



**SURVEY OF INDIA  
PROJECT DIRECTOR OFFICE,  
NATIONAL HYDROLOGY PROJECT,  
NATIONAL GEOSPATIAL DATA CENTRE,  
BLOCK-6, HATHIBARKALA ESTATE,  
POST BOX-200 DEHRADUN (UTTARAKHAND)-248001**

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**NATIONAL COMPETITIVE BIDDING  
FOR  
*PROVISION OF SERVICES FOR ACQUISITION, PROCESSING AND DELIVERY OF  
DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE  
STATE OF TRIPURA & NAGALAND UNDER NATIONAL HYDROLOGY PROJECT***

BID REFERENCE: T-2371/15-C-NHP (0.25M DEM-Tripura Nagaland)Coll I Dated 16.12.21

PERIOD OF SALE OF BIDDING DOCUMENT : FROM 04/03/2022, 10:30 hrs.  
TO 25/03/2022,11:00Hrs

LAST DATE AND TIME FOR RECEIPT OF BIDS : 25.03.2022, 11:00Hrs

\* TIME AND DATE OF OPENING OF BIDS – Technical Part : 25.03.2022,11:30 Hrs

PLACE OF OPENING OF BIDS : Project Director Office,  
National Hydrology Project,  
NGDC, Block-6, Hathibarkala Estate,  
Survey of India, Dehradun, Uttarakhand -248001  
Tele: +91-135-2977974, Fax: +91-135-2977978

OFFICER INVITING BID : Project Director, NHP, NGDC,  
Survey of India, Dehradun.

\*Time and date of opening of financial part of bid will be intimated after technical acceptance of bid

# **INVITATION FOR BID**

(IFB)

**SURVEY OF INDIA  
PROJECT DIRECTOR OFFICE,  
NATIONAL HYDROLOGY PROJECT,  
NATIONAL GEOSPATIAL DATA CENTRE,  
BLOCK-6, HATHIBARKALA ESTATE,  
POST BOX-200 DEHRADUN (UTTARAKHAND)-248001**

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*PROVISION OF SERVICES FOR ACQUISITION, PROCESSING AND DELIVERY OF  
DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE  
STATE OF TRIPURA & NAGALAND UNDER NATIONAL HYDROLOGY PROJECT***

**(Two-Envelope Bidding Process with e-Procurement)**

INVITATION FOR BIDS (IFB)

Date : 04/03/2022

Loan No. : IBRD-87250

IFB No. T-2371/15-C-NHP (0.25M DEM-Tripura Nagaland)Coll I Dated 16.12.21

Procurement Plan Reference No : IN-SOI-51103-NC-RFB

1. This Invitation for Bid follows the General Procurement Notice for this Project that appeared in Development Business on 9<sup>th</sup> March, 2017
2. The Government of India has received financing from the World Bank towards the cost of National Hydrology Project and it is intended that part of the proceeds will be applied to eligible payments under the contracts for '*Provision of Services for Acquisition, Processing and Delivery of DTM & Digital Ortho Image using UAS/Drone LiDAR Sensor in the State of Tripura & Nagaland under National Hydrology Project*'.
3. The Government of India has received financing from the World Bank towards the cost of National Hydrology Project and intends to apply a part of the funds to cover eligible payments under the contracts for '*Provision of Services for Acquisition, Processing and Delivery of DTM & Digital Ortho Image using UAS/Drone LiDAR Sensor in the State of Tripura & Nagaland under National Hydrology Project*' for Non-Consulting Services. Bidding will be conducted through National Competitive Bidding procedures agreed with the World Bank. Bidding is open to all eligible bidders as defined in the *IBRD Guidelines for Procurement*. Bidders from India should, however, be registered with the Government of India or other State Governments/Government of India, or State/Central Government Undertakings. Bidders from India, who are not registered as above, on the date of bidding, can also participate provided they get themselves registered by the time of contract signing, if

they become successful bidders. **Bidders are advised to note the clauses on eligibility (Section I Clause 4 and minimum qualification criteria (Section I Clause 5) of the Instructions to Bidders to qualify for the award of the contract.** In addition, please refer to paragraphs 1.6 and 1.7 of the World Bank’s Guidelines setting forth the World Bank’s policy on conflict of interest.

- 4.
5. Project Director, NHP, NGDC, Survey of India invites electronic bids from eligible bidders for supply of following goods and services listed below:

Item No.	Description of Services	Lot	Description	Approx Area (in Sq. Km)	Bid Security In Rs.
1.	PROVISION OF SERVICE FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA & NAGALAND UNDER NATIONAL HYDROLOGY PROJECT	Lot#1	Tripura	300	3.0 Lakh
		Lot#2	Nagaland	150	1.5 Lakh

# Area figures provided above and shape file uploaded with tender document is indicative. Final area shape file will be provided to the contractor at the time of award.

6. Interested eligible Bidders may obtain further information from the Project Director Office, NHP, National Geospatial Data Centre, Hathibarakala Estate, Dehradun, Uttarakhand, at the address given above during office hours from 10:00 AM to 5:00 PM on any working day.
7. The bid document is available online and bids are to be submitted online through the e- procurement portal <https://eprocure.gov.in/eprocure/app> only. Bids submitted in any other manner will not be accepted. Bidders are required to obtain Digital signature from designated firms (available on e-proc. Portal and then register with the Government of India e-procurement platform and submit bids by using their user ID and Digital Signature.

- (a) Date of pre-bid meeting : 10.03.2022, 11:00Hrs
- (b) Last date and time for receipt of bids : 25.03.2022, 11:00Hrs
- (c) Time and date of opening of bids- Technical : 25.03.2022, 11:30Hrs
- (d) Place of opening of bids :  
Project Director Office,  
National Hydrology Project, NGDC,  
Block-6, Hathibarkala Estate,  
Survey of India, Dehradun  
Uttarakhand -248001  
Tele: +91-135-2977974  
Fax: +91-135-2977978
- (e) Address for communication : Project Director Office,  
National Hydrology Project, NGDC,  
Block-6, Hathibarkala Estate,  
Survey of India, Dehradun  
Uttarakhand -248001  
Tele: +91-135-2977974  
Fax: +91-135-2977978  
E-mail: pdo.nhp soi@gov.in

8. For submission of the bids, the bidder is required to have Digital Signature Certificate (DSC) from one of the authorized Certifying Authorities, authorized by Government of India for issuing DSC. Aspiring bidders who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website:  
<https://eprocure.gov.in/eprocure/app>.
9. Bid shall be valid for a period of 90 days after bid closing and must be accompanied by bid security of the amount specified for the work in the table above, drawn in favour of **Project Director, NHP, NGDC, Survey of India, Dehradun** must be submitted as per the procedure described in paragraph 9 below. The Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid. Bids must be submitted online on <https://eprocure.gov.in/eprocure/app> (website) on or before the date and time for receipt of bids, and the 'Technical Part' of bids will be opened online on the specified time and date for opening of bids, as given above. The "Financial Part" shall remain unopened in the e-procurement system until the second public Bid opening for the financial part. Any bid or modifications to bid (including discount) received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time. The electronic bidding system would not allow any late submission of bids.
10. The bidders are required to submit (a) original bid security in approved form; and (b) original

affidavit regarding correctness of information furnished with bid document with **Project Director, NHP, NGDC, Survey of India, Block No. 6, Hathibarkala Estate, DEHRA DUN-248001, INDIA** before the opening of the technical part of the Bid given above, either by registered post/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened.

11. A pre-bid meeting will be held on 10.03.2022, 11:00 A.M. at the **O/o The Project Director, NHP, NGDC, Survey of India, Block No. 6, Hathibarkala Estate, Dehradun-248001 (Uttarakhand), INDIA** to clarify the issues and to answer queries on any matter that may be raised at that stage as stated in ITB Clause 7.1 of 'Instructions to Bidders' of the bidding document.
12. Other details can be seen in the bidding document. The Purchaser shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, the Purchaser shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.

Seal of Office & Address:

Project Director, NHP,  
Director, NGDC  
Hathibarkala Estate, Dehradun,  
Uttarakhand 248001  
Tele: +91-135-2977974  
Fax: +91-135-2977978,  
Email: pdo.nhp soi@gov.in

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# **Part I – Bidding Procedures**



# SECTION I. INSTRUCTIONS TO BIDDERS

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# Section I - Instructions to Bidders

## A. General

- 1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), **specified in the Bid Data Sheet (BDS)**, the Employer, as **specified in the BDS**, issues this bidding document for the delivery of Non-Consulting Services, as specified in Section VII, Employer's Requirements. The name, identification and number of lots (contracts) of this RFB procurement are **specified in the BDS**.
  - 1.2 Throughout this bidding document:
    - (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if **specified in the BDS**, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;
    - (b) if the context so requires, "singular" means "plural" and vice versa; and
    - (c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays.
  - 1.3 The successful Bidder will be expected to complete the performance of the Services by the Intended Completion Date **provided in the BDS**.
- 2.1 The Government of India or Recipient (hereinafter called "Borrower") **specified in the BDS** has applied for or received financing (hereinafter called "funds") from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called "the Bank") in an amount **specified in the BDS**, toward the project **named in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.
  - 2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment or materials if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the

United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

### 3. Fraud and Corruption

3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section VI.

3.2 In further pursuance of this policy, Bidders shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

### 4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, a state-owned entity or institution subject to ITB 4.6, or any combination of such entities in the form of a Joint Venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent, unless otherwise **specified in the BDS**. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all members. Unless **specified in the BDS**, there is no limit on the number of members in a JV. In case of a successful bid, the joint venture agreement shall be registered in the place **specified in BDS** so as to be legally valid and binding on members.

4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:

- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- (b) receives or has received any direct or indirect subsidy from another Bidder; or

- (c) has the same legal representative as another Bidder; or
- (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or
- (e) any of its affiliates participated as a consultant in the preparation of the Employer's Requirements (including Activities Schedules, Performance Specifications and Drawings) for the Non-Consulting Services that are the subject of the Bid; or
- (f) any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower for the Contract implementation; or
- (g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
- (h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the Contract.

4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a sub-contractor in more than one Bid.

4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration

documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services./

- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, and in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address **specified in the BDS**.
- 4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they: (i) are legally and financially autonomous; (ii) operate under commercial law; and (iii) are not under supervision of the Employer.
- 4.7 Not used.
- 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.
- 4.9 Not used.
- 4.10 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

**5. Qualification of the Bidder**

- 5.1 All Bidders shall provide in Section IV, Bidding Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

## **B. Contents of Bidding Document**

### **6. Sections of Bidding Document**

6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 9.

#### **PART 1: Bidding Procedures**

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

#### **PART 2: Employer's Requirements**

- Section VII - Employer's Requirements

#### **PART 3: Contract**

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Special Conditions of Contract (SCC)
- Section X - Contract Forms

6.2 The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.

6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 9. In case of any contradiction, documents obtained directly from the Employer shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid, all information or documentation as is required by the bidding document.

### **7. Site Visit**

7.1 The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the Site of required Services and its

surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for providing the Services. The costs of visiting the Site shall be at the Bidder's own expense.

- 8. Clarification of Bidding Document**
- 8.1 The electronic bidding system **specified in the BDS** provides for online clarifications. A Bidder requiring any clarification on the bidding document may notify the Employer online. Clarifications requested through any other mode shall not be considered by the Employer. The Employer will respond to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period **specified in the BDS**. Description of clarification sought and the response of the *Employer* shall be uploaded for information of all Bidders without identifying the source of request for clarification. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 9 and ITB 23.2.
- 9. Amendment of Bidding Document**
- 9.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding document by issuing addenda. The addendum will appear on the e-procurement system under "Latest Corrigendum" and email notification is also automatically sent to those bidders who have started working on the tender, or as **otherwise specified in BDS**.
- 9.2 Any addendum thus issued shall be part of the bidding document and shall be deemed to have been communicated to all bidders.
- 9.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend, as necessary, the deadline for submission of Bids, in accordance with ITB 23.2 below.

### **C. Preparation of Bids**

- 10. Cost of Bidding**
- 10.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.
- 11. Language of Bid**
- 11.1 The Bid as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into English, in which case, for purposes of interpretation of the Bid,



such translation shall govern.

## 12. Documents Comprising the Bid

12.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously.

12.2 The Technical Part shall contain the following:

- (a) **Letter of Bid – Technical Part** prepared in accordance with ITB 13;
- (b) **Bid Security**, if required in accordance with ITB 20.1;
- (c) **Alternative Bid – Technical Part**: if permissible in accordance with ITB 14;
- (d) **Authorization**: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.3;
- (e) **Qualifications**: documentary evidence in accordance with ITB 18 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
- (f) **Bidder's Eligibility**: documentary evidence in accordance with ITB 18 establishing the Bidder's eligibility to Bid;
- (g) **Conformity**: documentary evidence in accordance with ITB 17, that the Services conform to the bidding document; and
- (h) Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.
- (i) any other document **required in the BDS**.

12.3 The **Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part**: prepared in accordance with ITB 13 and ITB 15;
- (b) **Schedules**: priced Activity Schedule completed in accordance with ITB 13 and ITB 15;
- (c) **Alternative Bid - Financial Part**: if permissible in accordance with ITB 14; and
- (d) any other document **required in the BDS**.

12.4 The Technical Part shall not include any information related to the

Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.

12.5 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid, and to contract execution if the Bidder is awarded the contract.

### **13. Process of Bid Submission**

13.1 The Letter of Bid – Technical Part, Letter of Bid – Financial Part, and priced Activity Schedule shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 21.3. All blank spaces shall be filled in with the information requested.

13.2 Entire Bid including the Letters of Bid and filled-up Activity Schedule shall be submitted online on e-procurement system specified in ITB 8.1. Details and process of online submission of the tender and relevant documents are given in the website mentioned above. Scanned copies of documents listed in ITB clauses 12 and 13.3 should also be uploaded on this website.

13.3 **Submission of Original Documents:** The bidders are required to separately submit (i) original demand drafts towards the cost of bid document and registration on e-procurement website (if not previously registered) (as per RFB); and (ii) original bid security in approved form; and (iii) original affidavit regarding correctness of information furnished with bid document, with the office **specified in the BDS**, before the opening of the technical part of the Bid, either by registered/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened. Hard copy of rest of the bid or any other document are not to be submitted.

### **14. Alternative Bids**

14.1 Unless otherwise **indicated in the BDS**, alternative Bids shall not be considered. If alternatives are permitted, only the technical alternatives, if any, of the Most Advantageous Bidder shall be considered by the Employer.

14.2 When alternative times for completion are explicitly invited, a statement to that effect will be **included in the BDS** and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.

14.3 When **specified in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Services, and such parts will be **identified in the BDS**, as will be the method for their evaluating, and described in Section VII, Employer's Requirements.

**15. Bid Prices and Discounts**

15.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Bid – Financial Part and in the Activity Schedule(s) shall conform to the requirements specified below.

15.2 All lots (contracts) and items must be listed and priced separately in the Activity Schedule(s). Bidders bidding for this contract together with other contracts stated in the IFB will so indicate in the bid together with any discounts offered for the award of more than one contract, provided the Bids for all lots (contracts) are submitted and opened at the same time.

15.3 The Contract shall be for the Services, as described in Appendix A to the Contract and in the Specifications (or Terms of Reference), based on the priced Activity Schedule submitted by the Bidder.

15.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid – Financial Part in accordance with ITB 13.1.

15.5 The Bidder shall fill in rates and prices for all items of the Services described in the Specifications (or Terms of Reference), and listed in the Activity Schedule in Section VII, Employer's Requirements. Items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Activity Schedule. Corrections, if any, can be carried out by editing the information before electronic submission on e-procurement portal.

15.6 All duties, taxes, and other levies payable by the Service Provider under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the rates, prices and total Bid price submitted by the Bidder.

15.7 If provided for **in the BDS**, the rates and prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract in accordance with and the provisions of Clause 6.6 of the General Conditions of Contract and/or Special Conditions of Contract. The Bidder shall submit with the Bid all the information required under the Special Conditions of Contract and the General Conditions of Contract.

15.8 For the purpose of determining the remuneration due for additional

Services, a breakdown of the lump-sum price shall be provided by the Bidder in the form of Appendices D and E to the Contract.

15.9 Bidders may like to ascertain availability of tax/duty exemption benefits available in India to the contracts financed under World Bank loan/credits. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the bidder (Service Provider). Where the bidder has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India's relevant Notifications as per the declaration format.

To the extent the Employer determines the quantities indicated therein are reasonable keeping in view the specifications/performance requirements, proposed work method and schedule, the certificates will be issued within 60 [sixty] days of signing of contract and no subsequent changes will be permitted. No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement.

The bids which do not conform to the above provisions will be treated as non-responsive and rejected. Any delay in procurement of the construction equipment/ machinery/goods as a result of the above shall not be a cause for granting any extension of time.

**16. Currencies of Bid and Payment**

16.1 The lump sum price shall be quoted by the Bidder, and shall be paid for by the Employer, entirely in Indian Rupees.

**17. Documents Establishing Conformity of Services**

17.1 To establish the conformity of the Non-Consulting Services to the bidding document, the Bidder shall furnish as part of its Bid the documentary evidence that Services provided conform to the technical specifications and standards specified in Section VII, Employer's Requirements.

17.2 Standards for provision of the Non-Consulting Services are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality provided that it demonstrates, to the Employer's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Employer's Requirements.

**18. Documents Establishing**

18.1 To establish their eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid – Technical Part, included in Section IV,

**the Eligibility  
and  
Qualifications  
of the Bidder**

Bidding Forms.

- 18.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its Bid is accepted shall establish to the Employer's satisfaction that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.
- 18.3 All Bidders shall provide in Section IV, Bidding Forms, a preliminary description of the proposed methodology, work plan and schedule.

**19. Period of  
Validity of  
Bids**

- 19.1 Bids shall remain valid for the Bid Validity period **specified in the BDS**. The Bid Validity period starts from the date fixed for the Bid submission deadline date (as prescribed by the Employer in accordance with ITB 23.1). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
- 19.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 20, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 19.3.
- 19.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity period, the Contract price shall be determined as follows:
- (a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor **specified in the BDS**;
  - (b) in the case of adjustable price contracts, no adjustment shall be made; or
  - (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

**20. Bid Security**

- 20.1 If **required in the BDS**, the Bidder shall furnish as part of the Technical part of its Bid, a Bid security in original form, and in the amount **specified in the BDS**.

20.2 Not used.

20.3 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security shall be in Indian Rupees or a freely convertible currency, and shall at the Bidder's option:

- (a) be in the form of either a certified check, demand draft, letter of credit, or an unconditional guarantee issued by a nationalized/scheduled bank located in India in the form given in Section IV, or another security **specified in the BDS**;
- (b) if the unconditional guarantee is issued by an institution located outside India, it shall be counter signed by a nationalized/scheduled bank located in India, to make it enforceable;
- (c) be in the form of Fixed Deposit/Time Deposit certificates issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values, provided it is pledged in favour of the agency **named in BDS** and such pledging has been noted and suitably endorsed by the bank issuing the deposit certificate;
- (d) be payable promptly upon written demand by the Employer in case the conditions listed in ITB Clause 20.7 are invoked;
- (e) remain valid for forty five (45) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 19.2.

20.4 If a Bid Security is specified pursuant to ITB 20.1, any Bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.

20.5 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 48.

20.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security.

20.7 The Bid Security may be forfeited:

- (a) if a Bidder withdraws/modifies/substitutes its Bid during the period of Bid validity specified by the Bidder in the Letter of Bid - Technical Part and repeated in Letter of Bid - Financial Part, or any extension thereto provided by the Bidder; or if the Bidder does not accept the correction of its Bid Price pursuant to ITB Sub-Clause 36; or

- (b) if the successful Bidder fails to:
  - (i) sign the Contract in accordance with ITB 47; or
  - (ii) furnish a performance security in accordance with ITB 48.

20.8 The Bid Security of a JV must be in the name of the JV that submits the Bid. If the JV has not been legally constituted into a legally enforceable JV at the time of Bidding, the Bid security shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 12.2.

20.9 If a Bid Security is not required in the BDS, pursuant to ITB 20.1, and

- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid - Technical Part and repeated in Letter of Bid - Financial Part; or if the Bidder does not accept the correction of its Bid Price pursuant to ITB Sub-Clause 32; or

(b) if the successful Bidder fails to:

- (i) sign the Contract in accordance with ITB 47; or
- (ii) furnish a performance security in accordance with ITB 48;

the Borrower may, if **provided for in the BDS**, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as **stated in the BDS**.

## **21. Format and Signing of Bid**

21.1 The Bidder shall prepare the Bid as per details given in ITB 22.

21.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business.

21.3 The Bid shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be uploaded along with the Bid.

21.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

21.5 Documents establishing authority to sign the bid on behalf of the JV shall be uploaded along with the Bid.

## D. Online Submission of Bids

### 22. Preparation of Bids

- 22.1 Bids, both Technical and Financial Parts, shall be submitted online on the e-procurement system specified in BDS 8.1. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Request for Bids under this Project is published on this website. Any citizen or prospective bidder can logon to this website and view the Request for Bids and can view the details of works for which bids are invited. A prospective bidder can submit its bid online; however, the bidder is required to have enrolment/registration in the website, and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token obtained from any certifying agency authorised by the Government of India (for class of DSC **specified in BDS**). The bidder should register in the website using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the website. The bidder can then login the website through the secured login by entering the password of the e-token & the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and submit the specified documents, alongwith the bid, otherwise the bid will be rejected.
- 22.2 The completed bid comprising of documents indicated in ITB 12, should be uploaded on the e-procurement portal along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copy of the bid security.
- 22.3 All the documents are required to be signed digitally by the bidder. After electronic on line bid submission, the system generates a unique bid identification number which is time stamped as per server time. This shall be treated as acknowledgement of bid submission.
- 22.4 Physical, e-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive.

### 23. Deadline for Submission of Bids

- 23.1 Bids must be uploaded online no later than the date and time **specified in the BDS**.
- 23.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 9, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall



thereafter be subject to the deadline as extended.

**24. Late Bids**

24.1 The electronic bidding system would not allow any late submission of bids after due date & time as per server time.

**25. Withdrawal, Substitution and Modification of Bids**

25.1 Bidders may modify their bids by using the appropriate option for bid modification on e-procurement portal, before the deadline for submission of bids. For this the bidder need not make any additional payment towards the cost of bid document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential re-submission of bids is allowed any number of times. A bidder may withdraw his bid by using the appropriate option for bid withdrawal, before the deadline for submission of bids, however, if the bid is withdrawn, re-submission of the bid is not allowed (or allowed **if specified in BDS**).

25.2 Bids requested to be withdrawn in accordance with ITB 25.1 shall not be opened.

25.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid (Technical Part and repeated in Letter of Bid - Financial Part) or any extension thereof. This will result in the forfeiture of the Bid Security pursuant to ITB 20.7.

**26. Public Opening of Technical Parts of Bids**

26.1 The Employer shall, at the Bid opening, publicly open Technical Parts of all Bids received by the deadline at the date, time and place **specified in the BDS** in the presence of Bidders' designated representatives and anyone who choose to attend, and this could also be viewed by the bidders online. The Financial Parts of the bids shall remain unopened in the e-procurement system, until the subsequent public opening, following the evaluation of the Technical Parts of the Bids. In all cases, original documents submitted as specified in ITB 13.3 shall be first scrutinized, and Bids that do not comply with the provisions of ITB 13.3 will be declared non-responsive and will not be opened. Thereafter bidder's names, and such other details as the Employer may consider appropriate will be notified, online as Technical Part of bid opening summary.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

26.2 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Technical Parts of Bids, and alternative bids – technical parts if permitted in ITB 14, that are opened at Bid opening of Technical Parts shall be considered further for evaluation.

## **E. Evaluation and Comparison of Bids – General Provisions**

**27. Confidentiality** 27.1 Information relating to the examination, evaluation, comparison, and post-qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Contract Award is transmitted to all Bidders in accordance with ITB 45.

27.2 Any effort by a Bidder to influence the Employer in the examination, evaluation, comparison, and post-qualification of Bids or contract award decisions may result in the rejection of its Bid.

27.3 Notwithstanding ITB 27.2, from the time of Bid opening to the time of Contract Award, if any Bidder wishes to contact the Employer on any matter related to the Bidding process, it should do so in writing.

**28. Clarification of Bids** 28.1 To assist in the examination, evaluation, and comparison of Bids, and qualification of the Bidders, the Employer may, at the Employer's discretion, ask any Bidder for clarification of its Bid including breakdowns of the prices in the Activity Schedule, and other information that the Employer may require. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.

28.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

**29. Deviations, Reservations,** 29.1 During the evaluation of Bids, the following definitions apply:

**and Omissions**

- (a) “Deviation” is a departure from the requirements specified in the bidding document;
- (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- (c) “Omission” is the failure to submit part or all of the information or documentation required in the bidding document.

**30. Nonconformities, Errors and Omissions**

- 30.1 Provided that a Bid is substantially responsive, the *Employer* may waive any nonconformities in the Bid which do not constitute a material deviation, reservation or omission.
- 30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner **specified in the BDS**.

**F. Evaluation of Technical Parts of Bids**

**31. Evaluation of Technical Parts**

- 31.1 In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in ITB 32, ITB 33, and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted.

**32. Determination of Responsiveness**

- 32.1 The Employer’s determination of a Bid’s responsiveness is to be based on the contents of the Bid itself, as defined in ITB 12.
- 32.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
  - (a) if accepted, would:
    - (i) affect in any substantial way the scope, quality, or performance of the Non-Consulting Services specified in the Contract; or
    - (ii) limit in any substantial way, inconsistent with the bidding

document, the Employer's rights or the Bidder's obligations under the Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

32.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 17 and ITB 18, in particular, to confirm that, all requirements of Section VII, Employer's Requirements have been met without any material deviation or reservation, or omission.

32.4 If a Bid is not substantially responsive to the requirements of bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

### **33. Qualification of the Bidder**

33.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated cost and substantially responsive Bid is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

33.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 18. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors or any other firm(s) different from the Bidder that submitted the Bid.

33.3 If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Bid shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

33.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have the Financial Parts of their Bids opened at the second public opening.

### **G. Public Opening of Financial Parts of Bids**

#### **34. Public Opening of Financial Parts**

34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:

(a) the grounds on which their Technical Part of Bid failed to meet the

requirements of the bidding document;

- (b) their Financial Part of Bid shall not be opened; and
- (c) notify them of the date and time for public opening of Financial Parts of the Bids. Financial Parts of the bids shall not be opened earlier than seven (7) days from the communication of technical evaluation results to the bidders.

34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:

- (a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;
- (b) their Financial Part of Bid will be opened at the public opening of the Financial Parts; and
- (c) notify them of the date and time of the second public opening of the Financial Parts of the Bids, **as specified in the BDS.**

34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bids shall be opened publicly in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The bidder's names, the Bid prices, the total amount of each bid, per lot (contract) if applicable, including any discounts, and such other details as the Employer may consider appropriate, will be notified online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

34.4 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Financial Parts of Bids, Financial Parts of Alternative Parts, if permitted, and discounts that are opened at Bid opening shall be considered further for evaluation.

## **H. Evaluation of Financial Parts of Bids**

### **35. Evaluation of Bids**

35.1 In evaluating the Financial Part of each Bid, the Employer will determine for each Bid the evaluated Bid cost by adjusting the Bid price as follows:

- (a) evaluation will be done for Items or Lots (contracts), as specified in the AITB; and the Bid Price as quoted in accordance with ITB 15;
- (b) price adjustment due to discounts offered in accordance with ITB 15.4;
- (c) not used;
- (d) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;
- (e) excluding provisional sums and the provision, if any, for contingencies in the Activity Schedule but including Daywork, when requested in the Specifications (or Terms of Reference); and
- (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.

35.2 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

35.3 If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Letter of Bid – Financial Part, is specified in Section III, Evaluation and Qualification Criteria.

<b>36. Correction of Arithmetical Errors</b>	36.1 The e-procurement system automatically calculates the total amount from unit rates and quantities, and the system also automatically populates the amount in words from the amount in figures, and therefore there is no scope of discrepancy and need for arithmetic correction.
<b>37. Conversion to Single Currency</b>	37.1 Not used.
<b>38. Margin of Preference</b>	38.1 Not Applicable.
<b>39. Comparison of Financial Parts of Bids</b>	39.1 The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.1 to determine the Bid that has the lowest evaluated cost.
<b>40. Abnormally Low Bids</b>	40.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably

low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.

40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer, unless otherwise **specified in the BDS**, shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

40.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.

**41. Employer's  
Right to  
Accept Any  
Bid, and to  
Reject Any or  
All Bids**

41.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all documents submitted and specifically, Bid securities, shall be promptly returned to the Bidders.

**42. Standstill  
Period**

42.1 Standstill Period shall not apply.

*[Note 1: where it is proposed to permit Standstill Period, incorporate all changes as indicated in Attachment 3 at the end of this document.*

*Note 2: Standstill period shall not apply where only one bid is submitted or where the bidding process is in response to an emergency situation recognized by the Bank].*

**43. Notice On  
Intention to  
Award**

43.1 Not used.

**I. Award of Contract**

**44. Award  
Criteria**

44.1 Subject to ITB 41, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:

- (a) substantially responsive to the bidding document; and
- (b) the lowest evaluated cost.

**45. Notification of  
Award**

45.1 Prior to the expiration of the Bid Validity Period, the Employer shall notify the successful Bidder, in writing, that its Bid has been

accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Employer will pay the Service Provider in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).

45.2 At the same time, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Employer;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) name of Bidders whose Bids were rejected and the reasons for their rejection; and
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope.

45.3 The Contract Award Notice shall be published on a National website (GoI website <http://tenders.gov.in> or GoI Central Public Procurement Portal <https://eprocure.gov.in/cppp/>) or on the Employer’s website with free access if available, or in the official gazette.

45.4 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

**46. Debriefing by the Employer**

46.1 Not used.

**47. Signing of Contract**

47.1 Promptly upon Notification of Award, the Employer shall prepare the Contract Agreement, and keep it ready in the office of the Employer for the signature of the Employer and the successful Bidder, within 21 days following the date of Letter of Acceptance. The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder.

47.2 Within twenty-one (21) days of receipt of Letter of Acceptance, the successful Bidder shall (a) furnish the performance security in accordance with ITB Clause 46, and revised methodology for delivery of services; (b) if the successful bidder is a JV, it shall also furnish the JV



agreement duly signed by all the members, if it had submitted only a letter of intent to execute the JV agreement along with the bid; and (c) shall sign, date and return the Agreement to the Employer along with the documents stated at (a) and (b) above.

**48. Performance Security**

48.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security, if required, in Indian Rupees, in accordance with the GCC 3.9, and in the amount and form **stipulated in the BDS**.

48.2 If the Performance Security furnished by the successful Bidder is in the form of a Bank Guarantee, it shall be issued at the Bidder's option, by a nationalized/ scheduled bank located in India, or by a foreign bank acceptable to the Employer, through a correspondent bank located in India. The performance security of a Joint Venture shall be in the name of the joint venture.

48.3 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.

**49. Adjudicator**

49.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator under the Contract, at the daily rate **specified in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If, in the Letter of Acceptance, the Employer has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Special Conditions of Contract at the request of either party.

## SECTION II. BIDDING DATA SHEET

The following specific data for the Non-Consulting Services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

<b>A. General</b>																	
<b>ITB 1.1</b>	<p>The reference number of the Request for Bids (RFB) is : T-2371/15-C-NHP (0.25M DEM-Tripura Nagaland)Coll I Dated 16.12.21                      The Employer is:                      Surveyor General of India,                      Survey of India                      Hathibarkala Estate, Dehra Dun (U.K)                      Telephone: +91-135-2743331, +91-135-2744064                      Facsimile number: +91-135-2743331, +91-135-2744064                      Email: <a href="mailto:sgo.soi@gov.in">sgo.soi@gov.in</a></p> <p>The number and identification of lots (contracts) comprising this RFB is: <b>2 Lots</b></p>																
<b>ITB 1.1</b>	<p>The name of the Services is:  <i>Provision of Services for Acquisition, Processing and Delivery of DTM &amp; Digital Ortho Image using UAS/DRONE LiDAR Sensor in the State of Tripura &amp; Nagaland under National Hydrology Project.</i></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 8%;">Item No.</th> <th style="width: 42%;">Description of Services</th> <th style="width: 8%;">Lot</th> <th style="width: 22%;">Description</th> <th style="width: 20%;">Approx Area (in Sq. Km)</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center; vertical-align: middle;">1.</td> <td rowspan="2" style="vertical-align: top;">PROVISION OF SERVICES FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM &amp; DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA &amp; NAGALAND UNDER NATIONAL HYDROLOGY PROJECT</td> <td style="text-align: center;">Lot#1</td> <td style="text-align: center;">Tripura</td> <td style="text-align: center;">300</td> </tr> <tr> <td style="text-align: center;">Lot#2</td> <td style="text-align: center;">Nagaland</td> <td style="text-align: center;">150</td> </tr> </tbody> </table> <p># Area figures provided above and shape file uploaded with tender document is indicative. Final area shape file will be provided to the contractor at the time of award.</p>				Item No.	Description of Services	Lot	Description	Approx Area (in Sq. Km)	1.	PROVISION OF SERVICES FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA & NAGALAND UNDER NATIONAL HYDROLOGY PROJECT	Lot#1	Tripura	300	Lot#2	Nagaland	150
Item No.	Description of Services	Lot	Description	Approx Area (in Sq. Km)													
1.	PROVISION OF SERVICES FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA & NAGALAND UNDER NATIONAL HYDROLOGY PROJECT	Lot#1	Tripura	300													
		Lot#2	Nagaland	150													

	<p>The scope of work includes:</p> <ul style="list-style-type: none"> <li>➤ Planning and Provision of Planimetric ground control points by Multi frequency GNSS receivers in relative static positioning mode required for LiDAR survey in Hilly and plain terrains and DT leveling (if required). It includes field work, processing and computation</li> <li>➤ Planning and execution of LiDAR survey <ul style="list-style-type: none"> <li>• Obtaining flying clearances from DGCA</li> <li>• Flight planning</li> <li>• Data acquisition, Data validation, Re-flying in Gap areas,</li> <li>• Preprocessing and Post processing</li> <li>• LiDAR point classification and 0.25m RMSE DTM (linked to the elevation above mean sea level) generation with a spatial resolution of 1 m</li> </ul> </li> <li>➤ Capture and processing of RGB ortho images of the entire area surveyed at resolution of 15cm or better</li> <li>➤ QA/QC at each stage of work and for the whole work</li> <li>➤ Data management including daily incremental backup, monthly full backup of data as per the back-up plan submitted by the Contractor and approved by the Employer.</li> <li>➤ Delivery of products (hardcopy &amp; softcopy) as per list of deliverables and delivery instructions.</li> </ul>
<b>ITB 1.3</b>	The Intended Completion Date is 120 days from the date of ‘Commencement of Service’.
<b>ITB 2.1</b>	The Borrower is Government of India.
<b>ITB 2.1</b>	<p>The name of the Project is <b>National Hydrology Project</b>.</p> <p>The loan or Financing Agreement Amount and number is :175 Million US\$ IBRD Loan 8725-IN</p>
<b>ITB 4.1</b>	<p>Bids from Joint Ventures are permitted.</p> <p>(a) Maximum number of members in the Joint Venture (JV) shall be: two including lead partner.</p> <p>(b) Place where the agreement to form JV to be registered is New Delhi.</p> <p>(c) A statement to the effect that all members of the joint venture shall be jointly and severally liable for the execution of the entire Contract in</p>

	<p>accordance with the Contract terms, shall be included in the authorization nominating a Representative or member in charge, as well as in the Bid and in the Agreement [in case of a successful bid].</p> <p>(d) The joint venture agreement should define precisely the division of assignments to each member of JV. All members of JV should have active participation in the execution during the currency of the contract. This should not be varied/ modified subsequently without prior approval of the Employer.</p>
<b>ITB 4.5</b>	The list of firms debarred from participating in World Bank projects is available at: <a href="http://www.worldbank.org/debarr/">http://www.worldbank.org/debarr/</a> .
<b>B. Bidding Documents</b>	
<b>ITB 8.1</b>	<p>Electronic –Procurement System The Employer shall use the following electronic-procurement system to manage this Bidding process:</p> <p><a href="https://www.eprocure.gov.in">https://www.eprocure.gov.in</a> The electronic-procurement system shall be used to manage the following aspects of the Bidding process: issuing bidding document, submissions of Bids, opening of Bids, Any addendum etc. Requests for clarification should be received by the Employer no later than: 10 days prior to opening of technical bid.</p>
<b>ITB 9.1</b>	The addendum will appear on the e-procurement system under addendum section of <a href="https://www.eprocure.gov.in">https://www.eprocure.gov.in</a> and email notification is also automatically sent to those bidders who have started working on this tender.
<b>C. Preparation of Bids</b>	
<b>ITB 12 Documents comprising the Bid</b>	<p>Replace Clause No. 12 and its sub clause with the following:</p> <p>12.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously.</p> <p>12.2 <b>The Technical Part</b> shall contain the following:</p> <p>(a) Letter of Bid – Technical Part, in accordance with ITB Clause <b>13.7</b>;</p> <p>(b) Bid Security, in accordance with ITB Clause 20.1, if required;</p>

- (c) Alternative bids– Technical Part, if permissible, in accordance with ITB 13, the Technical Part of any Alternative Bid;
- (d) Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 19.2;
- (e) Documentary evidence in accordance with ITB Clause 5 establishing the Bidder’s qualifications to perform the contract if its bid is accepted;
- (f) Documentary evidence in accordance with ITB 5 establishing the Bidder’s eligibility to bid;

12.3 The **Financial Part** shall contain the following:

- (a) Letter of Bid – Financial Part: prepared in accordance with ITB 13.7,13.8, 13.9
- (b) Price Schedules: completed prepared in accordance with ITB 13.7,13.8, 13.9
- (c) Alternative Bid - Financial Part; if permissible in accordance with ITB 18, the Financial Part of any Alternative Bid; and

12.4 The Technical Part shall not include any financial information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part, the Bid shall be declared non-responsive.

12.5 Not applicable

12.6 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid

12.7 The Letter of Bid – Technical Part, Letter of Bid – Financial Part, and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 19.2. All blank spaces shall be filled in with the information requested.

12.8 Entire Bid including the Letter of Bid and filled-up Price Schedules shall be submitted online on e-procurement system specified in ITB 10.1. Details and process of online submission of the tender and relevant documents are given in the website mentioned above. Scanned copies of documents listed in clauses 11 and 12.3 should also be uploaded on this website.

<b>ITB 13</b>	Note for Bidders: Bidders have to submit the bids on the e-procurement portal along with the relevant required documents. For this purpose, the bidders shall fill up online, the forms that are available for online filling on the e-portal. The rest of the forms shall be downloaded by the bidders and filled up. The filled up pages shall then be scanned and uploaded on the e-procurement portal along with the scanned copies of the supporting documents.
<b>ITB 13.3</b>	<p>Submission of Original Documents: The bidders are required to separately submit (i) original payment documents towards the cost of bid document and registration on e-procurement website (if not previously registered) (as per RFB); (ii) original bid security in approved form; and (iii) original affidavit regarding correctness of information furnished with bid document, with the office specified in the BDS 20.3 , before the opening of the technical part of the Bid, either by registered/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened. Hard copy of rest of the bid is not to be submitted</p> <p>As e- procurement system is being used, there is no hard copy submission of bid. Only the hard copy of above mentioned documents are requested to be submitted. Physical submission of these documents shall be submitted by the Bidder immediately after last date of receipt of BID but before 4PM of the date 26/03/2022 ,as stipulated in IFB.</p>
<b>ITB 14.1</b>	Alternative Bids shall not be considered.
ITB 14.2	Alternative times for completion shall not be permitted.
ITB 14.3	Alternative technical solutions shall not be permitted.
ITB 15.7	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
<b>ITB 19.1</b>	The Bid shall be valid for 90 days after the deadline for Bid submission specified in the BDS.
<b>ITB 19.3</b>	<i>The factor will be 1.0007692 per week</i>
<b>ITB 20.1</b>	<p>The amount of Bid Security shall be as follows in <b>Indian National Rupee</b></p> <p>The amount and currency of the Bid Security shall be</p> <p><i>Lot I – INR 3.0 Lakh</i></p> <p><i>Lot II – INR 1.5 Lakh</i></p>
<b>ITB 20.1</b>	Bid security shall be in the form of Fixed deposit/bank guarantee from Scheduled Bank <b>in favour of Project Director, NHP, NGDC, Survey of</b>

	<p><b>India, Dehra Dun payable at Dehra Dun.</b> While submitting electronic bids, the bidder shall upload the scanned copy of bank Fixed deposit/bank guarantee and shall also send the original bank Fixed deposit/bank guarantee by post/courier/in person so as to reach latest by the last date of submission of bids to the Project Director at the address mentioned above in <b>BDS clause 9.2.</b> The details of the bank Fixed deposit/bank guarantee, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission otherwise the uploaded bid shall be rejected. Bid Security should be in favour of <b>Project Director, NHP, NGDC, Survey of India, Dehra Dun payable at Dehra Dun.</b> Other types of acceptable securities are as under;</p> <p>Bank Fixed deposit/bank guarantee from Scheduled Bank.</p>
<b>ITB 20.8</b>	The bid securing declaration of a JV must be in the name of the legally enforceable JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the bid security shall be in the names of all future members, as named in the letter of intent referred.
<b>ITB 21.3</b>	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Power of Attorney
<b>ITB 22.1</b>	Class of DSC required is: Class-III
<b>ITB 23.1</b>	The deadline for uploading the Bids is: Date:[25,03, 2022 ] Time: [11:00Hrs]
<b>ITB 25.1</b>	Re-submission of the bid is not allowed, if withdrawn.
<b>ITB 26.1</b>	The online opening of Technical Parts of Bids shall take place at: ..... Date:[25,03,2022] Time: [11:30Hrs] [Date and time should be the same (or promptly thereafter) as those given for the deadline for submission of Bids ITB 23]  In the event of the specified date of bid opening being declared a holiday for

	the Employer, the bids will be opened at the appointed time and location on the next working day.										
<b>ITB 30.3</b>	The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Bids, subject to a maximum of the estimated price of the item. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.										
<b>ITB 34.2</b>	<p>Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the date, time and location of the public opening of Financial Parts of Bids.</p> <p>In addition to the above the Employer shall publish a notice of the public opening of the Financial Parts of the Bid on its website <a href="https://eprocure.gov.in">https://eprocure.gov.in</a> In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.</p>										
<b>ITB 35.1</b>	<p><b><i>Bids will be evaluated for each lot (contract) separately and multiple Contracts will be concluded with the respective successful bidder.</i></b></p> <table border="1"> <thead> <tr> <th>Item No.</th> <th>Description of Services</th> <th>Lot</th> <th>Area (in Sq. Km)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1.</td> <td rowspan="2">PROVISION OF SERVICE FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM &amp; DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA &amp; NAGALAND</td> <td>Lot#1</td> <td>300</td> </tr> <tr> <td>Lot#2</td> <td>150</td> </tr> </tbody> </table> <p><b><i>Bids will be evaluated lot by lot. Bidder can submit bid for one or more lots however price should be quoted for the complete requirement for services specified for each lot, for which he is submitting bid, as stated in ITB clause 15, failing which such bids will be treated as non-responsive.</i></b></p>	Item No.	Description of Services	Lot	Area (in Sq. Km)	1.	PROVISION OF SERVICE FOR ACQUISITION, PROCESSING AND DELIVERY OF DTM & DIGITAL ORTHO IMAGE USING UAS/DRONE LiDAR SENSOR IN THE STATE OF TRIPURA & NAGALAND	Lot#1	300	Lot#2	150
Item No.	Description of Services	Lot	Area (in Sq. Km)								
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		Lot#2	150								
<b>ITB 35.3</b>	Bidders <b>shall</b> be allowed to quote separate prices for one or more lots. refer to Clause 2 of Section III Evaluation and Qualification Criteria, for the evaluation methodology for Multiple Contracts.										
<b>ITB 48.1</b>	The Performance Security shall be in the form of a “Bank Guarantee” in the										



	<p>name of purchaser or crossed demand draft” drawn in favor of the Deputy Director, River Data Directorate, Central Water Commission, New Delhi. Bank guarantee shall be issued or drawn on any Nationalized or Scheduled bank in India Within 21 days of Notification of Award, the supplier shall furnish Performance Security to the Purchaser for an amount of 5% of the contract value, valid up to 60 days after the date of completion of performance obligations. In the event of any contractual amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for 60 days after the completion of performance obligations.</p>
<b>ITB 49</b>	<p>The Adjudicator proposed by the Employer is -----</p> <p>The daily rate for this proposed Adjudicator shall be Rs 10,000 per day.</p>

## **Section III - Evaluation and Qualification Criteria**

*This Section complements the Instructions to Bidders. It contains the criteria that the Purchaser shall use to evaluate a bid and determine whether a Bidder qualifies in accordance with criteria specified in this bidding document. No other criteria shall be used.*

### **Contents**

1. Evaluation Criteria (ITB 35)
2. Multiple Contracts (ITB 35.3)
3. Qualification Requirements (ITB 33)

## **1. Evaluation Criteria (ITB 35)**

The Employer shall determine the Most Advantageous Bid, which is the Bid of the Bidder whose Technical Parts have been evaluated as substantially responsive to the bidding document and met the Qualification Criteria and whose Bid has been determined to be the lowest evaluated cost after considering total prices of all items of the Services described in the in Specifications, and listed in the Activity Schedule in Section VII, Schedule of Requirements and all duties, taxes, and other levies payable by the Service Provider under the Contract.

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Schedule of Requirements.

## **2. Multiple Contracts (ITB 35.3)**

The Purchaser shall award multiple contracts to the Bidder that offers the lowest evaluated combination of bids (one contract per bid) and meets the qualification criteria (this Section III, Sub-Section 3 Qualification Criteria (ITB 33.1)

The Purchaser shall:

- (a) Evaluate only lots or contracts for which rate/ price quoted for all items of the Services described in the ITB 15.5
- (b) Take into account:
  - (i) the lowest-evaluated bid for each lot and
  - (ii) the price reduction per lot and the methodology for its application as offered by the Bidder in its bid

## **3. Qualification Criteria (ITB 33)**

The Purchaser shall assess each Bid against the following Qualification Criteria Requirements for selection of agency for carrying out UAS/Drone mounted LiDAR Survey:

- A. The Bidder's Assets (equipment and technically qualified manpower)
- B. Bidder's Credentials (Turn Over & Work Experience)
- C. Methodology, Work Plan and Organization Staff Plan in response to the Terms of Reference:

### **A. The Bidder's Assets**

#### **a) Instrument and Software-**

- a. UAS/Drone mounted LiDAR – Minimum 1 nos for each lot (DGCA registration details, along with DAN nos. to be submitted)
- b. Minimum One Aerial LiDAR Scanner with range at least 120m or more from AGL, with IMU, GPS and associated Control Units as per equipment specifications in LiDAR mounted UAS/Drone Specifications (minimum 01 no. for each lot) (regarding ownership, copy of invoice in case of local purchase, copy of bill of entry in case of import in the name of agency to be enclosed)
- c. GNSS (multy frequency, at least 200 channels and above) (minimum 02 sets for each lot) (regarding ownership, copy of invoice in case of local purchase, copy of bill of entry in case of import in the name of agency to be enclosed)
- d. High End Workstations (minimum 2 nos. for each lot)
- e. Middle/Entry level Workstations: (minimum 2 nos. for each lot )
- f. Network Storage System : 1(one) no. of Minimum 20 TB for each lot
- g. Backup Device : 1(one) no. of Minimum 20 TB for each lot
- h. Servers: 1 nos.
- i. Minimum 1 nos. of each lot Software of Flight planning, Monitoring and Preprocessing & minimum 1 nos. each lot of post processing and for DTM and similar to
  - LiDAR Trajectory Pre-processing software.
  - Terrascan /Terrasolid/Point Tool/ or similar Post-Processing software.
  - Arc GIS or similar image processing software.

**b) Manpower:**

The minimum Qualification and number of key- personnel proposed to be deployed in the Project should be as follows. The numbers stated are the minimum required for qualification. Bidder/Service provider shall deploy sufficient additional resources as required to meet the timelines during actual execution.

For the purpose of this Bid Document, Key Personnel shall include:

- a. *Project Manager: At least 1 (one) for each lot Project Manager with minimum 2 years in LiDAR working projects of similar nature & complexity.*
- b. *Operator/Pilot: Minimum 2(two) for each lot Pilot with Pilot license for Drone flying from DGCA approved Training*
- c. *Supervisor: At least 1 (One) for each lot supervisors with minimum 2 years in LiDAR works in projects of similar nature & complexity.*
- d. *Operator - Pre-processing of raw data: Minimum 2 (Two) for each lot Technical Persons with minimum 2 years experience in pre-processing raw data & on-board GNSS/IMU data in projects of similar nature & complexity with use of LiDAR.*
- e. *Operator- Post-processing for DTM : At least 2 (Two) for each lot technical persons having minimum two years experience in DTM post-processing in projects of similar nature & complexity with use LiDAR.*
- f. *Ground Controller: At least 2 (Two) for each lot technical persons having minimum two years experience in GNSS observations and computation/processing.*

- g. *System Manager cum Data Manager: At least 1 (One) for each lot technical persons having minimum 2 years of experience in system management & Data Management in Data Production Centre.*
- h. *QA/QC Expert: At least minimum least 1 (One) for each lot persons having at least two years experience in post-processing of data in projects of similar nature & complexity with use LiDAR.*
- (g) *Operator--Post-Processing for Digital Ortho- Imagery: For every lot, at least 1(one) technical persons having minimum two years experience in post-processing Ortho-imagery in projects of similar nature & complexity with use of same technology proposed by bidder in method statement .*

**B. Bidder's Credentials:**

(a) Financial Capability

The Bidder shall furnish documentary evidence that it meets the following financial requirement(s):

- a. The Minimum required annual turnover in any one of the last three(3) Financial Years i.e.2017-18 to 2019-20shall be INR 2.0 (Two) crore or an equivalent amount in other currency for each lot. The bidder should also submit the concerned documents in support of the above to the satisfaction of the purchaser.
- b. Should possess GST Registration. Foreign OEMs who are directly participating in bidding process are not required to have GST registration.
- c. Capacity to have a cash flow: The bidder must provide a letter from a reputed Nationalized / Scheduled Bank stating the availability of liquid assets and/or credit facilities exclusively for the contract only, of not less than INR 1.0 (one) Crore for each lot. In case of Foreign Manufactures, undertaking from OEM regarding "availability of sufficient cash flow to meet project execute contract" will be acceptable, however it should be substantially supported by financial assets and turnover shown in annual statement/report or audit report.

Notes:

- a. The financial turnover will be taken as given under the head "Income" in audited Profit and Loss Account and excluding non-recurring income, income from other sources and stock. It is clarified that the Financial Turnover means relevant revenue as recorded in the Income side of Profit and Loss Account. It does not mean Profit.
- b. Closing stocks in whatsoever manner should not form part of turnover.
- c. The Bidder should furnish Annual Financial Turnover for each of the last 3 Financial Years in tabular form and give reference of the document

(with page no.) relied upon in support of meeting the Qualification Criterion.

- d. The Bidder should submit self-attested copy of Auditor's Report along with Balance Sheet and Profit and Loss Statement along with Schedules for the relevant Financial Year in which the minimum criterion is met. Provisional audit reports or certified statements will not be accepted.
- e. If the Audited Balance Sheet for the immediately preceding year is not available in case of tender opened before 30th Sept., audited Balance Sheets, Profit and Loss Statements and other financial statements of the three Financial Years may be adopted for evaluating the credentials of the Bidder.

(b) Work Experience:

- (i) The experience required to be demonstrated by the Bidder should include as a minimum that he has executed during the last 5 years the following:

Bidder must have experience as service provider in the provision of at least one service contract in Aerial LiDAR Survey of similar nature and complexity and having a minimum value of Rs 0.5 crores over the last 5 years. The Service Contract cited must necessarily include all activities viz. acquisition of raw data by LiDAR, pre-processing of raw data and post-processing of pre-processed data for acquisition of DEM.

OR

Bidder must have experience as service provider in the provision of at least two service contracts in Aerial LiDAR Survey of similar nature and complexity and having a minimum value of Rs. 0.25 crores over the last 5 years. The two Service Contracts taken together must necessarily include all activities viz. acquisition of raw data by LiDAR, pre-processing of raw data and post-processing of pre-processed data for acquisition of DEM.

Notes:

- a. Only such works shall be considered where physical completion of entire work is over or commissioning of work has been done, whichever is earlier.
- b. The Bidder should submit the details of such similar completed works as per the format enclosed.
  - Name and address of client with contact details as email address/ Phone No.
  - Contract No. and Date.
  - Scheduled completion date and actual completion date.
  - Details of Complaint, if any, received from the purchaser about the performance of the Equipment/items.

- c. Works carried out by another Contractor on behalf of the Bidder on a back-to-back basis will not be considered for satisfaction of the Qualification Criterion by the Bidder.
  - d. Credential certificates issued by Government Organizations / Semi Government Organizations of Central or State Government; or by Public Sector Undertakings/ Autonomous Bodies of Central/State Government or their subsidiaries / by Public Ltd. Companies listed in Stock exchange in India or Abroad or subsidiaries of such companies shall only be accepted for assessing the eligibility of a Tenderer. Certificates issued by one of the aforesaid organizations as a lead member (having equity stake of 51% or more) of a Joint Venture (JV) for a work executed for the JV, will also be acceptable. In case of PPP projects, if the bidder has executed a work for a concessionaire who is one of the aforesaid organizations, then the certificate issued by such concessionaire or by the public authority concerned, will also be acceptable.
  - e. The cutoff date shall be 31/03/2021.
- (iii) The bidder should provide profile of their company including its Infrastructure, technical manpower and their expertise.
  - (iii) The bidder may be an Indian or Foreign company but must have office and firm arrangement in India to provide support as well as comprehensive management of work.
  - (iv) The bidder should submit the details of agreements entered into with various manufacturers/partners for the equipment and providing services and their experience to meet the qualification & experience criterion for the turn-key solution.
  - (v) In case of subcontracting work, the bidder shall be solely responsible for the deliverables from these subcontractors and under no circumstances shall transfer the sub contractor's liabilities to the employer. The subcontractor should have requisite qualification and experience to execute the job to the satisfaction of the employer. The bidder is to give the name of the subcontractor / arrangement for the job in the bid in such cases.
  - (vi) The figures for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of ITB however, for a joint venture to qualify the partner in charge must meet at least 70 percent of those minimum criteria for an individual Bidder and other partner at least 40% of the criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid. Subcontractors' experience and resources will be taken into account in determining the Bidder's compliance with the qualifying criteria only for activities that are permitted for subcontracting as per viz. Activities at Sl No.3(14)/Section V, provided such activities are proposed for sub-contracting in the Work Plan & Schedule /Section III submitted as part of bid.





# SECTION IV. BIDDING FORMS

## Table of Forms

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## 1A. Letter of Bid – Technical Part

**INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT**

*The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.*

Note: *All italicized text is to help Bidders in preparing this form.*

**Date of this Bid submission:** *[insert date (as day, month and year) of Bid submission]*

**RFB No.:** *[insert number of RFB process]*

**Alternative No.:** *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 9;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Conformity:** We offer to provide the Non-Consulting Services in conformity with the bidding document for the following: *[insert a brief description of the Non-Consulting Services]*;
- (d) **Bid Validity Period:** Our Bid shall be valid for the period specified in BDS 19.1 (as amended if applicable) from the date fixed for the Bid submission deadline (specified in BDS 23.1 (as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
- (f) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other Bid(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 14;
- (g) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World

Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;

(h) **State-owned enterprise or institution:** *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]* / *[We are a state-owned enterprise or institution but meet the requirements of ITB 4.6];*

(i) *Deleted.*

(j) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(k) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive;

(l) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;

(m) We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India on date namely "Prevention of Corruption Act 1988";

(n) We accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator

*[or]*

We do not accept the appoint of *[insert name proposed in Bid Data Sheet]* as the Adjudicator and propose instead that *[insert name]* be appointed as Adjudicator whose daily fees and biographical data are attached; and

(o) If awarded the contract, the person named below shall act as Service Provider's Representative:

---

**Name of the Bidder:** *\*[insert complete name of person signing the Bid]*

**Name of the person duly authorized to sign the Bid on behalf of the Bidder:** *\*\*[insert complete name of person duly authorized to sign the Bid]*

**Title of the person signing the Bid:** *[insert complete title of the person signing the Bid]*

**Signature of the person named above:** *[insert signature of person whose name and capacity are shown above]*

**Date signed** *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

## 1B. Letter of Bid – Financial Part

**INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT**

*The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.*

*Note: All italicized text is to help Bidders in preparing this form.*

**Date of this Bid submission:** *[insert date (as day, month and year) of Bid submission]*

**RFB No.:** *[insert number of RFB process]*

**Alternative No.:** *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned Bidder, hereby submit the second part of our Bid, the Financial Part

In submitting our Financial Part we make the following additional declarations:

(a) **Bid Validity Period:** Our Bid shall be valid for the period specified in BDS 19.1 (as amended if applicable) from the date fixed for the Bid submission deadline (specified in BDS 23.1 (as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(b) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (c) below is: *[Insert one of the options below as appropriate]*

Option 1, in case of one lot: Total price is: *[insert the total price of the Bid in Rs in words and figures]*;

Or

Option 2, in case of multiple lots: (a) Total price of each lot *[insert the total price of each lot in Rs in words and figures]*; and (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in Rs in words and figures]*;

(c) **Discounts:** The discounts offered and the methodology for their application are:

(i) The discounts offered are: *[Specify in detail each discount offered.]*

(ii) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*; \_\_\_\_\_:

(d) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount in Rs of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

*(If none has been paid or is to be paid, indicate “none.”)*

(e) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed.

**Name of the Bidder:** *\*[insert complete name of person signing the Bid]*

**Name of the person duly authorized to sign the Bid on behalf of the Bidder:** *\*\*[insert complete name of person duly authorized to sign the Bid]*

**Title of the person signing the Bid:** *[insert complete title of the person signing the Bid]*

**Signature of the person named above:** *[insert signature of person whose name and capacity are shown above]*

**Date signed** *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

## Appendix to Technical Part

### Form-2(A) Bidder Information Form

*[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of Bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. In case of JV, legal name of each member : <i>[insert legal name of each member in JV]</i>
3. Bidder's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Bidder's actual or intended year of registration: <i>[insert Bidder's year of registration]</i>
5. Bidder's legal Address in country of registration: <i>[insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information  Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i>  <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> <li>• Legal and financial autonomy</li> <li>• Operation under commercial law</li> </ul>

- Establishing that the Bidder is not under the supervision of the agency of the Employer  
Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.



## Appendix to Technical Part

### Form-2(B) Bidder's JV Members Information Form

(Where permitted as per BDS ITB 4.1)

*[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture]].*

Date: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of Bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Bidder's Name: <i>[insert Bidder's legal name]</i>
2. Bidder's JV Member's name: <i>[insert JV's Member legal name]</i>
3. Bidder's JV Member's country of registration: <i>[insert JV's Member country of registration]</i>
4. Bidder's JV Member's year of registration: <i>[insert JV's Member year of registration]</i>
5. Bidder's JV Member's legal address in country of registration: <i>[insert JV's Member legal address in country of registration]</i>
6. Bidder's JV Member's authorized representative information Name: <i>[insert name of JV's Member authorized representative]</i> Address: <i>[insert address of JV's Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Member authorized representative]</i> Email Address: <i>[insert email address of JV's Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Appendix to Technical Part

### Form-3(A) Qualification Information

#### Notes on Form of Qualification Information

The information is to be filled in by individual bidders and by each member of Joint Venture in case of JV participating in the Bid. The following pages will be used for purposes of post-qualification as provided for in Clause 5 of the Instructions to Bidders. This information will not be incorporated in the Contract. Attach additional pages as necessary.

**1. Individual Bidders or Individual Members of Joint Ventures**

1.1 Constitution or legal status of Bidder: *[attach copy]*

Place of registration: *[insert]*

Principal place of business: *[insert]*

Power of attorney of signatory of Bid: *[attach]*

1.2 Total annual volume of Services performed in five years, and payments received in the last five years preceding the year in which bids are invited. (*Attach certificate from Chartered Accountant*):

Year	(Rs. In INR)
20 -20	
20 -20	
20 -20	
20 -20	
20 -20	

1.3 Services performed as prime Service Provider (*in the same name and style*) on the provision of Services of a similar nature and volume over the last five years. Also list details of Services under way or committed, including expected completion date. [*Attach certificate from the Engineer-in-charge.*]

**(A) Services performed as prime Service Provider** (*in the same name and style*) on providing services of a similar nature and volume over the last five years<sup>1</sup>. [*Attach certificate from the Engineer-in-charge.*]

Project	Name of	Description	Contract	Value	Date	Stipulated	Actual	Remarks
---------	---------	-------------	----------	-------	------	------------	--------	---------

<sup>1</sup> Immediately preceding the financial year in which bids are received.

Name	Employer	of Service	No.	of contract	of Issue of Work Order	Date of Completion	Date of Completion	explaining reasons for Delay, if any

**(B) Activities executed as prime Service Provider (in the same name and style) in the last five years:<sup>2</sup>**

Year	Name of the Work	Name of Employer*	Quantity of activities performed@			Remarks* (indicate contract Ref)
			1	2	3	
20---20—						
20---20—						
20---20—						
20---20—						
20---20—						

[@ The items or activities for which date is requested should tally with that specified in Section III, Item 2 Qualification.

\* Attach certificates from Engineer in-charge]

1.4 Major items of Service Provider's Equipment proposed for carrying out the Services. List all information requested below.

Item of Equipment	Description	make	capacity	age (Years)	Condition	Number available	Owned	Leased	Purchased

1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer to GCC Clause 4.1.

Position	Name	Qualification	Years of experience ....	Years of experience in proposed position			
				1	2	3	Total

1.6 Proposed subcontracts and firms involved. Refer to GCC Clause

<sup>2</sup> Immediately preceding the financial year in which bids are received.

3.5.

Sections of the Services	Value of subcontract	Subcontractor (name and address)	Experience in providing similar Services
(a)			
(b)	Note : <i>The capability of the subcontractors will also be assessed (on the same lines as for the main Service Provider) before according approval to him.</i>		

1.7 Financial reports for the last five years: balance sheets, profit and loss statements, auditors’ reports, etc. List below and attach copies.

.....

1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents. We certify/confirm that we comply with eligibility requirements as per ITB 4. *[Attach a certificate from Bank in the format at the end of this section. Other. Certificate, will not be accepted]*

.....

1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.

.....

1.10 Information regarding any litigation, current or within the last five years, in which the Bidder is or has been involved.

Other party(ies)	Cause of dispute	Details of litigation award (Court or Arbitration)	Amount involved	Remarks regarding present status
a)				
(b)				

1.11 Statement of compliance with the requirements of ITB 4.2.

1.12 Proposed Program (service work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding document.

**2. Financial Standing of the Bidder**

**Financial Statements Summary:** To be submitted by each bidder including each members of JV.

<b>SUMMARY OF FINANCIAL STATEMENTS</b>
--

Name of bidder/JV Member:							
(Equivalent Rs. Million)							
S.No.	Financial Information in Rupee equivalent with exchange rate at the end of concerned year	Actuals for Previous five years excluding the current financial year					Ref. of Page Nos. of Balance sheets
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Total Assets						
2.	Total Turnover						
3.	Current Assets						
4.	Current Assets + Loan & Advances						
5.	Total Liabilities						
6.	Current Liabilities						
7.	Current liabilities & provision						
8.	Profit before Interest and Tax						
9.	Profit before Tax						
10.	Profit after Tax						
11.	Shareholder's Funds (Net Worth)=(Paid up equity +Reserves)-(revaluation reserves +						
12.	Miscellaneous						
13.	expenditure not						
14.	written off) Depreciation Current Ration (2)/(5) Net cash accruals= Profit after Tax + depreciation						

This information should be extracted from the Annual Financial Statements/ Balance sheets, which should be enclosed. Year 1 will be the latest year for which audited financial statements are available. Year 2 shall be the year immediately preceding year 1 and year 3 shall be the year immediately preceding Year 2.

**SAMPLE FORMAT( no substitute is acceptable) FOR EVIDENCE OF ACCESS TO  
OR AVAILABILITY OF CREDIT FACILITIES-\***  
**Section III, B:Technical Part, Item 2.3 [e]**

BANK CERTIFICATE

This is to certify that M/s.....is a reputed company with a good financial standing.

If the contract for the Services, namely.....[funded by the World Bank] is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. .... to meet their working capital requirements for executing the above contract.

---Sd.---

Name of Bank

Senior Bank Manager

Address of the Bank

**\* Change the text as follows for Joint Venture:**

*This is to certify that M/s. .... Who has formed a JV with M/s. .... and M/s. .... for participating in this bid, is a reputed company with a good financial standing.*

*If the contract for the Services, namely ..... [ funded by the World Bank] is awarded to the above Joint Venture, we shall be able to provide overdraft/credit facilities to the extent of Rs. .... to M/s. .... to meet the working capital requirements for executing the above contract.*

*[This should be given by the JV members in proportion to their financial participation.]*

**(To be given from a nationalized or scheduled bank in India. No other substitute will be acceptable)**

- 3. Joint Ventures**
  - 3.1 The information listed in 1.1 - 1.11 above shall be provided for each member of the joint venture.
  - 3.2 The information in 1.12 above shall be provided for the joint venture.

- 3.3 Attach the power of attorney of the signatory(ies) of the Bid authorizing signature of the Bid on behalf of the joint venture.
- 3.4 Attach the Agreement among all members of the joint venture (and which is legally binding on all members), which shows that
  - (a) all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
  - (b) one of the members will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture;
  - (c) the execution of the entire Contract, including payment, shall be done exclusively with the member in charge;
  - (d) All members of JV shall have active participation in providing services during the currency of the contract, and the division of assignments to each member shall not be varied/modified subsequently without prior approval of the Employer; and
  - (e) The joint venture agreement shall be registered in the place specified in *Section III, Item 2 Qualification*, so as to be legally valid and binding on partners.
- 3.5 Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.

**4. Additional Requirements**

- 4.1 Bidders should provide any additional information required **in the BDS.**

5. Furnish details of participation proposed in the joint venture as below:

**Details of participation in the joint venture**

<b>PARTICIPATION DETAILS</b>	<b>FIRM ‘A’ (Lead Member)</b>	<b>FIRM ‘B’</b>	<b>FIRM ‘C’</b>
Financial			

Name of the Banker(s)			
Planning			
Construction Equipment			
Key Personnel			
Execution of Services (Give details on proposed contribution of each)			



## Appendix to Technical Part

(Name of the Project)

(Declaration regarding tax/duty exemption for materials/  
equipment bought for providing the services)<sup>3</sup>

(Bidder's Name and Address)

To: .....  
(Name of the Employer &  
address)

Dear Sir:

Re: [Name of Service].....

Certificate for Import/Procurement of Goods/ Equipment

Government Order/Circular Number under which tax/duty Exemption is being sought:

.....

1. We confirm that we are solely responsible for obtaining tax/duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India's relevant Notifications.
3. The goods/construction equipment for which certificates are required are as under:

Items ( <i>modify the list suitably for each specific Service</i> )*	Make/ Brand Name	Capacity [where applicable]	Quantity	Value	State whether it will be procured locally or imported [if so from which country]	Remarks regarding justification for the quantity and their usage in providing the Services

<sup>3</sup> This declaration refers to ITB 15.9 and shall be retained only if ITB 15.9 is retained. The format may be modified as per the latest instructions of Government of India.


4. We agree that no modification to the above list is permitted after bids are opened.
5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the Services, based on the activities and the programme and methodology as furnished by us alongwith the bid.
6. We confirm that the above goods and equipment will be exclusively used for the providing the above Services and the equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: \_\_\_\_\_

(Signature) \_\_\_\_\_

Place: \_\_\_\_\_

(Printed Name) \_\_\_\_\_

(Designation) \_\_\_\_\_

(Common Seal) \_\_\_\_\_

*[This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.]*

**\* Modify the above to suit the requirements given in Government of India's Notification as current of date of bidding.**

## FORM 3B. METHOD STATEMENT

*[Bidder shall provide information and write-up as per points listed below. The bidder shall furnish the sufficient details in respect of all headings/sub-headings and documentary evidences as per format given below.]*

### 1. RAW DATA ACQUISITION & PREPROCESSING

#### A) **Technology:** Details of Technology for LiDAR data Acquisition:

- i. Workflow showing various stages of work and their inter-dependencies.
- ii. Details of Processes at every stage viz. planning, mission/flight planning, actual execution, pre-processing
- iii. Best Practices that will be adopted at each stage
- iv. Details of manual/semi-automatic/automatic QA/QC measures to be taken during/at end of each stage.
- v. Brief write up based on information provided on above points justifying the adequacy of processes and practices to meet the technical specifications stipulated in bid document for DTM (fundamental & supplementary accuracy)

**B) Equipment:** Make, model and specifications of key equipment viz. UAS/Drone, On-board GNSS, On-board IMU, Camera/Sensors for raw data acquisition, hardware & software to be used for flight planning, flight monitoring, pre-processing of raw data and justification of equipment to meet the technical specifications stipulated in bid document

#### C) **Details of Previous Work:**

- i. Key Specifications of similar work executed by the bidder listed in section III in which LiDAR Technology has been. References to be cited of Indian & International Projects (from bidder's own experience)
- ii. Brief write-up based on information provided above clearly bringing out how by suitable modifications (if any) to the Flying/Acquisition parameters the specifications stipulated in this bid document shall be met requirements of this Project

### 2. PROVISION OF GROUND CONTROL POINTS

- i. Density & distribution of Ground Stations to be established for correction to onboard GNSS
- ii. Equipment to be used for Observations

- iii. Hardware & Software to be used for computation
- iv. Description of observation methods
- v. Description of computation method
- vi. Density and distribution of check-points for Internal QA/QC, in order to meet the Fundamental & Supplemental accuracy stipulated in Section VI

### **3. POST PROCESSING**

- (i) Details of Hardware & IT Infrastructure to be set up in Production Centre justifying its adequacy to handle and store raw Data, key intermediate data, data under process and Processed Data/deliverables.
- (ii) Software to be used for Post-Processing for generating DTM
- (iii) Workflow showing various stages of Post-Processing and their interdependencies
- (iv) Details of manual/semi-automatic/automatic processes involved for vegetation correction, built-up area correction, large water-bodies etc for meeting supplemental accuracy stipulated in the bid-document
- (v) Best Practices that will be adopted at each stage
- (vi) Details of manual/semi-automatic/automatic QA/QC measures to be taken for DTM
- (vii) Brief write-up based on information provided above justifying the adequacy of hardware, software, methods & processes proposed to meet the specifications stipulated in the bid-document

## WORK PLAN & SCHEDULE

*[Bidder shall provide following information/details for their Work-Plan/Schedule. The information & details must be provided by the bidder as per format given below. The information shall be provided in sufficient detail in respect of all headings/sub-headings.]*

### **1. Resource Deployment**

- i. Activity wise Effort Estimate viz. Raw Data Acquisition & Pre-processing, Provision of Ground Control, Post-Processing
- ii. Activity wise expected out-turns
- iii. Manpower resources proposed based on effort estimate calculation & expected out-turns for all the activities
- iv. Details of resource deployment for Internal QA/QC by the bidder shall also be provided.
- v. Number of shifts proposed
- vi. Quantity of equipment UAS/Drone fitted with on-board GNSS & IMU, Camera & sensors), instruments, hardware and software for every activity.

**2. Time Schedule:** Outline the time-schedule of activities, their phasing and interrelations, milestones and delivery plan.

3. In case of JV and sub-contracting for permitted activities, the division of responsibility to each member should be clearly spelt out.
4. Bidder shall provide details of resource deployment in similar services performed by them in previous projects to justify that the proposed work plan from their previous experience
5. The work-plan, schedule and resource deployment has to be submitted separately for different lots/phase clearly bringing out the details of resources/works that are clubbed (if any).



## FORM- PRICE AND COMPLETION SCHEDULE - SERVICES

Lot No. 1

IFB No: \_\_\_\_\_

Alternative No: \_\_\_\_\_

Page No: \_\_\_\_\_ of \_\_\_\_\_

1	2	3	4	5	6	7	8	9
Service No.	Description of Services (excludes inland transportation and other services required in India to convey the goods to their final destination)	Unit	Delivery Date at place of Final destination	Quantity and physical unit	Unit price	Total Price (col 5*6)	GST and other taxes payable per item if Contract is awarded	Total Price per Service (Col. 7+8)
1	Provision of Planimetric Ground controls as well as Vertical control	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
2	Raw Data Acquisition.	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
3	Pre-processing of Raw Data	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
4	Post Processing for generation of DTM (0.25 m minimum vertical accuracy and 1 m spatial resolution) and Classified LIDAR Point cloud & other deliverables	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
5	Post Processing for generation of Digital Ortho image	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
<b>Total Bid Price</b>								

## FORM- PRICE AND COMPLETION SCHEDULE - SERVICES

Lot No. 2

IFB No: \_\_\_\_\_

Alternative No: \_\_\_\_\_

Page No: \_\_\_\_\_ of \_\_\_\_\_

1	2	3	4	5	6	7	8	9
Service No.	Description of Services (excludes inland transportation and other services required in India to convey the goods to their final destination)	Unit	Delivery Date at place of Final destination	Quantity and physical unit	Unit price	Total Price (col 5*6)	GST and other taxes payable per item if Contract is awarded	Total Price per Service (Col. 7+8)
1	Provision of Planimetric Ground controls as well as Vertical control	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
2	Raw Data Acquisition.	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
3	Pre-processing of Raw Data	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
4	Post Processing for generation of DTM (0.25 m minimum vertical accuracy and 1 m spatial resolution) and Classified LIDAR Point cloud & other deliverables	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
5	Post Processing for generation of Digital Ortho image	100% of area	At DehraDun 120 days from date of signing contract	(Sq km)				
<b>Total Bid Price</b>								



## Form 3C. Letter of Acceptance

*[letterhead paper of the Employer]*

*[date]*

To: *[name and address of the Service provider]*

This is to notify you that your Bid dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Special Conditions of Contract]* for the Contract Price of the equivalent of *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

**Note:** Insert one of the 3 options for the second paragraph. The first option should be used if the Bidder has not objected the name proposed for Adjudicator. The second option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was accepted by the Employer. And the third option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was not accepted by the Employer.

We confirm that *[insert name proposed by Employer in the Bidding Data]*,

**or**

We accept that *[name proposed by bidder]* be appointed as the Adjudicator

**or**

We do not accept that *[name proposed by bidder]* be appointed as Adjudicator, and by sending a copy of this letter of acceptance to *[insert the name of the Appointing Authority]*, we are hereby requesting *[name]*, the Appointing Authority, to appoint the Adjudicator in accordance with Clause 37.1 of the Instructions to Bidders

You are hereby instructed to proceed with the execution of the said contract for the provision of Services in accordance with the Contract documents.

Please return the attached Contract dully signed

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_

Name of Agency: \_\_\_\_\_

Attachment: Contract

**Form 4**  
**Form of Contract**

*[letterhead paper of the Employer]*

**LUMP-SUM REMUNERATION**

This CONTRACT (hereinafter called the “Contract”) is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Employer]* (hereinafter called the “Employer”) and, on the other hand, *[name of Service Provider]* (hereinafter called the “Service Provider”).

*[Note: In the text below text in brackets is optional; all notes should be deleted in final text. If the Service Provider consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Employer”) and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Employer for all the Service Provider’s obligations under this Contract, namely, [name of Service Provider] and [name of Service Provider] (hereinafter called the “Service Provider”).]*

**WHEREAS**

- (a) the Employer has requested the Service Provider to provide certain Services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the “Services”);
- (b) the Service Provider, having represented to the Employer that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of.....;
- (c) the Employer has received *[or has applied for]* a loan from the International Bank for Reconstruction and Development (hereinafter called the “Bank”) *[or a credit from the International Development Association (hereinafter called the “Association”)]* towards the cost of the Services and intends to apply a portion of the proceeds of this loan *[or credit]* to eligible payments under this Contract, it being understood (i) that payments by the Bank *[or Association]* will be made only at the request of the Employer and upon approval by the Bank *[or Association]*, (ii) that such payments will be subject, in all respects, to the terms and conditions of the agreement providing for the loan *[or credit]*, and (iii) that no party other than the Employer shall derive any rights from the agreement providing for the loan *[or credit]* or have any claim to the loan *[or credit]* proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents shall be deemed to form and be read and construed as part of this Agreement, and the priority of the documents shall be as follows:

- (a) the Letter of Acceptance;

- (b) the Service Provider’s Bid
- (c) the Special Conditions of Contract;
- (d) the General Conditions of Contract;
- (e) the Specifications;
- (f) the Priced Activity Schedule; and
- (g) The following Appendices: [*Note: If any of these Appendices are not used, the words “Not Used” should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.*]

Appendix A: Description of the Services

Appendix B: Schedule of Payments

Appendix C: Key Personnel and Subcontractors

Appendix D: Breakdown of Contract Price in Foreign Currency

Appendix E: Breakdown of Contract Price in Local Currency

Appendix F: Services and Facilities Provided by the Employer

Appendix G: Performance Incentive Compensation

2. The mutual rights and obligations of the Employer and the Service Provider shall be as set forth in the Contract, in particular:
  - (a) the Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) the Employer shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of *[name of Employer]*

---

*[Authorized Representative]*

For and on behalf of *[name of Service Provider]*

---

*[Authorized Representative]*

*[Note: If the Service Provider consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner:]*

For and on behalf of each of the Members of the Service Provider

---

*[name of member]*

---

*[Authorized Representative]*

---

*[name of member]*

---

*[Authorized Representative]*

**Issue of Notice to proceed with the Services**

(letterhead of the Employer)

\_\_\_\_\_ (date)

To

\_\_\_\_\_ (name and address of the Service Provider)

\_\_\_\_\_

\_\_\_\_\_

Dear Sirs:

Pursuant to your furnishing the requisite security as stipulated in ITB clause 48.1, insurance policy as per GCC 3.4, methodology as stated in letter of acceptance and signing of the contract agreement for providing the Services of \_\_\_\_\_ at a Bid Price of Rs. \_\_\_\_\_, you are hereby instructed to proceed with the execution of the said Services in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of  
signatory authorized to sign on  
behalf of Employer)

## Form 5 Bid Security (Bank Guarantee)

*[The Bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]*

\_\_\_\_\_

**Beneficiary:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**BID GUARANTEE No.:** \_\_\_\_\_

We have been informed that \_\_\_\_\_ (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of \_\_\_\_\_ under Invitation for Bids No. \_\_\_\_\_ ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we \_\_\_\_\_ hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of \_\_\_\_\_ (\_\_\_\_\_) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twenty-eight days after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

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*[signature(s)]*



## **SECTION V. ELIGIBLE COUNTRIES**

### **Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement**

In reference to ITB 4.8, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) *None*

Under ITB 4.8 (b) *None*

## **Section VI - Fraud and Corruption**

**(Section VI shall not be modified)**

### **1. Purpose**

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

### **2. Requirements**

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
  - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

- (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;<sup>4</sup> (ii) to be a nominated<sup>5</sup> sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect<sup>6</sup> all

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<sup>4</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

<sup>5</sup> A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

<sup>6</sup> Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making

accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

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copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

## SECTION VII- ACTIVITY SCHEDULE

- 1) Survey of India has received financing from the World Bank toward the cost of the [National Hydrology Project], and intends to apply part of the proceeds toward payments under the contract for ‘ *Provision of Services for Acquisition, Processing and Delivery of DTM & Digital Ortho Image using UAS/Drone LiDAR Sensor in the State of Tripura & Nagaland under National Hydrology Project*’. The total area will be approximately 450 sq kms. For the purpose of this RFB the area of flood plains have been divided into 2 (two) Lots as given below:

Sl No.	Lot	Description	Approx Area (in sq Km)	Period of completion
1	*I	Tripura	300**	120 days
2	*II	Nagaland	150**	120 days
		<b>Total</b>	<b>450**</b>	

\* Refer Drawing at Section VII for Index to Lots. Incidence and extent of 2(two) lots can also be downloaded as **.KMZ file along with this RFB.**

\*\* The incidence, extent and area of lots are limited by scale and accuracy (spatial & temporal) as they have been demarcated approximately on Google Earth Images. This aspect should be factored during flight planning & actual performance of services.

- 2) Services are to be provided for generation and delivery of following key-deliverables.
- (i) Processed bare earth ground elevation and digital surface model data of **0.25 m or better** accuracy (on MSL heights) at regular spacing of 0.25 m spatial resolution – called DTM, in GEOTIFF and ASCII format.
  - (ii) **Digital Elevation Model of 0.25m or better accuracy (on MSL height) with Top surface heights (on MSL height) of buildings and other man made structures (such as Bridge/flyover Decks, Chimney, Mast etc).**
  - (iii) Ortho Images of the entire area surveyed, at 15 cm spatial resolution or better

In addition, following raw/intermediate products/reports shall also be delivered:

- a) Raw data captured by various sensors and instruments.

- b) All Ground control points (GCPs) provided/used for Data Acquisition & Processing.
- c) Processed bare earth ground elevation data of 0.25 m accuracy or better (on MSL heights) at irregular spacing with mass points and breaklines – called DTM
- d) Contours at 0.25 metre vertical interval
- e) All salient reports generated as part of processing, QA/QC.

Two copies of all softcopy deliverables will be provided in USB hard-disks/ NAS Boxes

### 3. Brief Scope of Activities for this contract shall include

- (i) Provision **of Ground controls** as per requirements of project. This shall include planning, observations, computation, monumentation and signaling as necessary. Sub-contracting shall be permitted for this activity.
- (ii) **Raw Data Acquisition & Pre-processing:** Acquisition of Raw Digital Data by UAS/Drone LiDAR Sensor for generating Digital Terrain Model (DTM) of 0.25 m vertical accuracy (on MSL heights) and 0.25 m spatial resolution along with ortho images of the entire area in RGB, captured with similar resolution or better.

This shall also include Flight Planning, Sensor Calibration, Flight Execution as per plan, QA/QC for review of flight line alignment, raw data validation for completeness, no data voids, strip matching, pre-processing of onboard GNSS/IMU data for trajectory file and other pre-processing steps needed for point cloud extraction/preparing data for post-processing stage.

Scope of this activity shall also include performing responsibilities of Rule 15A and Rule 133A of the Aircraft Rules, 1937 (if applicable) and operational requirements for Civil Remotely Piloted Aircraft System (RPAS) as per Drone Rules 2021, issued under Gazette Notification dated 25th August 2021 including obtaining Unique Identification Number (UIN), Unmanned Aircraft Operator Permit (UAOP) etc

Scope of this activity shall also include performing responsibilities of Non-Scheduled Operator for performing Aerial Work as required for performing the services. Valid Non-Scheduled Operator's Permit (NSOP) should be held by the firm (as single entity or JV) or its subcontractor, granted by the Central Government under sub-rule (2) of rule 134A of Aircraft (2nd Amendment) Rules, 2010, published in the Gazette of India vide Ministry of Civil Aviation Notification No. 423 dated 29<sup>th</sup> July 2010. The bidder may perform the duties of NSOP by itself or may sub-contract it to firm which is NSOP holder.

The Contractor shall also obtain necessary clearances from Director General of Civil Aviation and other agencies of Government of India or concerned State

Government as may be required to complete the job of flying over the Aol, acquire Drone data etc

Contractor shall mobilize all necessary equipment, software and hardware at Survey of India Production Center/Office required for carrying out this activity.

(iii) **Post Processing for generation of DTM and DEM and ortho images:**

This activity shall include: -

- Planning
- Setting up of Production Centre at any of Survey of India Office. This would include setting up LAN and mobilization of adequate storage systems, servers, workstations, software, peripherals etc to handle/store raw data, intermediate data, data under process and processed data/deliverables. The use-rate of equipment and other costs associated with Preparation of site at the Production Centre shall be deemed to be included as part of post-processing cost.
- Generation of Digital Terrain Model (DTM) and Digital Elevation Model including top heights of manmade structures from raw/pre-processed data.
- Generation of ortho Images with similar or better spatial resolution after rectification of RGB images captured simultaneously during the survey.
- Necessary editing/filtering of non-ground points (vegetation, built-up areas, bridges, elevated structures etc) to generate bare-earth DTM of 0.25 m accuracy (on MSL heights) with Top surface heights of buildings and other manmade structures (such as Bridge/flyover Decks, Chimney, Mast etc)
- QA /QC at various stages of Project including validating horizontal and vertical accuracy as per specifications laid down in RFB. Proper versioning and management of data in various Production Cycles. This shall include carrying out corrections as per Quality Audit Report and security vetting report provided by SOI
- Facilitating quality audit, stage approvals, security vetting and final acceptance tests by SOI
- Carrying out corrections after security vetting as pointed out by concerned agencies

Specifications of deliverables are given below:

**Digital Terrain Model (DTM), Digital Elevation Model (DEM) and Colour Ortho Images**

SNo	Description	Specification
1	Fundamental Spatial Accuracy Requirements	<p>Fundamental spatial accuracy of the survey must conform to the following:</p> <p>a. Fundamental Vertical Accuracy (FVA)* of better than 0.25m of 95% confidence interval for all types of terrain.</p> <p>b. Fundamental Horizontal Accuracy better than (FHA)</p> <p>i. <math>\leq \pm 15</math> cm of 95% confidence interval</p>
2	Density of directly measured points on bare-earth Digital Terrain Model**	<p>On average</p> <ul style="list-style-type: none"> <li>• there shall be 8(eight) or more directly measured points per sq. m in open area</li> <li>• there shall be 2 (two) or more directly measured points in forest area.</li> </ul>
3	Specifications for RGB Digital Ortho Images	<ul style="list-style-type: none"> <li>• RGB Camera must be having minimum 20 MP with HD Capabilities</li> <li>• Drone must be PPK /RTK Enabled to capture accurate Geo Tagged Images.</li> <li>• Maintaining 15 cm Ground Sampling Distance (GSD)</li> <li>• Minimum overlapping of 80% forward and 70% sideways should be maintained.</li> </ul>

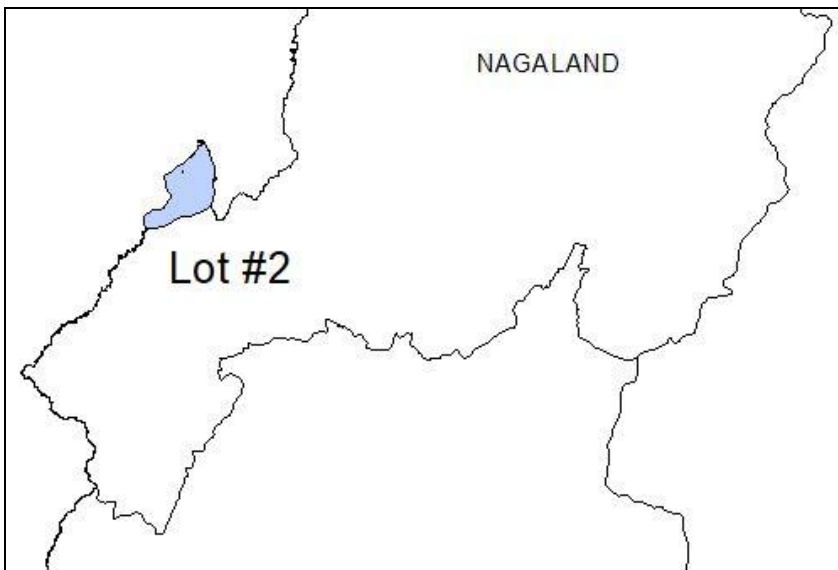
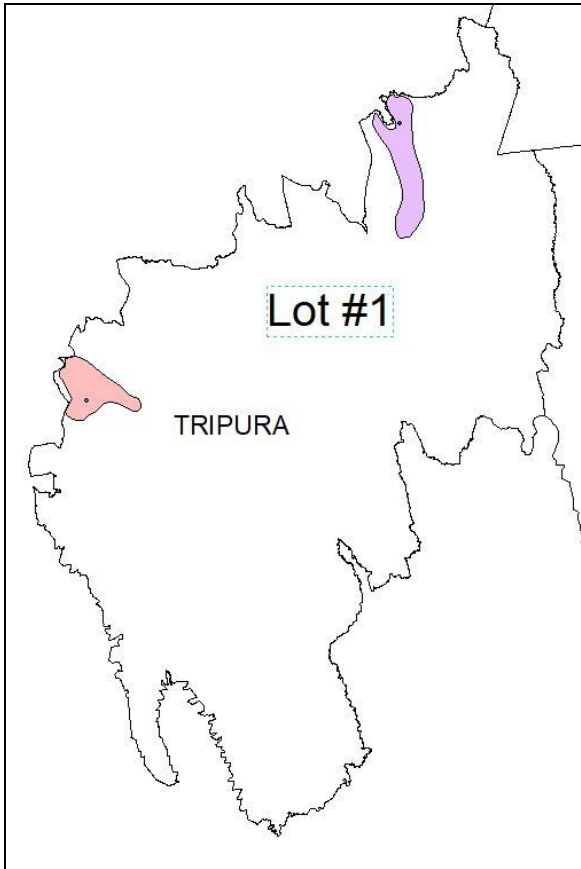


		<ul style="list-style-type: none"> <li>• Flight should be perpendicular to ground.</li> <li>• All the data / Images must be on a single vertical and horizontal coordinate system.</li> <li>• Orthoimage Processing report shall be generated.</li> <li>• During ortho-image capture flights, the weather should clear of fog, haze, dust, smoke etc., and should be under well illuminated sunlight conditions</li> <li>• Images should be sharp and crisp</li> <li>• There should not be any wrapping/smearing/stretch.</li> <li>• Ground Control Point/BM should be clearly visible on images</li> <li>• All the images shall be adjusted together to produce the bundled adjustment images.</li> <li>• All the RAW images with DGPS GCP's shall be submitted to client.</li> <li>• Accuracy report of Orthomosaics, with respect to DGPS BM shall be submitted.</li> <li>• All the orthomosaics shall be color-balanced.</li> </ul>
4	Maximum Data Void in Shadow/Shady Areas**	The maximum size of data void in bare-earth DTM shall not exceed 0.25 sq metre.
5	Projection	UTM
6	Datum	Vertical: MSL Horizontal: WGS-84

\*The Vertical Accuracies mentioned above ie. FVA & SVA refer to MSL Heights

\*\* Should the deliverable fail this test, multiple passes with UAS/Drone sensor and/or Ground Measurements shall be done by the Service Provider

**INDEX TO LOTS (Ref SPN)**



## **Part II – Conditions of Contract and Contract Forms**



# SECTION VIII - GENERAL CONDITIONS OF CONTRACT

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## Section VIII - General Conditions of Contract

### 1. GENERAL PROVISIONS

#### 1.1 DEFINITIONS

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Sub-Clause 8.2 hereunder.
- (b) “Activity Schedule” is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Bid;
- (c) “Bank” means the International Bank for Reconstruction and Development, Washington, D.C., U.S.A.;

**or**

- (c) “Association” means the International Development Association, Washington, D.C., U.S.A.;
- (d) “Completion Date” means the date of completion of the Services by the Service Provider as certified by the Employer
- (e) “Contract” means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (f) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (g) “Dayworks” means varied work inputs subject to payment on a time basis for the Service Provider’s employees and equipment, in addition to payments for associated materials and administration.
- (h) “Employer” means the party who employs the Service Provider
- (i) “Foreign Currency” means any currency other than the currency of the country of the Employer;
- (j) “GCC” means these General Conditions of Contract;
- (k) “Government” means the Government of the Employer’s

country;

- (l) “Local Currency” means the currency of the country of the Employer;
- (m) “Member,” in case the Service Provider consist of a joint venture of more than one entity, means any of these entities; “Members” means all these entities, and “Member in Charge” means the entity specified in the SC to act on their behalf in exercising all the Service Provider’ rights and obligations towards the Employer under this Contract;
- (n) “Party” means the Employer or the Service Provider, as the case may be, and “Parties” means both of them;
- (o) “Personnel” means persons hired by the Service Provider or by any Subcontractor as employees and assigned to the performance of the Services or any part thereof;
- (p) “Service Provider” is a person or corporate body whose Bid to provide the Services has been accepted by the Employer;
- (q) “Service Provider’s Bid” means the completed bidding document submitted by the Service Provider to the Employer
- (r) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;
- (s) “Specifications” means the specifications of the service included in the bidding document submitted by the Service Provider to the Employer
- (t) “Services” means the work to be performed by the Service Provider pursuant to this Contract, as described in Appendix A; and in the Specifications and Schedule of Activities included in the Service Provider’s Bid.
- (u) “Subcontractor” means any entity to which the Service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4.

## **1.2 APPLICABLE LAW**

The Contract shall be interpreted in accordance with the laws of the Employer’s country, unless otherwise **specified in the Special Conditions of Contract (SCC)**.

## **1.3 LANGUAGE**

This Contract has been executed in the language **specified in the SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.



- 1.4 NOTICES** Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address **specified in the SCC.**
- 1.5 LOCATION** The Services shall be performed at such locations as are specified in Appendix A, in the specifications and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Employer may approve.
- 1.6 AUTHORIZED REPRESENTATIVES** Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Service Provider may be taken or executed by the officials **specified in the SCC.**
- 1.7 INSPECTION AND AUDIT BY THE BANK** Pursuant to paragraph 2.2 e. of Attachment 1 to the General Conditions, the Service Provider shall permit and shall cause its subcontractors and sub consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Service Provider's and its Subcontractors' and sub consultants' attention is drawn to Sub-Clause 3.10 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).
- 1.8 TAXES AND DUTIES** The Service Provider, Subcontractors, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

## **2. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT**

- 2.1 EFFECTIVENESS OF CONTRACT** This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be **stated in the SCC.**

## 2.2

### COMMENCEMENT OF SERVICES

#### 2.2.1 PROGRAM

Before commencement of the Services, the Service Provider shall submit to the Employer for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

#### 2.2.2 STARTING DATE

The Service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC**.

## 2.3 INTENDED COMPLETION DATE

Unless terminated earlier pursuant to Sub-Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is **specified in the SCC**. If the Service Provider does not complete the activities by the Intended Completion Date, it shall be liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the Completion Date will be the date of completion of all activities.

## 2.4 MODIFICATION

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.

## 2.5 FORCE MAJEURE

#### 2.5.1 DEFINITION

For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a Party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

#### 2.5.2 NO BREACH OF CONTRACT

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

#### 2.5.3 EXTENSION OF TIME

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

**2.5.4 PAYMENTS** During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

## **2.6 TERMINATION**

**2.6.1 BY THE EMPLOYER** The Employer may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.6.1:

- (a) if the Service Provider does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as the Employer may have subsequently approved in writing;
- (b) if the Service Provider become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) if the Service Provider, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purposes of this Sub-Clause:

- (i) "corrupt practice"<sup>7</sup> is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- (ii) "fraudulent practice"<sup>8</sup> is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a

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<sup>7</sup> For the purpose of this Contract, "another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

<sup>8</sup> For the purpose of this Contract, "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

financial or other benefit or to avoid an obligation;

- (iii) “collusive practice”<sup>9</sup> is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) “coercive practice”<sup>10</sup> is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- (v) “obstructive practice” is
  - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
  - (bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under para. 1.14 (e) of the Bank’s Procurement Guidelines.

**2.6.2 BY THE  
SERVICE  
PROVIDER**

The Service Provider may terminate this Contract, by not less than thirty (30) days’ written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Sub-Clause 2.6.2:

- (a) if the Employer fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a

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<sup>9</sup> For the purpose of this Contract, “parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

<sup>10</sup> For the purpose of this Contract, “party” refers to a participant in the procurement process or contract execution.

period of not less than sixty (60) days.

**2.6.3 SUSPENSION OF LOAN OR CREDIT** In the event that the World Bank suspends the loan or Credit to the Employer, from which part of the payments to the Service Provider are being made:

- (a) The Employer is obligated to notify the Service Provider of such suspension within 7 days of having received the World Bank's suspension notice.
- (b) If the Service Provider has not received sums due to by the due date stated in the SCC in accordance with Sub-Clause 6.5 the Service Provider may immediately issue a 14-day termination notice.

**2.6.4 PAYMENT UPON TERMINATION** Upon termination of this Contract pursuant to Sub-Clauses 2.6.1 or 2.6.2, the Employer shall make the following payments to the Service Provider:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a), (b), (d) of Sub-Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel.

### **3. OBLIGATIONS OF THE SERVICE PROVIDER**

#### **3.1 GENERAL**

The Service Provider shall perform the Services in accordance with the Specifications and the Activity Schedule, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Service Provider shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Subcontractors or third parties.

#### **3.2 CONFLICT OF INTERESTS**

##### **3.2.1 SERVICE**

The remuneration of the Service Provider pursuant to Clause 6

**PROVIDER  
NOT TO  
BENEFIT  
FROM  
COMMISSIONS  
AND  
DISCOUNTS.**

shall constitute the Service Provider's sole remuneration in connection with this Contract or the Services, and the Service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Service Provider shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

**3.2.2 SERVICE  
PROVIDER  
AND  
AFFILIATES  
NOT TO BE  
OTHERWISE  
INTERESTED  
IN PROJECT**

The Service Provider agree that, during the term of this Contract and after its termination, the Service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

**3.2.3 PROHIBITION OF  
CONFLICTING  
ACTIVITIES**

Neither the Service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract;
- (b) during the term of this Contract, neither the Service Provider nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;
- (c) after the termination of this Contract, such other activities as may be **specified in the SCC**.

**3.3  
CONFIDENTIALITY**

The Service Provider, its Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Employer's business or operations without the prior written consent of the Employer.

**3.4 INSURANCE TO  
BE TAKEN OUT  
BY THE SERVICE  
PROVIDER**

The Service Provider (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Employer's request, shall provide evidence to the Employer

showing that such insurance has been taken out and maintained and that the current premiums have been paid.

**3.5 SERVICE PROVIDER'S ACTIONS REQUIRING EMPLOYER'S PRIOR APPROVAL**

The Service Provider shall obtain the Employer's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Subcontractors"),
- (c) changing the Program of activities; and
- (d) any other action that may be **specified in the SCC**.

**3.6 REPORTING OBLIGATIONS**

The Service Provider shall submit to the Employer the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

**3.7 DOCUMENTS PREPARED BY THE SERVICE PROVIDER TO BE THE PROPERTY OF THE EMPLOYER**

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Service Provider in accordance with Sub-Clause 3.6 shall become and remain the property of the Employer, and the Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a detailed inventory thereof. The Service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**.

**3.8 LIQUIDATED DAMAGES**

**3.8.1 PAYMENTS OF LIQUIDATED DAMAGES**

The Service Provider shall pay liquidated damages to the Employer at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.

**3.8.2 CORRECTION FOR OVER-PAYMENT**

If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-

Clause 6.5.

**3.8.3 LACK OF  
PERFORMAN  
CE PENALTY**

If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, a penalty for Lack of performance will be paid by the Service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as described in Sub-Clause 7.2 and **specified in the SCC.**

**3.9 PERFORMANCE  
SECURITY**

The Service Provider shall provide the Performance Security to the Employer no later than the date specified in the Letter of acceptance. The Performance Security shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The performance Security shall be valid until a date 28 days from the Completion Date of the Contract in case of a bank guarantee, and until one year from the Completion Date of the Contract in the case of a Performance Bond.

## **4. SERVICE PROVIDER'S PERSONNEL**

**4.1 DESCRIPTION OF  
PERSONNEL**

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as by name in Appendix C are hereby approved by the Employer.

**4.2 REMOVAL  
AND/OR  
REPLACEMENT  
OF PERSONNEL**

- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Service Provider, it becomes necessary to replace any of the Key Personnel, the Service Provider shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the Employer finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Service Provider shall, at the Employer's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Employer.
- (c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement



of Personnel.

## 5. OBLIGATIONS OF THE EMPLOYER

- 5.1 ASSISTANCE AND EXEMPTIONS** The Employer shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as **specified in the SCC.**
- 5.2 CHANGE IN THE APPLICABLE LAW** If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clauses 6.2 (a) or (b), as the case may be.
- 5.3 SERVICES AND FACILITIES** The Employer shall make available to the Service Provider the Services and Facilities listed under Appendix F.

## 6. PAYMENTS TO THE SERVICE PROVIDER

- 6.1 LUMP-SUM REMUNERATION** The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Provider in carrying out the Services described in Appendix A. Except as provided in Sub-Clause 5.2, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.4 and 6.3.
- 6.2 CONTRACT PRICE**
- (a) The price payable in local currency is **set forth in the SCC.**
  - (b) The price payable in foreign currency is set **forth in the SCC.**
- 6.3 PAYMENT FOR ADDITIONAL SERVICES, AND PERFORMANCE INCENTIVE COMPENSATION**
- 6.3.1 For the purpose of determining the remuneration due for additional Services as may be agreed under Sub-Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.
  - 6.3.2 **If the SCC so specify,** the service provider shall be paid performance incentive compensation as set out in the Performance Incentive Compensation appendix.
- 6.4 TERMS AND** Payments will be made to the Service Provider according to the

**CONDITIONS OF PAYMENT**

payment schedule **stated in the SCC**. **Unless otherwise stated in the SCC**, the advance payment (Advance for Mobilization, Materials and Supplies) shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period **stated in the SCC**. Any other payment shall be made after the conditions **listed in the SCC** for such payment have been met, and the Service Provider have submitted an invoice to the Employer specifying the amount due.

**6.5 INTEREST ON DELAYED PAYMENTS**

If the Employer has delayed payments beyond fifteen (15) days after the due date stated in the SCC, interest shall be paid to the Service Provider for each day of delay at the rate stated in the SCC.

**6.6 PRICE ADJUSTMENT**

6.6.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c \frac{L_{mc}}{L_{oc}} + C_c \frac{I_{mc}}{I_{oc}}$$

Where:

$P_c$  is the adjustment factor for the portion of the Contract Price payable in a specific currency “c”.

$A_c$ ,  $B_c$  and  $C_c$  are coefficients specified in the SCC, representing:  $A_c$  the nonadjustable portion;  $B_c$  the adjustable portion relative to labor costs and  $C_c$  the adjustable portion for other inputs, of the Contract Price payable in that specific currency “c”; and

$L_{mc}$  is the index prevailing at the first day of the month of the corresponding invoice date and  $L_{oc}$  is the index prevailing 28 days before Bid opening for labor; both in the specific currency “c”.

$I_{mc}$  is the index prevailing at the first day of the month of the corresponding invoice date and  $I_{oc}$  is the index prevailing 28 days before Bid opening for other inputs payable; both in the specific currency “c”.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor  $Z_o/Z_n$  will be applied to the respective component factor of  $p_n$  for the formula of the relevant currency.  $Z_o$  is the number of units of currency of the country of the index, equivalent to one unit of the

currency payment on the date of the base index, and  $Z_n$  is the corresponding number of such currency units on the date of the current index.

6.6.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

## 6.7 DAYWORKS

6.7.1 If applicable, the Daywork rates in the Service Provider's Bid shall be used for small additional amounts of Services only when the Employer has given written instructions in advance for additional services to be paid in that way.

6.7.2 All work to be paid for as Dayworks shall be recorded by the Service Provider on forms approved by the Employer. Each completed form shall be verified and signed by the Employer representative as indicated in Sub-Clause 1.6 within two days of the Services being performed.

6.7.3 The Service Provider shall be paid for Dayworks subject to obtaining signed Dayworks forms as indicated in Sub-Clause 6.7.2

# 7. QUALITY CONTROL

## 7.1 IDENTIFYING DEFECTS

The principle and modalities of Inspection of the Services by the Employer shall be as **indicated in the SCC**. The Employer shall check the Service Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Service Provider's responsibilities. The Employer may instruct the Service Provider to search for a Defect and to uncover and test any service that the Employer considers may have a Defect. Defect Liability Period is as **defined in the SCC**.

## 7.2 CORRECTION OF DEFECTS, AND Lack of Performance Penalty

- (a) The Employer shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
- (b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Employer's notice.
- (c) If the Service Provider has not corrected a Defect within the

time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, the Service Provider will pay this amount, and a Penalty for Lack of Performance calculated as described in Sub-Clause 3.8.

## 8. SETTLEMENT OF DISPUTES

### 8.1 AMICABLE SETTLEMENT

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

### 8.2 DISPUTE SETTLEMENT

8.2.1 If any dispute arises between the Employer and the Service Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, the matter shall be referred to the Adjudicator within 14 days of the notification of disagreement of one party to the other.

8.2.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

8.2.3 The Adjudicator shall be paid by the hour at the rate **specified in the BDS and SCC**, together with reimbursable expenses of the types **specified in the SCC**, and the cost shall be divided equally between the Employer and the Service Provider, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

8.2.4 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place **shown in the SCC**.

8.2.5 Should the Adjudicator resign or die, or should the Employer and the Service Provider agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Employer and the Service Provider. In case of disagreement between the Employer and the Service Provider, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the SCC** at the request of either party, within 14 days of receipt of such request.

# APPENDIX to GCC

## Fraud and Corruption

*(Text in this Appendix shall not be modified)*

### 1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

### 2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders, consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

(a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

- (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
  - c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
  - d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;<sup>11</sup> (ii) to be a nominated<sup>12</sup> sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
  - e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders, consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect<sup>13</sup> all

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<sup>11</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

<sup>12</sup> A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

<sup>13</sup> Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms.

accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.

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Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

## SECTION VIII. SPECIAL CONDITIONS OF CONTRACT

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1	The words “in the Government’s country” are amended to read “in – <b>Government of India.</b>
1.1(a)	The Adjudicator is <i>as nominated by the President, Institution of Engineers, New Delhi.</i>
1.1(e)	1. The contract name is ‘ <i>Provision of Services for Acquisition, Processing and Delivery of DTM &amp; Digital Ortho Image using UAS/Drone LiDAR Sensor in the State of Tripura &amp; Nagaland under National Hydrology Project.</i> ’ <b>Lot no.....Name of the Lot/package.....Approx Area</b>
1.1(h)	The Employer is <b>Surveyor General of India</b> represented by <b>Project Director, National Hydrology Project, National Geospatial Data Centre, Survey of India, Dehra Dun.</b>
1.1(m)	The Member in Charge is -----
1.1(p)	The Service Provider is _____
1.2	The Applicable Law is: <b>Laws of Union of India.</b>
1.3	The language is <b>English</b>
1.4	The addresses are:  Employer: <b>Project Director Office, NHP, NGDC, Survey of India, Hathibarkala Estate, Dehradun, Uttarakhand, India, PIN: 248001</b> e-Mail: <u><i>pdo.nhp.soi@gov.in</i></u> Facsimile: <i>+91-135-2977978</i>  Service Provider: _____ Attention: _____



Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	e-Mail: _____ Facsimile: _____
1.6	<b>The Authorized Representatives are:</b> <b>For the Employer: Project Director, NHP, Survey of India</b> For the Service Provider: _____
2.1	The date on which this Contract shall come into effect is <b>date of signing of Contract by both the parties.</b>
2.2.1	Lots shall be the units of processing & delivery. Program submitted should contain Implementation Level Details showing timelines, resource deployment (backed by out-turn calculations) and delivery dates for each of the lots.  It should update the Program for the actual ‘Start Date’. The updated Program should be consistent with the Method Statement, Work Plan, & Time Schedule submitted in Section IV as part of this RFB. However, if the bidder is awarded multiple lots, he may be permitted to re-deploy his resources and re-schedule the delivery plans during program update as per SCC 2.2.1, to prioritize submission of lots as per implementation convenience, but without changing the final completion
2.2.2	The Starting Date for the commencement of Services is <b>Ten days from signing of Contract.</b>
2.3	The Intended Completion Date is <b>120 days from date of commencement of services.</b>
3.2.3	Activities prohibited after termination of this Contract are: Use or transmit in any form of maps/data supplied by employer or data/services generated by the contractor/service provider during the Project. The Service Provider will not use, transfer, propagate any of the deliverables, information etc.
3.4	The risks and coverage by insurance shall be: (i) Aviation insurance to protect against Third Party property and bodily damage claims during Aerial Work ( <b>In accordance with the statutory requirements applicable to India</b> ) (ii) Personal injury or death insurance for Contractor’s Employees ( <b>In accordance with the statutory requirements applicable to India</b> ) (iii) Loss or damage to equipment and data till project completion ( <b>Minimum Cover Contract Price</b> )

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract									
3.5(a)	Sub-Contracting is permitted only for activities mentioned at Section VII/Para 3 (i) viz. Provision of Ground Controls									
3.5(d)	The other actions are: None									
3.7	<p>Restrictions on the use of documents prepared by the Service Provider are:</p> <p>All data, documents, reports generated during the Contract shall be exclusive property of Employer and the Service Provider shall have no claims over it. The Service Provider shall be bound by restrictions imposed by Security Classification of such data, documents and reports.</p>									
3.8.1	<p>LD per day in Indian Rupees for different lots for various milestones is given below. The maximum amount of liquidated damages for the whole contract is <b>Ten percent</b> of the final Contract Price.</p> <table border="1" data-bbox="467 894 1101 1056"> <thead> <tr> <th data-bbox="467 894 565 982">Lot</th> <th data-bbox="565 894 813 982">Whole work (Rs)</th> <th data-bbox="813 894 1101 982">Liquidated damage per day (Rs.)</th> </tr> </thead> <tbody> <tr> <td data-bbox="467 982 565 1020">#1</td> <td data-bbox="565 982 813 1020">15 Lakh</td> <td data-bbox="813 982 1101 1020">7500</td> </tr> <tr> <td data-bbox="467 1020 565 1056">#2</td> <td data-bbox="565 1020 813 1056">7.5 Lakh</td> <td data-bbox="813 1020 1101 1056">3750</td> </tr> </tbody> </table>	Lot	Whole work (Rs)	Liquidated damage per day (Rs.)	#1	15 Lakh	7500	#2	7.5 Lakh	3750
Lot	Whole work (Rs)	Liquidated damage per day (Rs.)								
#1	15 Lakh	7500								
#2	7.5 Lakh	3750								
3.8.3	<p>The delivery pertaining to the lot in which defects have been detected and/or which have failed the Acceptance Test as per SCC Clause 7.2, shall be returned to the Service Provider for further QA. In effect, Employer will pass responsibility to the service provider to provide adequate and clear internal Quality Audits to identify the extent and cause of the problems so established. The service provider will be expected to rectify these problems, and (where necessary to comply with the specification) make new products at his own cost. Redelivery of products will be followed by a further independent check on a new sample of the products. This procedure will continue until the products become finally acceptable under the terms above. The acceptance report (Pass /Fail) shall be given by the Employer within 02 months of each delivery/re-delivery of the data made by the contractor.</p> <p>If delivery of a lot fails the acceptance test of the Employer, it shall be construed as ‘Lack of Performance’ and the 100% of cost towards Acceptance Test by the Employer @ INR 10,000 for each subsequent delivery shall be imposed on Service Provider towards penalty for ‘Lack of performance’.</p>									

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
5.1	<p>Following data will be provided to the Service Provider after award of Contract:</p> <p>(i) Maps/proofs of the area on 1:50,000 scale or 1:25,000 scale (as available)</p> <p>(ii) Description and co-ordinates of planimetric ground control points in and around the Project area. Horizontal coordinates in WGS 84 datum and heights on MSL (as available)</p> <p><u>Production Site:</u></p> <p>Production Hall inside <b>Survey of India Office</b>. The Production site will be handed over to the Service Provider on as-is-where-is basis and shall contain only basic electric fittings and fixtures. The bidder is advised to visit the site for estimating the cost for site preparation before submission of bid.</p> <p>The Contractor will be responsible for setting up secure and high-performance Production Centre at the site. The production centre should be adequate to handle and store raw Data, key intermediate data, data under process and Processed Data/deliverables.</p>
6.2(a)	The amount in local currency is <b>Indian Rupees</b>
6.2(b)	The amount in foreign currency or currencies is: <i>Not Applicable</i>
6.3.2	The performance incentive paid to the Service Provider shall be: <b>Not Applicable.</b>
6.4	<p>Payments shall be made according to the following schedule:</p> <ul style="list-style-type: none"> <li>• Advance for Mobilization: 10% percent of the each lot Contract Price shall be paid against the submission of unconditional bank guarantee for the same. To be drawn before end of 20% of Contract period.</li> <li>• Payment Milestones: Lots shall be the units of processing and submission of deliverables listed at Section VII. Lots shall also be units of payment.</li> </ul> <p>Only 75% of payment' due for the lot shall be released on delivery. Rest 25% final payment will be released after acceptance of final deliverables of the complete lot and after incorporations of corrections pointed out by authorized vetting agencies.</p> <p>Acceptance test shall be carried out by Employer according to principle, modalities laid down in SCC Clause 7.1/ Section VIII of this RFB – which shall form the basis of certification mentioned above.</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>Should the certification (satisfactory or unsatisfactory) not be provided, by the employer within ‘two’ months of the date of the milestone, or of the date of receipt of the corresponding invoice (<b>whichever is later</b>), the certification will be deemed to have been provided, and the progress payment will be released at such date.</p> <ul style="list-style-type: none"> <li>• The amortization of the Advance mentioned above shall be recovered while making 75% payment at delivery stage.</li> </ul> <p>The bank guarantee for the advance payment shall be released when the advance payment has been fully amortized.</p> <ul style="list-style-type: none"> <li>• “Payment of Local Taxes such as GST will be against valid Invoice as per GST Act &amp; Rules and submission of GST Registration Certificate along with declaration that GST Registration is valid and all liabilities towards GST have been discharged by the vendor. GST amount will be paid after 30 days of submission of valid Invoice and all required documents and declaration by vendor”.</li> </ul>
6.5	<p>Payment shall be made within 45 days of receipt of the invoice and the relevant documents specified in above Sub-Clause 6.4, and within 60 days in the case of the final payment.</p> <p>For local currency, <b>the interest rate is 04%</b>.</p> <p><b>For Foreign currency:</b> Not Applicable</p>
6.6.1	<p>Price adjustment is <i>not to be applied</i> in accordance with Sub-Clause 6.6.</p>
7.1	<p>The principle and modalities of inspection of the Services by the Employer are as follows:</p> <p>The responsibility of Quality assurance that would include adoption of best practices, processes and sets of approaches leading to outcomes of quality specified in this Contract shall rest with the Service Provider.</p> <p>As part of Quality Assurance, the Service Provider shall submit quality control (or check) measures detailing clearly specified tasks that scrutinizes all, or a sample, of the items issuing during and/or at the end of various stages of processing in order to ensure that the final product is of satisfactory quality. The scrutiny involves review, inspection or quantitative measurement, against well defined pass/fail criteria.</p> <p>The Service Provider shall systematically lodge Quality Control Records (QCRs) which may take various forms like Computer Generated Reports,</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>Inspection notes, Stage Approvals etc. Service Provider shall ensure that every such QCR:</p> <ul style="list-style-type: none"> <li>• marked with a date</li> <li>• uniquely identifies the item, operation or product to which it relates</li> <li>• identifies the operator who generated the QCR</li> <li>• is countersigned by a supervisor or other independent inspector (for important records)</li> <li>• is stored in a well defined and predictable location so that it can be found easily by others.</li> </ul> <p>The responsibility for maintaining necessary versions of data during the QA/QC cycle till its final acceptance by Employer shall also rest with Service Provider.</p> <p>Employer will carry out Quality Audit to ensure that the QA/QC measures, plan/methodology/arrangements etc. detailed by the Service provider in Section IV of their Bid are being properly followed. Employer shall also audit to ensure that the QCRs are being properly maintained.</p> <p>In addition, following ‘Final Acceptance’ tests shall be carried out by the Employer on the delivery made by Service Provider.</p> <p><b><u>DTM</u></b></p> <p>(i)DTM shall be checked for density of directly measured points in bare-earth DTM and maximum size of Data void in bare-earth DTM, as mentioned in Section VII (Activity Schedule)/SNo. 3 &amp; 4 of Table (Specifications of DTM).</p> <p>(ii)DTM shall be checked for Fundamental and Supplemental Spatial Accuracies, as mentioned in Section VII (Activity Schedule)/SNo. 1 &amp; 2 of Table (Specifications of DTM).</p> <p>DTM shall be checked for correctness of Projection and Datum information, as mentioned in Section VII (Activity Schedule)/SNo. 5 &amp; 6 of Table (Specifications of DTM).</p> <p>Checking will be done on each lot submitted by the contractor. Minimum 50 points shall be checked for each Lot. When 50 points are tested, the 95 percent confidence level allows three point to fail the threshold given in product specifications. Datasets failing the ‘Acceptance Test’ mentioned in SCC 7.1 shall be returned to the Service Provider for further action in accordance with procedures mentioned at SCC 3.8.3.</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>The check-points will be well distributed across the dataset. However, the checkpoints will be selected in open area, preferably on flat terrain. Whereas flat terrain is preferable, this is not always possible. Whenever not possible, terrain slope steeper than a 20 percent grade will not be selected because horizontal errors will unduly influence the vertical accuracy. Furthermore, checkpoints will not be selected near severe breaks in slope, such as bridge abutments or edges of roads, where subsequent interpolation might be performed with inappropriate TIN or DTM points on the wrong sides of the break lines.</p> <p>It is to be noted that SOI will conduct GNSS Observations in above test areas in offset/radial/static mode with respect to known stable GCP of SOI on bare earth. Measured MSL heights of bare earth in test areas will be compared with that of corresponding points in DTM (on MSL heights).</p> <p>The Defects Liability Period is <i>co-terminus with completion of Contract</i>.</p>
8.2.3	<p>The Adjudicator is <i>to be nominated By the President, Institution of Engineers, New Delhi</i> who will be paid TA/DR at a rate <i>admissible to Joint Secretary level officer in Survey of India and a fee of INR 10000/= per day</i>.</p>
8.2.4	<p>The arbitration procedures of UNCITRAL will be used for Foreign Bidders For Indian Bidders provisions of Arbitration and Conciliation Act 2015 will apply.</p>
8.2.5	<p>The designated Appointing Authority for a new Adjudicator is <b>President, Institution of Engineers, New Delhi</b> .</p>
<p><b>Additional Clause</b> <b>9.0</b></p>	<p>Add the following as GCC clause 9.0 :</p> <p><b>9. Security</b> <b>Security instructions for raw data acquisition and pre-processing shall be as follows:</b></p> <p>(a) UAV data acquisition survey is to be strictly confined to the allotted lot area. The undertakings given in the application shall be strictly adhered to.</p> <p>(b) No sensor, other than those mentioned in the application should be used.</p> <p>(c) If required as per prevailing policy, the Contractor should be ready to offer his UAS/Drone for joint inspection by the service agencies of MoD, MHA, DGCA to check survey equipment /sensor before undertaking aerial surveys.</p> <p>(e) After completion of survey, no data should remain in the equipment fitted in the UAS/Drone.</p> <p>(f) At the end of each day operation, the data discs should be removed and handed over to designated officer of Employer or the security officer, as directed by the Employer.</p> <p>(g) The data should be processed by Indian experts in India at the</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>designated places within SoI complex. In case a foreign expert is required for processing the data, the Contractor shall be responsible for obtaining necessary clearances/permissions from concerned ministries of Govt. of India.</p> <p>(h) Employer will provide one SoI Security Officer for each lot. Service provider will provide copy of valid DGCA permit and ATC clearance (If applicable) to the Security Officer for his perusal.</p> <p>(i) Fortnightly progress report is to be submitted to the Employer.</p> <p>(j) All permits and clearances (DGCA permit, ATC clearance) will be the responsibility of the Contractor and all operations will be undertaken in accordance with Indian Air Safety Regulations and UAS/Drone policy in vogue.</p> <p>(o) Pre-Processing of data acquired by UAV survey will be carried out <b>inside the secure premises of Survey of India office/camp</b>. Necessary equipment/infrastructure should be installed at the premises by the successful bidder. Any data will not be permitted to be taken elsewhere. Proper account of daily production and distribution should be maintained.</p> <p>(p) Post Processing of data acquired by aerial survey will be carried out <b>inside the premises of Survey of India Office</b>. Necessary equipment/infrastructure should be installed at the premises by the successful bidder. Any data will not be permitted to be taken elsewhere. Proper account of daily production and distribution should be maintained.</p> <p>The Security instructions to be followed by the Contractor during the Post Processing of Data at the Production Centre shall be as follows:</p> <p>(a) No Data storage devices or electronic devices including mobile phones, laptops, CD, pen-drives etc. should be allowed inside the Production Centre except for specific clearances to be taken from Security Officer of Survey of India in exceptional circumstances arising out of any requirements.</p> <p>(b) No data should be allowed to be taken outside the Production Centre by the Contractor</p> <p>(c) Systems and storage in Production Centre will not be connected to internet.</p> <p>(d) All the personnel working inside the Production Centre should have valid Identity card of the company. Any foreign national working inside the Production centre should have valid visa and other documents verified by Ministry of External Affairs and permission from Ministry of Defence. Identity card of the company will be checked by the Security staff every day before the employee enters the Production Centre. Surprise checks for the same will also be carried out by the Security Officer of Survey of India during the working hours.</p>

<b>Number of GC Clause</b>	<b>Amendments of, and Supplements to, Clauses in the General Conditions of Contract</b>
	<p>(e) Work should only be executed inside Production Centre.</p> <p>(f) All the hardcopy plots and printouts, other Project related materials are to be kept in almirahs whose key will be with SOI officials.</p> <p>(g) Any foreign national will not be allowed access to any SOI map/data without proper approval/clearance.</p> <p>(h) The Survey of India Security Officer reserves the right to frisk the working personnel every day / during surprise check.</p> <p>(i) The Production centre should strictly adhere to the security measures in terms of entry and exit to Production centre (preferably Biometric methods etc.), accessing data (Administrator /user passwords, Networking etc), disabling USB ports for theft of data, authorising persons to handle the data, log books, CCTV cameras, fire and smoke protection, lock and key system etc.</p>



# **SECTION IX**

## **Appendices**

## Appendix A – Description of the Services

- 1) Survey of India *has received* financing from the World Bank toward the cost of the [National Hydrology Project], and intends to apply part of the proceeds toward payments under the contract for ‘ ***Provision of Services for Acquisition, Processing and Delivery of DTM & Digital Ortho Image using UAS/Drone LiDAR Sensor in the State of Tripura & Nagaland under National Hydrology Project***’. The total area will be approximately 450 sq kms. For the purpose of this RFB the area of flood plains have been divided into 2 (two) Lots as given below:

Sl No.	Lot	Description	Approx Area (in sq Km)	Period of completion
1	*I	Tripura	300**	120 days
2	*II	Nagaland	150**	120 days
		<b>Total</b>	<b>450**</b>	

\* Refer Drawing at Section VII for Index to Lots. Incidence and extent of 2(two) lots can also be downloaded as **.KMZ file along with this RFB.**

\*\* The incidence, extent and area of lots are limited by scale and accuracy (spatial & temporal) as they have been demarcated approximately on Google Earth Images. This aspect should be factored during flight planning & actual performance of services.

- 2) Services are to be provided for generation and delivery of following key-deliverables.
- a) Processed bare earth ground elevation and digital surface model data of **0.25 m** accuracy (on MSL heights) at regular spacing of 1 m spatial resolution – called DTM, in GEOTIFF and ASCII format.
- In addition, following raw/intermediate products/reports shall also be delivered:
- b) Raw data captured by various sensors and instruments.
  - c) All Ground control points (GCPs) provided/used for Data Acquisition & Processing.
  - d) Processed bare earth ground elevation data of 0.25 m accuracy (on MSL heights) at irregular spacing with mass points and breaklines – called DTM
  - e) **Digital Elevation Model with Top surface heights of buildings and other man made structures (such as Bridge/flyover Decks, Chimney, Mast etc)**
  - f) Contours at 0.25 metre vertical interval
  - g) Ortho Images of the entire area surveyed, at the same spatial resolution or better

h) All salient reports generated as part of processing, QA/QC.

Two copies of all softcopy deliverables will be provided in USB hard-disks/ NAS Boxes

**3. Brief Scope of Activities for this contract shall include**

- (i) Provision of **Ground controls** as per requirements of project. This shall include planning, observations, computation, monumentation and signaling as necessary. Sub-contracting shall be permitted for this activity.
- (ii) **Raw Data Acquisition & Pre-processing:** Acquisition of Raw Digital Data by UAS/Drone LiDAR Sensor for generating Digital Terrain Model (DTM) of 0.25 m vertical accuracy (on MSL heights) and 1 m spatial resolution along with ortho images of the entire area in RGB, captured with similar resolution or better.

This shall also include Flight Planning, Sensor Calibration, Flight Execution as per plan, QA/QC for review of flight line alignment, raw data validation for completeness, no data voids, strip matching, pre-processing of onboard GNSS/IMU data for trajectory file and other pre-processing steps needed for point cloud extraction/preparing data for post-processing stage.

Scope of this activity shall also include performing responsibilities of Rule 15A and Rule 133A of the Aircraft Rules, 1937 (if applicable) and operational requirements for Civil Remotely Piloted Aircraft System (RPAS) as per Drone Rules 2021, issued under Gazette Notification dated 25th August 2021 including obtaining Unique Identification Number (UIN), Unmanned Aircraft Operator Permit (UAOP) etc

Scope of this activity shall also include performing responsibilities of Non-Scheduled Operator for performing Aerial Work as required for performing the services. Valid Non-Scheduled Operator's Permit (NSOP) should be held by the firm (as single entity or JV) or its subcontractor, granted by the Central Government under sub-rule (2) of rule 134A of Aircraft (2nd Amendment) Rules, 2010, published in the Gazette of India vide Ministry of Civil Aviation Notification No. 423 dated 29<sup>th</sup> July 2010. The bidder may perform the duties of NSOP by itself or may sub-contract it to firm which is NSOP holder.

The Contractor shall also obtain necessary clearances from Director General of Civil Aviation and other agencies of Government of India or concerned State Government as may be required to complete the job of flying over the Aol, acquire Drone data etc

Contractor shall mobilize all necessary equipment, software and hardware at Survey of India Production Center/Office required for carrying out this activity.

3) **Post Processing for generation of DTM and DSM and ortho images:**

This activity shall include: -

- Planning
- Setting up of Production Centre at any of Survey of India Office. This would include setting up LAN and mobilization of adequate storage systems, servers, workstations, software, peripherals etc to handle/store raw data, intermediate data, data under process and processed data/deliverables. The use-rate of equipment and other costs associated with Preparation of site at the Production Centre shall be deemed to be included as part of post-processing cost. Pl. refer footnote at Form-1(Priced Activity Schedule).
- Generation of Digital Surface Model (DSM) from raw/pre-processed data.
- Generation of ortho Images with similar or better spatial resolution after rectification of RGB images captured simultaneously during the survey
- Necessary editing/filtering of non-ground points (vegetation, built-up areas, bridges, elevated structures etc) to generate bare-earth DTM of 0.25 m accuracy (on MSL heights) with Top surface heights of buildings and other manmade structures (such as Bridge/flyover Decks, Chimney, Mast etc)
- QA /QC at various stages of Project including validating horizontal and vertical accuracy as per specifications laid down in RFB. Proper versioning and management of data in various Production Cycles. This shall include carrying out corrections as per Quality Audit Report and security vetting report provided by SOI
- Facilitating quality audit, stage approvals, security vetting and final acceptance tests by SOI
- Carrying out corrections after security vetting as pointed out by concerned agencies

Specifications of deliverables are given below:

**Digital Surface Model (DSM), Digital Terrain Model (DTM) and Colour Ortho Images**

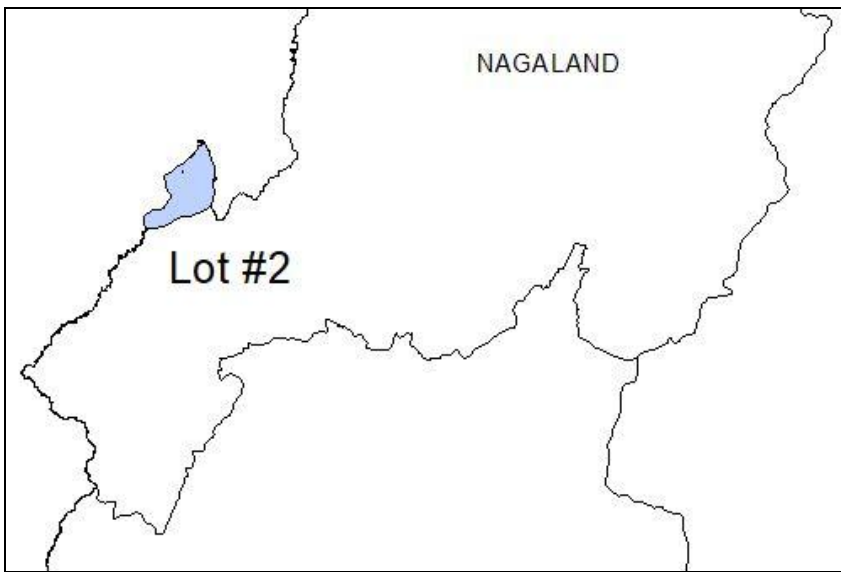
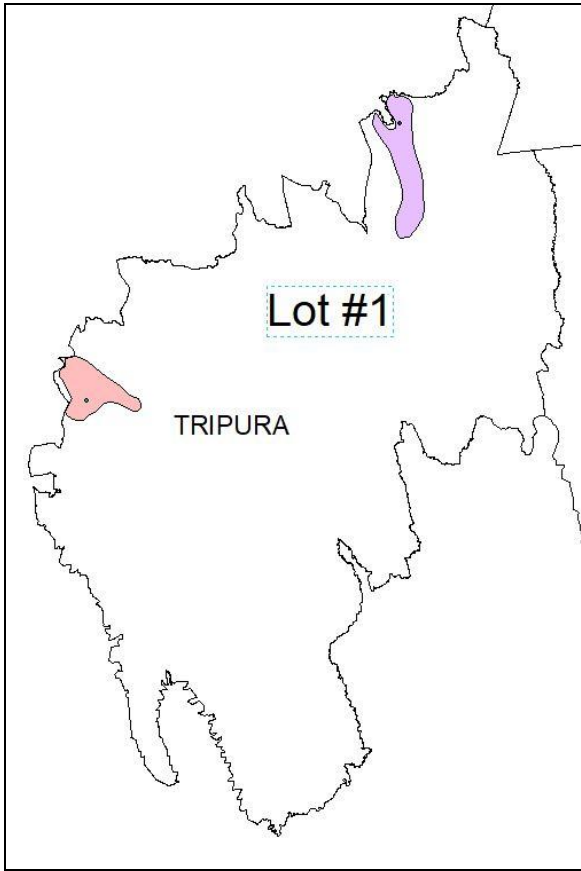
SNo	Description	Specification
1	Fundamental Spatial Accuracy Requirements	<p>Fundamental spatial accuracy of the survey must conform to the following:</p> <p>a. Fundamental Vertical Accuracy (FVA)* of better than <b>0.25m</b> of 95% confidence interval for all types of terrain.</p> <p>b. Fundamental Horizontal Accuracy better than (FHA)</p> <p>i. <math>\leq \pm 15</math> cm of 95% confidence interval</p>
2	Density of directly measured points on bare-earth Digital Terrain Model**	<p>On average</p> <ul style="list-style-type: none"> <li>• there shall be 8(eight) or more directly measured points per sq. m in open area</li> <li>• there shall be 2 (two) or more directly measured points in forest area.</li> </ul>
3	Specifications for RGB Digital Ortho Images	<ul style="list-style-type: none"> <li>• RGB Camera must be having minimum 20 MP with HD Capabilities</li> <li>• Drone must be PPK /RTK Enabled to capture accurate Geo Tagged Images.</li> <li>• Maintaining 15 cm Ground Sampling Distance (GSD)</li> <li>• Minimum overlapping of 80% forward and 70% sideways should be maintained.</li> <li>• Flight should be perpendicular to ground.</li> <li>• All the data / Images must be on a single vertical and horizontal coordinate system.</li> <li>• Orthoimage Processing report shall be generated.</li> <li>• During ortho-image capture flights, the</li> </ul>

		<p>weather should clear of fog, haze, dust, smoke etc., and should be under well illuminated sunlight conditions</p> <ul style="list-style-type: none"> <li>• Images should be sharp and crisp</li> <li>• There should not be any wrapping/smearing/stretch.</li> <li>• Ground Control Point/BM should be clearly visible on images</li> <li>• All the images shall be adjusted together to produce the bundled adjustment images.</li> <li>• All the RAW images with DGPS GCP's shall be submitted to client.</li> <li>• Accuracy report of Orthomosaics, with respect to DGPS BM shall be submitted.</li> <li>• All the orthomosaics shall be color-balanced.</li> </ul>
4	Maximum Data Void in Shadow/Shady Areas**	The maximum size of data void in bare-earth DTM shall not exceed 1(one) sq metre.
5	Projection	UTM
6	Datum	Vertical: MSL Horizontal: WGS-84

\*The Vertical Accuracies mentioned above ie. FVA & SVA refer to MSL Heights

\*\* Should the deliverable fail this test, multiple passes with UAS/Drone sensor and/or Ground Measurements shall be done by the Service Provider

**INDEX TO LOTS (Ref SPN)**



## Appendix B - Schedule of Payments and Reporting Requirements

Payments shall be made according to the following schedule:

- Advance for Mobilization: 10% percent of the Contract Price shall be paid against the submission of unconditional bank guarantee for the same. To be drawn before end of 20% of Contract period.
- Payment Milestones: Lots shall be the units of processing and submission of deliverables listed at Section V. Lots shall also be units of payment. Submission of ‘all the deliverables’ pertaining to the lot shall be the ‘payment milestone’ for concerned lot. Progress payment shall be released according to above milestone, subject to certification by the Employer that services have been rendered satisfactorily.

Only 75% of payment’ due for the lot shall be released on delivery. Rest 25% final payment will be released after acceptance of final deliverables of the complete lot and after incorporations of corrections pointed out by authorized vetting agencies.

Acceptance test shall be carried out by Employer according to principle, modalities laid down in SCC Clause 7.1/ Section VII of this RFB – which shall form the basis of certification mentioned above.

Should the certification (satisfactory or unsatisfactory) not be provided, by the employer within ‘two’ months of the date of the milestone, or of the date of receipt of the corresponding invoice (**whichever is later**), the certification will be deemed to have been provided, and the progress payment will be released at such date.

- The amortization of the Advance mentioned above shall be recovered while making 75% payment at delivery stage.

The bank guarantee for the advance payment shall be released when the advance payment has been fully amortized.

- “Payment of Local Taxes such as GST will be against valid Invoice as per GST Act & Rules and submission of GST Registration Certificate along with declaration that GST Registration is valid and all liabilities towards GST have been discharged by the vendor. GST amount will be paid after 30 days of submission of valid Invoice and all required documents and declaration by vendor”.

Should the certification (satisfactory or unsatisfactory) not be provided, by the employer within ‘two’ months of the date of the milestone, or of the date of receipt of the corresponding invoice (**whichever is later**), the certification will be deemed to have been provided, and the progress payment will be released at such date.



### **Progress Reports**

The Service Provider shall submit monthly progress report indicating lotwise progress of various activities/sub-activities as Horizontal-Bar chart. Status of submission of various deliverables shall also be submitted lot wise every month.

Any delay in activity / submission of deliverables from approved Program shall be clearly flagged in the progress reports.

## Appendix C—Key Personnel

Refer Section III(Bidding Forms)/1.5

Sl. No.	Title of Position	Minimum required	No of Persons proposed	Years of experience in proposed position
1	Project Manager			
2	Operator/ Pilot			
3	Supervisor			
4	Operator – Pre-processing of raw data			
5	Operator – Post-processing of DTM			
6	GNSS Controller			
7	System Manager cum Data Manager			
8	Expert QA/QC			
9	Operator–Post-Processing for Digital Ortho- Imagery			

1	Title of Position: <b>Project Manager</b> Name:
2	Title of Position: <b>Operator/ Pilot</b> Name:
3	Title of Position: <b>Supervisor</b> <i>Names of all Supervisor should be given</i>
4	Title of Position: <b>Operator – Preprocessing of Raw – Data</b> <i>Names of all Operator should be given</i>
5	Title of Position: <b>Operator (Post-Processing DTM)</b> <i>Names of all Operator should be given</i>
6	Title of Position: <b>GNSS Controller</b> <i>Names of all GNSS Controller should be given</i>
7	Title of Position: <b>System Manager cum Data Manager</b> <i>Names of all System Manager cum Data Manager should be given</i>
8	Title of Position: <b>QA/QC Expert</b> <i>Names of all QA/QC Expert should be given</i>
9	Title of Position: <b>Operator–Post-Processing for Digital Ortho- Imagery</b> <i>Names of all Operator should be given</i>

<b>Name of Bidder:</b>		
Position:		
Personnel Information	Name:	Date of Birth:
	Professional Qualification:	
	General of Experience:	
	Experience in Proposed Position:	
Present	Name of Employer:	
	Address of Employer:	
	Telephone:	Contact (Manager/Personnel officer)
	Fax:	E-mail:
	Job Title:	Years with present employer

**Appendix D—Breakdown of Contract Price in Foreign  
Currency(ies) – Not Used**

## **Appendix E—Breakdown of Contract Price in Indian Rupees.**

*List here the elements of cost used to arrive at the breakdown of the lump-sum price—local currency portion:*

- 1. Rates for Equipment Usage or Rental or for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenditures.*

*This appendix will exclusively be used for determining remuneration for additional Services.*

## Appendix F—Services and Facilities Provided by the Employer

Following data will provided to the Service Provider after award of Contract:

- (i) Maps/proofs of the area on 1:50,000 scale or 1:25,000 scale (as available)
- (ii) Description and co-ordinates of planimetric ground control points in and around the Project area on WGS 84 datum

Production Site:

Production Hall inside any **Office of Survey of India**. The Production site will be handed over to the Service Provider on as-is-where-is basis and shall contain only basic electric fittings and fixtures. The bidder is advised to visit the site for estimating the cost for site preparation before submission of bid. Sketch showing the size and lay-out of Production Hall is given below:

- The Contractor will be responsible for Setting up of Production Centre at Survey of India Office. This would include setting up LAN and mobilization of adequate storage systems, servers, workstations, software, peripherals etc to handle/store raw data, intermediate data, data under process and processed data/deliverables. The use-rate of equipment and other costs associated with Preparation of site at the Production Centre shall be deemed to be included as part of post-processing cost.

## **Appendix G—Performance Incentive Compensation Appendix**

**NOT APPLICABLE**

## APPENDIX H-Salient Features of Labour & Environment Laws

### SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE (The law as current on the date of bid opening will apply)

<b>Labour Laws</b>	<p>(a) <u>Workman Compensation Act 1923</u>: The Act provides for compensation in case of injury by accident arising out of and during the course of employment.</p> <p>(b) <u>Payment of Gratuity Act 1972</u>: gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.</p> <p>(c) <u>Employees P.F. and Miscellaneous Provision Act 1952 (since amended)</u>: The act Provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:</p> <ul style="list-style-type: none"> <li>(i) Pension or family pension on retirement or death, as the case may be.</li> <li>(ii) Deposit linked insurance on the death in harness of the worker.</li> <li>(iii) Payment of P.F. accumulation on retirement/death etc.</li> </ul> <p>(d) <u>Maternity Benefit Act 1951</u>: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.</p> <p>(e) <u>Contract Labour (Regulation &amp; Abolition) Act 1970</u>: The Act provides for certain welfare measures to be provided by the Service Provider to contract labour and in case the Service Provider fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Service Provider is required to take license from the designated Officer. The Act is applicable to the establishments or Service Provider of Principal Employer if they employ 20 or more contract labour.</p> <p>(f) <u>Minimum Wage Act 1948</u>: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a schedule employment. Construction of Buildings, Roads, Runways are schedule employments.</p>
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	<p>(g) <u>Payment of Wages Act 1936</u>: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.</p> <p>(h) <u>Equal Remuneration Act 1979</u>: The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.</p> <p>(i) <u>Payment of Bonus Act 1965</u>: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.</p> <p>(j) <u>Industrial Disputes act 1947</u>: the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.</p> <p>(k) <u>Industrial Employment (Standing Order) Act 1946</u>: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.</p> <p>(l) <u>Trade Unions Act 1926</u>: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.</p> <p>(m) <u>Child Labour (Prohibition &amp; Regulation) Act 1986</u>: The Act prohibits employment of children below 14 years of age</p>
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	<p>in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.</p> <p>(n) <u>Inter-State Migrant workmen’s (Regulation of Employment &amp; Conditions of Service) Act 1979</u>: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and bank etc.</p> <p>(o) <u>The Building and Other Construction works (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996</u>: All the establishments who carry on any building or other construction work and employs 10 or more workers and covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First –Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.</p> <p>(p) <u>Factories Act 1948</u>: the Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process</p> <p>(q) Weekly Holidays Act -1942</p> <p>(r) Covid related guidelines of Government should be followed.</p>
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**SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE  
APPLICABLE FOR PROTECTION OF ENVIRONMENT**

<b>Laws on protection of Environment</b>	<ol style="list-style-type: none"> <li>1. The Water(Prevention and Control of Pollution) Act, 1974, This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. ‘Pollution’ means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water(whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.</li>   <li>2. The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution. ‘Air Pollution’ means the presence in the atmosphere of any ‘air pollutant’, which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.</li>   <li>3. The Environment(Protection) Act, 1986, This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. ‘Environment’ includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.</li>   <li>4. The Public Liability Insurance Act, 1991, This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.</li> </ol>
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## **Appendix I-APPOINTMENT OF ADJUDICATOR/DISPUTE REVIEW EXPERT**

### Suggested Draft of LETTER OF APPOINTMENT OF ADJUDICATORS in contracts

Sub: \_\_\_\_\_ (Name of the Contract)

#### **To**

Name and address of the Adjudicator

We hereby confirm your appointment as adjudicator for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose \_\_\_\_\_ (*name of the officer representing the employer*) has been assigned to administer the assignment and to provide the Adjudicator with all relevant information needed to carry out the assignment on behalf of both the employer and the Service Provider. The services will be required during the period of contract for the Services (Name of the Contract) \_\_\_\_\_.

1. The Adjudicator shall visit the site once in 3 (three) months till the completion of the Services indicated above or as specifically requested by employer/service provider for the period upto the end of defects liability period with prior intimation to the employer and the service provider. The duration of each visit shall ordinarily be for one day only. These durations are approximate and (Name of the employer and Name of the Service Provider) may find it necessary to postpone or cancel the assignment and/or shorten or extend the duration.
2. The appointment will become effective upon confirmation of letter by you. The appointment of Adjudicator shall be liable for termination under a 30 (thirty) days written notice from the date of issue of the notice, if both Employer and the Service Provider so desire. Also the appointment shall automatically stand terminated 14 days after the defect notice / correction period as stated in Clauses 7.1 of GCC/PCC is over.
3. The Adjudicator will be paid a fee of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) per each day of visit at the worksite. The actual expenses for boarding and traveling in connection with the assignment will be reimbursed to the Adjudicator. The Adjudicator will submit a pre-receipted bill in triplicate to the employer indicating the date of the visit, fees for the visit and a proof in support of the actual expenditure [only for items valued above Rs 200 each] incurred by him against boarding, lodging and traveling expenses after performing the visit on each occasion. The Employer will make the admissible payment (both the Employer's and the Service Provider's share) to the Adjudicator within 30 days of the receipt of the bill. The Service Provider's share on this account (half the paid amount) will be recovered by the Employer from the Service Provider's bills for the Services.

In accepting this assignment, the Adjudicator should understand and agree that he is responsible for any liabilities and costs arising out of risks associated with travel to and from the place of emergency repatriation, loss or damage to personal/professional effects and property. The Adjudicator is advised to effect personal insurance cover in respect of such risks if he does not already have such cover in place. In this regard, the Adjudicator shall maintain appropriate medical, travel, accident and third-party liability insurance. The obligation under this paragraph will survive till termination of this appointment.

Procedures for resolution of disputes by the Adjudicator is described in the contract of \_\_\_\_\_(name of the contract) between the employer and the Service Provider vide clause 8 of GCC/PCC. Your recommendation should be given in the format attached, within 28 days of receipt of a notification of dispute.

The Adjudicator will carry out the assignment in accordance with the highest standard of professional and ethical competence and integrity, having due regard to the nature and purpose of the assignment, and will conduct himself in a manner consistent herewith. After visiting the site, the Adjudicator will discuss the matter with the Employer and if necessary with the Service Provider before arriving at any decision.

The Adjudicator will agree that all knowledge and information not within the public domain, which may be acquired while carrying out this service shall be all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any party whatsoever, except with the permission of the employer and the Service Provider. The Adjudicator's decision should be communicated in the form of a speaking order specifying the reasons.

The Adjudicator will agree that any manufacturing or construction or consulting firm with which he might be associated with, will not be eligible to participate in bidding for any goods or works or consultant services resulting from or associated with the project of which this consulting assignment forms a part

Read and Agreed

Name of Adjudicator  
Signature

Place:

Date:

Name of Employer  
Signature of authorized representative of Employer

Name of the Service Provider  
Signature of authorized representative of Service Provider

Attachment: Copy of contract document between the employer and Service Provider and format for recommendation.

## SUMMARY OF ADJUDICATOR'S RESPONSIBILITIES

The Adjudicator has the following principal responsibilities:

1. Visit the site periodically.
2. Keep abreast of job activities and developments.
3. Encourage the resolution of disputes by the parties.
4. When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendations in a professional and timely manner(as per sample format)

Sample Format of Adjudicator's Recommendation  
[Project Name]  
**Recommendation of Adjudicator**

Dispute No. XX [NAME OF DISPUTE]

Hearing Date: \_\_\_\_\_

**Dispute**

Description of dispute. A one or two sentence summation of the dispute.

**Service Provider's Position**

A short summation of the Service Provider's position as understood by the Adjudicator.

**Employer's Position**

A short summation of the Employer's position as understood by the Adjudicator.

**Recommendation**

The Adjudicator's specific recommendation for settlement of the dispute. *(The recommended course is consistent with the explanation).*

**Explanation**

*(This section could also be called Considerations, Rationale, Findings, Discussion, and so on.)*

The Adjudicator's description of how each recommendation was reached.

Respectfully submitted,

Date : \_\_\_\_\_

Date : \_\_\_\_\_

Date : \_\_\_\_\_

## Section IX. Contract Forms

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## Performance Bank Guarantee (Unconditional)

To: \_\_\_\_\_

Whereas \_\_\_\_\_ (hereinafter called “the Service Provider”) has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ (hereinafter called “the Contract”);

And whereas it has been stipulated by you in the said Contract that the Service Provider shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

And whereas we have agreed to give the Service Provider such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Service Provider, up to a total of \_\_\_\_\_, \_\_\_\_\_, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_/ as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Service Provider before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Services to be performed there under or of any of the Contract documents which may be made between you and the Service Provider shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until a date 28 days from the date of issue of the Certificate of Completion.

Signature and seal of the Guarantor \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

## Bank Guarantee for Advance Payment

To: \_\_\_\_\_

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub-Clause 6.4 (“Terms and Conditions of Payment”) of the above-mentioned Contract, \_\_\_\_\_ (hereinafter called “the Service Provider”) shall deposit with \_\_\_\_\_ a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_

We, the \_\_\_\_\_, as instructed by the Service Provider, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ on his first demand without whatsoever right of objection on our part and without his first claim to the Service Provider, in the amount not exceeding \_\_\_\_\_

We further agree that no change or addition to or other modification of the terms of the Contract or of Services to be performed there under or of any of the Contract documents which may be made between \_\_\_\_\_ and the Service Provider, shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ receives full repayment of the same amount from the Service Provider.

Yours truly,

Signature and seal: \_\_\_\_\_

Name of Bank/Financial Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_