved by the Principal Chief Conservator of Forests (CC, R&T).

Annexure-2**Covering Letter**

(To be submitted (uploaded) in the Official letterhead of the
agency/Firm/organisation/ Company)

To,

The Working Plan Officer
Working Plan Division
Forest Colony, Lawmali, Shillong
Meghalaya-794001

Sub: Declaration Letter of Agencies for **Forest Boundary Survey**.

Sir,

We are hereby submitting our proposal in full compliance with the terms and condition of the Tender Notice No. DoFB/01. A blank copy of the tender document duly signed on each page is also submitted (uploaded) as a proof of our acceptance of all terms & Conditions.

We confirm that, we have the capability of conducting the survey by DGPS Technology for Forest boundary and preparation of Geo reference maps, as detailed in the scope of work.

Authorised signatory

Name:

Designation:

Company Seal:

Annexure-3**Check list of Technical bid****Technical Bid for forest boundary Survey by DGPS, Tender Notice no DoFB/01**

Sl No.	Particulars	Yes / No	Flag No*
1	2	3	4
1	Tender document Annexure-1		I
2	Covering letter as per Annexure-2		II
3	Acceptance by the Agency as per Annexure-4		III
4	Information about the bidding Firm/Agency as per Annexure-6		IV
5	The copy of registration of bidding firm/company/Agency etc. (attach relevant certificates)		V
6	The bidder is registered firm/company/Agency has affiliation with ISRO/NRSC/FSI/any Govt. department for undertaking DGPS Survey (attach relevant certificates received from them)		VI
7	To indicate the functionality of the firm, attached the balance sheets of last three years of the firm, duly certified by statutory Auditor		VII
8	Copy of GST Registration		VIII
9	Copy of ISO 9001 certification of the bidder firm/agency, (if any)		IX
10	Photocopy of PAN		X
11	The agency shall submit details of technical man power & self attested copy of their salary slips, supported by the copy of Form-16/EPF contribution issued to all such persons during 2017-18, 2018-19 a proof of their employment as per Annexure-15		XI
12	A copy of valid GST/TIN registration certificate		XII
13	Declaration by the bidder as per Annexure-7		XIII
14	Authorization letter issued by the agency as per Annexure-8		XIV
15	Information regarding annual turnover of the agency as per Annexure-9		XV
16	Information regarding Net worth of the Agency as per Annexure-10		XVI
17	Profile of the Projects completed as per Annexure-11		XVII
18	Brief profile of the bidding Agency/firm as per Annexure-12		XVIII
19	A self certificate by the bidder that agency is not blacklisted in any state in India or in the case of foreign bidder in any country and none of the partner(s)/ Director(s)/ proprietor has not been charge sheeted/convicted as per Annexure-13		XIX
20	Experience details of the agency as per Annexure-14		XX
21	Copy of the order/orders and completion certificate indicating bidder should have cumulative experience of executing contracts of undertaking such survey with Government Organization. The minimum experience of such survey works should be an area of 500 Sq.km or 5000 points in forest land Annexure-17		XXI
22	Undertaking from the bidder that they have resources and capability to survey Forest boundaries by DGPS technology and prepare the Geo-reference maps, etc, as per the requirement of Tender notice as per Annexure-16		XXII
23	Information with regards to DGPS instrument (Attach as a matter of		XXIII

	proof: Purchase Bill/ Invoice, with list of device with Serial no./Make/mode etc) Annexure-18		
24	Product leaflet/catalogue (if any)		XXIV

***please mention the Annexure number as the file name while uploading. Please ensure:**

- i) That all information is provided strictly in the order as mentioned in the check list mentioned above.
- ii) Bidders are advised to strictly confirm compliance to bid condition and not to stipulate any deviation/conditions in their offer. Subsequent to bid submission, the Department of Forest, Government of Meghalaya represented by the office the Principal Chief Conservator of Forest, Research& Training, Shillong, Meghalaya may or may not seek confirmation/clarification and any bid not in line with bid condition shall be liable for rejection.

For any clarification/confirmation bidder may require, shall be obtained from the office of the Working Plan Officer, Forest Colony, Lawmali, Shillong, Meghalaya, Shillong before submission of the bid. Bidder shall submit all complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as token of having read, understood and accepted all the terms and condition mentioned therein the website <http://www.megforest.gov.in/>

Signature of Bidder with seal

Annexure-4**Format for declaration that the Provision of Tender Notice are acceptable and confirm that all statements made by the bidders are complete & correct**

(To be typed on the letterhead paper of the Applicant/ Firm/Agency, including full postal address, telephone, Fax numbers and e-mail address)

To,

The Working Plan Officer
Working Plan Division
Forest Colony, Lawmali, Shillong
Meghalaya-794001

Sub: Tender for selection of Agencies for Forest Boundary Survey by DGPS.

Dear Sir,

Having examined the Tender Document we, the undersigned, bids for conducting Forest boundary Survey in full conformity with the said tender document .

We have read the provision of the Tender and confirm that these are acceptable to us.

We further declare that the additional conditions, variations, deviations, if any, found in our bids shall not be given effect to.

We agree to abide by this Tender, consisting of this letter, the detailed response to the Tender and all attachment, for a period of one year from the date understanding that:

- a) Bids of qualified agency will be subject to verification of all information submitted for qualification and bidding:
- b) Department of Forest, Government of Meghalaya represented by the office the Principal Chief Conservator of Forest, Research, Training, Shillong, Meghalaya reserves the right to reject or accept any application, cancel the qualification process and reject all application and the Department of Forest, Government of Meghalaya represented by the office the Principal Chief Conservator of Forest, Research, Training, Shillong, Meghalaya, shall not be liable for any such actions.

Any genuine changes made by the Department of Forest ,Environment & Climate Change, Government of Meghalaya in the interest of the project with respect to the Technical requirement during the course of the project implementation will be acceptable.

We hereby declare that all the information and statements made in these bids are complete, true and correct and accept that any misrepresentation contained in it may lead to our disqualification summarily.

Information Details

1. Name of Agency
2. Address of Agency
3. Name, designation and Address of the contact person to whom all correspondents shall be made regarding this Tender.
4. Telephone no. of contact person
5. Mobile no. of contact person.
6. Fax no. of contact person
7. E-mail address of contact person.

We hereby declare that our bids are made in good faith and the information contained are true and correct to the best of our knowledge and belief.

Signature of Authorised signatory

Name

Designation

Contact Address

Telephone number (mobile & land

Agency Seal

Annexure-5**Price Bid document****Financial bid for selection of agencies for Forest Boundary Survey by DGPSINSTRUMENT**

Description	Rate in Rupees for one boundary Pillar (in words and figures)
The rate for undertaking DGPS SURVEY and all other allied activities as per the scope of work for each Boundary Pillar, (inclusive of all applicable taxes) Along with break up of cost quoted.	

Signature of Authorised signatory
Name
Designation
Contact Address
Telephone number (mobile & land
Agency Seal

Annexure-6**Information about the bidding Firm**

(to be submitted on the letter head paper of the Firm/Agency/ Company)

Sl no.	Particulars	
1	2	3
1	Name of the bidder	
2	Address of the bidder with Telephone, Fax, e-mail	
3	Address of the Registered Office	
4	Address of the works	
5	GPS Co-ordinates of the Registered office	
6	Name & designation of the Authorized Signatory for correspondence (Attach power of Attorney as per Annexure-12)	
7	Nature of Firm (proprietorship/partnership/Pvt.Ltd/public Ltd. Co/public sector)	
8	Permanent Account Number (Attach proof)	
9	Firm's registration Number (Attach proof)	
10	GST (Attach proof)	
11	Office / workstations and service networks in Meghalaya with TIN number (give details if applicable)	
12	Other details and remarks, if any	
13	Copy of service tax registration	

Yours faithfully

Signature of Authorised signatory
Name
Designation
Agency Seal

(separate sheet may be used for giving detailed information duly signed)

Annexure-7**Declaration by the Bidder**

(To be submitted in the official letter head paper of the Company,

I/We _____ (here in after referred to as the Bidder) being desirous of bidding for conducting DGPS surveys work in Meghalaya under the above mention Tender Notice No. and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the Tender document, DO HEREBY DECLARE THAT

1. The Bidder is fully aware of all the requirements of the Tender document and agrees with all provision of the Tender document.
2. The Bidder is capable of executing and completing the work as required in the Tender.
3. The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the works.
4. The Bidder has no collusion with any employee of the Department of Forest Government of Meghalaya or with any other person firm in the preparation of the bid.
5. The Bidder has not been influenced by any statement or promise of the Department of Forest, Government of Meghalaya or any of its employees, but only by the Tender document.
6. The Bidder is financially solvent and sound to execute the work.
7. The Bidder is sufficient experienced and competent to perform the contract to the satisfaction of the Department of Environment, Forest & Climate Change of the Government of Meghalaya.
8. The information and the statement submitted with the bids are true and correct.
9. The Bidder is familiar with all the general and special Laws, Acts, Ordinance, Rules and Regulations of the State and Central Government that may affect the work, its performance or personnel employed therein.
10. The Bidder has not been debarred from similar type of work by any State/Union/Territory/ Central Government Departments and Public sector Undertaking.
11. These bids shall remain valid for Six months from the date of opening of the financial Bids.
12. The Bidder gives the assurance to execute the work as per the specification, terms and conditions.
13. The Bidder confirms the capability to complete the work, supply Geo-reference maps, reports etc., well before the schedule time.
14. The Bidder accepts that the firm/company/ agency will be blacklisted by the Department of Forest of the Government of Meghalaya if the bidder fails to undertake the work or sign the contract within the stipulated period.

Signature of Authorised signatory
Name
Designation
Agency Seal

Annexure-8**FORMAT FOR AUTHORIZATION FOR SIGNING THE BID**

(on the letterhead of bidding Company/Firm/Agency)

AUTHORIZATION LETTER

(to be on non-judicial stamp paper of appropriate value as per the Stamp Act relevant to place of execution)

Know all men by these presents, we (name and address of the registered office, Bidding company/firm/Agency) do hereby constitute, appoint and authorised Mr/Ms..... (name and residential address) who is presently employed with us and holding the position of as our authorised person to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bids for survey of forest boundaries by DGPS/ETS technology in various Forest Division in Meghalaya including signing and submission of all the document and providing all required information/Bids to the Department of Forest, Government of Meghalaya, representing us in all matter before the Tendering Authority and or before any legal forum, in connection with our bids for the said work. She / He is also authorized to attend meeting and submit technical and commercial information as may be required by the Department of Forest, Government of Meghalaya in the course of processing above said bids .

Mr /Ms.& Ms/Mr. are hereby authorised to make technical presentation on behalf of the Agency/Organisation/Firm/company (proof of above person/Persons as employee of the Agency/Organisation/Firm/company to be enclosed)

We hereby agree to ratify all acts, deeds and things lawfully done by our said authorised persons and that all acts, deeds and things done by our authorized persons shall and shall always be deemed o have been done by us.

For

Accepted

.....(signature & name)

.....(signature& name)

Authorised signatory

Name:

Designation:

Company Seal:

Note:

- a. The mode of execution of the authorization letter should be in accordance with the procedure, if any, laid down by the applicable law and the charter document of the execution(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

Annexure-9**FORMAT FOR FINANCIAL REQUIREMENT – ANNUAL TURNOVER**

(on the letterhead of bidding Company/Firm/Agency)

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of Agencies for **Forest Boundary Survey**.

We certify that the Bidding Company/Firm/Agency, had an average Annual turnover of Rs...../ based on audited annual accounts of the last three years ending 31st March, 2021

Authorised Signatory

Statutory Auditor

(Power of attorney holder)

(Stamps & Signature)

Date.

Annexure-10**FORMAT FOR NET WORTH CERTIFICATE**

(on the letterhead of bidding Company/Firm/Agency)

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of Agency for **Forest Boundary Survey**.

Dear Sir,

This is to certify you that Net worth of(insert the name of Company/Firm/Agency, as on 31st March, 2021 is Rs...../- (..... In words). The details are appended

Particulars	Amount (in Rs)
Equity Share Capital	
Add: Reserves	
Subtract: Revaluation Reserves	
Subtract: Intangible Assets	
Subtract: Miscellaneous Expenditure to the extent not written off and carried forward	
Losses	
Net worth as on 31 st March, 2021	

Authorised Signatory

Statutory Auditor

(Power of attorney holder)

(Stamps & Signature)

Date.

Annexure- 11**PROFILES OF PROJECTS COMPLETED**

1. Name of the clients
2. Name of the projects
3. Brief Description of the Project:
4. Scope of the projects (Activities involved)
5. Details of solution and Methodology Adopted.
6. No of location at which projects is being/was implemented
7. Resources Base.
 - Total area surveyed
 - Total number of employees deployed for the projects
 - Total number of DGPS used in the projects
 - Name of software used in the project.
8. Valued of the projects (INR)
9. Date of award of contract
10. Scheduled date for completion of the projects
11. Date of commencement of the projects
12. Date of successful completion of the project
13. If not completed, expected actual date of completion, and reason for delay.
14. Name of the person who can be referred to from Clients” side, with Name Designation, Postal address, Contact Number, Fax number, e-mail ID, etc.

Attach additional sheets and **Annexures**, if required.

AUTHORISED SIGNATORY
(Agency Seal)

Date.

Annexure- 12**BRIEF AGENCY PROFILE**

01. Name of the firm /Agency/Organisation/Company
02. Name of the directors along with DIN
03. Year of establishment
04. Address of the Office
05. Telephone No.
06. Fax No.
07. E-Mail Address
08. Website
09. Sectors in which the Agency/Organisation/Firm/company has provided similar services to Govt. /PSU/Agencies in India.
10. No. of full-time personnel currently under employment similar services
11. Certification (ISO 9001-2000, if any)

AUTHORISED SIGNATORY
(Agency Seal)

Date.

DECLARATION**Format for declaration by bidder or agency that
proprietor/Directors/Promoters/Partners of the Agency has not been convicted /
Charge sheeted by any court of Law**

To,

The Working Plan Officer
Working Plan Division
Forest Colony, Lawmali, Shillong
Meghalaya-794001

Sub: Declaration Letter of Agency for **Forest Boundary Survey**.

Dear Sir,

This is to certify you that our firm/agency/ Organisation/Company intends to submit bid in responds to your Tender Notice No. _____ in accordance with the above, we would like to declare that;

- c) We are not involved in any litigation that may have an impact or affecting or compromising the delivery of services as required under this assignment.
- d) That none of the Director(s)/ Partner(s)/ proprietor of the agency has not been convicted or charge sheeted by any/any such other organisation in any court of law.
- e) We are not black listed by any Central / state Government/ Public Sector undertaking(s) / any such other Organisation(s) in India.
- f) We will not use the survey data for any other purpose. We will not handover any survey data to any other person or firm or company other than as directed by the department of Forest, government of Meghalaya, we will maintain the secrecy and sanctity of the data collected, processed and reported at any stage of the work.

Sincerely Yours,

**AUTHORISED SIGNATORY
(AGENCY'S NAME)**

Name

Signature

Agency Seal

Date.

Annexure-14**Format for submission of experience details**

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of Agency for Forest Boundary Survey.

Dear Sir,

This is to certify you that our Firm/Agency/ Organisation/Company intends to submit bid in responds to your Tender Notice No. _____ in accordance with the above, we would like to declare that we have been associated with the DGPS for the last years and have experience in surveying by DGPS Technology for more than Sq.km or Points/Boundary Pillars. It is certified that we have experience for the DGPS Survey in forest/non-forest area.

Financial year	Area surveyed using DGPs technology (Ha)	Number of Boundary Pillars surveyed (in Numbers)	Mention whether on forest/non-forest area	Year of survey	Evidence in support the claim
1	2	3	4	5	6

Sincerely Yours,

**AUTHORISED SIGNATORY
 (AGENCY'S NAME)**

Name
 Signature
 Agency Seal

Date.

Annexure-15**Format for certificate Availability of Technical Man Power**

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of the Agency for availability technical man power to carry Forest Boundary survey by DGPS Method.

Dear Sir,

This is to notify you that our firm/agency/ Organisation/Company intends to submit bid in responds to your Tender Notice No. _____ in accordance with the above we would like to declare that the employee as per details given below along are working in our Firm/agency/organisation/company for more than 12 months

Name of the employee	Technical qualification of the employee	Designation	Date of joining in the agency/ Organisation	Copy of the Form-16 issued to the employee (if applicable)	Proof of the Technical qualification of the employee
1	2	3	4	5	6

Sincerely Yours,

AUTHORISED SIGNATORY
 (AGENCY'S NAME)

Name
 Signature
 Agency Seal

Date.

Annexure-16**Format for Undertaking to confirm having Capability & Resources**

To,

The Working Plan Officer
Working Plan Division
Forest Colony, Lawmali, Shillong
Meghalaya-794001

Sub: Declaration Letter of Agency for Forest Boundary survey.

We certify that we have all the resources and capabilities for Forest Boundary Survey by using DGPS technology. We confirm that we are aware that the DGPS survey work includes field survey in the forest area and preparation of Geo- reference maps, placing boundary mark over the points where the boundary pillars are not available, etc. as per requirement of the Tender notice.

Sincerely Yours,

AUTHORISED SIGNATORY
(AGENCY'S NAME)

Name

Signature

Agency Seal

Date.

Note:

1. The above response sheet be signed and certified as true by the Chief executive Officer/Managing Director being full time Director in the letter head of the Company/Agency/Firm/Organisation.

Annexure-17**Format for Certificate for Satisfactory Completion of the Project**

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of the Agency for **Forest Boundary survey.**

Dear Sir,

This is to certify you that our Firm/Agency/ Organisation/Company intends to submit bid in response to your Tender Notice No. _____ In accordance with the above we would like to declare that the projects as per details given below along with the details of clients have been completed by the agency within the stipulated time:

Name of the project	Area of the project	Details of clients including name of the contact person	Date of initiation of work	Scheduled date for completion of the project	Date of actual completion of the project	Copy of the work order & completion certificate issued by the clients for timely completion of the projects

Sincerely Yours,

**AUTHORISED SIGNATORY
 (AGENCY'S NAME)**

Name
 Signature
 Agency Seal

Date.

Annexure-18**Format for DGPS Instrument Details**

To,

The Working Plan Officer
 Working Plan Division
 Forest Colony, Lawmali, Shillong
 Meghalaya-794001

Sub: Declaration Letter of the Agency for availability of DGPS to carry out Forest Boundary survey.

Dear Sir,

This is to notify that our Firm/Agency/ Organisation/Company intends to submit bid in response to your Tender Notice No. _____ in accordance with the above we would like to declare the details of instrument as given below:

SI No.	Make & Models of DGPS	Frequency of DGPS (Single/Dual Frequency)	Date of Invoice	Invoice No.
1	2	3	4	5

Sincerely Yours,

**AUTHORISED SIGNATORY
 (AGENCY'S NAME)**

Name
 Signature
 Agency Seal

Date.