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**TROPICAL FOREST RESEARCH INSTITUTE**  
**(Indian Council of Forestry Research & Education)**  
(An Autonomous Council under the Ministry of Environment,  
Forests & Climate Change Govt. of India)  
P.O. – R.F.R.C, Mandla Road, JABALPUR – 482 021 (M.P)



No. 15-1(27)/e-procurement/2019-20 /pur/TFRI/JBP

dt. / /19

**NOTICE INVITING TENDER FOR : SUPPLY OF PLANT CANOPY ANALYSER  
No. 19-20/TFRI/JBP/01**

Tropical Forest Research Institute invites online tenders for the supply of **Plant Canopy Analyser** from eligible bidders. Details may be obtained online at CPPP web site <http://eprocure.gov.in/eprocure/app/> and <http://tfri.icfre.org>. Last date for submission of bids is 01/11/2019. Bids shall be submitted online only at CPPP web site. Manual bids will not be accepted.

Under Secretary, TFRI, Jabalpur

## Chapter-1

### NOTICE INVITING TENDER FOR: SUPPLY OF PLANT CANOPY ANALYSER No. /2019-20/TFRI/JBP/01

Tropical Forest Research Institute invites online bids (Technical & Financial) from eligible bidders which will be valid for a minimum period of 90 days from the date of opening (i.e 01/11/2019) for Plant Canopy Analyser. Tender documents may be downloaded from TFRI web site <http://tfri.icfre.gov.in/>. (for reference only) and CPPP site <http://eprocure.gov.in/eprocure/app/> as per the schedule as given in CRITICAL DATE SHEET as under:

SNO	Activity	Date	Time
1.	Date of Publishing	10/10/2019	15.00 hrs.
2.	Last date for receipt of bids	01/11/2019	15.00 hrs.
3.	Date of Opening of Technical bids at TFRI Jabalpur	04/11/2019	15.30 hrs.
4.	Date of Opening of Financial bids at TFRI Jabalpur	Will be decided after technical evaluation	

Bids shall be submitted **online only** at CPPP web site [http://eprocure.gov.in/eprocure/app-](http://eprocure.gov.in/eprocure/app/) Manual bids shall not be accepted. Tenderers are advised to follow the instructions provided in the “Instructions to the Tenderer for the e- submission of the bids online through the Central Public Procurement Portal for e-Procurement at <http://eprocure.gov.in/eprocure/app->

Intending tenderers are advised to visit again at CPPP web site <http://eprocure.gov.in/eprocure/app/> frequently prior to closing date of submission of tender for any corrigendum/addendum/amendment.

Bids will be opened as per date and time as mentioned in the critical date sheet. After online opening of technical bid the result of their qualification as well as price bid opening result will be intimated online only.

**Under Secretary, TFRI, Jabalpur**

**Chapter-2**  
**Conditions of Contract**

**2(a)The proposals must consist two bid systems as follows:**  
“QUALIFYING DOCUMENTS & EMD”

<b>Sl. No.</b>	<b>Document</b>
<b>1.</b>	Scanned copy of original catalogue of the instrument, Vender should have sufficient capacity to give application support,
<b>2.</b>	Scanned copy of users' list and satisfactory report of quoted model from reputed institute preferably Government institute,
<b>3.</b>	Scanned copy of supportive documents from the users for the satisfactory performance and after sales service. Manufacturer quoted by vender should have own office in India preferably at Jabalpur for better after sales and service support.
<b>4.</b>	Certificate from principle for availability of spares/parts for next five years
<b>5.</b>	Online Receipt in respect of Tender Form Fee and EMD/Exemption document/CSPO registration certificate.
<b>6.</b>	Proof of registration of firm PAN & GST
<b>7.</b>	Valid Income tax certificate of unit till the date of tender.
<b>8.</b>	Sale tax clearance/exemption certificate till March/2018
<b>9.</b>	The bidding firm must process an experience of at least five (05) years, in the field of supply, support and maintenance of the equipment. (Enclose copies of the supportive documents or supply orders.

**EMD will be as follows (liable to be forfeited if wrong information is furnished)**

<b>Sl.</b>	<b>Name of equipment</b>	<b>Tender No.</b>	<b>EMD Rs.</b>
<b>1.</b>	<b>Supply Plant Canopy Analyser</b>	<b>No. 15-1(27)/e-procurement/2019-20 /pur/TFRI/JBP /</b>	<b>35,000/-</b>

## **Two bid systems TECHNICAL & FINANCIAL PROPOSAL”.**

### **(2b) TECHNICAL PROPOSAL**

During the preparation of technical proposal, in addition to technical details of the equipment along with **original catalogue**, the tenderer must give particular attention to the following:

- i) Users list and supportive documents from the users for the satisfactory performance and after sales service.
- ii) Information about suitably trained technical staff along with well established service network must be furnished.

#### **iii) All specifications should be self certified**

#### **iv) Availability of spares/parts for next five years to be ensured.**

- v) In absence of original catalogue the tender would be considered as invalid.

### **(2c) FINANCIAL PROPOSAL**

The financial proposal must be submitted in the format as per the price schedule . Full details of business terms and conditions, e.g. packing and forwarding, delivery period, GST/Sales Tax/Trade Tax (whether provincial or Central), other Taxes/Charges, if any, the validity period of quotation, discount, free delivery, packing or any other information relevant to the items may please be indicated clearly. Prices must be quoted F.O.R. at T.F.R.I. Jabalpur in Indian Rupees.(INR) only. The bid shall be inclusive of all duties and levies except for excise duty/customs and sales tax at the prevailing concessional rates, applicable against declaration of form 13. In case of imported equipment, if the bidder is the authorized dealer/distributor of foreign company and wants the order to be placed upon the parent company through the bidding firm for custom purposes, the same should be clearly mentioned in the bid along with an authorization from the parent company to this extent. TFRI would in any case be liable to pay to the Indian bidder only to the extent of the bid amount in Indian Rupees or its equivalent foreign currency as per official exchange rate prevailing as on the date of bid opening i.e. 01/11/2019 TFRI, Jabalpur would not be liable for increase or any variation in foreign exchange rate and differences if any, should be borne by the bidder. However, the payment would be effected only after satisfactory commissioning of the equipment in TFRI, Jabalpur and no request for any advance payment would be entertained.

### **(2d) SUBMISSION OF PROPOSAL**

Financial and Technical Proposals containing the qualifying documents and EMD self attested scanned copy should attached.

## **(2e) PROPOSAL EVALUATION**

Two bid systems procedure will be adopted in evaluating the proposals

- (i) Checking of qualifying documents. This will be the documents, which shall be checked, and disqualification amongst these documents will lead to rejection of the proposal *in toto*,
- (ii) A technical evaluation of the qualified firm on the basis of the qualifying documents will be carried out prior to opening the financial proposal,
- (iii) A financial evaluation. Firms will be ranked using a combined technical / financial score as indicated below.

### **(2f) Technical Proposal**

The evaluation committee appointed by the client will carry out its evaluation applying the evaluation criteria and point system as specified below. Each responsive proposal will be attributed a technical score (St.).

The points given to technical evaluation criteria are as under:-

- |  |    |
|--|----|
| i) Technical specifications of the equipment | 70 |
| ii) After sales Service /spares availability | 30 |

Users' list - 5

Supporting documents from users

for the satisfactory performance - 15

Availability of spare parts for next 5 years - 10

<b>Total</b>	<b>100</b>
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The technical proposal should score at least 70 points out of 100 to be considered for financial evaluation.

### **(2g) Financial Proposal**

The evaluation committee will determine if the financial proposals are complete and without computational errors. The lowest financial proposals (Fm) will be given a financial score (Sf) of 100 points. The financial scores of other proposals will be computed as follows  $S_f = 100 \times F_m / F$  (Where F is amount of financial proposal).

Proposal will finally be ranked according to their combined technical (St) and financial (Sf) scores using the formula  $S = St \times T\% + Sf \times F\%$ .

The weight (T%) given to the Technical Proposal is 60%

The weight (F%) given to the Financial Proposal is 40%

## General Terms & Conditions

The offer will be subject to the following terms and conditions: -

1. Please note that TFRI, Jabalpur has Custom Duty Exemption and Excise Duty Exemption Certificate. This may be kept in consideration while quoting the rates.
2. The stores are required to be delivered in full and within 20 days after acceptance of the offer.
3. Full details of business terms and conditions, e.g. packing and forwarding, delivery period, GST/Sales Tax/Trade Tax (whether provincial or Central), other Taxes/Charges, if any, the validity period of quotation, discount, free delivery, packing or any other information relevant to the items may please be indicated clearly.
4. Full specifications, details and information regarding the articles to be supplied, such as make, size, etc. along with **original catalogue**, etc. to be furnished with the offer. The list of users of goods of similar or same nature in the country should also be enclosed.
5. Normal terms of payment will be 100% payment within 30 days after receipt and acceptance of goods in satisfactory working condition after installation. Other terms of payment should be clearly spelt in the offer.
6. The tender should accompany a DEMAND DRAFT of **value as specified in Clause of Chapter 2 (EMD)** as Earnest Money, payable to the Director, Tropical Forest Research Institute, Jabalpur, which will be refunded, without interest, if the offer is not accepted. In case the offer is accepted but not honoured by the tendered; the Earnest Money will be forfeited. The Earnest Money will also be forfeited, if wrong information is given in the tender to influence the tender cost. To the successful bidder, the EMD will be released only after satisfactory installation of the equipments and submission of performance bank guarantee.
7. The tenderer should also specify regarding Dealership/Proprietary item.
8. Freight, forwarding charges, if any, should be mentioned in the offer.
9. The stores are required to be delivered to the consignee concerned and the consignee will do inspection and verification of the goods.
10. The tenderer should quote on their printed letter-head paper, indicating thereon Sales Tax/Trade Tax No.& GST, Registration No., Fax No., Telex No., Telephone No., E-mail, etc.
11. Any or all tenders can be rejected by the Director, TFRI without assigning any reason. It cannot be challenged in any court.
15. Disputes, if any, will be under the jurisdiction of Jabalpur Court, M.P., India.
16. The points given to technical evaluation criteria are as under:-
  - i) Firms relevant experience (including similar jobs in hand) 15

Trained technical staff - 5  
Established service network - 5  
On hand training proposal for staff - 5

**Under Secretary, TFRI, Jabalpur**

**(I) SUPPLY PLANT CANOPY ANALYSER.**

**Detailed Specifications of Supply Plant Canopy Analyser  
As per the specifications given below:-**

<b>Sl. No</b>	<b>Specifications</b>
1.	<p style="text-align: center;"><b>PLANT CANOPY ANALYSER</b></p> <p>Useful for following measurements: Measuring Leaf Area Index (LAI) Non destructive measurement, PAR, diffuse radiation transmission coefficients, sky view factor, mean foliage inclination angles, plant canopy extinction coefficients and solar beam transmission coefficients or graph fraction. The data will be stored in Touch screen computer supplied with instruments as standard accessory.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"><li>• Single Measurement for LAI and PAR.</li><li>• Ideal for Environmental, Agricultural, Forestry and Crop Science Applications</li><li>• Calculated LAI of plant canopies 30cm high up to forest canopy</li><li>• Collect data under any lighting conditions.</li><li>• 150° wide viewing angle.</li><li>• User selected azimuthal and zenith divisions.</li><li>• On-site gap fraction analysis.</li><li>• Calculation of diffuse radiation transmission coefficients On image plotting of sun paths In Built GPS</li><li>• Non-destructive LAI and PAR measurement</li><li>• Integrated miniature CCD and Ceptometer to measure sun flecks in the range of PAR</li></ul> <p><b>Specifications:</b></p> <ul style="list-style-type: none"><li>• Lens : Equidistant wide-angle lens</li><li>• Image Resolution : 768 x 494 pixels</li><li>• Fish eye lens angle : 150°</li><li>• Measuring Time : 0.5 second Interface : 7" capacitive touch screen, 6 button keypad, trigger-release capture</li><li>• Operating Temp. : 5 to 50 OC PAR : 24</li><li>• PAR Sensors, 10mm spacing</li><li>• Weight : 500gm</li><li>• Battery Capacity : Approximately 6 hours</li></ul> <p>Includes CI-110 imaging probe (Self Levelling Hemispherical Lens), 24 PAR sensors with USB interface, operating manual and instrument case. (for more specification, refer enclosed catulog)</p>

**Agreement**

The Supplier \_\_\_\_\_ agrees to accept the terms and conditions of this bidding document in letter and spirit.

**Name/Seal of the Tenderer**