



Bid Number/बोली क्रमांक (बिड संख्या):
GEM/2024/B/5360929
Dated/दिनांक : 04-09-2024

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	25-09-2024 19:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	25-09-2024 19:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Water Resources River Development And Ganga Rejuvenation
Department Name/विभाग का नाम	Na
Organisation Name/संगठन का नाम	Central Ground Water Board (cgwb)
Office Name/कार्यालय का नाम	Faridabad
Item Category/मद केटेगरी	Custom Bid for Services - Heliborne Geophysical Survey
Contract Period/अनुबंध अवधि	1 Year(s) 6 Month(s) 1 Day(s)
Minimum Average Annual Turnover of the bidder (For 3 Years)/बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का)	3600 Lakh (s)
Years of Past Experience Required for same/similar service/उन्हीं/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	5 Year (s)
Past Experience of Similar Services required/इसी तरह की सेवाओं का पिछला आवश्यक अनुभव है	Yes
MSE Exemption for Years Of Experience/अनुभव के वर्षों से एमएसई छूट/ and Turnover/टर्नओवर के लिए एमएसई को छूट प्राप्त है	Yes
Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट	No
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Bidder Turnover,Certificate (Requested in ATC),Additional Doc 1 (Requested in ATC),Additional Doc 2 (Requested in ATC),Additional Doc 3 (Requested in ATC),Additional Doc 4 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer

Bid Details/बिड विवरण

Do you want to show documents uploaded by bidders to all bidders participated in bid?/	Yes
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Yes
RA Qualification Rule	H1-Highest Priced Bid Elimination
Type of Bid/बिड का प्रकार	Two Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	7 Days
Estimated Bid Value/अनुमानित बिड मूल्य	1196328232
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation
Financial Document Indicating Price Breakup Required/मूल्य दर्शाने वाला वित्तीय दस्तावेज ब्रेकअप आवश्यक है	Yes

EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	23926565

ePBG Detail/ईपीबीजी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
ePBG Percentage(%) / ईपीबीजी प्रतिशत (%)	5.00
Duration of ePBG required (Months) / ईपीबीजी की अपेक्षित अवधि (महीने).	32

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित कैटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने है। एमएसई कैटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

Beneficiary/लाभार्थी :

DDO
DDO, CGWB, Bhujal Bhawan, NH-IV, Faridabad, Haryana -121001
(Ddo, Cgwb)

MII Compliance/एमआईआई अनुपालन

MII Compliance/एमआईआई अनुपालन	Yes
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MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
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1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.
2. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
3. Years of Past Experience required: The bidder must have experience for number of years as indicated above in bid document (ending month of March prior to the bid opening) of providing similar type of services to any Central / State Govt Organization / PSU. Copies of relevant contracts / orders to be uploaded along with bid in support of having provided services during each of the Financial year.
4. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for % (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.
5. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.
6. Past Experience of Similar Services: The bidder must have successfully executed/completed similar Services over the last three years i.e. the current financial year and the last three financial years(ending month of March prior to the bid opening): -
 1. Three similar completed services costing not less than the amount equal to 40% (forty percent) of the estimated cost; or
 2. Two similar completed services costing not less than the amount equal to 50% (fifty percent) of the estimated cost; or
 3. One similar completed service costing not less than the amount equal to 80% (eighty percent) of the estimated cost.

7. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- i. If number of technically qualified bidders are only 2 or 3.
- ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Excel Upload Required/एक्सेल में अपलोड किए जाने की आवश्यकता :

BOQ - [1725451818.xlsx](#)

Additional Qualification/Data Required/अतिरिक्त योग्यता /आवश्यक डेटा

Introduction about the project /services being proposed for procurement using custom bid functionality:[1725451901.pdf](#)

Instruction To Bidder:[1725451906.pdf](#)

Pre Qualification Criteria (PQC) etc if any required:[1725451909.pdf](#)

Scope of Work:[1725451914.pdf](#)

Payment Terms:[1725451918.pdf](#)

Penalties:[1725451922.pdf](#)

Quantifiable Specification / Standards of The Service/ BOQ:[1725451929.pdf](#)

Project Experience and Qualifying Criteria Requirement:[1725451933.pdf](#)

Educational Qualification including Profile of SME/Consultants /Professional Resources /Technical Resources if they are part of Project .:[1725451942.pdf](#)

GEM Availability Report (GAR):[1725451950.pdf](#)

Buyer's Competent Authority Approval:[1725452028.pdf](#)

Any other Documents As per Specific Requirement of Buyer -1:[1725452038.pdf](#)

Undertaking of Competent Authority is mandatory to create Custom Bid for Services. Please download standard format document and upload:[1725452871.pdf](#)

Pre Bid Detail(s)

Pre-Bid Date and Time	Pre-Bid Venue
11-09-2024 15:00:00	Central Ground Water Board, Bhujal Bhawan, NH-IV, NIT-IV Faridabad-HR (India)-121001

Custom Bid For Services - Heliborne Geophysical Survey (1)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification	Values
Core	
Description /Nomenclature of Service Proposed for procurement using custom bid functionality	Heliborne Geophysical Survey

Specification	Values
Regulatory/ Statutory Compliance of Service	YES
Compliance of Service to SOW, STC, SLA etc	YES
Addon(s)/एडऑन	

Additional Specification Documents/अतिरिक्त विशिष्टि दस्तावेज़

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	The quantity of procurement "1" indicates Project based or Lumpsum based hiring.	Additional Requirement/अतिरिक्त आवश्यकता
1	Shubranshu Sharma	121010,Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad Haryana 121001	1	N/A

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. Generic

OPTION CLAUSE: The buyer can increase or decrease the contract quantity or contract duration up to 25 percent at the time of issue of the contract. However, once the contract is issued, contract quantity or contract duration can only be increased up to 25 percent. Bidders are bound to accept the revised quantity or duration

2. Buyer Added Bid Specific Scope Of Work(SOW)

File Attachment [Click here to view the file.](#)

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum

issued by DPIIT in this regard.

2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Any ATC clause in contravention with GeM GTC Clause 4 (xiii)(h) will be invalid. In case of multiple L1 bidders against a service bid, the buyer shall place the Contract by selection of a bidder amongst the L-1 bidders through a Random Algorithm executed by GeM system.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

This Bid is governed by the [General Terms and Conditions/सामान्य नियम और शर्तें](#), conditions stipulated in Bid and [Service Level Agreement](#) specific to this Service as provided in the Marketplace. However in case if any condition specified in General Terms and Conditions/सामान्य नियम और शर्तें is contradicted by the conditions stipulated in Service Level Agreement, then it will over ride the conditions in the General Terms and Conditions.

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्यवाई का आधार होगा।

---Thank You/धन्यवाद---

**GOVERNMENT OF INDIA
CENTRAL GROUND WATER BOARD
Department of Water Resources RD & GR
Ministry of Jal Shakti
Bhujal Bhawan, NH-IV, Faridabad-HR (INDIA).**

E-mail: seop-cgwb@nic.in
Telephone:.....

Draft Tender Document

Tender/Bid No:- NIET No. 01/MMS/2024-25/Heliborne

Dated: 04.09.2024

Invitation for Engaging agency for Heliborne Geophysical Surveys for High Resolution Aquifer Mapping & Management in Arid Region of North-western India in Phase-II

On behalf of president of India, **The Chairman, Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad-HR (India)** invites bids for engaging Heliborne survey providers to carry out Heliborne geophysical surveys for high resolution aquifer mapping & management in arid region of Northwestern India under PIB-Project.

Estimated Cost of Project (in Rs Excluding GST)	: 1,19,63,28,232/-
Time Period of Project	: 18 months
Area of Survey	: Parts of Rajasthan, Gujarat, Himachal, Punjab and Haryana
EMD Fee (in Rs)	: 2,39,26,565/-
Total Line Km	: 1,10,168 Km
Total Sq Km	: 2,71,390 Sq Km
Total Ground TEM	: 271 nos.
Total ERT/2D-Imaging	: 209 nos.

The interested parties must upload their bids through the e-procurement system of the government of India on GEM-portal (www.gem.gov.in).

The invitation to bids is subject to fulfillment of instructions and conditions mentioned in various chapters of the tender document.

Chapter-1	: Important Information
Chapter-2	: Conditions of the Bid
Chapter-3	: Eligibility Criteria
Chapter-4	: Qualification Criteria
Chapter-5	: Scope of Work
Chapter-6	: Technical Specification
Chapter-7	: Survey Area
Chapter-8	: Preparation of Bid
Chapter-9	: Bid Evaluation
Chapter-10	: Pre- Contract Integrity Pact
Chapter-11	: Forms to Be Submitted
Chapter-12	: Roles of CGWB and Contractor
Annexure-I	: Bid Security Declaration
Annexure-II	: Bank Guarantee Performa for Performance Security

Annexure-III	: Undertaking/Acceptance Format
Annexure-IV	: Check List Format
Annexure-V	: Information about the Bidder
Annexure-VI	: Form of Bankers Certificate from a Scheduled Bank
Annexure-VII	: Bid Evaluation Matrix
Annexure-VIII	: Declaration of Local Content by Local Supplier
Annexure-IX	: Draft Memorandum of Agreement
Annexure-X	: Declaration by the bidder
Annexure-XI	: Bank Guarantee Performa for Bid Security/EMD
Annexure-XII	: Integrity Pact

This advertisement with details is also displayed on the **CGWB** website www.cgwb.gov.in subsequent corrigendum/amendments to this tender, if any, shall be posted in the GEMportal (www.GeM.gov.in) and **CGWB** website.

Clarifications pertaining to the tender if any may be sought from:
The Superintendent Engineer (MMS-I), **Central Ground Water Board**, Bhujal Bhawan,
NH-IV, Faridabad-HR (India)-121004,
Telephone/fax-no: 0129247721 Email address: seop-cgwb@nic.in

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Chapter-1**Important Information**

Pre-bid meeting	: 11.09.2024
Video conferencing ID	: Pre-bid meeting for “Heliborn Geophysical Survey” https://cgwb-my.webex.com/cgwb-my/j.php?MTID=m6adccbd88988f3d093eb436354ac66de
Deadline for pre-bid query	: 11.09.2024
Closing date for uploading the bid	: 25.09.2024
Date of opening of technical bid	: 26.09.2024
Date of opening of price bid	:
Venue for pre-bid meeting and bid opening:	
Central Ground Water Board, Bhujal Bhawan, NH-IV, NIT-IV Faridabad-HR (India)-121001	

Description of work

Heliborne geophysical surveys for high-resolution aquifer mapping & management in arid region of northwestern India in Phase-II under PIB project.

Chapter-2**Conditions of The Bid**

- a) The interested parties must upload their bids through the e-procurement system of the government of India on the GEM portal (www.GeM.gov.in).
- b) The bidders have to submit one hard copy of all the documents uploaded in the GEM portal (except price bid) at the office of the Superintendent Engineer (MMS-I), Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad-HR (India)-121001, on or before bid closing date. However, if any discrepancy/difference arises between the hard copy and the submitted GEM copy, only the content of the GEM portal will be considered as final.
- c) The bid is to be uploaded under “two bid” system viz. “technical bid” and “price bid”.
- d) On the day of bid opening, only technical bid will be opened. The price bid for only the technically qualified bidders will be opened later. In case of any change in dates, timely information will be provided (on GeM portal)
- e) Authorized representative of the bidder with an authority letter may attend the bid opening.
- f) A pre-bid meeting will be conducted with the prospective bidders on a notified date; the technical and commercial aspects of the bid will be clarified.
- g) **Validity of bid:**The bid shall remain valid for 180 days. The bidder shall submit an undertaking that the bid should be valid for 180 days from the date of opening of tender. If required by CGWB, bid validity may be extended.
- h) **Bid security/ earnest money deposit (EMD):**
 - (i) Bidders shall furnish along with its tender, earnest money amounting to 2% of the estimated cost of tender as mentioned in the tender document. The earnest money is required to protect the employer against the risk of the tender’s unwarranted conduct.
 - (ii) EMD is to be furnished at the office of Superintendent Engineer (MMS-I), Central Ground Water Board, Bhujal Bhawan, Nh-IV, Faridabad-HR (India)-121001, in person or by post, on or before the tender closing date failing which the bid would be summarily rejected.
 - (iii) In case bidder is exempted from EMD, the bid security declaration in the format annexed in Annexure-I is required to be submitted.
 - a) The earnest money shall be denominated in Indian rupees.
 - b) The earnest money shall be furnished in one of the following forms:
 - Account payee demand draft
 - Fixed deposit receipt
 - Bank guarantee
 - (iv) The demand draft, fixed deposit receipt shall be drawn on any commercial bank in India, in favor of the DDO, CGWB, Bhujal Bhawan, NH-IV, Faridabad. In case of bank guarantee, it should be irrevocable and operative Bank Guarantee (BG) as per the format specified under Annexure-XI of this tender document and should be issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks).
 - (v) The earnest money shall be valid for a period of 60 (sixty) days beyond the validity period of the tender.

- (vi) Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than 30 days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.
- (vii) Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect, withdraws its tender, or fails to sign the contract within the period of validity of its tender. The successful tenderers earnest money will be forfeited if it fails to furnish the required performance security within the specified period.

i) Performance Security Deposit (PSD)/Performance Guarantee (PG) –

- i. Performance security deposit / performance guarantee for the value of 5% of the total contract amount is to be deposited by the successful bidder, on selection of the bid, within 21 (Twenty One) days of the receipt of the notification of award (issue of letter of Award: LOA). The successful bidder shall furnish to CGWB, a Performance Security in the form of a Bank Guarantee/FDR/Demand Draft(DD) Of An Acceptable Bank (i.e. Scheduled bank as listed in the second schedule of the reserve bank of India act, 1934 excluding those listed under the headings of Gramin banks, urban co- operative banks and state co-operative banks) as per format annexed in annexure-ii for an amount of 5% (Five percent) of the contract price in accordance with the conditions of the contract. The performance security provided by the successful bidder in the form of Bank Guarantee shall be in favour of DDO, CGWB, CHQ, Faridabad should be irrevocable and operative Bank Guarantee (BG) as per format annexed in annexure-ii in these documents and should be issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional Rural Banks).
 - ii. The validity of the PSD/PG should be twelve (12) months beyond the contract period.
 - iii. In case of non-compliance of terms and conditions of the contract and for any other unsatisfactory performance or/and failure to render contracted service during the period of contract by the bidder to whom order has been awarded, (including the non-completion of the task assigned to bidder as per different milestones within the stipulated period of the respective milestone). The performance security deposit/ performance guarantee will be forfeited.
 - iv. If the bidder is unable to complete the contract within the stipulated time, bidder has to renew the performance security deposit/ performance guarantee beyond twelve (12) months according to the extended contract period.
 - v. On successful completion of the contract, performance security deposit/ performance guarantee will be returned.
 - vi. No interest will be paid on performance security deposits/ performance guarantee.
- j)** The bidder has to agree with the integrity pact and sign on the integrity pact contract as per the format provided in chapter 10 in duplicate with the signature of witnesses in full. The authorized official of the bidder who signs the bid should sign the integrity pact with the bidder's rubber stamp and submit the same along with the technical bid.
 - k)** The bidder has to provide, along with their bids, an undertaking of acceptance of terms and conditions of the tender in a format as given in annexure-iii and also a check list in a format as given in annexure-iv.
 - l)** It is made clear to all the bidders that, mere opening of the financial bid cannot be treated as acceptance of the financial bid, even if it is communicated to the bidder through SMS from GEM that their financial bid is accepted. SMS from GEM should only be treated to the extent that the financial bid is considered for evaluation.

- m) Central Ground Water Board reserves the right to accept or reject any bid or all the bids without assigning any reason.
- n) Central Ground Water Board reserves the right to cancel the tender at any point of time before the issue of work order.
- o) The bidder should have technically qualified personnel to carry out the above-mentioned jobs. Also, the bidder shall compulsorily provide the services of these technical personnel at all times during the contract period. Any change in the declared personnel shall be done with the prior approval from CGWB. Also, the new personnel shall be of similar qualification and experience as the one being replaced.
- p) There should not be any change in the key personnel, as mentioned in the bid, during the complete contract period.
- q) Delay of the final deliverables by the selected bidder will attract financial penalty as defined in the relevant section of this tender.
- r) If the lead consortium partner or partner responsible for geophysical activities including data acquisition, processing, integration and interpretation exits the contract at any given time during the contract period, the contract will stand cancelled and the performance security deposit/ performance guarantee will be forfeited.
- s) ***Pre-bid meeting***

Attendance at the pre-bid meeting, although preferred, is not mandatory by the bidder/representative. The meeting will, however, discuss the questions submitted by emails.

The objectives of the pre-bid meeting will be to clarify the following:

- Proposed objective of the tender
- Bid submission process
- Clarification of queries from participants

The questions submitted by email, will be addressed in an addendum/corrigendum/Pre-bid Meeting Minutes to the tender documents and posted on GEM portal (www.gem.gov.in). Some of the questions may be answered informally at the pre- bid meeting but definitive and binding answers will only be provided in the addendum/Pre-bid Meeting Minutes. Any clarification sought after pre-bid meeting will not be entertained.

t) Memorandum of Agreement (MOA)

A Memorandum of Agreement (MOA) is to be signed soon after the receipt of the acceptance LOA (Letter of Award) from the selected bidder. Subsequently work orders will be issued after submission of the performance security deposit (PSD)/ performance guarantee (PG). MOA will be executed in person. A draft MOA is attached at annexure- IX for reference. All members of consortium should sign the MOA

The MOA will contain all the terms and conditions of the contract as described in the e-tender and will include the following points:

- Termination on the grounds of force majeure
- Termination on the grounds of poor performance by the bidder

- Provisions for arbitration and compensation
- Penalty in case of non-performance causing delay in achieving the set target.

u) Conflict of interest clause:

Conflicting activity: the bidder or any of his consortium members should not be in any way directly or indirectly affiliated to any other bidder participating in this contract for Heliborne geophysical surveys for high-resolution aquifer mapping & management in arid region of northwestern India under project PIB floated by CGWB.

Conflicting relationship: the bidder or his consortium members (including his/its experts) should not have been involved directly or indirectly in preparing the DPR for this project i.e. “Heliborne geophysical surveys for high-resolution aquifer mapping & management in arid region of northwestern India under project PIB”.

v) Termination of contract:

This contract may be terminated by CGWB as per provisions set up below:

The CGWB may terminate this contract in case of the occurrence of any of the events specified in paragraphs (a) through (g) of this clause. In such an occurrence the CGWB shall give at least thirty (30) calendar days’ written notice of termination to the bidder in case of the events referred to in (a) through (d); at least sixty (60) calendar days’ written notice in case of the event referred to in (e); and at least thirty (30) calendar days’ written notice in case of the event referred to in (f):

- a) If the bidder fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to the effect that CGWB may, by written notice of suspension to the bidder, suspend all payments to the bidder hereunder, if the bidder fails to perform any of its obligations under this contract, including the carrying out of the services, provided that such notice of suspension:
 - (i) Shall specify the nature of the failure, and
 - (ii) Shall request the bidder to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the bidder of such notice of suspension.
- b) If the bidder becomes (or, if the bidder consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- c) If the bidder fails to comply with any final decision reached as a result of arbitration proceedings pursuant to the effect that any dispute between the parties arising under or related to this contract that cannot be settled amicably may be referred to by either party to the adjudication/arbitration in accordance with the clause 2.2 of chapter 2 (arbitration clause).
- d) If, as the result of force majeure, the bidder is unable to perform a material portion of the services for a period of not less than sixty (60) calendar days;
- e) If the CGWB, in its sole discretion and for any reason whatsoever, decides to terminate this contract;
- f) If the bidder fails to confirm availability of key experts as required.
- g) Non submission of PSD/PG at the time of signing of Contract Agreement.
- h) If the bidder fails to complete the milestone within the stipulated timeline as described in relevant section of this tender.
- i) Furthermore, if the CGWB determines that the bidder has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the contract, then the CGWB may, after giving fourteen (14) calendar days written notice to the bidder, terminate the bidder's employment under the contract.

w) Force majeure:

- a) For the purposes of this contract, “force majeure” means an event which is beyond the reasonable control of a party, is not foreseeable, is unavoidable, and makes a party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action like lockdown, international travel restrictions imposed by government due to pandemic situation.
- b) Force majeure shall not include**
- (i) any event which is caused by the negligence or intentional action of a party or such party’s experts, sub-bidders or agents or employees, nor
 - (ii) any event which a diligent party could reasonably have been expected to both take into account at the time of the conclusion of this contract, and avoid or overcome in the carrying out of its obligations hereunder.
- c) Force majeure shall not include insufficiency of funds or failure to make any payment required hereunder.
- d) The failure of a party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this contract in so far as such inability arises from an event of force majeure, provided that the party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this contract.
- e) A party affected by an event of force majeure shall continue to perform its obligations under the contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of force majeure.
- f) A party affected by an event of force majeure shall notify the other party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible
- g) 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.
- h) If the case of disagreement between the parties as to the existence or extent of force majeure, the matter shall be settled according to:
- (i) The parties shall seek to resolve any dispute amicably by mutual consultation.
 - (ii) If either party objects to any action or inaction of the other party, the objecting party may file a written notice of dispute to the other party providing in detail the basis of the dispute. The party receiving the notice of dispute will consider it and respond in writing within fourteen (14) Days after receipt. If that party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that party, clause 2.2 of chapter 2 shall apply.
 - (iii) Any dispute between the parties arising under or related to this contract that cannot be settled amicably may be referred to by either party to the adjudication/arbitration in accordance with the clause 2.2 of chapter 2 (arbitration clause).
- x) If the selected bidder fails to initiate/leaves without completing the contractual obligations unilaterally, he will be barred from participating in any subsequent retendering process for that particular area for a period of three years.**
- y) Any kind of canvassing in regard to the offered services after submitting the bids will be treated as grounds for disqualification.**

2.1 General Conditions

- a) For participation in the bidding process and submitting bids, the bidder should be:-
 A partnership firm registered under the registered partnership act 1932
 or
 A limited liability partnership under the limited liability partnership act of India, 2008
 or
 A company registered in India under Indian companies act 1956 or 2013
 or
 A consortium comprising of a maximum of three companies or a joint venture company.
 There should be formal registered agreement identifying the lead partner.
- b) The bidder should submit a notarized power of attorney on a stamp paper of INR 100/- authorizing the signatory of the bid and to commit the bidder, along with the submission of bid.
- c) A bidder that is under a declaration of ineligibility by any other government authority or court of law in India at the date of submission of the bid or during evaluation of bids shall be disqualified.
- d) No current government employee shall be deployed by the selected bidder without the prior written approval by the appropriate authority.

e) Fraud and Corruption

- A. CGWB requires that the bidders observe the highest standard of ethics during their procurement and execution of such contracts. In such pursuance of this policy,
- B. ***Defined, for the purposes of this provision, the terms set forth as follows:***
- i. “corrupt practice” means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution;
 And
- ii. “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the borrower, and includes collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non- competitive levels and to deprive the borrower of the benefits of free and open competition).
- C. Will reject a bid for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract;
- And
- D. Will declare a firm ineligible, either indefinitely or for a stated period of time for awarding any contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, any contract.

2.2 Dispute Resolution Board

If any dispute arises between the employer and the contractor in connection with, or arising out of, the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after the repudiation or other termination of the contract, including any disagreement by either party with any action, inaction, opinion, instruction,

determination, certificate or valuation of the engineer, the matter in dispute shall, in the first place, be referred to the dispute resolution board here in after called “the board.”

- The dispute resolution board shall consist of following members
- The concerned member, CGWB under whose jurisdiction the work is being executed
- The FAO, CGWB
- The Regional Director, CGWB of the concerned region/s.
- The Superintending Engineer, CGWB under the concerned member.

The board at its discretion may co-opt any other officer if in its opinion it may help in resolving the dispute. Either party may refer a dispute to the board. The board shall give a decision in writing within 30 days of reference of dispute.

Either party may refer a written decision of the board. If neither party refers the disputes to arbitration within 30 days, the board’s decision will be final and binding.

Employer at its discretion may change any of the member of the board.

2.3 Arbitration

- Any dispute in respect of which the recommendation, if any, of the dispute resolution board has not become final and binding shall be finally settled in accordance with the provisions of the arbitration and conciliation act, 1996 or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force. The arbitrator shall have full power to open up, review and revise any decision, and any recommendation of the conciliator related to the dispute.
- A sole arbitrator shall be appointed by the appointing authority i.e. Chairman, CGWB as defined in contract data within 45 days of receipt of request from either party. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with same reference from the stage at which it was left by his predecessor.
- It is a term of this contract that the arbitrator shall adjudicate only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases the arbitrator shall give reasons for the award. If any fees is payable to the arbitrator, these shall be paid equally by both the parties.
- It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counterstatement of claims. The venue of the arbitration shall be such place in India as may be fixed by the arbitrator in his sole discretion.

2.4 MSME Consideration

- The MSME benefits will be considered for any bidder only if the firm is registered as MSME for the work of Heliborne geophysical survey.
- The MSME benefits will be considered for any consortium only if the lead partner is registered as MSME for the work of Heliborne geophysical survey.
- In case of joint venture company, for availing purchase preference, the firm has to be registered as MSME for the work of Heliborne geophysical survey.
- The MSME company should have experience and turn over as mentioned in chapter 3 & 4.

2.5 Timeline for completion of project:

- Hiring/import of Helicopter/instruments, field reconnaissance and inspections, data compilation, conceptualization and obtaining all permissions & mobilization to survey area – within 3 months of issuance of work order.
- 100% completion of data acquisition & demobilization of Helicopter/aircraft from the survey area – within 17 months of issuance of work order.
- Ground Geophysics- ERT&TEM and training and capacity building of CGWB scientists- – within 17 months of issuance of work order.
- Data processing, compilation, integration & interpretation and validation and finalization of geophysical results –within 17 months of issuance of work order.
- Submission of all deliverables and final Reports –within 18 months of issuance of work order.
- Reviewing and approval of all final deliverables and reports by TS-QC consultant and CGWB– within 18 months of issuance of work order.

2.6 Liquidity Damages (Penalty):

- If the bidder is not carrying out the work as per the memorandum of agreement (MOA) guidelines, the delays in delivery of the final deliverables (of the complete project) will attract Liquidity Damages (financial penalty) at the rate of 2% of the contract amount per month. The total penalty will be capped at 10% of the total contract amount.
- In case of any deficiency/delay/unsatisfactory/non-performance by the bidder, the appropriate action will be taken by CGWB, against the delinquent bidder as per prevailing Govt. of India rules/guidelines on procurement.

2.7 Public Procurement (Preference To Make In India)**1. Definitions: for the purposes of this tender:**

- ‘Local Content’ means the amount of value added in India which shall, unless otherwise prescribed by the nodal ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- ‘Class-I Local supplier’ means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under this order.
- ‘Class-II Local Supplier’ means a supplier or service provider, whose goods, services or works offered for procurement has local content more than 20% but less than 50%, as defined under this order.
- ‘Non - Local supplier’ means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this order.
- ‘L1’ means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
- ‘Margin of purchase preference’ means the maximum extent to which the price quoted by a “class-I local supplier; may be above the L1 for the purpose of purchase preference.

- ‘Nodal ministry’ means the ministry or department identified pursuant to this order in respect of a particular item of goods or services or works.
- ‘Procuring entity’ means a ministry or department or attached or subordinate office of, or autonomous body controlled by, the government of India and includes government companies as defined in the companies act.

2. Eligibility of ‘Class-I Local Supplier’/ ‘Class-II Local Supplier’/ ‘Non-Local Suppliers’ for thistender:

- In procurement of all goods, services or works in respect of which the nodal ministry / department has communicated that there is sufficient local capacity and local competition, ‘class-i local supplier’ / ‘class-ii local supplier’, as defined shall be eligible to bid irrespective of purchase value.

3. Purchase Preference:

Subject to the provisions of this order and to any specific instructions issued by the nodal ministry or in pursuance of this order, purchase preference shall be given to ‘class-I local supplier’ in procurements undertaken by procuring entities in the manner specified here under.

In the procurements of goods or works, which are covered by Para 2(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the ‘class-I local supplier’ shall get purchase preference over ‘class-ii local supplier’ as well as ‘non-local supplier’, as per following procedure:

- Among all qualified bids, the lowest bid will be termed as L1. If L1 is ‘class-I local supplier’, the contract will be awarded to L1.
- If L1 is not ‘class-I local supplier’, the lowest bidder among the ‘class-I local supplier’, will be invited to match the L1 price subject to class-II local supplier’s quoted price falling within the margin of purchase preference, and the contract shall be awarded to such ‘class-I local supplier’ subject to matching the L1 price as the project is not in divisible nature.
- In case such lowest eligible ‘class-I local supplier’ fails to match the L1 price, the ‘class-i local supplier’ with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the ‘class-i local supplier’ within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.
- “Class-II local supplier” will not get purchase preference in any procurement, undertaken by procuring entities.

4. Margin of purchase preference: the margin of purchase preference shall be 20%.

5. Verification of local content:

- The ‘class-I local supplier’/ ‘class-II local supplier’ shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
- False declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the general financial rules for which a bidder or its successors can be debarred for up to two years as per rule 151 (iii) of the general financial rules along with such other actions as may be permissible under law.

- c) A supplier who has been debarred by any procuring entity for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities.
- d) The bidder has to furnish/submit the following documents with their technical bid:
 - i. Declaration of local content by local supplier i.e. Class-I or class-II supplier shall be submitted as per the format enclosed in annexure-VIII.
 - ii. Details of local content for class-I or class-II supplier shall be submitted with the technical bid.

Chapter-3**Eligibility criteria**

The bidders who fulfill the following criteria shall be treated as eligible for this tender.

Bidder should keep the following points in mind in the context of eligibility criteria:

1. The Heliborne survey provider; should have successfully executed: -following quantities in last five years ending last day of month previous to the one in which tenders are invited:
 - A. At least a total of 33,100 line-km of Heliborne Geophysical Surveys (i.e. approximately 30% of the quantity required to be executed in the project), in last five years ending last day of month previous to the one in which tenders are invited.
 - B. At least a total of 82 of G-TEM (i.e. approximately 30% of the quantity required to be executed in the project)in last five years ending last day of month previous to the one in which tenders are invited.
 - C. At least a total of 75 line-Km of 2D-Imaging(i.e. approximately 30% of the quantity required to be executed in the project)in the last five years ending last day of month previous to the one in which tenders are invited.
2. The Heliborne Survey provider should have sufficient number of professionals (see form tech-4), equipment (at least one primary and one backup) who can undertake the data acquisition for this project.
3. It is expected that the as per qualifying criteria, bidder has sufficient knowledge of the hydrogeology, topography, forest cover and other restricted areas of Indian sub-continent, the agencies/organizations working in this field, the existing rules, regulations and legal aspects of the government of India pertaining to the execution of this project.
4. The Minimum Average annual financial turnover during the last three years, ending 31st March of the previous financial year should be at Rs 36.00 crores(~30% of the estimated cost.) (Balance Sheet duly audited and certified by Chartered Accountant required to be submitted)
5. If a bidder is a single company or a consortium/JV of companies with one company as the lead company, the credentials of all the consortium/JV members will be considered for evaluating the technical bids. There should be a legally binding agreement between the consortium partners, mentioning the roles and responsibilities of each member and sole responsibility of the lead company for the timely and successful execution of the project. Original consortium agreement should be submitted along with the technical bid. In the case of a joint venture company, credential of all the members will be considered for evaluation. It also specified that each partner should meet at least 25% (and the lead partner at least 50%) out of the qualifying limit in case financial turnover. In case of a Consortium/JV, all members of the Consortium/JV shall sign the contract and shall be jointly and severally liable for the entire assignment.
6. The bidder should have a representative/partner/employee in India who is always accessible to CGWB.
7. Secrecy clause: the bidder selected for the project should execute a non- disclosure agreement (NDA) before starting up the project. The format for the confidentiality document will be provided at the time of signing of agreement.
8. The bidder shall ensure that the bid security declaration/EMD is in order and has been submitted with the technical bid as per format provided in this tender. Bids without the bid security declaration/EMD shall summarily be rejected and shall not be considered for further opening and evaluation of the proposals.
9. The bidder must ensure that all the relevant documents as asked in the tender have been attached including the technical and finance forms, declaration of non-blacklisting, certificate of incorporation/registration (companies act or partnership pact), PANNO., GST-REG(GSTIN), Work Experience certificates, Audited Balance Sheets, Annual Turnover,

Income Tax and others as asked in tender.

10. For the ease of bidders, a preliminary checklist for the documents to be enclosed along with the bid is attached as Annexure-IV in the tender.
11. If any of the documents is found missing in the submitted bid, clarification may be sought from the bidders. However, in case of non-receipt of response to clarifications in time, the bid will be rejected without any further evaluation. However, in case any missing documents make the bid non-responsive, then CGWB shall have the right to reject the bid without any further evaluation.

Chapter-4**Qualifying Criteria**

Sl. No.	Basic requirement	Specific requirement	Documents required
1	Survey capability	At least a total of 33,100 line-km of Heliborne/airborne Geophysical Surveys in last five years ending last day of month previous to the one in which tenders are invited. At least a total of 82 nos. of G-TEM in last five years ending last day of month previous to the one in which tenders are invited. At least a total of 75 line-Km of 2D-Imaging in last five years ending last day of month previous to the one in which tenders are invited.	Copies of work order along with work completion certificate of client or copies of client certificate(s) stating completion of the project(s).
	Technical capability	If the bidder is a consortium, then the owner of the survey technology and provider of the technical manpower must be the lead partner or at the very least, take full responsibility for all aspects of the geophysical component of the contract.	Consortium Agreement Proof of Ownership of technology Undertaking of full responsibility of all aspects of the Geo-physical component
2	Experts' experience	The team should have at least 2 Geophysicists and 1 Geologist, with 10 years or more experience in aero-geophysical TEM data, ERT and TEM/GTEM interpretation, processing and modeling, including substantial assignments during the last five years ending last day of month previous to the one in which tenders are invited And demonstrated familiarity with the proposed TDEM system.	CVs of experts and team members in prescribed format certified by authorized signatory. Proof of assignment & familiarity with aero-geophysical TEM data, ERT and TEM/GTEM data and the proposed TEM system.
3	Bidder turnover	The bidder should have a minimum average annual turnover of INR 44.00 crore over the last three financial years. Turnover of members of joint ventures/consortium will also be considered.	Copy of audited balance sheet and profit & loss account for the f.y.2021-22, 2022- 23 & 2023-24 and company's infrastructural Profiles including human resource.

4	Legal entity	The bidder should be a registered partnership firm registered under the partnership act 1932 or a limited liability partnership under the limited liability partnership Act of India, 2008 or a company registered in India under Indian Companies act 1956 or 2013. No consortium form of bidding will be allowed. The bidder must have pan no. and be registered under GST acts	Certificates of incorporation Memorandum of association and articles of association Registration Certificates (in case of partnership) Goods and Service tax registration certificate Pan no.
5	Blacklisting	A self-certified letter by the authorized signatory of the bidder that the bidder has not been blacklisted or disqualified for participating at such tender by any central/state government (central /state government and public sector) and any court of law or under a declaration of ineligibility for corrupt or fraudulent practices as on date of bid submission must be submitted on original letter head of the bidder with signature and stamp in the format attached at annexure-X	A self-certified letter by an authorized signatory in the format attached at annexure-X
6	Authorized representative from bidder	A power of attorney /board resolution with due authorization In the name of the person signing the tender bid.	Original power of attorney/ board resolution copy
7	Bid security declaration (EMD Fee)	EMD Fee as per annexure-XI or Bid security declaration should be as per annexure-I.	Submission of original document along with scan copy in the Bid Document
9	Copy of ITRs	The bidder must have filed income tax returns for the preceding three assessment years, i.e. 2021-22, 2022-23 & 2023-24.	Copy of ITRs shall be attached with certified financial statement

Chapter -5

Scope of Work (Technical Specification and BOQ of Heliborne TEM for Rajasthan, Punjab, Haryana, Gujarat, and Himachal Pradesh in Arid Regions of Northwest India in Phase-II under PIB Project)

Introduction

Arid areas in north-western India spread over parts of the States of Rajasthan, Gujarat, Punjab, Haryana, and Himachal Pradesh cover nearly 12% of the total geographical area of the country and are home to more than 8 crore people. With annual rainfall in the range of 100 to 400 mm, this area faces an acute shortage of water throughout the year and is highly dependent on groundwater resources. Parts of the area, especially falling in Punjab & Haryana are known as India's bread basket. A large proportion of the groundwater draft is being utilized for irrigation purposes. The areas of northwestern parts of the country are severely impacted by declining water levels and water quality issues along with heavy dependence of various stakeholder sectors on groundwater. There are 430 Over-exploited, 45 Critical & 77 Semi-Critical assessment units in the area covering Punjab, Haryana, Rajasthan, and Gujarat States. Further, inland salinity in groundwater aquifers & contamination of Nitrate, Fluoride & Heavy metals is common in groundwater.

In light of the aforementioned critical groundwater challenges in the area, a need to learn more about the nature and characteristics of aquifers on a larger scale, both in terms of breadth and depth, was felt. A high-resolution Heliborne Transient Electro-Magnetic (HTEM) survey is a state-of-the-art modern technology that can get more authentic information about sub-surface aquifers without undertaking too many drilling activities. In this connection, it is proposed to take up high-resolution aquifer mapping for understanding aquifer disposition and nature in a large area at a finer scale for further planning groundwater management to augment the groundwater resources. The ultimate aim of the proposed activity of the project is to map different aquifers, identify groundwater potential fractures, and saline/fresh groundwater interface in aquifers, and locate the potential sites for groundwater withdrawal and conservation. The findings of the Heliborne geophysical survey in the proposed areas will be used to meet the broader objectives of aquifer mapping, rejuvenation, and management of groundwater resources in the arid areas under the National Aquifer Mapping and Management (NAQUIM 2.0) Program, being implemented by the CGWB. The area covered during Phase I Heliborne survey and that proposed for Phase II is shown in Figure 1.

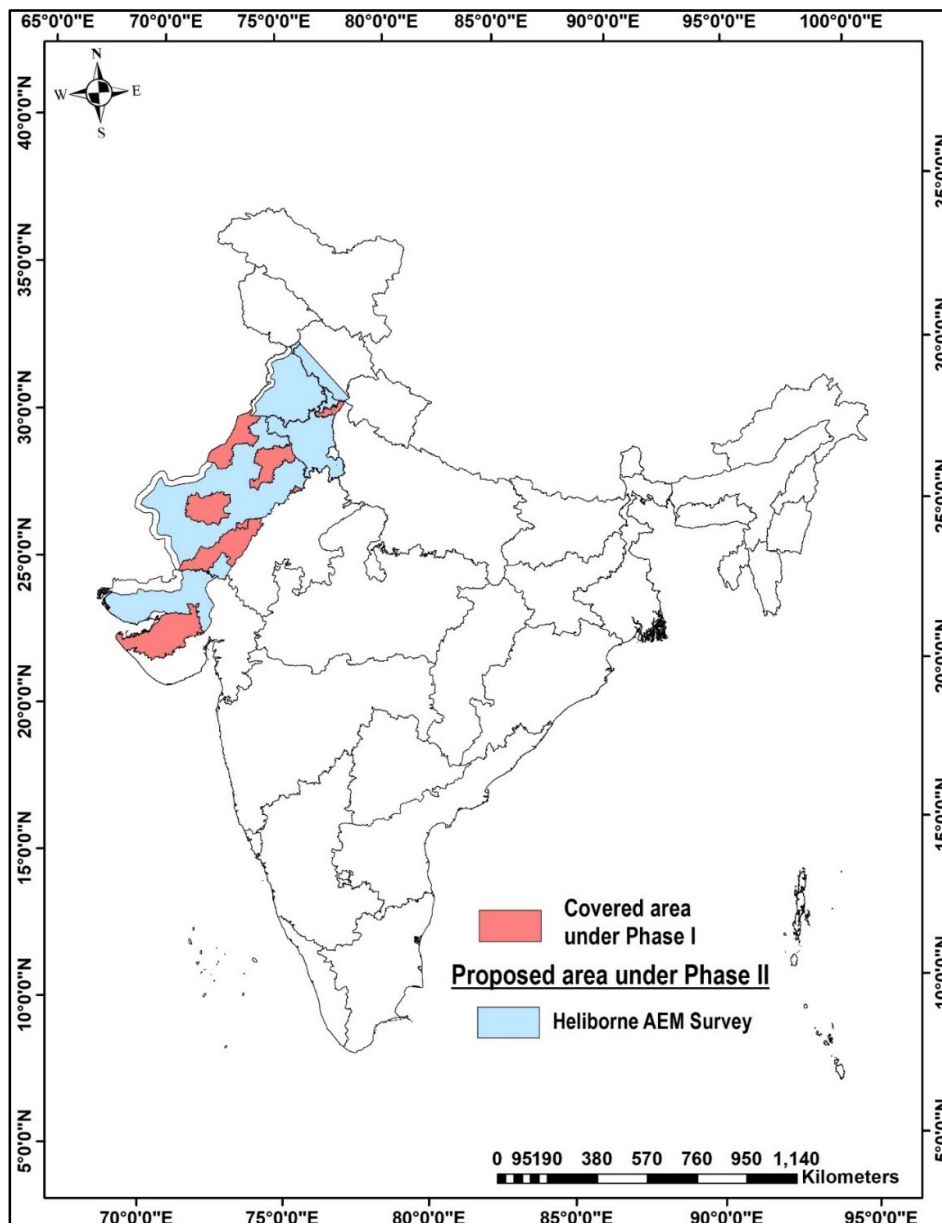


Figure 1: Map showing study area completed in Phase-I and proposed area Phase-II of Rajasthan, Gujarat, Haryana, Punjab, and Himachal Pradesh for taking up Heliborne Geophysical Survey.

A brief description of the geophysical methodologies that will be taken up as part of the project is provided below

(i) Heliborne Transient Electromagnetic and Magnetic Methods

With the increasing demand for aquifer mapping over large areas, fast-track dual-moment Transient Electromagnetic and magnetic investigations are proposed to be carried out in a continuous manner in the project area to acquire a large volume of data with constant line and close spacing. The objective of this survey is to delineate the disposition of aquifers in three dimensions. Since in the present program, a precision aquifer mapping is to be completed in a time-bound manner, it is therefore necessary that the area is covered by a fast-track geophysical technique like heliborne

Transient Electromagnetics. With this aim, it is proposed to carry out the heliborne time domain electromagnetic and magnetic to obtain precise data with better measurement density.

In the Heliborne TEM method, current pulses are sent through a large hexagonal/circular loop at an altitude of ~ 30 m above the ground surface which is hung 30 m below the helicopter. The decay of current at the end of each pulse generates a primary magnetic field that diffuses into the earth. Eddy currents induced by this time-varying magnetic field generate, in turn, secondary magnetic fields in the electrically conductive earth. The amplitude and rate of decay of these secondary fields are measured at the receiver in a loop and analyzed in terms of the variation of electrical resistivity concerning depth, in a manner analogous to that of electrical resistivity sounding.

(ii) Ground Transient Electromagnetic Method (G-TEM)

Measurement of sub-surface variations in resistivity by DC electrical method to delineate aquifers has some procedural and technical constraints, such as injection of current into ground through electrodes, difficulty in current penetration if the surface layer is extremely resistive, e.g., exposed rocks, dry sands, deserts, and dunes, etc. and shallow near-surface inhomogeneities affecting the measurements. Because of the above the Electromagnetic techniques are proposed where the constraint of current penetration by electrodes is overcome as it is induced in the earth magnetically. The EM surveys can be conducted in the Time domain or Transient (TEM).

(iii) Electrical Resistivity Tomography (ERT)

Electrical resistivity tomography (2-D resistivity imaging) is the state-of-the-art technique available to map the vertical and lateral variations in lithofacies and thus define the continuity of aquifers. The limitation of VES is that it gives only point information and does not map the lateral changes in the sub-surface resistivity. A more accurate model of the subsurface is a two-dimensional (2-D) model where the resistivity changes in vertical as well as horizontal directions along the survey line are deciphered. Resistivity imaging equipment measures the variations in the electrical resistivity of the sub-surface lithological layers by applying electric currents through the multi-electrodes array. The survey data is processed by software to produce 2-D sections of graphical / images of the resistivity variation of sub-surface electrical layers with respect to depth and along the survey profile. Unit electrode spacing is to be determined by configuration parameters that include profile length, desired resolution, and targeted depth penetration.

Scope of the Work

The high-resolution aquifer mapping using Heliborne Transient Electromagnetic Method (HTEM) surveys in different hydrogeological setups along with other ground-based geophysical investigations will be carried out to get depth-wise variation in resistivity to delineate the aquifer zones in different hydrogeological formations at a point. Major Outputs/Deliverables on implementation of this component of the project are enumerated as under:

1. 3-D Geophysical model, Geophysical Thematic maps at horizontal and vertical planes showing aquifer disposition. (3-D Geophysical Model, Horizontal mean resistivity map-10 m depth interval, and Vertical section along flight line & tie line are to be provided district-wise for each state report).
2. Existing ground geophysical data, drilling data, and logging data need to be correlated.
3. Aquifer Geometry of principal aquifers with knowledge of de-saturated and saturated aquifers.
4. Demarcation of Aquifer system with relatively fresh and saline zones.
5. Spatial distribution of paleo-channel network if any and its linkage with aquifer system.
6. Best suitable sites for groundwater withdrawal and water conservation through artificial or managed aquifer recharge.
7. Provide additional information for the development of an aquifer management plan under NAQUIM 2.0

Methodology

An integrated hydro-geophysical study consisting of Heliborne geophysics (electromagnetic and magnetic), and surface geophysics (Electrical Resistivity Tomography, Ground Transient electromagnetic, etc.) is planned under this component of the proposed project. The Heliborne geophysics is the main component that will be used for regional-scale rapid coverage in almost continuous mode for obtaining 3-D geophysical maps. These results will be further supported by ground-based geophysical methods, drilling, borehole geophysical logging, and pumping tests.

The heliborne geophysical surveys would be conducted in phases. First, the survey will be carried out at a coarser grid to get a first-order overview of the prevailing sub-surface hydrogeological conditions. These results will provide clues to identify areas where more detailed information is required. In the second phase the selected / complex areas, needing more details, would again be flown with infill lines to effectively obtain information at closer separation. The flight line spacing will vary as per terrain and lithological variability.

The ground-based geophysical surveys are also planned in two phases. Few ground geophysics are planned to be conducted prior to the Heliborne geophysics for conceptualization as well as important locations identified based on the existing database/knowledge base. The remaining ground geophysics will be conducted at strategically identified locations after the Heliborne geophysics to support the data gap and validate the Heliborne results.

The data/information/geophysical model generated through the Heliborne survey would be calibrated with available lithological and other supporting hydrogeological and geological information to have a high-resolution aquifer map of the surveyed area. The entire information will be interpreted to provide the layered information and complete geometry of the aquifer system.

The approach for conducting the Heli-borne TEM survey, Ground TEM survey, and ERT survey in the project area is outlined in the following para

(a) Approach for conducting Heliborne Transient Electromagnetic Method Surveys (H-TEM):

For conducting Heliborne Transient Electromagnetic (HTEM) surveys, the following approach has to be followed:

- The contractor will collect and confirm the area details to conduct the HTEM surveys at a pre-defined altitude and flight line spacing.
- The contractor must inform well in advance to CGWB authority regarding the work plan in detail.
- The contractor should have a qualified team of geophysicists & geologists to perform the geophysical data acquisition, processing, and interpretation.
- The contractor should have a reputed company make Heliborne-TEM equipment with a facility to store and transfer the data.
- The contractor should provide generated data along with GPS location through email at the end of the day to CGWB.

(b) Approach for conducting Ground-Transient Electromagnetic Method Surveys (TEM):

For conducting Ground Transient Electromagnetic (G-TEM) surveys, the following approach has to be followed:

- The contractor will collect and confirm the area details to conduct the G-TEM surveys at a predefined location.
- The contractor must inform well in advance to CGWB authority regarding the work plan in detail.

- The contractor should have qualified geophysicists & geologists to perform the geophysical data acquisition, processing, and interpretation.
- The contractor should have a reputed company make TEM equipment with a facility to store and transfer the data.
- The contractor should provide generated and processed data along with GPS location through email within a week.

(c) Approach for conducting ERT survey (2D Resistivity Imaging)

- For conducting electrical resistivity imaging, the Gradient and Wenner/Schlumberger both configurations will be used in resistivity and IP mode for the survey on the same profile line for getting the sub-surface resistivity data.
- The contractor will collect and confirm the area details to conduct the resistivity imaging at a predefined location / across the lineament.
- The contractor must inform well in advance to CGWB representative regarding the work plan in detail.
- Investigators should make themselves aware of the local geologic and hydrogeologic conditions of the area.
- The contractor should have qualified geophysicists & geologists to perform the geophysical data generation and interpretation.
- The contractor should have a microprocessor-based resistivity imaging system having attached data-storing device.
- The 2-D resistivity imaging will be conducted with a minimum 120 electrodes having aequal 10 m spacing
- The orientation of the imaging line must be mentioned.
- The contractor should provide generated data along with GPS location through email within two days.
- The contractor must ensure that all the 120 electrodes should be collinear.

Chapter-6**Technical Specifications**

Heliborne-TEM: Major systems, accessories and specifications

1	Heliborne Multi/Dual-Moment TEM System	
1.1	General	<p>The Heliborne multi/dual-moment TEM system (also referred to as ‘The System’ at some place in the following text) should have a complete set including a transmitter capable of transmitting pulses in multi-moment (low and high) mode, a receiver to measure ground response.</p> <p>The TEM transmitter/receiver assembly should be configured to a helicopter-mounted under-slung operation.</p>
1.2	Transmitter and Receiver	<p>To achieve a high degree of lateral resolution, it is desirable to have a transmitter coil area as small as possible (preferably $\leq 450 \text{ m}^2$) to ensure minimal lateral averaging of resistivity.</p> <p>The system should be able to transmit multi/dual-moment/multi-pulse EM signal with the transmitter/receiver loop towable at a low level ($\sim 30 \text{ m}$ above ground surface) as well as capable of collecting data above any terrain. The receiver should have ~ 17 gates for low moments and 20 or more number of gates for high moments.</p> <p>The orientation and geometry of the transmitter/receiver coils to be recorded accurately during the data acquisition using suitable DGPS and inclinometers, to account for the errors due to orientation and change in transmitter/receiver loop geometry in the final processing. If the external generator is used as a power source, it should be placed at a sufficient distance from EM transmitter and no noise should affect the receiver signal.</p> <p>The system should be capable of data collection at survey speeds in the range of 60 to 80 km/h ensuring that the geometry of the transmitter loop remains horizontal (within $\pm 10\text{m}$) for various geophysical applications to acquire high-resolution and cost-effective data optimally. The deviations of the transmitter loop from the horizontal plane should be measured precisely ($\leq 1^\circ$) for processing/modeling corrections.</p> <p>For high moment the system dipole moment should be around 5,00,000 NIA or more using the same transmitter geometry.</p> <p>The low moment should range between 3,000 to 5,000 NIA with usable time gates in the range of $\leq 10 \mu\text{s}$ ($\sim 5 \mu\text{s}$ or less would be preferable) to $\sim 2 \text{ ms}$ or more in order to obtain very shallow information around 3 mbgl.</p>
1.3	Accessories	The system must be complete in all respects including the essential accessories for high-resolution multi-moment TEM data collection, and quality check. The major accessories are listed.
1.4	Laser Altimeters	2 nos., Digital, Class 1 Laser, complying with the regulations with respect to the safe use of laser equipment, Resolution: $\sim 20 \text{ cm}$. The range of the reflectors should be around 1 to 125m or higher.
1.5	Differential GPS and Navigation	-2 no's or more, including 1 rover and 1 base station with high accuracy – horizontal positioning (better than $\pm 1\text{meter}$). In addition, they should supply a navigational support system with suitable

		software that facilitates the creation of blocks, and survey lines and provides on-board navigational aid to the pilot. The required position accuracy is around $\pm 2\text{m}$. Preferably real-time differential corrections may be obtained from either a GPS reference station or from a satellite system or any other way practiced internationally for such operation.
1.6	Data and Format	The system should provide TEM data in a format ready for inversion in the processing software platform 'Aarhus Workbench' for layered inversion and also in other formats if required. System description, settings files, importing data, system parameters, etc required for data processing should be provided. Supporting software(s) for preparing flight lines, data download, formatting or format conversion, etc should be provided by the supplier without any additional charge.
1.7	Calibration	The geophysical system should be calibrated at any established test site and supportive documents to this effect should be provided.
1.8	Data Quality, Control, Security & processing	Data QA/QC needs to be done at the field site/ base camp under secure conditions in the supervision of CGWB officials/scientists. In this regard necessary software, commissioning, and QA/QC need to be provided by the contractor. All the acquired data is confidential and is absolute property of CGWB, Govt. of India. It needs to be handed over to CGWB in secure condition. Afterward, the collected data, if any, should be deleted from the system/devices of the field personnel provided by the supplier to ensure that no data is transmitted elsewhere. To achieve better field data QA&QC the heliborne TEM system must be able to facilitate 1D inversion of the collected data within 24-48 hours of flight completion.
1.9	Other system	The system should also include a high-resolution airborne magnetometer and a ground magnetometer to record diurnal variations. The specifications are provided below.
2	Magnetometer	
2.1	Airborne magnetometer	
2.1.1	Number	1
2.1.2	Error envelope	Not exceeding $\pm 0.2 \text{ nT}$ for more than 10% of any flight line.
2.1.3	Sensitivity	Typically 0.002 nT at a 0.1 second sample rate.
2.1.4	Operating range	$\sim 20,000$ to $100,000 \text{ nT}$
2.1.5	Heading error	$< 2 \text{ nT}$
2.1.6	Absolute accuracy	Better than 3 nT throughout the range.
2.1.7	Operating temperature	-5°C to $+50^\circ\text{C}$
2.1.8	Synchronization	The counter is to be synchronized with the TEM system. The system should record magnetic data only during the TEM off time.
2.2	Ground-based magnetometer	
2.2.1	Numbers	1

2.2.2	Magnetic base station	User-selectable sample interval ranging from 0.2S to 1S and a sensitivity of $\sim 0.1\text{nT}$
2.2.3	Digital recordings	Digital data should include standard parameters like the date, an absolute value of the total magnetic field and GPS time etc. with accurate e-synchronization to the airborne data acquisition system. The system should have sufficient memory to store 10-12 hours data
2.2.4	Resolution	$\sim 0.01\text{nT}$ or better
2.2.5	Absolute Accuracy	Around ± 0.1 to 0.2nT or better
3	Other Requirements/Conditions	
3.1	System Engineer/ Operator	A system engineer will be needed at the time of DGCA inspection for assembly and during the field surveys for maintenance and smooth data acquisition.
3.2	Insurance	The supplier should ensure the insurance of all the systems for the entire period
3.3	Service and maintenance	Necessary time-bound/earliest possible service and maintenance including spare parts have to be ensured by the supplier without attracting any additional cost. Service and maintenance, in case of major changes, should not exceed more than a week. Delay will attract penalization depending upon the resultant loss to CGWB.
3.4	Experience	The aquifer mapping requires high-resolution data from very shallow ($\sim 3\text{ m}$ to map reliably the upper soil essential for recharge zones) to deeper horizons (aquifers and bedrock). Therefore, the contractor must supply essential documents of the Heliborne multi-moment/pulse TEM system to support their adequate experience on groundwater-related studies in various geological terrains. The company should have experience of at least 36,000-line kilometer data collection using multi-moment/pulse TEM systems for groundwater investigations in the last five years.
3.4	Age of the system	The Multi-moment/pulse system should be preferably new. In any case, it should not be more than 5 years old, in good condition, up-to-date loaded with the latest updates. The smooth functioning of the system has to be ensured by the supplier during the entire survey period.
3.5	Technical support	The supplier needs to provide technical support for the data acquisition to the CGWB personnel on survey system maintenance, software, and hardware (in the field as well as in the lab), data acquisition, QA&QC system health, safety and security, etc.
3.6	Backup	Additional alternative devices/essential major spares may be ensured as standby for backup reasons.
3.7	Data interpretation	The Heliborne TEM data interpretation should be done using industry standard and licensed software.
3.8	Digitization	The H-TEM location map, location coordinates, elevation, plotted curves, 2-D section, 3-D model should be digitized as compatible with the GIS platform i.e. *.shp file format. These diagrams should be also produced in JPEG format.
3.9	Reports include the following items	There should be one report for each state (giving details for each district) containing the Introduction, Objective, Principal and methodology, Correlation of inferred layer parameters with existing VES, GTEM, borehole lithology/logging, and deriving resistivity ranges for different lithological units. Interpretation, results of Heliborne-TEM, Inference, Recommendations, Conclusion, and raw and processed field data.

Scope of supply and incidental services

The indented multi-moment TEM survey equipment for high-resolution mapping of electrical resistivity distributions from very near surface up to deep level (~500 m) is required primarily for groundwater studies and also useful for other geotechnical purposes. The magnetometer is used for measurement of the total magnetic field data, primarily for structural features or discontinuity.

The geophysical (multi-moment TEM and magnetic) system should be calibrated at an established test site (in India or abroad) and supportive documents to this effect should be provided.

Acceptance test

The supplier should supply a calibrated system with the supporting document of calibration. Further, this will be tested with known areas for satisfactory comparison. The system should be specially designed for hydrogeological surveys.

Qualification criteria if any

Comparable with known models of known areas.

Ground-TEM Specifications

The Ground-TEM equipment has at least a capacity of 20 A current or more and the size of the transmitter loop should be not less than 6400 m² (80 m x 80 m). The soft copy of raw G-TEM data collected in the field should be provided in a recorded format as well as binary or coma delimited *.csv Excel file or *.USF file format. TEM data must be processed with reputed software to get resistivity variation with depth.

Data interpretation: The Ground TEM data interpretation should be done using industry standard and licensed software.

Digitization: The TEM location map, location coordinates, elevation, plotted curves, and 2D section should be digitized as compatible with GIS platform i.e. *.shp file format. These diagrams should be also produced in JPEG format.

Report includes the following items: There should be one report for each state (giving details for each district) containing the Introduction, Objective, Principal and methodology, Correlation of inferred layer parameters with existing borehole lithology, and deriving resistivity ranges for different lithological units. Interpretation, results of individual TEM, Inference, Recommendations, Conclusion, and field data.

Electrical Resistivity Tomography (2D Imaging)

Data generation in alluvium/marginal alluvium/hard rock formation by reputed micro-processor-based resistivity imaging equipment having minimum 250-watt power with 2.5A current. Both Gradient and Wenner configurations in Resistivity and IP mode will be used with a minimum of 120 numbers of electrodes having 10 m electrode spacing for the same profile line as per the availability of space near the proposed locations. In cases where sufficient space is not available for the survey, prior approval of the concerned Regional Director is to be obtained along with proper justifications.

The soft copy of raw data of 2-D Imaging collected in the field should be provided in a recorded format as well as, coma delimited *.csv Excel file or converted in RES2DINV *.dat file. Resistivity imaging data must be processed with reputed software to produce graphical colored 2-D resistivity sections versus the depth of sub-surface electrical layers.

Location of 2-D imaging line on map along with latitude, longitude, orientation/direction, and Elevation of imaging line.

Report includes the following items: There should be one report for each state (giving details for each district) containing an Introduction, Objective, Principal and methodology, Correlation of inferred resistivity 2D section with existing VES, borehole lithology, and deriving resistivity ranges for different lithological units. Location map, Interpretation of individual 2-D imaging site, Inference, Recommendations, Conclusion, raw field data.

Timelines and milestones

Heliborne geophysical Survey

Duration: 1.5 Years (18 months from the award of contract/Signing of MoA or up to 31st March 2026 (whichever is earlier)

Activity/Items	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Quarter Wise	Q1			Q2			Q3			Q4			Q5			Q6		
Field reconnaissance, data compilation, conceptualization, etc.	█	█	█															
Permission for Heliborne Geophysical surveys	█	█	█	█	█													
Heliborne Geophysics-Data acquisition				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Heliborne Geophysics-Processing and interpretation				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Ground Geophysics -ERT & TEM				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Validation and finalization of geophysical results				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Training and Capacity Building of CGWB Scientists				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Final Report Writing							█	█	█	█	█	█	█	█	█	█	█	█

- The preparation for conducting Heli-borne TEM/ ground TEM and ERT and approaching to the area may be completed within 1 month of the award of the work.
- The digital data and curves of completed Heli-borne TEM/ground TEM and ERT are to be submitted on weekly basis. The final report should be submitted as specified in the tender terms and conditions.
- Data collection, data interpretation, and submission of reports in soft & hard copies

- prescribed in the tender document shall be completed within 18 months.
- The 25% ground TEM/ERT for each state shall be completed before taking up the Heliborne survey in that state and the remaining 75% ground TEM/ERT are to be completed post-Heliborne survey. Out of 75 %, 25% to be conducted on flight line for data validation and 50% for fulfill the data gap in the respective states.

State-wise Schedule of Quantity of Work

(a) Heliborne TEM& Magnetic

Schedule No.	Name of State	Line km of Heliborne TEM& Magnetic
(i)	Rajasthan	57375
(ii)	Gujrat	20817
(iii)	Himachal Pradesh	5225
(iv)	Punjab	11135
(v)	Haryana	10370
5% extra infill flight lines over hydrogeological interesting/complex / contact areas		5246
Total		1,10,168

(b) Ground TEM

Schedule No.	Name of State	No. of Ground TEM	Remarks
(i)	Rajasthan	127	The tentative location where Ground TEM is proposed to be carried out is given at Annexure-I (i to v).
(ii)	Gujrat	46	
(iii)	Himachal Pradesh	12	
(iv)	Punjab	45	
(v)	Haryana	41	
Total		271	

(c) Electrical Resistivity Tomography/ 2-D Imaging

Schedule No.	Name of State	ERT/2D Imaging nos./LKM (Up to depth of 200 m)	Remarks
(i)	Rajasthan	97/116.4	The tentative location where ERT/2D Imaging is proposed to be carried out is given at Annexure-II (i to v).
(ii)	Gujrat	36/43.2	
(iii)	Himachal Pradesh	10/12	
(iv)	Punjab	34/40.8	
(v)	Haryana	32/38.4	
Total		209/250.8	

Cost Estimate and BOQ

Cost Estimate and BOQ for Heliborne TEM& Magnetic, Ground TEM, and ERT/2D Imaging in Rajasthan, Punjab, Haryana, Gujarat, & Himachal Pradesh States.

#	Components	Unit	Quantity	Rate (Rs)	Cost (Rs.)
1	Heliborne Geophysical Survey (Line Kilometers) Heliborne TEM & Magnetic data generation, Data interpretation, Digitization, Report submission (as specified in the technical specification)	Km	1,10,168		
2	Ground Geophysics - ERT (Nos.) ERT/2D Imaging data generation, Data interpretation, Digitization, and Report submission (as specified in the technical specification)	Nos.	209		
3	Ground TEM (Nos.) Ground TEM data generation Data interpretation Digitization Report submission (as specified in technical specification)	Nos	271		
4	Field reconnaissance, data compilation, conceptualization, Processing, Training and Capacity Building of CGWB 30 nos. Scientists (In two batches of 15 members each), Analysis and Interpretation of Heliborne, Ground Geophysical Data and validation, integration and finalization of final report and submission. One final report for each state (giving details for each district).	Lumpsum			
5	Total				
	GST 18% (Rs in Crore)				
	Grand Total (Rs in Crore)				

TERMS OF PAYMENT AND MAINTENANCE OF ACCOUNTS

It is envisaged to complete the projects in 18 months from the date of issuance of Work Order with the implementing agency. The payments to the implementing agency will be released in phases and would be linked to the milestone.

The funds for the project shall be released in phases by CGWB as per time schedule, verification of progress of work and achievement of the following milestones:

S.I. No	Milestone	Payment (%) (as percentage of total project cost excluding GST)	Remarks
1.	Submission of Inception Report and reconnaissance survey Report and completion of 25% of GTEM and ERT/2D imaging quantity specified in the BOQ	10% of the Contract cost excluding GST	To be released upon Submission of the Inception Report and reconnaissance survey Report and Furnishing Certificate of completion of 25% of

			GTEM and ERT/2D imaging quantity specified in the BOQ is to be given by respective Regional Directors of CGWB
	Completion of 50,000-line km of Heliborne survey	20% of the Contract cost excluding GST	To be released upon Furnishing Certificate of completion of 50,000 line km of heliborne survey is to be given by respective Regional Directors of CGWB
	Completion of heli-borne survey as per targets and data quality control report Submission of raw dataset generated in the heli-borne survey Hands on training of CGWB scientists.	20% of the Contract cost excluding GST	To be released upon furnishing of Certificate of completion of heli-borne survey as per targets, receipt of raw dataset and hands on training of CGWB scientists is to be given by respective Regional Directors of CGWB.
	Completion of ground geophysical investigations and data quality control report. Submission of raw dataset generated in the ground geophysical survey Submission of draft final report along with raw and processed datasets. Pin pointed sites for artificial recharge along with inferred lithology up to depth of 300 m in Alluvial area and 200m in hard rock area for each recommended site. Paleo channel map of the study area and its linkages with the aquifer system 3D Geophysical model of the area in reproducible vector format Geophysical Thematic maps at horizontal and vertical planes. Aquifer Geometry in 2D and 3D in reproducible vector formats depicting de-saturated/saturated and fresh/saline zones. Submission of the entire raw and processed dataset generated in the study.	20% of the Contract cost excluding GST	To be released upon furnishing of Certificate of completion of envisaged activities in point 4 to be given by respective Regional Directors of CGWB
	Acceptance of final report	30% of the Contract cost excluding GST	To be released upon the furnishing of the completion certificate mentioning the date of completion shall be submitted by the concerned Regional Directors of CGWB. The date of completion is the submission of the final report duly validated by Regional Directors.

ERT/2-D RESISTIVITY IMAGING DATA (Sample Format)

Location: Block: Distt: State: Toposheet Number:

Geology:

Unique ID:

Profile Line in Km:.....

FROM (Latitude & Longitude in Degree Decimal)

TO(Latitude & Longitude in Degree Decimal)

Direction of Profile line:

RL: Fromm amsl

Tom amsl

Date:

Electrodes configuration used for profile:

A. Comprehensive field data in Excel sheet and *.dat files

B. 2-D plotted Images of

Measured apparent Resistivity Pseudo section

Calculated apparent Resistivity Pseudo section

Inverse model resistivity section

Signature of Authorized Signatory

Chapter-7**Survey Area*****Proposed Tentative locations for ground TEM survey in Rajasthan***

S. No.	State	District	Block	Village	Longitude	Latitude
1	Rajasthan	BARMER	SHEO	Bohrasar	71.2405	26.4502
2	Rajasthan	BARMER	GADRAROAD	Hafiya @ Sankhli	70.6391	26.0854
3	Rajasthan	BARMER	SHEO	Dholkiya	71.1745	26.0345
4	Rajasthan	BARMER	SHEO	Neemlanara	71.4316	26.1876
5	Rajasthan	BARMER	GIRA	Rateu	71.7599	26.2361
6	Rajasthan	BARMER	BAYTOO	Tankeliyasar	71.6549	25.9808
7	Rajasthan	BARMER	RAMSAR	Hothoyoniyon Ki Basti	71.1945	25.7565
8	Rajasthan	BARMER	DHANAPOO	Kharawala	71.1967	25.3483
9	Rajasthan	BARMER	DHORIMANNA	Jambheji Ka Mandir	71.4529	25.1299
10	Rajasthan	BARMER	GUDHAMALANI	Naya Kua	71.6663	25.3622
11	Rajasthan	BARMER	BARMER	Galaberi	71.4963	25.6937
12	Rajasthan	BARMER	SINDHARI	Trishooliya	71.8235	25.7296
13	Rajasthan	BARMER	GIRA	LapundaraBarthan	72.0781	26.0609
14	Rajasthan	BARMER	BALOTRA	Mewa Nagar	72.1845	25.8085
15	Rajasthan	BARMER	SIWANA	Tanda Bera	72.2357	25.5615
16	Rajasthan	BARMER	SAMDARI	Bhilon Ki Dhani	72.4926	25.7684
17	Rajasthan	BARMER	KALYANPUR	Kalyanpur	72.531	26.0039
18	Rajasthan	BARMER	KALYANPUR	Thoombli	72.474	26.1952
19	Rajasthan	BARMER	GADRAROAD	Ranasar	70.823	25.8606
20	Rajasthan	BARMER	CHOHTAN	Saiyon Ki Basti	70.9344	25.4979
21	Rajasthan	BARMER	SERWA	Gangasara	71.2598	24.9411
22	Rajasthan	BARMER	SINDHARI	Bhalkhari	71.889	25.4891
23	Rajasthan	BARMER	CHOHTAN	Gomrakh Dham	71.2672	25.5537
24	Rajasthan	BARMER	BALOTRA	Chaukriya Ki Dhani	71.9648	25.8676
25	Rajasthan	BIKANER	KOLAYAT	Ranjeetpura	72.2764	28.0558
26	Rajasthan	BIKANER	PANCHOO	Parwa	73.4358	27.6806
27	Rajasthan	BIKANER	BIKANER	Nal Chhoti	73.1903	28.0323
28	Rajasthan	BIKANER	KOLAYAT	Surjara	72.7785	28.0668
29	Rajasthan	BIKANER	KOLAYAT	Gariyala	72.6769	27.7875
30	Rajasthan	BIKANER	KOLAYAT	Gogariyawala	72.3216	27.8212
31	Rajasthan	BIKANER	KOLAYAT	Gulab Nagar	72.9513	27.4245
32	Rajasthan	BIKANER	PANCHOO	Kakkoo	73.3605	27.4142
33	Rajasthan	BIKANER	PANCHOO	Jaisingh DesarMagra	73.1089	27.7039
34	Rajasthan	BIKANER	NOKHA	Kuchor Aguni	73.7274	27.9164
35	Rajasthan	BIKANER	DUNGARGARH	Salasar	74.0481	28.0339
36	Rajasthan	BIKANER	LUNKARANSAR	Bhanipura	73.8668	28.3496
37	Rajasthan	BIKANER	BIKANER	Katariyasar	73.5874	28.1946
38	Rajasthan	BIKANER	LUNKARANSAR	Shobholai	73.4464	28.5284
39	Rajasthan	BIKANER	LUNKARANSAR	Kankarwala	73.6984	28.6527
40	Rajasthan	BIKANER	LUNKARANSAR	2 DI	73.4236	28.9491
41	Rajasthan	BIKANER	LUNKARANSAR	Dhani Khodan	73.93	28.7951
42	Rajasthan	BIKANER	LUNKARANSAR	Kelan	73.2089	28.4161
43	Rajasthan	BIKANER	KOLAYAT	Bikendri	72.4841	28.1756
44	Rajasthan	BIKANER	NOKHA	Shri Jasnath Nagar	73.8112	27.5822
45	Rajasthan	BIKANER	BIKANER	Kesar Desar Jatan	73.4629	27.8601
46	Rajasthan	HANUMANGAR H	RAWATSAR	Purabsar	74.2891	28.9987
47	Rajasthan	HANUMANGAR H	HANUMANGARH	4 Hlm	74.3188	29.3512
48	Rajasthan	HANUMANGAR H	PILIBANGA	16 Mod	74.0437	29.5561
49	Rajasthan	HANUMANGAR	SANGARIYA	11 Sbn	74.4338	29.7097

S. No.	State	District	Block	Village	Longitude	Latitude
		H				
50	Rajasthan	HANUMANGAR H	NOHAR	Kikrali	74.6355	29.2013
51	Rajasthan	HANUMANGAR H	NOHAR	LalanawasNathwaniya	74.9586	29.0877
52	Rajasthan	HANUMANGAR H	BHADRA	9 Jsl	75.2756	29.0909
53	Rajasthan	HANUMANGAR H	NOHAR	Minakdesar	74.5629	28.8923
54	Rajasthan	HANUMANGAR H	SANGARIYA	4 Ptp	74.3495	29.8708
55	Rajasthan	JAISALMER	JAISALMER	Alipura	71.8584	27.6543
56	Rajasthan	JAISALMER	JAISALMER	Hariyar	71.4715	27.5554
57	Rajasthan	JAISALMER	JAISALMER	Manuj Nagar	71.1396	27.506
58	Rajasthan	JAISALMER	SAM	Tejpala	70.78	27.4676
59	Rajasthan	JAISALMER	SAM	Gandhi Gaon	70.4668	27.7323
60	Rajasthan	JAISALMER	SAM	Nawalsingh Ka Gaon	70.4629	27.4107
61	Rajasthan	JAISALMER	SAM	Bandha	70.2427	27.1517
62	Rajasthan	JAISALMER	SAM	Shahgarh	69.9609	27.1071
63	Rajasthan	JAISALMER	SAM	Rabhlaufakironwala	70.0592	26.8563
64	Rajasthan	JAISALMER	SAM	Mangliyawas	70.3798	26.9635
65	Rajasthan	JAISALMER	JAISALMER	Mokla	70.7816	27.1584
66	Rajasthan	JAISALMER	JAISALMER	Taragarh	71.159	27.2775
67	Rajasthan	JAISALMER	JAISALMER	Sujiya	71.3699	27.133
68	Rajasthan	JAISALMER	JAISALMER	Bhairwa	71.2166	26.889
69	Rajasthan	JAISALMER	JAISALMER	Jaisalmer (M)	70.9608	26.9149
70	Rajasthan	JAISALMER	SAM	Jamra	70.6016	26.6906
71	Rajasthan	JAISALMER	SAM	Bhakhrani	71.0776	26.6512
72	Rajasthan	JAISALMER	SAM	Gajsingh Ka Gaon	70.8047	26.2993
73	Rajasthan	JAISALMER	SAM	Satto	70.4496	26.2418
74	Rajasthan	JAISALMER	JAISALMER	Askandra	71.7863	27.4244
75	Rajasthan	JAISALMER	JAISALMER	Tadana	71.5165	27.3954
76	Rajasthan	JAISALMER	SAM	Bersiyala	70.6204	26.5117
77	Rajasthan	JHUNJHUNU	NAWALGARH	Mainas	75.3719	27.9453
78	Rajasthan	JHUNJHUNU	UDAIPURWATI	Kot	75.4662	27.7215
79	Rajasthan	JHUNJHUNU	KHETRI	Badalwas	75.8668	27.9575
80	Rajasthan	JHUNJHUNU	CHIRAWA	Sultana	75.6053	28.1591
81	Rajasthan	JHUNJHUNU	SURAJGARH	Kushalpura	75.7972	28.3483
82	Rajasthan	JHUNJHUNU	ALSISAR	Khariya	75.3137	28.28
83	Rajasthan	JHUNJHUNU	UDAIPURWATI	Ramlalpura	75.5882	27.9613
84	Rajasthan	JODHPUR	LUNI	Kalijal	72.8459	26.0312
85	Rajasthan	JODHPUR	MANDOR	Beroo	72.8978	26.372
86	Rajasthan	JODHPUR	LUNI	Balaji Nagar	73.0572	26.1873
87	Rajasthan	JODHPUR	BHOPALGARH	Dewatra	73.4197	26.4674
88	Rajasthan	JODHPUR	BAORI	NandiyaJajra	73.1911	26.7575
89	Rajasthan	JODHPUR	BAP	Newa	72.1459	27.485
90	Rajasthan	JODHPUR	BAP	Durgani	72.046	27.23
91	Rajasthan	JODHPUR	BAP	Bhomji Ka Gaon	72.6237	27.5643
92	Rajasthan	JODHPUR	BAP	BaoriBarsinga	72.3882	27.5249
93	Rajasthan	JODHPUR	BHOPALGARH	Shivnath Nagar	73.6119	26.6412
94	Rajasthan	NAGAUR	KHEENVSAR	Guriya	73.4797	27.0309
95	Rajasthan	NAGAUR	MUNDWA	Asawari	73.7219	26.8023
96	Rajasthan	NAGAUR	MERTA	Indawar	73.8943	26.5424
97	Rajasthan	NAGAUR	RIYAN BARI	Mori Kalan	74.473	26.6649
98	Rajasthan	NAGAUR	DEGANA	Jaloo Kalan	74.2257	26.8886
99	Rajasthan	NAGAUR	JAYAL	Tangla	73.9913	27.1366
100	Rajasthan	NAGAUR	NAGAUR	Peelanwasi	73.7004	27.3284
101	Rajasthan	NAGAUR	PARBATSAR	Gunawati	74.7098	27.0103
102	Rajasthan	NAGAUR	MOLASAR	Peedwa	74.4413	27.2035
103	Rajasthan	NAGAUR	LADNU	Sikrali	74.3246	27.4453

S. No.	State	District	Block	Village	Longitude	Latitude
104	Rajasthan	NAGAUR	LADNU	Meethri	74.6724	27.5799
105	Rajasthan	NAGAUR	MOLASAR	Berikalan	74.7886	27.3564
106	Rajasthan	NAGAUR	NAWA	Lichana	74.9113	27.1327
107	Rajasthan	NAGAUR	KHEENVSAR	Bhomasar	73.154	27.1658
108	Rajasthan	NAGAUR	KHEENVSAR	Khadkali	73.4443	27.2721
109	Rajasthan	NAGAUR	KHEENVSAR	Isar Navra	73.2037	26.9556
110	Rajasthan	NAGAUR	MUNDWA	Phirod	73.7146	27.1056
111	Rajasthan	NAGAUR	MUNDWA	Kuchera (M)	73.9704	26.9509
112	Rajasthan	NAGAUR	MERTA	DhadhlaUda	74.1631	26.6968
113	Rajasthan	NAGAUR	JAYAL	Jhareli	74.0263	27.415
114	Rajasthan	SIKAR	DANTA RAMGARH	Rajpura	75.2575	27.1606
115	Rajasthan	SIKAR	DHOND	Mandawara	75.144	27.5206
116	Rajasthan	SIKAR	LACHHMANGAR H	Kumas Jatan	74.9877	27.85
117	Rajasthan	SIKAR	FATEHPUR	Theedi	75.0252	28.0972
118	Rajasthan	SIKAR	NEEM KA THANA	Bhagega	75.7575	27.6807
119	Rajasthan	SIKAR	NEEM KA THANA	Sanwal Pura Tanwran	75.8937	27.5303
120	Rajasthan	SIROHI	SHEOGANJ	Manadar	72.8393	25.2017
121	Rajasthan	SIROHI	PINDWARA	Khari Gegarwa	72.9299	24.9114
122	Rajasthan	SIROHI	SIROHI	Kalandri	72.6585	24.9032
123	Rajasthan	SIROHI	REODAR	Rohua	72.4303	24.6784
124	Rajasthan	SIROHI	ABU ROAD	Jawai	72.7762	24.638
125	Rajasthan	SIROHI	PINDWARA	Sanwara	72.9798	24.5836
126	Rajasthan	SIROHI	ABU ROAD	Mungthala	72.6962	24.495
127	Rajasthan	SIROHI	SHEOGANJ	Godana	73.0376	25.042

Proposed Tentative locations for ground TEM survey in Punjab

S. No.	State	District	Block	Village	Longitude	Latitude
1	Punjab	Fazilka	Abohar		74.13053	30.022346
2	Punjab	Fazilka	Arniwala Sheikh Subanpur		74.165506	30.367056
3	Punjab	Firozpur	Guruhar Sahai		74.410354	30.636827
4	Punjab	Bathinda	Nathana		75.028282	30.322093
5	Punjab	Firozpur	Ghall Khurd		74.655186	30.851646
6	Punjab	Firozpur	Zira		74.865058	30.986532
7	Punjab	Tarn Taran	Patti		74.859226	31.231324
8	Punjab	Tarn Taran	Tarn Taran		74.870882	31.481114
9	Punjab	Amritsar	Harsha Chhina		74.783442	31.705924
10	Punjab	Gurdaspur	FatehgarhChurian		75.051602	31.850802
11	Punjab	Gurdaspur	Gurdaspur		75.44801	31.990684
12	Punjab	Pathankot	Sujanpur		75.599578	32.3254
13	Punjab	Pathankot	Dhar Kalan		75.821106	32.440302
14	Punjab	Hoshiarpur	Mukerian		75.681194	32.035646
15	Punjab	Hoshiarpur	Talwara		75.902714	31.855798
16	Punjab	Hoshiarpur	Hoshiarpur-2		76.001818	31.596016
17	Punjab	Hoshiarpur	Garh Shankar		76.200026	31.271292
18	Punjab	Rupnagar	Anandpur Sahib		76.538146	31.20135
19	Punjab	Rupnagar	Rupnagar		76.63141	30.951562
20	Punjab	SAS Nagar (Mohali)	Kharar		76.713026	30.671798
21	Punjab	Patiala	Shambu Kalan		76.549794	30.461975
22	Punjab	Patiala	Patiala		76.258322	30.317097
23	Punjab	Sangrur	Dirba		75.98433	30.117266

S. No.	State	District	Block	Village	Longitude	Latitude
24	Punjab	Mansa	Budhlada		75.547114	29.917435
25	Punjab	Bathinda	Talwandi Sabo		75.080746	30.002363
26	Punjab	Muktsar	Lambi		74.64353	30.057317
27	Punjab	Muktsar	Kot Bhai At Gidderbaha		74.608554	30.402026
28	Punjab	Faridkot	KotKapura		74.882546	30.676794
29	Punjab	Moga	Kot Ise Khan At Dharamkot		75.20317	30.981536
30	Punjab	Ludhiana	Jagraon		75.634554	30.816675
31	Punjab	Amritsar	Tarsikka		75.080746	31.645974
32	Punjab	Gurdaspur	Qadian		75.389714	31.74589
33	Punjab	Hoshiarpur	Bhunga		75.727826	31.655966
34	Punjab	Hoshiarpur	Hoshiarpur-2		75.908546	31.401182
35	Punjab	SBS Nagar	Balachaur		76.36325	31.04648
36	Punjab	SBS Nagar	Aur		76.025138	31.051476
37	Punjab	Fatehgarh Sahib	Amloh		76.269978	30.611848
38	Punjab	Ludhiana	Doraha		76.025138	30.801688
39	Punjab	Sangrur	Dhuri		75.76281	30.352068
40	Punjab	Barnala	Sehna		75.465498	30.417013
41	Punjab	Moga	Moga-1		75.26729	30.731747
42	Punjab	Kapurthala	Kapurthala		75.26729	31.29627
43	Punjab	Kapurthala	Nadala		75.49465	31.551054
44	Punjab	Jalandhar	Adampur		75.593746	31.361216
45	Punjab	Jalandhar	Mehatpur		75.453842	31.091442

Proposed Tentative locations for ground TEM survey in Haryana

S. No.	State	District	Block	Village	Longitude	Latitude
1	Haryana	Panchkula	Pinjore	Charnian	76.88433	30.83613
2	Haryana	Panchkula	Barwala	Ganeshpur	76.99588	30.66053
3	Haryana	Ambala	Shahzadpur	Shahzadpur	76.98568	30.44204
4	Haryana	Yamunanagar	Sadaura (Part)	Udamgarh	77.24813	30.38312
5	Haryana	Ambala	Barara	Tandwal	76.98699	30.22337
6	Haryana	Kurukshetra	Ismailabad	Saidpur Shahidan	76.69947	30.14292
7	Haryana	Kaithal	Guhla	Kharodi	76.32616	30.02297
8	Haryana	Sirsa	Dabwali	Maujgarh	74.74424	29.86038
9	Haryana	Sirsa	Rania	Bahia	74.67664	29.59675
10	Haryana	Sirsa	Baragudha	Malewala	75.06347	29.61702
11	Haryana	Fatehabad	Ratia		75.53011	29.63586
12	Haryana	Jind	Ujhana	Dhamtan Sahib	76.03124	29.67268
13	Haryana	Kaithal	Kaithal	Harsola	76.4361	29.72358
14	Haryana	Karnal	Indri	Tasang	77.11127	29.87853
15	Haryana	Karnal	Nissing At Chirao	Baras	76.80091	29.74397
16	Haryana	Sirsa	NathusariChopta	Brasari	75.0406	29.33365
17	Haryana	Hisar	Agroha	Agroha	75.60223	29.32235
18	Haryana	Jind	Jind	Kheri Jajwan	76.23783	29.34283
19	Haryana	Jind	Safidon	Mimna Bad	76.70479	29.44703
20	Haryana	Hisar	Hisar-li	Talwandi Badshahpur	75.62294	28.99413
21	Haryana	Bhiwani	Bawani Khera		76.00208	29.02167
22	Haryana	Rohtak	Maham	Lakhan Majra	76.46037	29.03238

S. No.	State	District	Block	Village	Longitude	Latitude
23	Haryana	Panipat	Bapoli	Bapoli	77.07126	29.31758
24	Haryana	Sonipat	Gohana	Bohla	76.84039	29.09233
25	Haryana	Sonipat	Rai	Aurangabad	77.12584	28.939
26	Haryana	Rohtak	Sampla	Atail	76.74569	28.84506
27	Haryana	Charki Dadri	Baund	Bond Kalan	76.33283	28.79011
28	Haryana	Bhiwani	Kairu	Sungarpur	75.87548	28.76402
29	Haryana	Bhiwani	Loharu	Barwas	75.85633	28.49069
30	Haryana	Charki Dadri	Jhojhu	Dadhi Bana	76.19419	28.50803
31	Haryana	Jhajjar	Jhajjar	Dawala	76.63411	28.56808
32	Haryana	Mahendragarh	Mahendragarh	Bhalkhi	76.19085	28.20975
33	Haryana	Mahendragarh	Nangal Chaudhry	Meghot Binja	76.05879	27.90754
34	Haryana	Rewari	Dahina	Nangal Mundi	76.48917	28.27146
35	Haryana	Gurugram	Farrukh Nagar	Janaula	76.79375	28.35231
36	Haryana	Faridabad	Faridabad	Kheri Kalan	77.3626	28.41322
37	Haryana	Gurugram	Sohna	Sohna Rural	77.06167	28.25905
38	Haryana	Nuh	Ferozepur Jhirka	Kameda	76.97419	27.77319
39	Haryana	Palwal	Hathin	Ali Brahman	77.25071	27.90316
40	Haryana	Palwal	Palwal	Lalpur Qadim	77.38515	28.16432
41	Haryana	Karnal			77.022225	29.641281

Proposed Tentative locations for ground TEM survey in Gujarat

S. No.	State	District	Block	Village	Longitude	Latitude
1	Gujarat	Ahmedabad	Bavla	Bagodara	72.184	22.618772
2	Gujarat	Ahmedabad	Bavla	Kerala	72.333808	22.787199
3	Gujarat	Ahmedabad	Sanand	Kundal	72.224488	22.910712
4	Gujarat	Kachchh	Mundra	Bhorara	69.742525	22.914455
5	Gujarat	Kachchh	Mandvi	Koday	69.361933	22.929427
6	Gujarat	Ahmedabad	Viramgam	Ghoda	72.066584	22.936912
7	Gujarat	Ahmedabad	Sanand	Sanand (M)	72.358104	23.019254
8	Gujarat	Kachchh	Abdasa	Vinjan	68.965141	23.064167
9	Gujarat	Ahmedabad	Viramgam	Goraiya	71.953216	23.124053
10	Gujarat	Mahesana	Kadi	Vekra	72.204248	23.176453
11	Gujarat	Kachchh	Bhuj	Sukhpar	69.625108	23.206395
12	Gujarat	Kachchh	Anjar	Fatepur	70.131221	23.243823
13	Gujarat	Ahmedabad	Mandal	Solgam	72.018	23.31868
14	Gujarat	Kachchh	Bhachau	Katariya Juna	70.568501	23.288735
15	Gujarat	Mahesana	Kadi	Rajpur	72.414784	23.326165
16	Gujarat	Ahmedabad	Detroj-rampura	Ghelda	72.216392	23.374822
17	Gujarat	Kachchh	Nakhatrana	Lakhiyavira	69.361933	23.378563
18	Gujarat	Kachchh	Abdasa	Bhoa	68.746501	23.415991
19	Gujarat	Kachchh	Bhuj	Berdo	69.823509	23.423479
20	Gujarat	Patan	Sankheswar	Padla	71.864141	23.520791
21	Gujarat	Mahesana	Becharaji	Delvada Khant	72.119216	23.554478
22	Gujarat	Mahesana	Mahesana	Rampura (Kukas)	72.414784	23.558221

S. No.	State	District	Block	Village	Longitude	Latitude
23	Gujarat	Kachchh	Rapar	Bhimasar	70.884317	23.520791
24	Gujarat	Patan	Sami	Vaghpura	71.596909	23.633075
25	Gujarat	Kachchh	Rapar	Trambau	70.580644	23.569449
26	Gujarat	Patan	Harij	Boratvada	71.924872	23.715419
27	Gujarat	Kachchh	Lakhpat	Panandhro	68.754597	23.692963
28	Gujarat	Kachchh	Bhuj	Mithdi	69.499597	23.715419
29	Gujarat	Patan	Patan	Sarva	72.212349	23.820219
30	Gujarat	Kachchh	Rapar	Anandpar	70.762845	23.820219
31	Gujarat	Patan	Santalpur	Babra	71.264909	23.805247
32	Gujarat	Kachchh	Bhuj	Dhoravar	69.823509	23.857647
33	Gujarat	Banaskantha	Kankrej	UN	71.791261	23.902559
34	Gujarat	Banaskantha	Kankrej	Shihori	71.920829	24.059759
35	Gujarat	Banaskantha	Bhabhar	Bhabhar Nava	71.596909	24.067243
36	Gujarat	Banaskantha	Deesa	Vadaval	72.107069	24.261871
37	Gujarat	Banaskantha	Lakhani	Lakhani	71.847949	24.321755
38	Gujarat	Banaskantha	Vav	Khimanavas	71.467357	24.351699
39	Gujarat	Banaskantha	Amirgadh	Manpuriya	72.463373	24.366671
40	Gujarat	Banaskantha	Dhanera	Malotra	72.074685	24.538839
41	Gujarat	Banaskantha	Tharad	Dantiya	71.726477	24.568783
42	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	70.212197	23.715419
43	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.216317	23.281251
44	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.548333	23.258795
45	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.224416	23.580677
46	Gujarat	Kachchh		Jumara	69.093309	23.697149

Proposed Tentative locations for ground TEM survey in Himachal Pradesh

S.No.	State	District	Block	Village	Longitude	Latitude
1	Himachal	Kangra	Nurpur		75.810378	32.197426
2	Himachal	Kangra	Jawali		76.047882	32.139062
3	Himachal	Kangra	Dera gopipur		76.303374	31.85032
4	Himachal	Una	Una		76.145038	31.546218
5	Himachal	Hamirpur	Barsar		76.468902	31.515501
6	Himachal		Naina devi		76.526482	31.331196
7	Himachal	Solan	Arki		76.89742	31.171327
8	Himachal	Solan	Solan		77.084254	30.879649
9	Himachal	Sirmaur	Nahan		77.350542	30.507969
10	Himachal	Sirmaur	Nohra		77.36258	30.75217
11	Himachal	Sirmaur	Renuka		77.49921	30.601279
12	Himachal	Kangra	Kangra		76.229545	32.015857

Proposed Tentative locations for ERT (2D Imaging) survey in Rajasthan

S. No.	State	District	Block	Village	Longitude	Latitude
1	Rajasthan	JAISALMER	SAM	Bhinda Deslonwala	69.9099	26.9882

S. No.	State	District	Block	Village	Longitude	Latitude
2	Rajasthan	JAISALMER	SAM	Balidad Ki Basti	70.358	26.7775
3	Rajasthan	JAISALMER	SAM	Bersiyala	70.5616	26.4052
4	Rajasthan	BARMER	GADRAROAD	Shadad Ka Par Khurd	70.4773	25.9951
5	Rajasthan	BARMER	GADRAROAD	Balewa	70.9031	25.9364
6	Rajasthan	BARMER	CHOHTAN	Meghasar	71.0968	25.5506
7	Rajasthan	BARMER	DHORIMANNA	Koliyana	71.2487	25.145
8	Rajasthan	BARMER	GUDHAMALANI	Beri Gaon	71.664	25.1085
9	Rajasthan	BARMER	BARMER	Kumharon Ka Tala	71.5074	25.4773
10	Rajasthan	BARMER	BARMER	BothiyaJageer	71.3552	25.9079
11	Rajasthan	BARMER	SHEO	Bhanwarisar	71.0867	26.2741
12	Rajasthan	JAISALMER	SAM	Shobh	70.887	26.567
13	Rajasthan	JAISALMER	SAM	Damodara	70.6991	26.8969
14	Rajasthan	JAISALMER	SAM	Kohriya Ka Gaon	70.4833	27.1948
15	Rajasthan	JAISALMER	SAM	Ramgarh	70.436	27.6079
16	Rajasthan	JAISALMER	JAISALMER	Deega	71.0101	27.4168
17	Rajasthan	JAISALMER	JAISALMER	Kanod Beerma	71.1284	27.1161
18	Rajasthan	JAISALMER	SAM	Sanwata	71.2963	26.7234
19	Rajasthan	BARMER	SHEO	Kashmir	71.5384	26.3316
20	Rajasthan	BARMER	BAYTOO	Hudon Ki Dhani (Akdara)	71.8395	25.9959
21	Rajasthan	BARMER	SINDHARI	Bhooka Bhagatsingh	71.9825	25.6141
22	Rajasthan	BARMER	SIWANA	Dheera	72.4335	25.5697
23	Rajasthan	BARMER	KALYANPUR	Rewara Maiya	72.3188	25.9956
24	Rajasthan	JAISALMER	JAISALMER	Tota	71.7339	27.2627
25	Rajasthan	JAISALMER	JAISALMER	Panche Ka Tala	71.6304	27.589
26	Rajasthan	JAISALMER	JAISALMER	Major Shaitansingh Nagar	72.1065	27.7815
27	Rajasthan	JODHPUR	BAP	Bari Dhani	72.2937	27.3382
28	Rajasthan	JODHPUR	LUNI	Sawan Nagar	72.7417	26.179
29	Rajasthan	BARMER	SAMDARI	Majal	72.6903	25.8258
30	Rajasthan	JODHPUR	LUNI	Peethasani	73.2426	26.1573
31	Rajasthan	JODHPUR	BAORI	Vinayakpura	73.1237	26.5095
32	Rajasthan	JODHPUR	OSIAN	Panditji Ki Dhani	72.9631	26.8181
33	Rajasthan	JODHPUR	BAP	Shiv Nagar	72.6387	27.4654
34	Rajasthan	BIKANER	KOLAYAT	Bajju Khalsa	72.5078	27.953
35	Rajasthan	BIKANER	KOLAYAT	Chak Mulajman	72.9127	27.876
36	Rajasthan	BIKANER	PANCHOO	Nathoosar	73.1379	27.5122
37	Rajasthan	NAGAUR	KHEENV SAR	Dujasar	73.3339	27.1666
38	Rajasthan	JODHPUR	BHOPALGARH	PalriRanawata	73.4461	26.7646
39	Rajasthan	JODHPUR	PIPAR CITY	Sri Krishana Nagar	73.6192	26.4494
40	Rajasthan	BIKANER	BIKANER	Barsingsar	73.2125	27.8097
41	Rajasthan	NAGAUR	NAGAUR	Chheela	73.5892	27.4767
42	Rajasthan	NAGAUR	MUNDWA	Mundwa (M)	73.8114	27.0809
43	Rajasthan	NAGAUR	MERTA	Kheduli	73.9908	26.7219
44	Rajasthan	NAGAUR	RIYAN BARI	Kodiya	74.3003	26.5417
45	Rajasthan	NAGAUR	PARBATSAR	Lalana Khurd	74.543	26.8565

S. No.	State	District	Block	Village	Longitude	Latitude
46	Rajasthan	NAGAU	JAYAL	Moti Nagar	74.2955	27.0864
47	Rajasthan	NAGAU	JAYAL	Chhapra	74.0192	27.3346
48	Rajasthan	BIKANER	NOKHA	Udsar	73.7346	27.7183
49	Rajasthan	BIKANER	BIKANER	Garhwala	73.4763	27.9963
50	Rajasthan	BIKANER	BIKANER	Dholera No.1	73.2936	28.2742
51	Rajasthan	BIKANER	LUNKARANSAR	Mahadeowali	73.3123	28.7198
52	Rajasthan	BIKANER	LUNKARANSAR	Khari	73.6289	28.3742
53	Rajasthan	BIKANER	DUNGARGARH	Lakhasar	73.8668	28.0959
54	Rajasthan	BIKANER	DUNGARGARH	Keu	74.0896	27.8729
55	Rajasthan	NAGAU	LADNU	Bankliya	74.3946	27.5688
56	Rajasthan	NAGAU	MOLASAR	Berwa	74.6426	27.283
57	Rajasthan	NAGAU	NAWA	Nawa (M)	75.0071	27.0329
58	Rajasthan	SIKAR	DANTA RAMGARH	Motlawas	75.2314	27.2909
59	Rajasthan	SIKAR	LACHHMANGARH	Chainpura	74.8601	27.5972
60	Rajasthan	BIKANER	DUNGARGARH	Thukariyasar	74.1322	28.1823
61	Rajasthan	BIKANER	LUNKARANSAR	Rajpura Hudan	73.9018	28.5352
62	Rajasthan	BIKANER	LUNKARANSAR	Mahajan Fieldfiring Range	73.635	28.7826
63	Rajasthan	BIKANER	LUNKARANSAR	Jaitpur	74.0917	28.863
64	Rajasthan	HANUMANGARH	RAWATSAR	14 Nwd	74.4024	29.1406
65	Rajasthan	HANUMANGARH	PILIBANGA	47 Ssw	74.1353	29.4136
66	Rajasthan	HANUMANGARH	HANUMANGARH	5 Jdw	74.2139	29.6609
67	Rajasthan	HANUMANGARH	SANGARIYA	1 Amp-B	74.4489	29.8766
68	Rajasthan	HANUMANGARH	TIBI	11 Slw	74.4892	29.5052
69	Rajasthan	HANUMANGARH	NOHAR	16 Ntr	74.9248	29.2241
70	Rajasthan	HANUMANGARH	BHADRA	Mothsaran	75.1897	28.9804
71	Rajasthan	HANUMANGARH	NOHAR	Lalaniya	74.7114	28.9967
72	Rajasthan	SIKAR	FATEHPUR	Sardarpura	74.9124	27.9805
73	Rajasthan	JHUNJHUNU	ALSISAR	Tanee	75.124	28.1953
74	Rajasthan	JHUNJHUNU	CHIRAWA	Sultana Ka Bas	75.6007	28.3076
75	Rajasthan	JHUNJHUNU	BUHANA	Bhir	75.9127	28.1734
76	Rajasthan	SIKAR	NEEM KA THANA	Kunwara	75.8714	27.8276
77	Rajasthan	SIKAR	KHANDELA	RooppuraUdalvas	75.7827	27.5319
78	Rajasthan	SIKAR	KHANDELA	Bahadurpura	75.4356	27.5238
79	Rajasthan	SIKAR	PIPRALI	Koleera	75.2027	27.78
80	Rajasthan	JHUNJHUNU	JHUNJHUNUN	Bakra	75.4081	28.0377
81	Rajasthan	JHUNJHUNU	UDAIPURWATI	Gudha Gorji	75.5655	27.8502
82	Rajasthan	BIKANER	KOLAYAT	Jagasar	72.4828	28.2745
83	Rajasthan	SIROHI	SHEOGANJ	Van	72.854	25.0657
84	Rajasthan	SIROHI	SIROHI	Sanpur	72.6192	24.7605
85	Rajasthan	SIROHI	PINDWARA	Ajari	73.0531	24.7573
86	Rajasthan	SIROHI	ABU ROAD	Uplagarh	72.8385	24.4651
87	Rajasthan	SIROHI	REODAR	Jawal	72.4655	24.5611
88	Rajasthan	SIROHI	SIROHI	Sirohi (Rural)	72.8493	24.8118
89	Rajasthan	HANUMANGARH	NOHAR	14 Rwd	74.6222	29.3127
90	Rajasthan	JAISALMER	SAM	Asoo Ka Tala	70.1763	27.2798
91	Rajasthan	BIKANER	KOLAYAT	Seora	72.3931	27.6796

S. No.	State	District	Block	Village	Longitude	Latitude
92	Rajasthan	BIKANER	KOLAYAT	LambanaMoolwan	72.9283	27.6843
93	Rajasthan	NAGAU	KUCHAMAN CITY	Chawandiya	74.9479	27.3428
94	Rajasthan	BIKANER	BIKANER	Kawni	73.0709	28.1493
95	Rajasthan	JAISALMER	JAISALMER	Balana	71.3996	27.3562
96	Rajasthan	BARMER	GIRA	Mahingpura	72.061	26.2835
97	Rajasthan	HANUMANGARH	BHADRA	1 Mrn	75.2982	29.1958

Proposed Tentative locations for ERT (2D Imaging) survey in Punjab

S. No.	State	District	Block	Village	Longitude	Latitude
1	Punjab	Pathankot	Dhar Kalan		75.722002	32.34039
2	Punjab	Gurdaspur	Dhariwal		75.308098	31.88078
3	Punjab	Hoshiarpur	Dasuya		75.745322	31.87578
4	Punjab	Hoshiarpur	Mahilpur		76.048458	31.46113
5	Punjab	Rupnagar	Rupnagar		76.49733	30.88662
6	Punjab	SAS Nagar (Mohali)	Derabassi		76.823794	30.52192
7	Punjab	Patiala	Sanaur		76.444866	30.28712
8	Punjab	Patiala	Patran		76.089266	29.96739
9	Punjab	Sangrur	Sunam		75.722002	30.13725
10	Punjab	Mansa	Sardulgarh		75.29061	29.77755
11	Punjab	Bathinda	Rampura		75.20317	30.18221
12	Punjab	Fazilka	Abohar		74.165506	30.16722
13	Punjab	Muktsar	Muktsar		74.416178	30.432
14	Punjab	Faridkot	Faridkot		74.661018	30.65182
15	Punjab	Moga	Moga-2		75.04577	30.83166
16	Punjab	Tarn Taran	Naushera Pannuan	Bhathal bhaike	74.969986	31.33624
17	Punjab	Amritsar	Majitha	Kaler mangat	74.993306	31.72591
18	Punjab	Kapurthala	Dhilwan		75.36057	31.47612
19	Punjab	Jalandhar	Jalandhar East		75.55877	31.21634
20	Punjab	Ludhiana	Sidhwan Bet		75.465498	30.91659
21	Punjab	Ludhiana	Ludhiana-1		75.856082	30.94157
22	Punjab	Rupnagar	Anandpur Sahib		76.374914	31.28628
23	Punjab	Muktsar	Kot Bhai At Gidderbaha		74.515282	30.24716
24	Punjab	Bathinda	Bathinda		74.806762	30.15723
25	Punjab	Moga	Bagha Purana		75.074922	30.56689
26	Punjab	Barnala	Mahal Kalan		75.593746	30.52192
27	Punjab	Malerkotla	Malerkotla-2		75.844418	30.59187
28	Punjab	Fatehgarh Sahib	Khera		76.538146	30.63683
29	Punjab	Ludhiana	Khanna		76.09509	30.68679
30	Punjab	Hoshiarpur	Tanda		75.564602	31.68095
31	Punjab	Jalandhar	Bhogpur		75.687026	31.4961
32	Punjab	Jalandhar	Nur Mahal		75.710338	31.06646
33	Punjab	Ludhiana	Raikot		75.611242	30.69178
34	Punjab	Firozpur	Makhu		74.946666	31.10143

Proposed Tentative locations for ERT (2D Imaging) survey in Haryana

S. No.	State	District	Block	Village	Longitude	Latitude
1	Haryana	Panchkula	Raipur Rani	Alipur	77.046233	30.595152
2	Haryana	Ambala	Naraingarh	Jeoli	77.09291	30.360858
3	Haryana	Ambala	Ambala-I	Ambala	76.806187	30.350227
4	Haryana	Kaithal	Siwan	Siwan	76.358469	29.878491
5	Haryana	Karnal	Karnal	Rasulpur Khurd	77.033043	29.676002
6	Haryana	Panipat	Panipat	Alipur Khalsa	76.966602	29.478206
7	Haryana	Karnal	Assandh	Rahra	76.616547	29.612153
8	Haryana	Jind	Uchana	Lodhar	76.251985	29.571357
9	Haryana	Fatehabad	Jakhal		75.764091	29.724197
10	Haryana	Fatehabad	Uklana	Daulatpur	75.847478	29.480101
11	Haryana	Fatehabad	Bhattu Kalan		75.301856	29.422799
12	Haryana	Sirsa	Odhan	Kalanwali	74.955286	29.800964
13	Haryana	Sirsa	Ellenabad	Kuta Budh	74.836127	29.467785
14	Haryana	Hisar	Hisar-I	Mirzapur	75.816652	29.177039
15	Haryana	Jind	Pillukhera	Morkhi	76.520358	29.265343
16	Haryana	Bhiwani	Bhiwani	Tigrana	76.102044	28.846881
17	Haryana	Bhiwani	Behal	Cheher Khurd	75.722016	28.600856
18	Haryana	Jhajjar	Beri	Beri Dopana	76.557485	28.718113
19	Haryana	Sonipat	Murthal	Larsoli	77.049603	29.084321
20	Haryana	Hisar	Hansi-Ii	Bass Azam Shahpur	76.156062	29.134768
21	Haryana	Mahendragarh	Mahendragarh	Zerpur	76.074241	28.335016
22	Haryana	Jhajjar	Matannail	Goria-N	76.401421	28.431479
23	Haryana	Gurugram	Farrukh Nagar	Mubarikpur	76.829595	28.476106
24	Haryana	Rewari	Bawal	Bawal	76.587148	28.061556
25	Haryana	Mahendragarh	Narnaul	Nuni Awal	76.099381	28.046441
26	Haryana	Nuh	Nuh	Tain	77.069922	28.104832
27	Haryana	Faridabad	Ballabgarh	Zakopur	77.214321	28.311334
28	Haryana	Palwal	Hassanpur	Ghasera	77.415	27.994815
29	Haryana	Nuh	Nagina	Mohamadnagar	77.032654	27.911526
30	Haryana	Sirsa	Dabwali	Chutala	74.562014	29.795275
31	Haryana	Hisar			75.534955	29.061241
32	Haryana	Charkhi Dadri			76.088771	28.630061

Proposed Tentative locations for ERT (2D Imaging) survey in Gujarat

S. No.	State	District	Block	Village	Longitude	Latitude
1	Gujarat	Ahmedabad	Bavla	Dumali	72.143507	22.731056
2	Gujarat	Ahmedabad	Viramgam	Nadiyana	72.094531	23.183938
3	Gujarat	Kachchh	Bhuj	Vavdi	69.829291	23.180195
4	Gujarat	Kachchh	Abdasa	Rava	69.041557	23.232595
5	Gujarat	Kachchh	Bhachau	Karmariya	70.388455	23.367337
6	Gujarat	Mahesana	Jotana	Ijpurajethaji	72.302683	23.449679
7	Gujarat	Kachchh	Nakhatrana	Lakshmipur(Bhunjay)	69.041557	23.449679
8	Gujarat	Kachchh	Lakhat	Jadva	68.649733	23.535764
9	Gujarat	Kachchh	Bhachau	Chobari	70.347643	23.554478
10	Gujarat	Patan	Sankheswar	Lolada	71.698619	23.532021

11	Gujarat	Kachchh	Nakhatrana	Fulay	69.331345	23.520792
12	Gujarat	Kachchh	Rapar	Umaiya	70.776199	23.61062
13	Gujarat	Patan	Sami	Ravad	71.816987	23.651791
14	Gujarat	Mahesana	Mahesana	Chhathiyarda	72.351659	23.644305
15	Gujarat	Patan	Chanasma	Chanasma (M)	72.098611	23.696705
16	Gujarat	Kachchh	Bhuj	Bhirandiyara	69.739495	23.599392
17	Gujarat	Kachchh	Lakhpat	Nara	69.123187	23.670505
18	Gujarat	Patan	Santalpur	Bamnoli	71.376179	23.816476
19	Gujarat	Patan	Radhanpur	Radhanpur (M)	71.621075	23.812732
20	Gujarat	Kachchh	Bhachau	Gadhada	70.388455	23.872618
21	Gujarat	Patan	Sarsvati (Patan)	Nayta	72.110851	23.962446
22	Gujarat	Banaskantha	Suigam	Rajpura	71.408835	24.119644
23	Gujarat	Banaskantha	Deodar	Chagwada	71.792499	24.164558
24	Gujarat	Banaskantha	Deesa	Gugal	72.078203	24.355442
25	Gujarat	Banaskantha	Tharad	Vadgamda	71.682291	24.415328
26	Gujarat	Banaskantha	Dantiwada	Bhadali (Zat)	72.335339	24.463984
27	Gujarat	Banaskantha	Dhanera	Vinchhivadi	71.927187	24.587498
28	Gujarat	Banaskantha	Vav	Akoli	71.416995	24.59124
29	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	70.078263	23.558221
30	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.017011	23.842676
31	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	70.927219	23.277509
32	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.416995	23.415993
33	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.331283	23.603134
34	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	71.061907	23.404765
35	Gujarat	Kachchh	Runn of kachchh	Runn of kachchh	70.012959	23.827704
36	Gujarat	Kachchh		Gadhsisa	69.348779	23.096578

Proposed Tentative locations for ERT (2D Imaging) survey in Himachal Pradesh

S. No.	State	District	Block	Village	Longitude	Latitude
1	Himachal	Kangra	Indora		75.727779	32.184079
2	Himachal	Kangra	Fatehpur		75.921934	32.068412
3	Himachal	Una	Haroli		76.227806	31.364985
4	Himachal	Una	Amb		76.087462	31.684446
5	Himachal	Hamirpur	Nadaun		76.465306	31.687518
6	Himachal	Solan	Nalagarh		76.674018	31.073169
7	Himachal		Ghumarwin		76.757635	31.442054
8	Himachal	Solan	Kandaghat		77.128109	30.984967
9	Himachal	Sirmaur	Pachhad		77.210198	30.710704
10	Himachal	Sirmaur	Paonta Sahib		77.631222	30.504897

Flight Lines and Ground Geophysical Survey Details

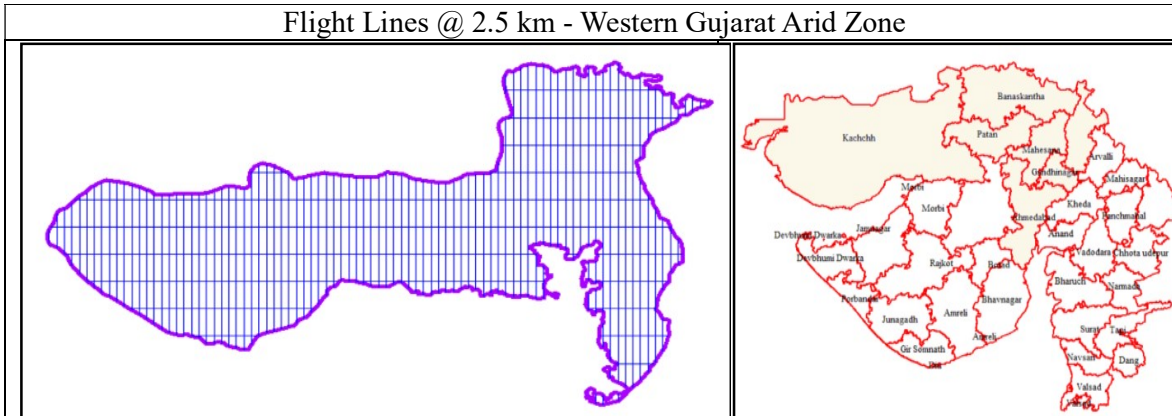
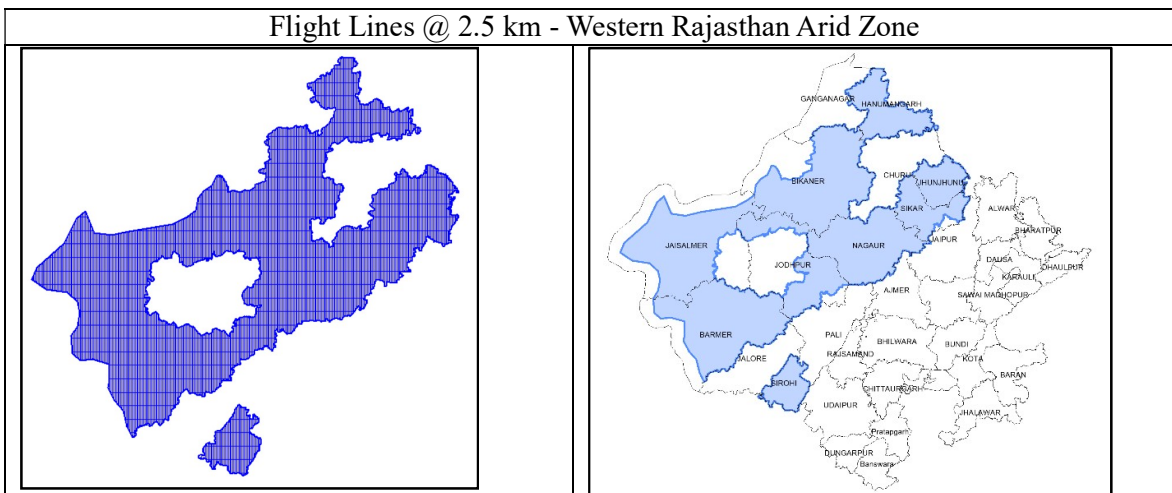
Details of tentative ground geophysical TEM and ERT numbers in the area under the Phase-II survey are given below.

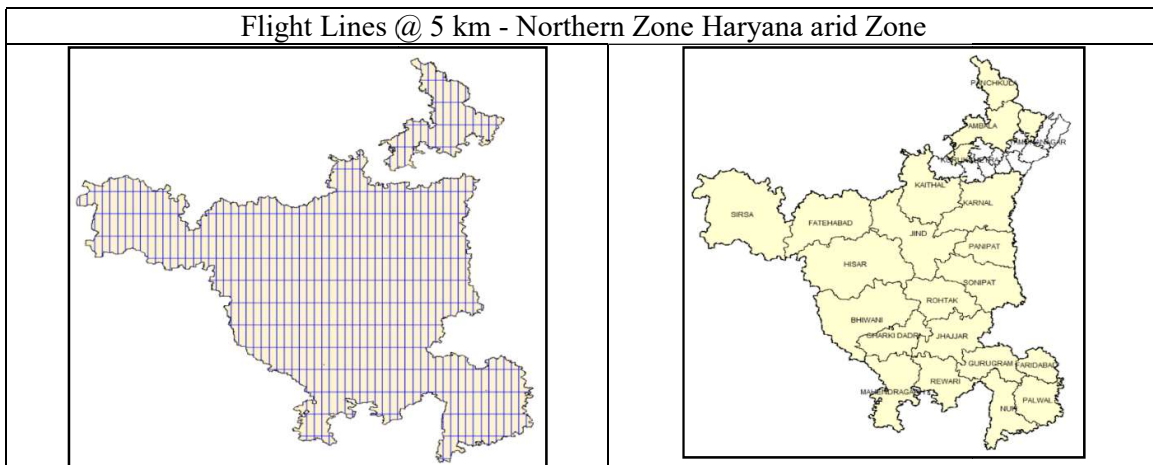
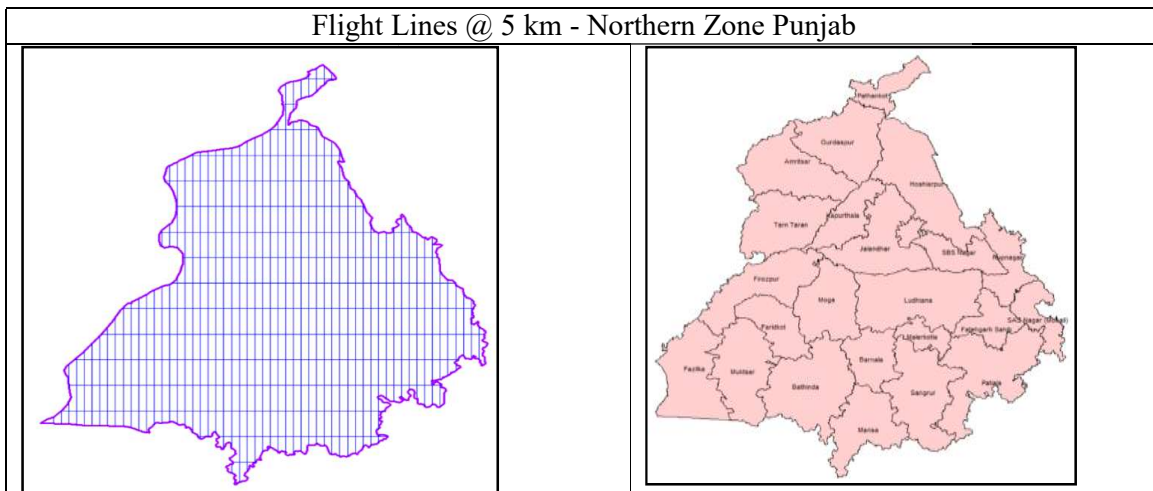
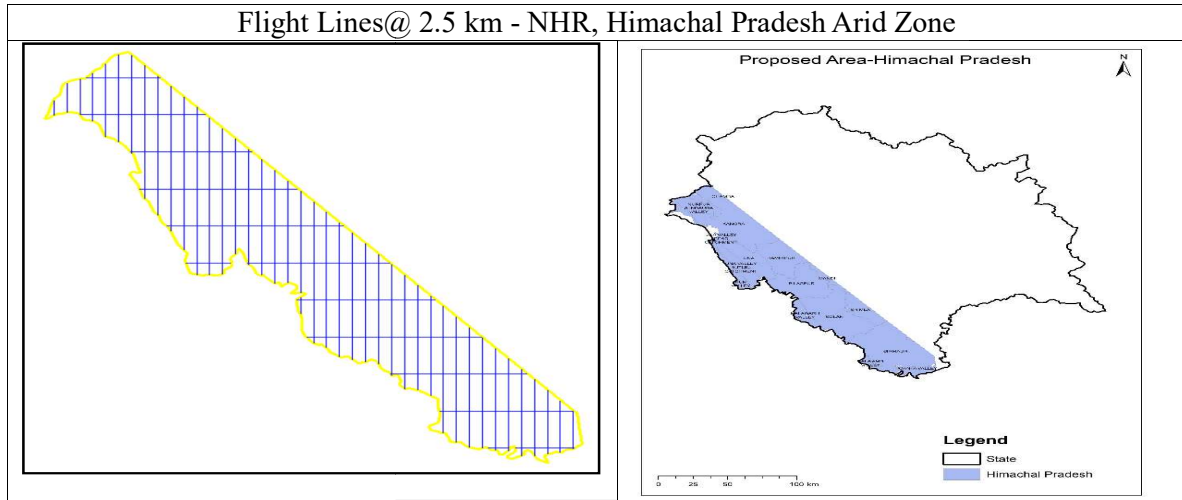
Table: Details of Area and Ground Geophysical Surveys in Arid region under Phase-II.

S. No.	State	Area (Sq. Km)	TEM (Nos.) [1 @ 1000 Km ²]	ERT (Nos.) [1 @ 1300 Km ²]
1	Rajasthan	127500	127	97
2	Gujrat	46260	46	36
3	Himachal Pradesh	11610	12	10
4	Punjab	44540	45	34
5	Haryana	41480	41	32
	Total	271390	271	209

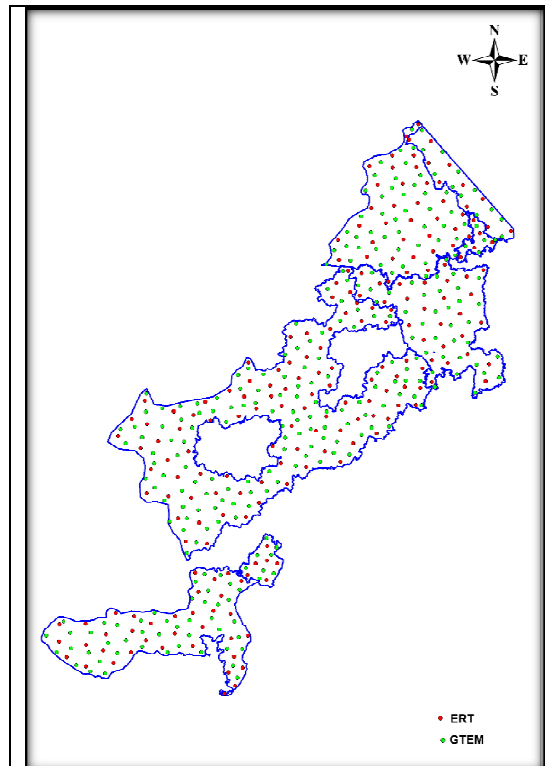
In general, the Heliborne flight line spacing in the survey areas falling in Punjab & Haryana states have been taken with major flight line parallel spacing of 5 Km and tie flight line will be flown at a line spacing of 20 Km.

In Rajasthan, Gujarat & Himachal Pradesh states considering the boundary with hard rock geology, dipping formation, deep water levels, complex marginal alluvium deposit etc. the flight line spacing has been kept at 2.5 Km and tie flight at 20 Km spacing. Extra infill lines of around 5% will be flown over hydrogeologically interesting / complex / contact areas.





Tentative TEM & ERT locations map



Chapter-8**Preparation of Bid**

- Bidder's bid (the bid) will consist of following components
- EMD Fee/Bid security declaration(BSD)
- Technical bid including details of claim of eligibility criterion laid down in notice inviting tender, and
- Financial bid
- The bid, as well as all related correspondence exchanged by the bidders and the authority shall be in English language only. All reports prepared by the appointed bidder shall also be in English.
- While preparing the bid, the bidder must add the contents table.

Technical bid

The technical bid shall not include any information related to the financial bid. Technical bids containing information related to the financial bid shall be declared non-responsive.

The bid shall contain:

- A brief description of the bidder's organization and an outline of recent experience of the bidder, on assignments of a similar nature. The information which you shall provide on each assignment should indicate, inter-alia, the profiles of the staff provided, duration, contract amount and firm's involvement. The details of assignments on hand shall also be furnished.
- A concise, complete, and logical description of approach and methodology as proposed by the bidder in compliance to the scope of work and technical specifications.
- The composition of the proposed team, the tasks which shall be assigned to each and their timing.
- CVs strictly in the prescribed format and recently signed in blue ink on each page by both the proposed professional staff and the authorized representative of the firm. Key information should include year's served with the firm and degree of responsibility held in various assignments. In CV format, at summary, the individual shall declare his/her qualification & total experience (in years) against the requirements specified in scope of work and technical specification for the position.
- Only one CV may be submitted for each position. Each expert of the preferred bidder may be called for interview at the cost of bidder, prior to issue of LOA.
- A certification to the effect should be furnished by the bidder that they have checked the qualifications and experience details submitted by the key personnel in their CVs and found to be correct. This certification should be made in CVs of all key personnel after the certification by the candidate. The format of CV includes certification to this effect.
- CGWB reserves the right to verify all statements, information, and documents submitted by the bidder in response to the tender. Any such verification or the lack of such verification shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of CGWB there under.
- Any comments or suggestions on the scope of work and technical specification and a description of the methodology (work plan) which the firm proposes to execute the services, illustrated with bar charts of activities.
- All documents in support of qualifying criteria as mentioned in relevant chapter.

Price Bid

The price should be quoted in Indian Rupees (INR) only excluding the GST.

Payment Terms

- The payment will be made to the GEM bidder which is a company or a joint venture or lead partner in case of a consortium.
- Payment will be milestone based as per the Terms of Payment and Maintenance of Account (chapter-6)
- Amount for each milestone will be calculated from the total cost as quoted in GEMAs per following procedure:
- The milestone amounts without tax will be calculated as percentage specified in the schedule of payment. GST % will be added to this to get the final milestone cost with tax. However, The actual Tax (GST) as applicable will be reimbursed against the valid invoice only after producing the following proof of tax amount paid to Government (i) A copy of GSTR-1, (ii) A copy of GSTR- 3B, (iii) CA certificate indicating details of invoices against which the payment under GSTR-3B has been made and any other relevant document.

Submission, Receipt and Opening of Bids

- The original bid (bid security declaration, technical bid) shall contain no interlineations or overwriting, except as necessary to correct errors made by bidders themselves. Any such corrections, interlineations or overwriting must have initials by the person(s) who signed the bid.
- The bidder or its authorized representative shall initial all pages of the bid. The representative's authorization must be confirmed by a written power of attorney accompanying the bids.
- All documents in "original" related to technical bids are to be submitted within the due date as specified in this tender in two separate envelopes as follows:
 - Envelope – 1: EMD Fee/Bid Security Declaration
 - Envelope – 2: Cover-I (Technical Bid)
 - In Cover-I, all details as asked in this tender are to be submitted, and copies of all documents in the original is to be submitted as mentioned in this tender.
- If any document is found missing in the submitted bid, clarification may be sought from the bidders. However, in case of non-receipt of response to clarifications in time, the bid will be rejected without any further evaluation. However, in case any missing documents make the bid non-responsive, then CGWB shall have the right to reject the bid without any further evaluation.

Chapter-9**Bid Evaluation*****Criteria for evaluation of the bids***

- The evaluation of the proposals will be a two-stage. Evaluation of the technical proposals and financial proposals will be done by Tender Evaluation Committee (TEC).
- Evaluation of technical bid will be carried out prior to opening of financial bid. Financial Bids will be opened only for technically qualified bidders.
- In case of a bidder being a consortium of companies or a joint venture company the credentials of all the members of the consortium / joint venture will also be considered for evaluating the technical bids.

Evaluation of technical bids

- The eligibility and qualifying criteria will be first evaluated as defined in tender for each bidder. Detailed technical evaluation will be taken up for only those bidders, who meet with the prescribed eligibility and qualifying criteria.
- The authority's 'Tender Evaluation Committee' (TEC) will be responsible for evaluation of bids received.
- The TEC will evaluate the technical bids on the basis of bid's responsiveness using the evaluation criteria specified in the tender.

A technical bid may not be considered for evaluation in any of the following cases:

- The bidder failed to qualify in the eligibility and qualifying criteria of the tender.
- The technical bid was submitted in the wrong format; or
- The technical bid included details of costs of the services; or
- The EDM Fee/Bid Security Declaration is not received by the authority on or before the due date & time.
- The authority shall notify the bidders who have cleared eligibility and qualification criteria and would be eligible for opening of their financial bids.

Opening and Evaluation of Financial Bids

- As per the results obtained in each technical bid, the "tender evaluation committee" (TEC) will proceed with the technical evaluation report and choose to open the financial bid of qualified bidders.
- At the opening of financial bids, bidder's representatives who choose to attend will sign an attendance sheet. Financial bid of only those bidders will be opened who qualify and are declared as "technically qualified".
- The price bids of the technically qualified bidders will be opened by duly intimating the date and time of opening of the price bids. The bidders may remain present or depute its authorized representatives to witness the same.
- Method of evaluation: lowest price(L1) Bidder

Chapter 10**Pre-contract Integrity pact**

This pre-contract agreement (hereinafter called the integrity pact) is made on*day of the month of* (year),

Between, on one hand, the president of India acting through Chairman, Central Ground Water Board, an subordinate office of the Department of Water Recourses, RD and GR, Ministry of Jal Shakti, Government of India (hereinafter called the buyer, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the first part and *m/s.....Represented by Shri....., Chief executive officer*(hereinafter called the bidder / seller, which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the second part;

Whereas, the buyer proposes to procure (*name of the stores/service/equipment/items*) and the bidder/seller is willing to offer/has offered for the stores/service; and

Whereas, the bidder is a *private company/public company/govt. Undertaking/ partnership/ registered export agency*, constituted in accordance with the relevant law in the matter and the buyer is Central Ground Water Board, an subordinate office of the Department of Water Recourses, RD and GR, Ministry of Jal Shakti, Government of India, performing its functions on behalf of the president of India;

Now therefore, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the buyer to obtain the desired said stores/service/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling bidders to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the buyer will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this integrity pact and agree as follows:

Commitments of the buyer

- The buyer undertakes that no official of the buyer, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, Reward, favor or any material or immaterial benefit or any other advantage from the bidder, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- The buyer will, during the pre-contract stage, treat all bidders alike, and will provide to all bidders the same information and will not provide any such information to any particular bidder which could afford an advantage to that particular bidder in comparison to other bidders.
- All the officials of the buyer will report to the appropriate government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a

breach.

- In case any such preceding misconduct on the part of such official(s) is reported by the bidder to the buyer with full and verifiable facts and the same is prima facie found to be correct by the buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the buyer and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the buyer the proceedings under the contract would not be stalled.

Commitments of the bidders

- The bidder commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
- The bidder will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the buyer, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- The bidder further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favors, any material or immaterial benefit or other advantage, commission fees, brokerage or inducement to any official of the buyer or otherwise in procuring the contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the government for showing or forbearing to show favor or disfavor to any person in relation to the contract or any other contract with the government.
- Bidders shall disclose the name and address of agents and representatives and Indian bidders shall disclose their foreign principals or associates.
- Bidders shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- The bidder further confirms and declares to the buyer that the bidder is the original manufacturer/integrator/authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the bidder, nor has any amount been paid, promised or intended to be paid to any such individual firm or company in respect of any such intercession, facilitation or recommendation.
- The bidder, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the buyer or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- The bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- The bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

- The bidder shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The bidder also undertakes to exercise due and adequate care lest any such information is divulged.
- The bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- The bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- If the bidder or any employee of the bidder or any person acting on behalf of the bidder, either directly or indirectly, is a relative of any of the officers of the buyer, or alternatively if any relative of an officer of the buyer has financial interest/stake in the bidder's firm, the same shall be disclosed by the bidder at the time of filing of tender. The term 'relative' for this purpose would be as defined in section 6 of the companies' act 1956.
- The bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the buyer.

Previous transgression

- The bidder declares that no previous transgression occurred in the last three years immediately before signing of this integrity pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any public sector enterprise in India or any government department in India that would justify bidder's exclusion from the tender process.
- The bidder agrees that if it makes incorrect statement on this subject, bidder can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Earnest money (security deposit)

While submitting the bid, the bidder shall provide the bid security declaration along with the technical bid.

Sanctions for violations

- Any breach of the aforesaid provisions by the bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the bidder) shall entitle the buyer to take all or any one of the following actions, wherever required:-
- To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the bidder. However, the proceedings with the other bidder(s) would continue.
- The earnest money deposit (in pre-contract stage) and/or security deposit/performance bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the buyer and the buyer shall not be required to assign any reason therefore.
- To immediately cancel the contract, if already signed, without given any compensation to the bidder.
- To recover all sums already paid by the buyer, and in case of an Indian bidder with interest thereon at 2% higher than the prevailing prime lending rate of state bank of India, while in case of a bidder from a country other than India with interest thereon at 2% higher than the libor. If any outstanding payment is due to the bidder from the buyer in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

- To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the bidder, in order to recover the payments, already made by the buyer, along with interest.
- To cancel all or any other contracts with the bidder. The bidder shall be liable to pay compensation for any loss or damage to the buyer resulting from such cancellation/rescission and the buyer shall be entitled to deduct the amount so payable from the money(s) due to the bidder.
- To debar the bidder from participating in future bidding processes of the government of India for a minimum period of five years, which may be further extended at the discretion of the buyer.
- To recover all sums paid in violation of this pact by bidder(s) to any middleman or agent or broker with a view to securing the contract.
- In cases where irrevocable letters of credit have been received in respect of any contract signed by the buyer with the bidder, the same shall not be opened.
- Forfeiture of performance bond in case of a decision by the buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- The buyer will be entitled to take all or any of the actions mentioned at Para 6.1(i) to (x) of this pact also on the commission by the bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the bidder), of an offence as defined in chapter-ix of the Indian penal code, 1860 or prevention of corruption act, 1988 or any other statute enacted for prevention of corruption.
- The decision of the buyer to the effect that a breach of the provisions of this pact has been committed by the bidder shall be final and conclusive on the bidder. However, the bidder can approach the independent monitor(s) appointed for the purposes of this pact.

Fall clause

The bidder undertakes that it has not supplied/is not supplying similar service/product/systems or subsystems at a price lower than that offered in the present bid in respect of any other ministry/department of the government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the bidder to any other ministry /department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the bidder to the buyer, if the contract has already been concluded.

Independent external monitor

- The buyer has appointed an independent external monitor (hereinafter referred to as monitor) for this pact in consultation with the central vigilance commission. The name & address of the monitor is as follows:-

- The task of the monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- The monitors shall not be subject to instructions by the representatives of parties and perform their functions neutrally and independently.
- Both the parties accept that the monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
- As soon as the monitors notices, or has reasons to believe, a violation of the pact, he will so

inform the authority designated by the buyer.

- The bidder(s) accept that the monitor has the right to access without restriction to all project documentation of the buyer including that provided by the bidder. The bidder will also grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to sub bidders. The monitor shall be under contractual obligation to treat the information and documents of the bidder/sub bidder(s) with confidentiality.
- The buyer will provide to the monitor sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the monitor the option to participate in such meetings.
- The monitor will submit a written report to the, Central Ground Water Board, within 8 to 10 weeks from the date of reference or intimation to him by the buyer/bidder and, should the occasion arise, submit proposals for correcting problematic situations.

Facilitation of investigation

In case of any allegation of violation of any provisions of this pact or payment of commission, the buyer or its agencies shall be entitled to examine all the documents including the books of accounts of the bidder and the bidder shall provide necessary information and documents in English and shall extend all possible held for the purpose of such examination.

Law and place of jurisdiction

This pact is subject to Indian law. The place of performance and jurisdiction is the seat of the buyer.

Other legal actions

The actions stipulated in this integrity pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Validity

The validity of this integrity pact shall be from date of its signing and may extend upto 5 years or the complete execution of the contract to the satisfaction of both the buyer and the bidder/seller, whichever is later. In case bidder is unsuccessful, this integrity pact shall expire after six months from the date of the signing of the contract.

Should one or several provisions of this pact turn out to be invalid, the remainder of this pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

The parties hereby sign this integrity pact at on

.....

Buyer bidder

Name of the Officer Chief executive officer designation

Central ground water board

Witness: witness:

1. _____

2. _____

*provisions of these clauses would need to be amended / deleted in line with the policy of the buyer in regard to involvement of Indian agents of foreign supplier.

Chapter-11**Forms to be Submitted*****Form tech - 1*****Technical bid**

[Location, date]:

To,

...../ head of the department

.....

Central Ground Water Board, Bhujal Bhawan, NH-IV, NIT-4 Fariadabad-121001.

Dear sir/madam:

We, the undersigned, offer to provide the consulting services for “.....” in accordance with your request for proposal dated [insert date]. We are hereby submitting our bid, which includes this technical bid, and a financial bid sealed under a separate cover.

We are submitting our bid in individual capacity. We hereby declare that all the information and statements made in this bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the bid, i.e., before the date indicated in tender, we undertake to negotiate on the basis of the proposed personnel. Our bid is binding upon us and subject to the modifications resulting from contract negotiations.

We undertake, if our bid is accepted, to initiate the consulting services related to the assignment not later than the date indicated (please indicate date).

We understand you are not bound to accept any bid you receive. We remain,

Yours sincerely,

Authorized signature [in full and initials]: name and title of signatory:

Name of firm: address:

Form Tech - 2

Bidder's organization and experience

Form Tech-2a: BIDDER ORGANIZATION

[provide here a brief (maximum 10 pages) description of the background and organization of the bidder]

Name of bidder:	
Address of registered office of bidder:	
Year of establishment:	
Contact person with contact details:	
Annual turnover in last three years (in lakh's) Financial year 2021-22: Financial year 2022-23: Financial year 2023-24: Average annual turnover for above three financial years: *audited statements to be enclosed	
Audited net worth of agency as on 31.03.2024 (positive/ negative):	
Experience in similar assignments: Number of years: Total assignments: Assignment completed in last 5years: Similar assignments in last 5years:	
Any award or felicitation received by your agency:	
Any other relevant details:	

Form Tech-2b: Bidder's Experience

Assignment name:	Country:
Location within country:	Site professional provided by your firm/entity(profiles):
Name of firm/entity:	No. Of site professionals:
Address:	No. Of site professionals-months: duration of assignment:
Startdate completion date (month/year) (month /year)	Value of services (in Indian rupee):
Name of associated consultants, if any:	No. Of months of professionals provided by associated consultants:
Name of senior staff (project director/coordinator, team leader) involved and functions performed:	
Narrative description of project:	
Description of actual services provided by your site professionals:	

* Completion certificate from employer regarding experience should be furnished
 firm'sName:
 Signature of authorized representative:

Form Tech - 3

Description of approach, methodology and work plan for performing the assignment

Approach and methodology: in this chapter, bidder should explain its understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. Bidder should highlight the problems being addressed and their importance, and explain the technical approach it would adopt to address those. Bidder should also explain the methodologies the bidder proposes to adopt and highlight the compatibility of those methodologies with the proposed approach.

Work plan: in this chapter, bidder should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the authority), and delivery dates of the deliverables. The proposed work plan should be consistent with the technical approach and methodology, showing an understanding of the scope of work and technical specification and ability to translate them into a feasible working plan. A list of the final deliverables should be included here. The work plan should be consistent with the work schedule.

Organization and personnel: in this chapter bidder should propose the structure and composition of its team. Bidder should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support personnel. The manpower requirement given in the tender is an indicative minimum requirement. The bidder should assess the specific and realistic manpower with reference to specific project package and it should be consistent with the proposed work schedule.

Form tech – 4

Team composition, task assignments

The bidder should provide a list of primary and backup personnel including name, project position, and level of education, years of relevant experience and years employed by the bidder. In addition, the curricula vitae of key personnel should be provided where indicated. The requested CVs will be incorporated in the technical evaluation and selection process. The following personnel and backups should be listed (additional positions may be added by the bidder):

Project manager(CV)

Operations manager(CV)

Instrument operators, if applicable.

*(if not applicable, the bidder should state the responsibilities of the pilots and ground personnel with respect to instrument operation prior to, during and after each flight).

Field processors

Data compilation manager(CV)

Data processors

Interpretation manager(CV)

Interpreters

Officer of the bidder, together with the person responsible for HSE in the field.

During the course of the survey, substitute personnel not listed in the proposal may be required. If so, the bidder must submit their qualifications to CGWB prior to commencing work on the project. Delays involve in the appointment of substitute will be the sole responsibility of the Contractor.

Experts:

S.no.	Name of the Expert	Educational Qualification	Area of Expertise	Years of Experience	Task Assigned
1					
2					
3					

Team members (Senior & Junior level professionals):

S.no.	Name of the teamMember	Educational Qualification	Area of Expertise	Years of experience	Task assigned
1					
2					
3					

In addition, all nominated survey pilots should be named with their qualifications, including total hours operating the proposed aircraft and total hours operating an aircraft on a geophysical survey.

Form tech – 5

Curriculum vitae (CV) for proposed experts

(Summary of CV: the information in the summary shall be precise and accurate. The information in the summary will have bearing on the evaluation of the cv)

Proposed position [only one candidate shall be nominated for each position]:

Name of firm [insert name of firm proposing the expert]:

Name of expert [insert full name]:

Details of ID Card issued by Government (Copy to be attached):

Date of birth: citizenship:

Education [indicate college/university and other specialized education of expert, giving names of institutions, degrees obtained, and dates of obtainment:

Membership of professional associations:

Other training [indicate significant training since degrees under 5 - education were obtained]:

Languages [for each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:

Employment record [starting with present position, list in reversed order, every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, title of positions held and location of assignments. For experience period of specific assignment must be clearly mentioned, also give employer references, where appropriate:

From [year]: to [year]:

Employer:

Positions held:

List all tasks to be performed under this project and the corresponding experience of the expert

Certification:

I, the undersigned, certify to the best of my knowledge and belief that:

This cv correctly describes my qualifications and my experience.

I am not employed by the TSQA/QC agency.

I am/i am not in regular full-time employment with the bidder.

In the absence of medical incapacity, I will undertake this assignment for the duration provided team mobilization takes place within the validity of this bid or any agreed extension thereof.

I am willing to work on the project and I will be available for the entire duration of the project assignment.

I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly describes me my qualifications and my experience I am committed to undertaking the assignment within the validity of bid.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal if engaged.

Date: [day/month/year]

[Signature of expert or authorized representative of the firm]

Full name of authorized representative:

Chapter-12**ROLE of Contractor (PIA)and CGWB****ROLE of the Contractor:**

- Contractor will undertake the following activities as under
- CONTRACTOR shall exercise all professional care, skill and diligence in the performance of the services under the agreement and shall carry out all its responsibilities in accordance with recognize professional standards.
- CONTRACTOR shall modify if needed in consultation and agreement with CGWB the quantum of work and methodology essentially required for obtaining specific sub-surface information for the objective of the Project.
- CONTRACTOR shall cooperate and shall submit hard copy & digital soft copy of all the deliverables mentioned in Tender Document.
- CONTRACTOR shall carry out the requisite services for successful completion and commissioning of the Project.
- The quality control assurance as per best Industrial practice and acceptable to CGWB shall be ensured by the CONTRACTOR in all respects of complete items of work as may be applicable. The requisite supervisory staff and subject matter experts shall provided at the site of work by the CONTRACTOR for effective supervision and quality assurance work.
- The CONTRACTOR will involve scientists from the CGWB at all stages of data acquisition , processing and interpretation for both ground and heli-borne surveys.
- CONTRACTOR shall be responsible for taking necessary Permission/NOCs required for the execution of the Project from the Central/State/Local authorities.
- CONTRACTOR will ensure that there is no time and cost overruns, subject to necessary clearances/approvals from various Central and State Govt agencies and also ensure the quality of the work carried out.
- CONTRACTOR shall ensure compliances to due procedures, any other extant rules, orders, conformity in the implementation of all the works pertaining to the project.
- CONTRACTOR shall be responsible for timely completion of all the activities as per the time schedule mentioned in the Tender Document.
- CONTRACTOR shall be liable to CGWB for performance of the work including performance of services and of CONTRACTOR obligations under this agreement and shall carry out requisite services for successful completion and commissioning of the project.
- CONTRACTOR would be responsible for adhering to safety measures during execution of the project including insurance coverage against any risk involved in this project. CGWB would not be liable for any damage, loss, compensation due to accidents, injuries/deaths to deployed personnel or the third party personnel etc in the execution of the project.
- CONTRACTOR shall be liable to CGWB for performance of the work including performance of services and of CONTRACTOR obligations under this agreement and shall carry out requisite services for successful completion and commissioning of the project.
- CONTRACTOR would be responsible for adhering to safety measures during execution of the project including insurance coverage against any risk involved in the project. CGWB would not be liable for any damage, loss, compensation due to accidents etc in the execution of the project.
- CONTRACTOR shall provide the output of the heli-borne survey in form of

- Pin pointed sites for artificial recharge along with inferred lithology up to depth of 300 m in Alluvial area and 200 in hard rock area for each recommended site
- Paleo channel map along with dimensions of the study area and its linkages with the aquifer system
- 3D Geophysical model of the area in reproducible vector format
- Geophysical Thematic maps at horizontal and vertical planes. Aquifer Geometry in 2D and 3D in reproducible vector formats depicting de-saturated/saturated and fresh/saline zones.
- Submission of the entire raw and processed dataset generated in the study area
- Hands on training of CGWB scientists in data acquisition, processing, and interpretation at Jaipur or place of mutual consent between CGWB and Contractor, as per agreed training module and timeline.
- Inception Report (within 1 month of signing of MoA)
- Monthly Progress Reports
- Draft final report
- Final Report of the study state-wise giving details for each district(10 Copies to CHQ Faridabad and 2 copies each to concerned Regional offices of CGWB) including all outputs and deliverables upon completion of the study.

ROLE OF CGWB:

- The Central Ground Water Board will cooperate with the CONTRACTOR throughout the work for smooth execution of project. CGWB shall provide/share the following data / inputs for study areas:
 - The location details of the project area along with a base map showing location of bore well, observation wells, VES locations, Wells with E logs, lithologs and other existing data in GIS platform.
 - A Baseline Report giving hydro-geological information including water levels and water quality data, data gaps and other relevant details, like aquifer parameters, and surface geophysical data.
 - The data generated by CGWB within the project period through exploration, monitoring and other activities shall be made available to the CONTRACTOR to complete the project task.
 - Report/data on Ground water recharge and draft estimation and water quality data from the departmental ground water regime monitoring for correlation with the geo-electrical characteristics.
 - CGWB will ensure providing timely input and support such as existing data (geophysical, hydrogeological, water level etc.) and deep drilling as well as active participation on scientific discussion as and when required.
- CGWB shall not be liable for any legal and financial obligation to contractor/subcontractor or any agency hired by CONTRACTOR for execution of the work under this agreement.
- The concerned Regional Directors of CGWB will monitor the progress of work and submit the status report in the first week of every month to CHQ.
- CGWB with the help of DoWR, RD&GR will make efforts to expedite the formalities in obtaining permission for flying of the helicopter for Heli-borne survey and its regional offices will help CONTRACTOR in obtaining support from local administrations in the respective study areas.
- All data shared by CGWB will be subject to the data dissemination policies of the Government of India.
- No other use of CGWB data will be made by CONTRACTOR except for the purpose of

meeting the objectives of the project.

- Concerned Regional Directors of CGWB will designate a Nodal Officer for coordination of work in the particular state.
- The concerned Regional Director, CGWB will monitor the progress of work separately in respect of their Region and as part of Working Group and Nodal Officer will liaison with CONTRACTOR for timely completion of work
- The concerned Regional Director, CGWB will issue a completion certificate mentioning the date of completion to CONTRACTOR upon completion of the work in all respect and submission of Outputs and Deliverables with respect to his jurisdiction. Final Completion Certificate of the entire project shall be issued by the concerned Member.

ANNEXURE- I

Bid security declaration

Tender no.:.....

Date:.....

To

(Insert complete name and address of the purchaser)

I/WE.

The undersigned, declare that:

I/WE understand that, according to your conditions, bids must be supported by a bid security declaration.

I/WE accept that I/we may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am / we are in a breach of any obligation under the bid conditions, because I/we

Have withdrawn / modified / amended, impairs or derogates from the tender, my/ our bid during the period of bid validity specified in the form of bid;

or

Having been notified of the acceptance of our bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or reuse to furnish the performance security, in accordance with the instructions to bidders.

I/we understand this bid security declaration shall cease to be valid if I am / we are not the successful bidder, upon the earlier of (i) the receipt of your notification of the name of successful bidder; or (ii) thirty days after the expiration of the validity of my / our bid.

Signed:

(Insert signature of person

Whose name and capacity are shown)

In the capacity of

(Insert legal capacity of person

Signing the bid security declaration)

Name:

(Insert complete name of person

Signing the bid security declaration)

Duly authorized to sign the bid for an

On behalf of (Insert Complete Name of Bidder)

Dated onday of

(Insert date of signing)

Corporate seal (where appropriate)

(Note: in case of joint venture, the bid security declaration must be in the name of all partners to the joint venture that submits the bid)

[Notes: 1) the above declaration shall be signed and sealed by the company secretary or any other officer of the Organization not below the rank of general manager or equivalent and be duly affirmed before a notary public. 2) to be executed by the Organization on non- judicial stamp paper / e-stamp paper worth Rs. 200/- or as applicable from time to time as per the stamp act in force in the state where the document is executed.]

ANNEXURE- II

Bank guarantee Performa for furnishing performance security

In consideration for the president of India (hereinafter called “the government” having agreed to contractor(s)” from the demand, under the terms and conditions of an agreement dated.....Madebetween.....and.....

..... Of performance security for the due fulfillment of the said contractor(s) of the terms and conditions contained in the said agreement, on production of bank guarantee for Rs.....(Rupees.....

..... (indicated the name of the bank) bank”) at the request of contractor(s) do here by undertake To pay to the government an amount not exceeding...against any Loss or damage caused to or suffered would be caused to or suffered by the government by reason of any breach of the said contractor(s) of any of the terms or conditions contained in the said agreement.

We..... do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the government by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said agreement or by reason of the contractor(s)’s failure to perform the said agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding.....

We undertake to pay the government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/supplier(s) in any suit or proceeding pending before any court or tribunal relating thereto liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment hereunder and

the contractor(s)/ supplier(s) shall have no claim against us for making such payment.

We,... further agree that the guarantee herein contained shall remain in

Full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the government under or by virtue of the said agreement have been fully paid and its claim satisfied or discharged or till.....that the terms and conditions of the said agreement have been fully and properly carried out by the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the guarantee there after.

We, further agree with the government that the government Shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of the government or any indulgence by the government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

Notwithstanding anything contained herein above our liability under the guarantee is restricted to ₹..... And shall remain in force until_____.

Unless acclaim or suit under this guarantee is filledwith asonorbefore_____.

Allourrights undertheguaranteeshallbeforfeitedandthe

Bank shall be relieved and discharged from all liabilities therein.

This guarantee will not be discharged due to the change in the constitution of the bank or the contractor (s)/supplier(s).

We,.....lastly undertake not to revoke this guarantee during its currency except with the previous consent of the government in writing.

Dated the date of 202

For

(Indicate the name of bank)

Signature.....

Name of the officer.....

(In block capitals)

Designation of

Code no.....

Name of the bank and branch.....

Important: the bank guarantee details required be sent through digitally signed secured SFMS mode mails by the banker to our banker in order to confirm the issuance of the same. Bank Details for the same is as follows:-

Name:- Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad-121001

Account No.- 30104397868

Bank- State Bank of India Branch- Faridabad, Main Branch, Neelam Chowk, Faridabad, Haryana

IFSC Code- SBIN0000734

Annexure- III***Undertaking acceptance of terms and conditions of tender***

I/we undertake that all the terms and conditions as laid in the attached pages and anywhere in the tender and its subsequent corrigendum if any, are accepted by the company and will abide by them.

I/we further undertake that the information given in this tender are true and correct in all respects and we hold responsibility for the same.

I/we shall be responsible for rejection/cancellation of contract if the services are not found up to the mark and for civil/criminal proceedings if the material supplied is found sub-standard or not accordance with the quality of services.

Company seal

Authorized signatory of the company

Place: _____ date: _

Annexure- IV

Format for the Checklist

S. No.	ITEM	Please mark		PageNo.
		Yes	No	
1.	Techno-commercial bid	Yes	No	
2.	EMD Fee/Bid security declaration	Yes	No	
3.	Integrity pact. The integrity pact should be signed and stamped by the contractor where applicable, leaving blank the segments to be Completed by the CGWB.	Yes	No	
4.	NSIC valid registration certificate for availing Exemption for submission of bid security declaration	Yes	No	
5.	Commercial terms & condition compliance sheet	Yes	No	
6.	Undertakings for submission of performance security Deposit as per NIT terms(see undertaking below)	Yes	No	
7.	Undertakings to accept all terms and conditions of NIT(see undertaking below)	Yes	No	
8.	Solvency certificate	Yes	No	
9.	Brochure/literature	Yes	No	
10.	Any other documents	Yes	No	

Undertaking

I do hereby agree to submit the performance security as per the given Performa (annexure-ii) and accept all the terms and conditions mentioned in the notice inviting tender (NIT).

Company seal

Authorized signatory of the company place: _ date: _

Annexure- V***Information about the Tenderer***

Information required to be filled in by the Tenderer

1.	Name of the tenderer	
2.	Address of registered office and branches with telegraphic address and phone number, fax number	
3.	Name of the contact person with mobile no.& email id	
4.	Name, address with mobile no. of the office	
5.	Composition of tender (here state whether it is Hindu joint family business, proprietorship concern or registered partnership or a limited Company) :	
6.	Nature of business of the tenderer	
7.	Experience of similar working	
8.	Any other experience and reference of the companies (attach separate sheet, (if necessary)).	

I/we declare that the above information is true to the best of my / our knowledge.

Place:

Signature of The Tenderer:

Date:

(Name& office seal)

Declaration

I/we hereby declare that i/we have not been banned and de-listed by any government department / financial institution/court.

Place:

Signature of the tenderer

Date:

(Name &office seal)

ANNEXURE- VI***Form of banker's certificate from a scheduled bank***

This is to certify that to the best of our knowledge and information that M/s/Sri [name of applicant], having marginally noted address [address of applicant], a customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of [amount in words]** (Rupees ₹ [amount in figures]).**

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

Signature

Name of the bank

Note:

Bankers certificate should be on the letterhead of the bank, sealed in a cover addressed to the tendering authority.

In the case of a partnership firm, the certificate should include the names of all partners as recorded with the bank.

Annexure-VII

Deleted

Annexure-VIII

Declaration of local content by local supplier

Subject: public procurement (preference to make in India)

References:

Preference to make in India will be as per the public procurement (preference to make in India), order 2017, available in the following links

We hereby declare with reference to above subject and references that M/s.....tick whichever is applicable as below)

‘Class-I local supplier’ meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services

(or)

“Class-II local supplier” meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non-local supplier (if not belonging to Class-I& Class-II) please mention the details against the following:

GEM bid no. dated

Type of supplier (class-i/class-ii)

Product/service:

Project:.....

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the general financial rules for which a bidder or its successors can be debarred for up to two years as per rule 151(iii) of the general financial rules along with such other actions as may be permissible under law.

Authorized signature m/s

(Signature and seal)

Place:

Date:

Annexure- IX

Draft memorandum of agreement (MOA)

Draft Memorandum of agreement

This memorandum of agreement (the “contract”) is made at Faridabad on the ____ day of __2022.

By and between

The president of India acting through, the (CGWB), Department of Water Resources, RD & GR, Ministry of Jal Shakti, Government of India having its office located at CGWB, Bhujal Bhawan, NH-IV, Faridabad, HR-121001 (hereinafter referred to as “client”, which terms or expression shall unless excluded by or repugnant to the subject or context shall mean and include its successor(s)-in-office, administrators or permitted assignees) of the firstpart;

And

M/s.____ (lead partner of the consortium),
 (Address)____ of PIA representing its consortium partner
 _____(Hereinafter called “project implementation agency (PIA)” which expression shall, unless repugnant to the context, be deemed to include its successors and assigns) of the secondpart;

Whereas the client requires the services for conducting the “Heliborne magnetic and time-domain electromagnetic geophysical surveys” in parts ofStates of India, as defined in appendix- i, and invited bids from eligible bidders vide its tender no. _____Dated_.

Whereas in response to the aforesaid tender, the PIA has submitted its bid proposal and the same was selected by CGWB for implementing the Project over area____, as per the terms of reference mentioned at appendix- ii, and agreed to execute the contract herein.

Whereas PIA has the required number of Helicopters, geophysical equipment, personnel, experience and access to the know-how to provide the services required by the client, as mentioned in appendix - ii;

"PIA" and "client" may hereinafter collectively be referred to as "parties" and separately as "party".

Now, therefore, in consideration of the above matters and the representations, warranties, and covenants contained in this contract, both parties intending to be bound legally agree as follows:

A	General provisions		
1	General	1.1	The division of this contract into paragraphs or clauses and the Headings is for convenience of reference only, and shall not be used in interpreting the contract.
		1.2	References to the word “include” or “including” shall be Construed without limitation
2	Definitions	2.1	Unless the context otherwise requires, the following terms, Whenever used in this contract, have the following meanings:
		(a)	“applicable law” means the laws and any other instruments having

			The force of law in the client's country, India.
		(b)	"client" means the agency that signs the contract for the services With the selected PIA.
		(c)	"PIA" means a legally-established firm (inclusive of the lead partner and the consortium partners) or entity selected by the client to Provide the services under the signed contract.
		(d)	"Contract" means the legally binding written agreement signed between the client and the PIA and which includes all the attached Documents.
		(e)	"Day" means a working day unless indicated otherwise.
		(f)	"effective date" means the date on which this contract comes into Force.
		(g)	"Services" means the work to be performed by the PIA pursuant to this contract, as described in appendix – II hereto.
3	Addresses of the parties	3.1	Representative of client: The, Central Ground Water Board, Bhujal Bhawan, NH-IV, NIT-IV Faridabad-Hr (India) - 121001 (India) Tel/fax: E-mail :
		3.2	PIA: Consortium of 1. M/s (lead PIA) Address----- Contacts----- M/s..... Address..... Contacts..... And M/s..... Address..... Contacts.....
	Communications		Any communication required or permitted to be given or made pursuant to this contract shall be in writing in the language specified in clause 7. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent to such party at the address specified at clause-3. Any change in the address should be communicated to the other party. All correspondence will be made only with the lead partner of the consortium i.e. M/s. XXXXXXXXXXXXX.
5	Relationship between the parties		Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the client and the PIA. The PIA, subject to this contract, has complete charge of the experts and sub-PIAs, if any, performing the services and shall be fully responsible for the services performed by them or on their behalf hereunder.
6	Law governing contract		This contract, its meaning and interpretation, and the relation between the parties shall be governed by the laws of the republic of India.

7	Language		This contract has been executed in the English language, which Shall be the binding and controlling language for all matters relating to the meaning or interpretation of this contract.
8	Headings		The headings shall not limit, alter or affect the meaning of this Contract.
9	Location		The services shall be performed at such locations as are specified in APPENDIX – I hereto and, where the location of a particular task is not so specified, at such locations, whether in the client’s Country or elsewhere, as the client may approve.
10	Authority of Member in charge		The consortium members hereby authorize the representative of the lead partner specified at clause 3.2, to act on their behalf in exercising all the PIAs rights and obligations towards the client Under this contract, including without limitation the receiving of instructions and payments from the client.
11	Authorized representatives		Any action required or permitted to be taken, and any document required or permitted to be executed under this contract by the client or the PIA may be taken or executed by the officialsSpecified in the clause 3.0
12	Corrupt and fraudulent Practices		The client requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in pre-contractIntegrity pact APPENDIX – III.
13	Effectiveness of Contract		This contract shall come into force and effect on the date (the “Effective date”) of the signing of the agreement.
14	Termination of contract for Failure to become effective		If the PIA fails to be into carry out the services within twenty (20) days of signing of the contract, the client shall have the right to terminate the contract and the PIA shall not have any claim against the client. The PIA has to submit a proof that the work is initiated within twenty (20) days of signing of the contract. Initiation of the services may include, but is not limited to, the following: communication with TS-QC consultant regarding draft survey/flight plan, draft HSE documents, time schedule, start of importation procedures, customs and permitting process, and other project documents. Copies of any one such document forwarded to the client, within twenty (20)days of Contract signature, constitute proof.
15	Expiration of Contract		Unless terminated earlier pursuant to clause 20 hereof, this Contract shall expire by *****. This expiry date can be Extended depending on the requirement with mutual agreement.
16	Entire agreement		This contract contains all covenants, stipulations and provisions agreed by the parties. No agent or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement Not set forth herein.
17	Modifications or variations	17.1	Any modification or variation of the terms and conditions of this contract, including any modification or variation of the scope of the services, may only be made by written agreement between the parties. However, each party shall give due consideration to any proposals for modification or variation made by theother party.
		17.2	In cases of substantial modifications or variations, the prior written consent of the government of India or its declared representative is required.
		17.3	After award of contract, the PIA can change/replace any declared resources (similar/equivalent or higher version) provided in the

			technical bid with prior approval from the competent authority of CGWB. No other changes will be admissible.
18	Force majeure	18.1	For the purposes of this contract, “force majeure” means an event which is beyond the reasonable control of a party, is not foreseeable, is unavoidable, and makes a party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action like lockdown, international travel restrictions imposed by government due to pandemic situation.
		18.2	Force majeure shall not include (i) any event which is caused by the negligence or intentional action of a party or such party’s experts, sub-PIAs or agents or employees, nor (ii) any event which a diligent party could reasonably have been expected to both take into account at the time of the conclusion of this contract, and avoid or overcome in the carrying out of its obligations hereunder.
		18.3	Force majeure shall not include insufficiency of funds or failure to make any payment required hereunder.
		18.4	The failure of a party to fulfill any of its obligations hereunder 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 has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this contract.
		18.5	A party affected by an even of force majeure shall continue to perform its obligations under the contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of force majeure.
		18.6	A party affected by an event of force majeure shall notify the other party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible
		18.7	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.
		18.8	In the case of disagreement between the parties as to the Existence or extent of force majeure, the matter shall be settled according to clause 22.
19	Suspension		The client may, by written notice of suspension to the PIA, suspend all payments to the PIA hereunder, if the PIA fails to perform any of its obligations under this contract, including the carrying out of the services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the PIA to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the PIA of

			such notice of suspension.
20	Termination of the contract		This contract may be terminated by either party as per Provisions set up below:
	By the client	20.1	The client may terminate this contract in case of the occurrence of any of the events specified in paragraphs (a) through (g) of this clause. In such an occurrence the client shall give at least thirty (30) calendar days' written notice of termination to the PIA in case of the events referred to in(a) through(d); atleast sixty (60) calendar days' written notice in case of the event referred to in (e); and at least thirty (30) calendar days' written notice in case of the event referred to in(f):
			(a) if the PIA fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to clause 19;
			(b) if the PIA becomes (or, if the PIA consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
			(c) if the PIA fails to comply with any final decision reached as a result of arbitration proceedings pursuant to clause 22.3
			(d) if, as the result of force majeure, the PIA is unable to perform a material portion of the services for a period of not less than ninety (90) calendar days;
			(e) if the client, in its sole discretion and for any reason Whatsoever, decides to terminate this contract;
			(f) if the PIA fails to confirm availability of key experts as Required
			(g) non submission of PBG amounting to INR
			Furthermore, if the client determines that the PIA has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the contract, then the client may, After giving fourteen (14) calendar days written notice to the PIA, terminate the PIA's employment under the contract.
	Cessation of right sand Obligations	20.3	Upon termination of this contract pursuant to clauses 14 or 20 hereof, or upon expiration of this contract pursuant to clause 15, all rights and obligations of the parties hereunder shall cease.
	Cessation of Services	20.4	Upon termination of this contract by notice of either party to the other pursuant to clause 20, the PIA shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum.
	Payment upon termination	20.5	Upon termination of this contract, the client shall make all the payments to the PIA for services satisfactorily performed prior to the effective date of termination.
21	Fairness and good faith		The parties undertake to act in good faith with respect to each other's rights under this contract and to adopt all reasonable measures to ensure the realization of the objectives of this contract.
22	Settlement of	22.1	The parties shall seek to resolve any dispute amicably by mutual

	Disputes		consultation.
		22.2	If either party objects to any action or inaction of the other party, the objecting party may file a written notice of dispute to the other party providing in detail the basis of the dispute. The party receiving the notice of dispute will consider it and respond in writing within fourteen (14) days after receipt. If that party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response Of that party, clause 23 shall apply.
		22.3	Any dispute between the parties arising under or related to this contract that cannot be settled amicably may be referred to by either party to the adjudication/arbitration in accordance with the clause 23.
23	Arbitration		<p>If any dispute or difference or claims of any kind arises in connection with the contract, such dispute or difference or claim shall be referred by either party to the arbitration. The Indian arbitration and conciliation act, 1996 and any statutory modifications or re-enactment thereof rules made there under and for the time being in force shall be applicable to the arbitration. The arbitration shall be referred to the sole arbitrator duly appointed by the hon'ble high court of</p> <p>The decision of the arbitral tribunal shall be pronounced within six months unless otherwise extended by the parties, and the decision of the sole arbitrator shall be final and binding on the parties. The right to arbitrate disputes under this contract shall also survive even after expiry or the termination of this contract. The venue of arbitration proceedings pursuant to this clause shall be at, India and shall be conducted in English language. Pending the submission of and/or decision on dispute, difference or claim or until the arbitral award is published; the parties shall continue to perform all of their obligations under this contract without prejudice to a final adjustment in accordance with such award. The fees and expenses of sole arbitrator appointed by the hon'ble high court of, in accordance with the provision of this clause shall be governed by the rules of the arbitration tribunal,</p>
B	Obligations of the client		
24	Assistance in obtaining the permits and approvals	24.1	Client will facilitate the PIA in preparing necessary letters and other documentation to obtain work permits for import of the Helicopters, survey equipment & crews for foreign operators and flight operations. However it is the responsibility of the PIA to submit all the necessary documentation to the concerned authorities and pursuing for obtaining the same.
	Work space	24.2	The client will provide the work space to the PIA in the premises of CENTRAL GROUND WATER BOARD (CGWB), BHUJAL BHAWAN, NH-IV, FARIDABAD, HARAYANA-121001.for establishing processing and interpretation Centre.
	Geo-science Data	24.3	The client will provide the available data pertaining to geology, gravity, geochemistry, mineral deposits and occurrences to the PIA <i>(For the integration in the available format).</i>
	Ts-qc Consultant	24.4	The client will appoint a TS-QC consultant to implement a range of quality assurance and quality control (QA/QC) procedures and

			inspections to ensure that CGWB’s QA/QC objectives are met. The client or client’s TS-QC should review and revert back on the products submitted with comments within 10 working days.	
	Security of the data.	24.5	The client along with its TS-QC consultant will co-ordinate with the PIAs on secure methods for transmission of data to CENTRAL GROUND WATER BOARD (CGWB), BHUJAL BHAWAN, NH-IV, FARIDABAD, HARAYANA-121001 and maintain security & confidentiality through out the contract period. It is a mandatory requirement that no raw, compiled, processed and interpreted data, products or deliverables leave India. The client will deploy a scientific officer to the field, who will participate in the review and secure transmission of the data.	
	Scientific Officer deployed by the client	24.6	The scientific officer deployed by the client will check the data for its quality along with the qc team of PIA and data can be transmitted only after getting the clearance by the officer. The PIA should provide data to the concerned scientific field officer of the client in readable format.	
	Training	24.7	The client will nominate geoscientists for getting hands on training as per details given in tender document clause 3.9.	
	Return of PSD	24.8	The client will return the PSD submitted by PIA within 60 days after completion of the contract obligation.	
C	Obligations of the PIA			
25	Details of the allotted block and obligations	25.1	The PIA shall perform the services and carry out the services as mentioned in Appendix – II	
		25.2	The lead partner of the consortium i.e. M/s..... Is responsible for technical leadership of project and will provide the state of art equipment, technology and technical experts, Helicopter required for the project, the required flight crews and maintenance personnel (mentioned as per consortium agreement of technical bid). It is the sole responsibility of the lead partner of the consortium for timely and successful execution of the project. M/s. _____, is responsible to provide for all permission, required local logistics and administrative issues of the project (mentioned as per consortium agreement of technical bid).	
D	Payment terms			
26	Contract price	26.1	Allotted block : Heliborne block-	
			Area : ----- Sq km	
			Line km : ----- L km	
			Total cost of the project quoted In the bid(INR) : ----- INR	
			Rate per line km : ----- INR	
			Total line km amount : -----	
			GST 18% : ----- INR	
			Total project contract price : ----- INR	
		26.2	There may be restricted zones in the area, which will be intimated by local ATC while giving flying permission. The exact coverage in line km may vary after the block is completely covered. Accordingly the total contract price may change based on the actual line km covered. The difference amount will be adjusted at	

			the time of payment to milestone 5, mentioned at clause 27.1. Accordingly an addendum will be made to MOA.
27	Payment Schedule	27.1	As per nit
		27.2	Each of the above deliverables will be subject to review and approval by TS-QC(client or client's TS-QC consultant), and finally by the client, prior to submission of the corresponding invoice. For milestone 3, the last field crew and Helicopter will not be permitted to leave a survey area until all data acquired over that block are reviewed & approved by Ts-qc (client or client's ts- qc consultant), and finally by the client. This period is limited to ten (10) days after the completion of the data acquisition and receipt Of the data by client or client's TS-QC consultant.
	Timeline for completion of project	27.3	As per NIT
		27.4	The PIA has to cover the block contiguously without leaving any gap unless restricted by regulatory authorities. Payments shall be made only for the actual line Km's covered within the block area.
		27.5	Income tax (TDS) will be deducted at source as per government of India rules, as applicable.
28	Delay in deliverables		2% monthly penalty on total contract amount will be levied on the first day of each month if the deliverables are delayed beyond *****. The total penalty will be capped at 10% of the contract amount. In case of any deficiency/delay/unsatisfactory/non-performance by the PIA, the appropriate action will be taken by the client against the delinquent PIA as per prevailing government of India rules/guidelines on procurement.
29	Change in the applicable law - related to taxes.		If, after the date of this contract, there is any change in the applicable law in the client's country with respect to taxes which increases or decreases the cost, then the amount payable to the PIA under this contract shall be increased or decreased accordingly, and corresponding adjustments shall be made to the contract price amount specified in clause 26.
30	Currency of Payment & mode		All milestone payments mentioned at clause 27.1 will be paid only in INR and will be paid only to the lead partner of the consortium I.E.M/s. _____.
31	Performance security deposits		Performance security deposit (PSD) for the value of 3% of the total contract amount is to be deposited by the successful bidder, on selection of the bid, by way of bank guarantee of an acceptable bank (i.e. Scheduled bank as listed in the second schedule of the reserve bank of India act, 1934 excluding those listed under the headings of Gramin banks, urban co-operative banks and state co-operative banks) as per format under annexure-IB in the NIT. In case of non-compliance of terms and conditions of the contract and for any other unsatisfactory performance or/and failure to render contracted service during the period of contract by the PIA to whom order has been awarded, the performance security will be forfeited. If the PIA is unable to complete the task as per the milestone

		<p>within the stipulated time, PIA has to renew the performance security beyond two months according to the extended contract period.</p> <p>On successful completion of the contract, performance security deposit will be returned.</p> <p>No interest will be paid on performance security deposits.</p>
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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. Two original of this agreement is signed, one for each party.

<p>For and on behalf of the president of India, Signed, sealed and delivered by</p> <p>Shri CENTRAL GROUND WATER BOARD, BHUJAL BHAWAN, NH-IV, FARIDABAD-HR (INDIA).</p> <p>In the presence of Witness: 1. 2.</p>	<p>For and on behalf of the m/s.----- Signed, sealed and delivered by Shri/smt----- Address-----</p> <p>And</p> <p>For and on behalf of the consortium member m/s. Shri/smt Address</p> <p>In the presence of witness: 1. 2.</p>
---	---

Appendix - I

1. Allotted block details:

The block shown in the following figure is allotted to the PIA for conducting
The Heliborne

Fig-1. Map showing the Heliborne areas (as per NIT)

Appendix – II

1. Broad nature of work of the contract	
1.1	To conduct combined Heliborne TEM, Ground TEM and ERT/2D Imaging in Rajasthan, Punjab, Haryana, Gujarat, & Himachal Pradesh States as per the specifications over the Survey Area with Helicopter at 150 m line spacing and control line spacing at 1500 m. The terrain clearance is set at a nominal height of m (as per NIT).
1.2	Total area of the survey area is ----- (as per NIT) and the estimated line-Kilometers is (as per NIT) includes traverses and tie-lines.
1.3	Geophysical data processing, modeling and integrated interpretation to assess the Mineral potential of the block, with an interpretation report.
1.4	Obtain necessary approvals from the technical supervisor cum quality control (ts-qc) consultant and the client for the final deliverables including final data, maps and All reports including interpretation report.
1.5	To impart hands-on training to the officers of CGWB.
2. Initial arrangements	
2.1	PIA has to submit all the required documentation to DGCA and other related government agencies for obtaining permissions related to import of Helicopters, geophysical survey equipment's, survey crews for foreign operators and flight operations.
2.2	The health and safety of all staff involved in the Heliborne survey must be given utmost priority. The PIAs must undertake to provide a safe and secure working environment for all staff and visitors including appropriate public liability insurance cover in place.
2.3	Before the survey commences, PIA should present to client a risk assessment, health and safety plan (to the IAGSA standard) and associated emergency response and search and rescue procedures;
2.4	Undertake to always accept modifications to the flight plan as required by the client in response to requests from organizations or members of the public concerned for the safety of their property (notably animals).
3. Airborne survey Helicopter	
3.1	The PIA will commence data acquisition with (no. of Helicopter), With One identical backup Helicopter which can be used if required, and will complete the data acquisition.
3.2	The PIA must provide evidence of adequate insurance coverage to Helicopter, equipment and survey operations prior to mobilization to India.
3.3	The PIA must provide qualified pilots, co-pilots and Helicopter maintenance engineers (me), as per the norms of DGCA. During the course of the survey, substitute Helicopter, pilots and/or Ames may be required. They must meet the same requirement criterion.

4. Heliborne survey instrumentation	
4.1	As per NIT
4.2	Base station magnetometer
5.	Technical specifications
5.1	As per NIT

Appendix - III

Pre-contract integrity pact- As per NIT

Annexure-X

Declaration by the bidder

(to be executed on INR 100 non-judicial stamp paper and to be duly notarized)

Date: __

Sub: Tendoro. _____

In response to the tender document above stated, I/WE hereby declare and

Solemnly swear that our company/ firm____is not banned/ blacklisted as on date by any competent court of law, forum or any state government or central government or their agencies or by any statutory entities or any PSUs.

And, if at any stage the declaration/statement on oath is found to be false in part or otherwise, then without prejudice to any other action that may be taken, I/we, hereby agree to be treated as a disqualified bidder for the ongoing contract.

In addition to the disqualification our concern/entity may be banned/blacklisted.

And, that I/WE, shall have no right whatsoever, to claim for consideration of my/our bid at any stage and the money deposited in the form of EMD shall be liable for forfeiture in full, and the tender, if any to the extent accepted may be cancelled.

Signature of the deponent

(Authorized signatory of the bidder with seal)

Date:

Place:

Annexure-XI**BANK GUARANTEE FORM FOR EMD**

To

The President of India
Acting through
Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan, NH-IV,
Faridabad-121001.

WHEREAS {Name and Address of Tenderer} (hereinafter called “the tenderer”) has submitted its quotation (hereinafter called the “tender”) dated {} for supply of {Short Description of Goods and Services} against the Employer’s tender inquiry No. {} dated {}

Know all persons by these presents that we {Name of Bank}(hereinafter called the “Bank”) having our registered office at {Address of Bank}are bound unto {Name of Employer}(hereinafter called the “Employer”) in the sum of {Amount} for which payment will and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this {Specify Day} day of {Specify Month and Year}.

The conditions of this obligation are:

If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

If the Tenderer having been notified of the acceptance of his tender by the Employer during the period of its validity:

fails or refuses to furnish the performance security for the due performance of the contract.

fails or refuses to accept/execute the contract.

We undertake to pay the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of 60 (sixty) days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

{Signature of the Authorized Officer of the Bank}

{Name and Designation of the Officer}

{Seal, Name & Address of the Branch of the Bank}

Important: the bank guarantee details required be sent through digitally signed secured SFMS mode mails by the banker to our banker in order to confirm the issuance of the same. Bank Details for the same is as follows:-

Name:- Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad-121001

Account No.- 30104397868

Bank- State Bank of India Branch- Faridabad, Main Branch, Neelam Chowk, Faridabad, Haryana

IFSC Code- SBIN0000734

Annexure-XII**Integrity pact**

(To be signed on Plain paper)

(To be submitted as part of Technical bid)

Integrity pact for tender document no. Tender no. _____,

Tender Title :.....)

This agreement (hereinafter called the integrity pact) is made on ____ day of the month of _____ 202__ at _____, India

Between

Procuring organisation, ----- through head of procuring organisation,
 For and on behalf of president of India (hereinafter called the “The Principal”, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the first part

And

M/ s. _____ (hereinafter called the “The Bidder/ Contractor” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the second part.

Preamble

‘The Principal’ intends to award, under laid down organizational procedures, contract/ s for _____, ‘The Principal’ values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its bidder(s) and/ or contractor(s).

In order to achieve these goals, the principal shall appoint independent external monitors (IEMs) who shall monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the ‘The Principal’ 1.

‘The Principal’ commits itself to take all measures necessary to prevent corruption and to observe the following principles:

No employee of the principal, personally or through family members, shall in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

The principal shall, during the tender process treat all bidder(s) with equity and reason. The principal shall in particular, before and during the tender process, provide to all bidder(s) the same information and shall not provide to any bidder(s) confidential/ additional information through which the bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

The principal shall exclude from the process all known prejudiced persons.

If the principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/ PC act, or if there be a substantive suspicion in this regard, the principal shall inform the chief vigilance officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the ‘Bidder/ Contractor’

1. The ‘Bidder/ Contractor’ commit themselves to take all measures necessary to prevent corruption. The ‘Bidder/ Contractor’ commit themselves to observe the following principles during participation in the tender process and during the contract execution.

A. The ‘Bidder/ Contractor’ shall not, directly or through any other person or firm, offer, promise, or give to any of the principal’s employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

B. The ‘Bidder/ Contractor’ shall not enter with other bidders info any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications,

certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

C. The 'Bidder/ Contractor' shall not commit any offence under the relevant IPC/ pc act; further the 'bidder/ contractor' shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.

D. The 'Bidder/ Contractor' of foreign origin shall disclose the name and address of the agents/ representatives in India, if any. Similarly, the bidder/ contractors of Indian nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "guidelines on Indian agents of foreign suppliers" shall be disclosed by the bidder/ contractor. Further, as mentioned in the guidelines all the payments made to the Indian agent/ representative have to be in Indian rupees only. Copy of the "guidelines on Indian agents of foreign suppliers" is placed at annexe to this agreement.

E. The 'Bidder/ Contractor' shall, when presenting their bid, disclose any and all payments made, is committed to, or intends to make to agents, brokers, or any other intermediaries in connection with the award of the contract.

F. Bidder/ contractor who have signed the integrity pact shall not approach the courts while representing the matter to IEMS and shall wait for their decision in the matter.

2. The 'Bidder/ Contractor' shall not instigate third persons to commit offences outlined above or be an accessory to such offenses.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the 'Bidder/ Contractor', before award or during execution has committed a transgression through a violation of section 2, above or in any other form such as to put their reliability or credibility in question, the principal is entitled to disqualify the 'Bidder/ Contractor' from the tender process or take action as per the procedure mentioned in the "Guidelines On Banning Of Business Dealings".

Section 4 - Compensation for Damages

1. If the principal has disqualified the 'Bidder/ Contractor' from the tender process prior to the award according to section 3, the principal is entitled to demand and recover from 'Bidder/Contractor' the damages equivalent to earnest money deposit/ bid security.

2. If the principal has terminated the contract according to section 3, or if the principal is entitled to terminate the contract according to section 3, the principal shall be entitled to demand and recover from the contractor liquidated damages of the contract value or the amount equivalent to performance bank guarantee.

Section 5 - Previous Transgression

1. The bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any public sector enterprise in India that could justify his exclusion from the tender process.

2. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "guidelines on banning of business dealings".

Section 6 - Equal treatment of all bidders/ contractors/ subcontractors

In case of sub-contracting, the principal contractor shall take the responsibility of the adoption of integrity pact by the sub-contractor.

The principal shall enter into agreements with identical conditions as this one with all bidders and contractors.

The principal shall disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 - Criminal charges against violating bidder(s)/ contractor(s)/ subcontractor(s)

If the principal obtains knowledge of conduct of a bidder, contractor or subcontractor, or of an employee or a representative or an associate of a bidder, contractor or subcontractor which constitutes corruption, or if the principal has substantive suspicion in this regard, the principal shall inform the same to the chief vigilance officer.

Section 8 - Independent External Monitor

1 The principal appoints competent and credible independent external monitor for this pact after approval by central vigilance commission. The task of the monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2 The monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The monitor would have access to all contract documents, whenever required. It shall be obligatory for him/ her to treat the information and documents of the bidders/ contractors as confidential. He/ she reports to head of procuring organization of procuring organization.

3 The bidder(s)/ contractor(s) accepts that the monitor has the right to access without restriction to all project documentation of the principal including that provided by the contractor. The contractor shall also grant the monitor, upon his/ her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to sub-contractors.

4 The monitor is under contractual obligation to treat the information and documents of the bidder/ contractor(s)/ sub-contractor(s) with confidentiality. The monitor has also signed declarations on 'non-disclosure of confidential information' and of 'absence of conflict of interest' .in case of any conflict of interest arising at a later date, the IEM shall inform head of procuring organization of procuring organization and recues himself/ herself from that case.

5. The principal shall provide to the monitor sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between the principal and the contractor. The parties offer to the monitor the option to participate in such meetings.

6. As soon as the monitor notices, or believes to notice, a violation of this agreement, he/ she shall so inform the management of the principal and request the management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the monitor has no right to demand from the parties that they act in a specific manner, refrain from action, or tolerate action.

7. The monitor shall submit a written report to head of procuring organisation of procuring organisation within 8 to 10 weeks from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.

8. If the monitor has reported to head of procuring organisation of procuring organisation, a substantiated suspicion of an offence under relevant IPC/ PC act, and head of procuring organisation of procuring organisation has not, within the reasonable time taken visible action to proceed against such offence or reported it to the chief vigilance officer, the monitor may also transmit this information directly to the central vigilance commissioner.

9. The word 'monitor' would include both singular and plural.

Section 9 - Pact duration

This pact begins when both parties have legally signed it. It expires for the contractor 12 months after the last payment under the contract, and for all other bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by head of procuring organisation of procuring organisation.

Section 10 - Other provisions

This agreement is subject to Indian law. Place of performance and jurisdiction is the registered office of the principal, i.e., Faridabad.

Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made. If the contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement to their original intentions.

Issues like warranty/ guarantee etc. Shall be outside the purview of IEMS.

In the event of any contradiction between the integrity pact and its annexure, the clause in the integrity pact shall prevail.

For and on behalf of the Principal

(Name of the Officer and Designation)

(Office Seal)

For and on behalf of 'Bidder/ Contractor'

(Name of the Officer and Designation)

For and on behalf of the principal

Place

Date

Witness 1:

(name & address)

Witness 2:

(name & address)

Date:

Annexe to integrity pact***Guidelines for Indian agents of foreign bidders***

- 1.0 there shall be compulsory registration of agents for all global (open) tender and limited tender. An agent who is not registered with 'the principal' shall apply for registration in the registration form with appropriate unit.
- 1.1 Registered agents shall file an authenticated Photostat copy duly attested by a notary public/ original certificate of the principal confirming the agency agreement. It should cover - the precise relationship, services to be rendered, mutual interests in business - generally and/ or specifically for the tender. Any commission/ remuneration/ salary/ retainer ship, which the agent or associate receives in India or abroad from the OEM, whether should be brought on record in the agreement and be made explicit.
- 1.2 wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e., principal) before finalizing the order.
- 2.0 Disclosures of particulars of agents/ representatives in India, if any.
- 2.1 Bidders of foreign nationality shall furnish the following details in their offers:
 - 2.1.1 The 'bidder/ contractor' of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the principals. In case the agent/ representative be a foreign company, it shall be confirmed whether it is existing company and details of the same shall be furnished.
 - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
 - 2.1.3 Confirmation of the bidder that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by 'the principal' in Indian rupees only.
- 2.2 Bidders of Indian nationality shall furnish the following details in their offers:
 - 2.2.1 The 'bidder/ contractor' of Indian nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e., whether manufacturer or agents of manufacturer holding the letter of authority of the principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
 - 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the bidder for himself.
 - 2.2.3 confirmation of the foreign principals of the bidder that the commission/ remuneration, if any, reserved for the bidder in the quoted price(s), may be paid by 'the principal' in India in equivalent Indian rupees on satisfactory completion of the project or supplies of stores and spares in case of operation items.
- 2.3 In either case, in the event of contract materializing, the terms of payment shall provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 failure to furnish correct and detailed information as called for in clauses above shall render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by 'the principal'. Besides this there would be a penalty of banning business dealings with 'the principal' or damage or payment of a named sum.