

E-Procurement Notice

**REQUEST FOR QUOTATION
(NON-CONSULTING SERVICES –Drone Services)**

Name of Project : **Assam Integrated River Basin Management Program (AIRBMP)**
E-Tender reference no : **WRD/WB/ ORTHOMOSAIC/I**
Assignment Title : Hiring of agency for orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Dibrugarh and Barpeta-Chirang W.R Division

The Government of India has applied for financing from the World Bank towards cost of the **Assam Integrated River Basin Management Program (AIRBMP)** Project. Under the project, Office of the Chief Engineer, Water Resources Division(WRD), Govt. of Assam invites Request for Quotation (RFQ) for Aerial Drone Survey. Complete documents of the RFQ shall be available on website <https://assamtenders.gov.in> and www.fremaa.assam.gov.in. Intending bidders/quotationers are required to register at e-tender portal of the Assam Govt. <https://assamtenders.gov.in> and participate through e-tender portal only.

The last date and time for online submission of RFQ is on 07.05.2022 at 14:00 HRS (IST).

*Sd/-
Chief Engineer
Water Resources Department
Assam Water Centre, Basistha,
Guwahati, Assam-781029
Email: cewrd.assam@yahoo.co.in*

RFQ NO: IN-FREMAA-288133-NC-RFQ

To

Dear Sirs,

Sub: REQUEST FOR QUOTATIONS FOR HIRING OF AGENCY FOR ORTHOMOSAIC MAPPING USING UAV DRONE FOR ASSESSMENT OF LAND ACQUISITION AND DAMAGE COMPENSATION UNDER DIBRUGARH AND BARPETA-CHIRANG W.R DIVISION UNDER ASSAMINTEGRATED RIVER BASIN MANAGEMENT PROGRAMME(AIRBMP) PROJECT

1. You are invited to submit your most competitive quotation for the following activities: -

Brief Description of the services	Approximate value of services (Rs.) inclusive of Taxes.
Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Dibrugarh W.R. Division.	16,53,075.00 (Rupees Sixteen Lakhs Fifty-Three Thousand and Seventy-Five) only.
Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Barpeta and Chirang W.R. Division.	2,65,050.00 (Rupees Two Lakhs Sixty-Five Thousand and Fifty) only.

2. Government of India has applied for financing from the World Bank equivalent to US \$120 Million towards the cost of the AIRBMP Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this request for quotations is issued.
3. The AIRBMP in Assam state is being implemented by WRD and ASDMA under FREMAA as PMU, which is an autonomous agency registered under the Societies Registration Act.
4. To assist you in the preparation of your quotation, we are enclosing the following:
 - i. Instructions to Quotationers (in two sections).
 - ii. Terms of Reference and Scope of works
 - iii. Draft Contract Agreement format which will be used for finalizing the agreement for this Contract.

5. You are requested to provide your offer through <https://assamtenders.gov.in> latest on 07/05/2022 by 14:00 hours (IST).
6. Quotations will be opened online on 07/05/2022 at 16:30 hours (IST) through e-procurement portal <https://assamtenders.gov.in> in the office of the Chief Engineer, Water Resources Department, Assam Water Centre, Guwahati-29. The Quotations or their authorized representatives who choose to attend may be present in the office of the Chief Engineer, Water Resources Department, on the said date & time.
7. We look forward to receiving your quotations and thank you for your interest in this project.

Sd/-
Chief Engineer
Water Resources Department
Assam Water Centre, Basistha,
Guwahati, Assam-781029
Email: cewrd.assam@yahoo.co.in

Instructions to Quotationers

SECTION - A

1. Scope of services

The Chief Engineer Water Resources Department (Employer) invites quotations for the services as mentioned in the table given below:

<i>Lot/Contract no.</i>	<i>Brief Description of the Works</i>	<i>Approximate value of Works (Rs.)</i>	<i>Period of Completion (days)</i>
1	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Dibrugarh W.R. Division.	16,53,075.00 (Rupees Sixteen Lakhs Fifty-Three Thousand and Seventy-Five) only.	30
2	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Barpeta and Chirang W.R. Division.	2,65,050.00 (Rupees Two Lakhs Sixty-Five Thousand and Fifty) only.	15

The successful Quotationer will be expected to complete the services as specified in **Section C: Terms of Reference, Clause 5: Deliverables & Clause 6: Timeline.**

Drone: Drone here means **Remotely Piloted Aircraft (RPA) only.**

Remotely Piloted Aircraft (RPA): It is an unmanned aircraft, which is piloted from a remote pilot station. A remotely piloted aircraft, its associated remote pilot station(s), command and control links and any other components forms a Remotely Piloted Aircraft System (RPAS).

RPA in this survey should have a 20MP camera for still photography as well as motion picture. Both the cameras (Still and motion picture) should be of Full HD. It should be able to capture in vertical, Oblique (high and low) as well as Combination

Drone type:

Micro: 250 gm to less than or equal to 2 kg.

Or

Small: above 2 kg to less than or equal 25 Kg

whichever is needed to perform the survey. Only one type of RPA shall be used for all the surveys.

2. **Qualification of the Quotationer:** The Quotationer shall provide qualification information which shall include:

- a) The Quotationer should have valid Unique Identification Number/ Unmanned Aircraft Operator Permit/DAN from DGCA.
- b) Security Clearance from Home Department/Competent authority, Govt of Assam.
- c) Average annual turnover fees received from Aerial Drone Survey for the last 3 preceding years: Rs.19 Lakhs. /-. Copy of CA certificates for last 3 years; and
- d) Details of any litigation, current or during the last 3 years in which the Quotationer is involved, the parties concerned, and disputed amount in each case.
- e) Remote pilot shall have attained 18 years of age, having passed 10th exam in English, and undergone ground/ practical training from any DGCA approved Flying Training Organization (FTO).

3. **To qualify for award of the contract the Quotationer: -**

- a) The Quotationer should have satisfactorily provided Aerial Drone (RPA) service - at least one similar project per Lot/Contract in the last seven years;

<i>Lot/ Contract no.</i>	<i>Brief Description of the Similar Works</i>	<i>Value of similar nature completed successfully in the last 7 (seven years)</i>
1	Orthomosaic mapping using UAV drone for assessment of land, water bodies, water sector structures etc.	Single Work Order of minimum INR13 Lakhs or Two Work Order of minimum INR 7 lakhs each.
2	Orthomosaic mapping using UAV drone for assessment of land, water bodies, water sector structures etc.	2 Lakh

- b) The Quotationer should have in-house facility to create animated video of the captured shots.

Details of the Aerial Drone Survey executed by the firm should be furnished along with the Experience certificates/Client certificate.

For this purpose, “Similar project” means “Aerial Drone Survey or any similar aerial survey.”

4. This e-Procurement notice includes the terms and conditions applicable to submission of quotations; criteria for qualification, evaluation, and for award of supply order(s); and relevant forms to be filled by the bidders. Chief Engineer, WRD has not issued a separate RFQ document for this purchase. The e-Procurement notice including the terms

and conditions etc. can be downloaded free of cost by logging on to the website <https://assamtenders.gov.in> as well as <https://waterresources.assam.gov.in> and <https://fremaa.assam.gov.in/>. For any **query/clarification** on the Request for Quotation (RFQ), intending quotationers are requested to submit the same using the **Seek Clarification Tab** through e procurement portal only using. **Seek Clarification Start date 22.04.2022 End date: 30.04.2022**

5. For submission of Quotation, the Bidder is required to have Digital Signature Certificate (DSC) from one of the Certifying Authorities authorized by Government of India/ Government of Assam for issuing DSC.
6. Bidders who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website: <https://assamtenders.gov.in>
7. Quotations shall be submitted on <https://assamtenders.gov.in> on or before 14:00 hours (IST) on 07/05/2022. Any quotation or modifications to quotation received outside e-procurement system will not be considered. The electronic bidding system would not allow late submission of quotations. The Quotations will be opened online on 07/05/2022 at 16:30 hours (IST), this can also be viewed by the bidders online. The electronic summary of quotation opening will be generated and uploaded online. No any online tender fee and Bid Security is required for submission of quotations.
8. **Bid Price:**
 - a) The contract shall be for the whole of the services as mentioned in the Terms of reference. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - b) All duties, taxes, charges and other levies payable by the Quotationer under the contract shall be included in the total price.
 - c) The rates quoted by the Quotationer shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - d) The rates should be quoted in Indian Rupees only.

9. Submission of Quotations

- 9.1. The Quotationer is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation. The quotationer can quote for either services under Lot1/Contract1 or Lot2/Contract2 or for both Lot1/ Contract1 & Lot2/ Contract2 as detailed at sl. no1 above.
- 9.2. Each Quotationer shall submit only one quotation. Quotationers shall not contact other Quotationers on matters relating to this quotation.
- 9.3. The quotation submitted by the Quotationer shall comprise the following:
 - (a) Quotation in the format given in Section B.
 - (b) Terms of Reference given in Section C; and
 - (c) Qualification information form given in Section B duly completed.
 - (d) Curriculum Vitae (CV) form given in Section B of key personnel as mentioned in Terms of Reference.
 - (e) Valid Trade License/Firm Registration/Company Registration, Valid GST registration, Audited Balance sheet/CA Certificate for last three financial years 2018-19, 2019-20 & 2020-21.

10. Validity of Quotation:

Quotation shall remain valid for a period not less than 45 days after the deadline date specified for submission.

11. Opening of Quotations:

Quotations will be opened online through www.assamtenders.gov.in in the office of The Chief Engineer, Water Resources Department, Assam Water Centre, Basistha, Guwahati-29. Firms submitting Quotations or their representatives who choose to attend on the date and time and at the place specified in the letter of invitation.

12. Evaluation of Quotations:

The Employer will evaluate and compare the quotations determined to be substantially responsive i.e. which,

- (a) meet the qualification criteria specified in clause 2 & 3 above;
- (b) conform to the terms of reference, without deviations.

13. Award of contract:

The Employer will award the contract to the Quotationer whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price inclusive of all taxes and who meets the specified qualification criteria.

13.1 Notwithstanding the above, the Employer reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

13.2 The Quotationer whose bid is accepted will be notified of the award of contract by the Employer prior to expiration of the quotation validity period.

14 Performance Security:

Within 7 (Seven) days of receiving letter of acceptance, the successful bidder shall deliver to the Asstt. Chief Engineer, Water Resources Department the performance security (in the form of bank guarantee in favour of the Asstt. Chief Engineer, Water Resources Department) for an amount equivalent of 3 % of the contract price. The Performance Security shall be valid up to 75 (Seventy-five) days period. Failure of the successful Bidder to furnish performance security and to sign the agreement within the period stipulated shall constitute sufficient grounds for annulment of award and debarring the bidder from participation in bidding for works by the Employer for a period of one year, in which case the Employer may make the award to the next lowest evaluated bidder or seek quotations afresh

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SECTION - B

- 1. Format for Qualification Information.**
- 2. Format for Submission of Quotation.**
- 3. Format for Curriculum Vitae (CV)**

QUALIFICATION INFORMATION

1 For Individual Quotations

1.1 Principal place of business: _____

Power of attorney of signatory of Quotation.

[Attach copy]

1.2 Total value of Aerial Drone Survey performed in the last three years (in Rs. Lakhs)

	2021 _____
	2020 _____
	2019 _____

1.3 Service performed as Aerial Drone Survey (in the same name) on works of a similar nature over the last three years.

<u>Project Name</u>	<u>Name of Employer</u>	<u>Description of service</u>	<u>Contract No.</u>	<u>Value of contract (Rs.Lakhs)</u>	<u>Date of issue of Work order</u>	<u>Stipulated period of completion</u>	<u>Actual date of Completion</u>	<u>Remarks explaining reasons for delay and service completed</u>

Existing commitments and on-going services:

Description of service	Place & State	Contract No. & Date	Value of Contract (Rs. Lakh)	Stipulated period of Completion	Value of services* remaining to be completed (Rs. Lakhs)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)

* Enclose a certificate from Employer concerned.

1.4 Proposed subcontracts and firms involved.

Sections of the services	Value of Sub-contract	Sub-contractor (name & address)	Experience in similar service
*	*	*	*
	*	*	
*	*	*	*
	*	*	
*	*	*	*
	*	*	

1.5 Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.6 Name, address, and telephone, telex, and fax numbers of the Quotationers' bankers who may provide references if contacted by the Employer.

1.7 Information on litigation history in which the Quotationer is involved.

Other party(ies)	Employer	Cause of dispute	Amount involved	Remarks showing present status
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LETTER OF QUOTE

(The bidder has also to quote for Lot1 /Lot2 /Lot1 & Lot2 through the BoQ in the financial folder of www.assamtenders.gov.in)

Description of the services:

To :

Subject : Aerial Drone (RPA) Survey for Lot1/Lot2/both Lot1 & Lot2

Reference : Letter No.....dated.....from.....

Sir,

We offer to execute the Aerial Drone (RPA) Survey services for the project as described in your letter referred to above in accordance with the Conditions of Contract enclosed therewith for a total Contract Price of.....including Taxes

This quotation and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any quotation you receive.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery or collusive arrangements with the competitors.

We hereby confirm that this quotation is valid for 45 days as required in Clause 10 of the Instructions to Quotationers.

We have not been debarred/removed from approved lists/ (dealings suspended) by the Central/State Governments or by the World Bank.

Yours faithfully,

Authorized Signature : Date: _____

Name & Title of Signatory : _____

Name of Quotationer : _____

Address : _____

** To be filled in by the Quotationer, together with his particulars and date of submission at the bottom of this Form.

CURRICULUM VITAE (CV)

Position Title and No.	{e.g., K-1, TEAM LEADER}
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained}

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
[e.g., May 2005-present]	[e.g., Ministry of, advisor/consultant/Aerial Drone Surveyor to... For references: Tel...../e-mail.....; Mr. [name], [designation]		

Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): ____

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's/ AerialDrone Survey Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in which the Expert will be involved)	

SECTION - C

Terms of Reference

Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under AIRBMP Project

1. Introduction

The projects “Integrated Water Resources Management of Buridehing Basin” and “Integrated Flood and Erosion Management of Manas and Beki River in the districts of Baksa and Barpeta in Brahmaputra valley within Assam” have been prepared with flood and river bank erosion risk management work under the funding of World Bank. The execution of the projects will require proper identification of land to resolve the issues of land acquisition, damage compensation and also relating to any zirat claims. Thus, footages using drones of the respective reaches and locations are required to solve the land issues and accordingly, drone survey estimates under Dibrugarh, Barpeta and Chirang W.R. Divisions are prepared as recommended.

2. Drone: Drone here means **Remotely Piloted Aircraft (RPA)** only.

Remotely Piloted Aircraft (RPA): It is an unmanned aircraft, which is piloted from a remote pilot station. A remotely piloted aircraft, its associated remote pilot station(s), command and control links and any other components forms a Remotely Piloted Aircraft System (RPAS).

RPA in this survey should have a 20MP camera for still photography as well as motion picture. Both the cameras (Still and motion picture) should be of Full HD. It should be able to capture in vertical, Oblique (high and low) as well as Combination (Three Axis Camera)

Drone type:

Drone type:

Micro: 250 gm to less than or equal to 2 kg.

Or

Small: above 2 kg to less than or equal 25 Kg

whichever is needed to perform the perform the survey. Only one type of RPA shall be used for all the surveys.

Approvals/Clearances:

- a) The quotationer, should have UIN/ UOAP/DAN, as applicable from **Directorate General of Civil Aviation** (DGCA).
- b) Security Clearance from Home Department/Competent authority, Govt of Assam.
- c) Remote pilot shall have attained 18 years of age, having passed 10th exam in English, and undergone ground/ practical training from any DGCA approved Flying Training Organization (FTO).
- d) Clearance from Forest office as and when required.
- e) Clearance from Defence establishment as and when required.
- f) Clearance from nearest airport as and when required.
- g) Information and Clearance from local police station.
- h) Any other if any

Photography Radius: The camera should capture/cover an area with a width of at least 100 m on the ground area and the pixel data should be not more than 20cm per pixel. If needed the drone should be able to climb to higher altitude so that the desired area is captured both in still photography as well as motion picture.

RPA in this survey should have a camera for still photography as well as motion picture. Both the cameras (Still and motion picture) should be of Full HD quality. It should be able to capture in vertical, Oblique (High Oblique and Low Oblique) as well as Combination.

The Drone should be able to remain airborne for a minimum period of 30 minutes.

- 3. Project Objective:** The both banks of river Buridehing and Beki has been continuously facing the problem of flood, erosion and inundation causing damage to properties, livelihood, livestock, etc. For protection of this vast area from the flood and erosion and socio-economic development of the area, two projects have been proposed under the funding of World Bank with the provisions of protection and anti-erosion works, R/S of the existing embankment and construction of new embankments which might require acquisition of Patta or Miyadi land and hence, damage compensation to the public or other authorities. Thus, ortho-mosaic mapping of the area along the bank of the proposed reach has to be done using UAV drone survey for assessment of land acquisition and damage compensation.
 - 4. Scope of work:** The list of the reach's locations requiring Drone Survey in which protection measures including construction and strengthening works of embankments will be undertaken under Dibrugarh, Barpeta and Chirang W.R. Divisions in Ph-I of the AIRBMP are given in the following tables:
-

Dibrugarh W.R. Division:

Anti-erosion reaches:

Sl No.	Code	Protection Reaches	Co-ordinates of		Reach Length (m)
			Starting Ch.	End Ch.	
1	AE-2	Moulang Gaon	27°19'29.11"N 95°43'49.04"E	27°19'37.67"N 95°43'17.96"E	1000
2	AE-3	Borfakial-A	27°20'8.48"N 95°42'43.15"E	27°19'54.32"N 95°42'32.74"E	600
3	AE-4	Borfakial-B	27°19'45.24"N 95°42'35.29"E	27°19'13.61"N 95°42'36.17"E	1000
4	AE-6	Tantipathar Manipuri Basti A	27°15'35.97"N 95°24'14.19"E	27°15'42.55"N 95°24'6.33"E	300
5	AE-7	Tantipathar Manipuri Basti B	27°15'53.80"N 95°23'58.39"E	27°15'59.71"N 95°23'55.54"E	200
6	AE-9	Konwargaon A	27°17'46.66"N 95°22'58.60"E	27°17'52.22"N 95°22'39.45"E	600
7	AE-10	Konwargaon B	27°17'50.04"N 95°22'31.01"E	27°17'44.61"N 95°22'14.40"E	500
8	AE-11	Uttammati	27°17'24.03"N 95°21'17.05"E	27°17'40.90"N 95°21'3.40"E	650
9	AE-12	Bamungaon-1	27°18'7.45"N 95°20'52.34"E	27°18'9.51"N 95°20'42.64"E	280
10	AE-13	Bamungaon-2	27°18'5.62"N 95°20'28.61"E	27°18'0.57"N 95°20'17.61"E	340
11	AE-14	Jagungaon	27°18'4.55"N 95°19'46.00"E	27°18'22.93"N 95°19'51.06"E	600
12	AE-15	Nagaon 1	27°18'34.42"N 95°20'7.20"E	27°18'41.48"N 95°20'8.76"E	220
13	AE-16	Nagaon 2	27°18'46.88"N 95°20'8.93"E	27°19'4.75"N 95°20'1.10"E	595
14	AE-17	Bordoloichuk	27°18'48.77"N 95°17'57.95"E	27°18'31.08"N 95°17'42.39"E	700
15	AE-18	Mohmari	27°19'5.14"N 95°16'31.28"E	27°19'16.75"N 95°16'20.29"E	500
16	AE-19	Amguri	27°19'26.02"N 95°15'53.67"E	27°19'35.28"N 95°15'30.39"E	700
17	AE-20	Panchuti	27°20'0.55"N 95°14'53.08"E	27°20'8.05"N 95°14'31.11"E	650
18	AE-21	Tingrai Nepaligaon A	27°20'54.63"N 95°13'40.66"E	27°21'3.01"N 95°13'28.72"E	450
19	AE-22	Tingrai Nepaligaon B	27°21'6.05"N 95°13'19.81"E	27°21'6.24"N 95°13'16.59"E	90
20	AE-23	Tingrai Nepaligaon C	27°21'7.98"N 95°13'4.82"E	27°21'10.44"N 95°12'58.19"E	410
21	AE-24	Kaibartagaon	27°21'9.78"N 95°12'23.14"E	27°21'16.11"N 95°12'10.59"E	400
22	AE-25	Uriamguri	27°20'10.00"N	27°20'27.19"N	700

			95°10'14.00"E	95° 9'58.17"E	
23	AE-26	Bamunibeel	27°19'43.13"N 95° 8'47.24"E	27°19'42.07"N 95° 8'36.48"E	300
24	AE-27	Kolagora	27°19'22.77"N 95° 6'46.57"E	27°19'27.75"N 95° 6'29.80"E	400
25	AE-28	Sessa Nepali	27°19'1.58"N 95° 5'15.66"E	27°19'3.31"N 95° 4'54.88"E	600
26	AE-29	Dehingholla	27°19'37.35"N 95° 5'55.52"E	27°19'20.42"N 95° 5'25.15"E	1000
27	AE-30	Aghunibari	27°18'29.93"N 95° 3'34.05"E	27°18'39.41"N 95° 3'32.05"E	300
28	AE-33	Koraiguri	27°20'44.47"N 95° 1'58.18"E	27°20'37.98"N 95° 1'41.74"E	500
29	AE-34	Singimari	27°21'28.28"N 95° 1'13.24"E	27°21'29.83"N 95° 0'55.27"E	500
30	AE-35	Bhurbhuri-1	27°22'6.18"N 95° 0'8.90"E	27°22'54.94"N 95° 0'0.86"E	2150
31	AE-36	Bhurbhuri-2	27°21'26.14"N 94°58'52.46"E	27°21'13.86"N 94°58'39.89"E	515
32	AE-37	Borbeel A	27°20'58.64"N 94°57'59.20"E	27°20'53.80"N 94°57'41.03"E	525
33	AE-38	Borbeel B	27°20'40.67"N 94°57'25.08"E	27°20'28.48"N 94°57'20.34"E	400
34	AE-39	Charaihabi Khamtighat	27°20'15.74"N 94°57'24.68"E	27°20'4.37"N 94°56'59.31"E	880
35	AE-40	Kololua Deori Gaon	27°18'25.72"N 94°54'49.40"E	27°18'47.03"N 94°54'28.61"E	1125
36	AE-41	Natunbolai	27°19'15.97"N 94°54'17.51"E	27°19'13.14"N 94°53'56.64"E	600
37	AE-42	Kotoha	27°19'1.52"N 94°53'11.69"E	27°18'46.48"N 94°52'56.70"E	675
38	AE-43	Bhogamur A	27°17'53.22"N 94°50'49.57"E	27°17'15.36"N 94°50'25.14"E	600
39	AE-47	Sessughat A	27°15'17.72"N 94°47'57.29"E	27°15'3.13"N 94°47'50.82"E	300
40	AE-48	Sessughat B	27°15'0.17"N 94°47'47.38"E	27°14'54.85"N 94°47'38.55"E	300
41	AE-49	Charaibahi	27°15'3.89"N 94°47'1.96"E	27°14'55.85"N 94°46'46.50"E	500
42	AE-50	Itakhuli	27°14'35.83"N 94°46'13.74"E	27°14'50.11"N 94°45'56.71"E	700
Total Length in m					24355
(A) in Km:					24.355

Earthwork in construction of embankments:

Sl No.	Code	Name of Embankment	Length in m
1	E-10	Extension Of Dehing Bund From Bhogamur To Sessamukh	4500
2	E-11	Dehing Bund Old A.T. Road From Sessughat To Jagungaon	5100
3	E-15	Extension Of Tengakhat Bund From Jokai R.F. To A.T. Road	13500
4	E-19	Dehing Bund 1st Section From Aghunibari To Sessughat (Under Dibrugarh West Wr Sub-Divn)	25200
5	E-23	Reclamation Of Low-Lying Area Near Tingraimukh In Kheremia Mouza (R/B Of Amilguri T.E. To Tingraimukh)	5400
6	E-24	Tingrai L/B Dyke From Baliyan To Tingraimukh	4700
7	E-26	Construction Of T/Dyke Along The R/B Of Buridehing River From Deochali To Tipling Ghat From Nowjan To Rly Line - Ph-Iii	1500
8	E-27	Construction Of An Embankment Along The Tipling Bridge To Tipling T.E.	3800
9	E-28	Construction Of An Embankment Along The L/B Of Tipling River	4000
10	E-29	Construction Of An Embankment Along The R/B Of Buridehing River From Deochali Hill To Tipling Ghat Ph-I (Fakial Grazing)	8250
11	E-31	T/Dyke Along The L/B Of Buridehing River From Joypur To Naharkatia	7200
12	E-39	T/Dyke Along The L/B Of Buridehing River From Chippibasti To Molong Gaon	2700
Total (in m)			85850
(B) in Km:			85.85
Total A+B:			110.205

Barpeta W.R. Division:

Anti-erosion reaches:

Lots/ Contracts	Location (ID)	GPS locations of the starting points of the river works		Reach Length (m)
		Latitude	Longitude	
1	Safakamar (AE-9)	26°32'59.88"N	90°58'29.13"E	750
2	Katajhar (AE-10)	26°32'43.56"N	90°58'14.22"E	1870
3	Dumunighat (AE-11)	26°32'18.77"N	90°57'22.93"E	1300
4	Nichuka (AE-12)	26°31'11.40"N	90°55'51.70"E	1450
5	Salsalia (AE-17)	26°26'8.00"N	90°54'5.57"E	900
6	Bordenga (AE-18)	26°25'3.12"N	90°53'46.09"E	1300
7	Guileza (AE-19)	26°24'16.75"N	90°54'37.44"E	1000
8	Mowamari (AE-20)	26°23'48.61"N	90°54'21.56"E	500
9	Sawpur (AE-24)	26°20'12.54"N	90°52'47.45"E	1500
	Total(KM)=X			10.570

Chirang W.R.Division:

Anti-erosion reaches:

Lots/ Contracts	Location (ID)	GPS locations of the starting points of the river works		Reach Length (m)
		Latitude	Longitude	
1	Elengbari (AE-2)	26°38'26.59"N	90°59'13.23"E	1600
2	Chunbari (AE-3)	26°37'13.88"N	90°59'9.53"E	1500
	Total(KM)=Y			3.1

Earthwork in strengthening of embankments:

Lots/ Contracts	Location (ID)	GPS locations of the starting points of the river works		Reach Length (m)
		Latitude	Longitude	
1	CH.-2780m to 6780m L/B (R/S-1)	26°20'7.80"N	90°55'2.46"E	4000
	Total (KM)=Z			4
	Total for Chirang WRD(Y+Z)in KM			7.1

5. Deliverables:

- a) Video of individual reaches/sites along with adjacent area up to 100m which shall include the necessary details as instructed by the Engineer In Charge/representatives of Engineer I/C of respective Water Resources Divisions (WRD).
- b) High resolution ortho-mosaic maps (both in soft and hard copy).
- c) The video should enable for Proper assessment for land acquisition and damage compensation. The contents of Video should be as per direction of the Engineer In Charge/representatives of Engineer I/C of respective Water Resources Divisions (WRD) as mentioned at a) above.

6. Timeline:

<i>Lot/ Contract no.</i>	<i>Brief Description of the Works</i>	<i>Approximate value of Works (Rs.)</i>	<i>Period of Completion (days)</i>
1	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Dibrugarh W.R. Division.	16,53,075.00 (Rupees Sixteen Lakhs Fifty-Three Thousand and Seventy-Five) only.	30
2	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under BARPETA and <u>Chirang</u> W.R. Division.	2,65,050.00/- (Rupees Two Lakhs Sixty-Five Thousand and Fifty) only.	15

7. Terms & Conditions

- I. The agency will arrange and prepare the tools for aerial drone survey and ensure all clearances required to conduct these videos and surveys in necessary location. **However, WRD will provide necessary logistic support to get clearances for drone survey from Govt authority as per law if required & the same should be communicated in writing by both the parties.** The agency will visit selected field sites and other locations for drone survey. The agency will also be responsible for editing the clips to put together a video.
- II. The video:
 - a) Should be rendered in a highly engaging format
 - b) Should be made in a Ultra High-Resolution format which is compatible for both small and large screens and can be viewed without any stuttering
 - c) Should be done with voiceover in English and Assamese language. The contents should be as directed by Engineer I/C or representative of Engineer I/C.
 - d) Should be high resolution video and provided in suitable format to WRD/FREMAA.

8. Payment terms:

Lot No.	River Basin	Type of work	No. of locations	Payment on completion of (%)
1	Buridehing	Embankment construction	12	100
		A/E measures	42	100
2	Beki	Embankment strengthening and A/E measures	12	100

All the surveys to be submitted to the client are to be supplied in 3 copies.

100% Payment will be made for Lot1 and Lot 2 after 100 percent completion of the services duly certified by the Executive Engineer of the Concerned Division, Water Resources Department after review from Chief Engineer Office, Water Resources Department (WRD) and Flood & River Erosion Management Agency of Assam (FREMAA)

List of Key Professional Positions with CV and Experience certificates to be submitted.

Section – D

DRAFT CONTRACT FOR SERVICES

**LUMP-SUM
PAYMENTS
(IBRD/IDA
FINANCED)**

CONTRACT

THIS CONTRACT (“Contract”) is entered into this *[insert starting date of assignment]*, by and between (“the Client”) having its principal place of business at *i*, and *[insert firm’s name]* (“the Aerial Drone surveyor”) having its principal office located at *[insert Aerial Drone surveyor’s complete postal address¹]*.

WHEREAS, the Client wishes to have the *Aerial Drone surveyor* perform the services hereinafter referred to, and WHEREAS, the Aerial Drone surveyor is willing to perform these services, NOW THEREFORE THE PARTIES hereby agree as follows:

1. Services	(i)	The Aerial Drone surveyor shall perform the services specified in Annex A, “Terms of Reference and Scope of Services,” which is made an integral part of this Contract (“the Services”).	
	(ii)	The Aerial Drone surveyor shall provide the personnel listed in Annex B, “Aerial Drone surveyor Personnel,” to perform the Services	
	(iii)	The Aerial Drone surveyor maker shall submit to the Client the reports in the form and within the time periods specified in Annex C, “Aerial Drone surveyor Reporting Obligations.”	
2. Term	The Aerial Drone surveyor maker shall perform the Services during the period commencing <i>[insert starting date]</i> and continuing through <i>[insert completion date]</i> , or any other period as may be subsequently agreed by the parties in writing		
3. Payment	A.	<u>Ceiling</u> For Services rendered pursuant to Annex A, the Client shall pay the Aerial Drone surveyor an amount not to exceed <i>[insert amount]</i> . This amount has been established based on the understanding that it includes all of the Aerial Drone surveyor costs and profits as well as any tax obligation that.	
		B.	Schedule of Payments: The schedule of payments is specified as under: 100% Payment will be made for Lot1 and Lot 2 after 100 percent completion of the services duly certified by the Executive Engineer of the concerned Division, Water Resources Department after review from Chief Engineer Office, Water Resources Department (WRD) and Flood & River Erosion Management Agency of Assam (FREMAA)
		C.	Payment Conditions: Payment shall be made in Indian Rupees (<i>INR</i>), no later than 60 days following acceptance of deliverables by client and submission by the Aerial Drone surveyor of invoices in duplicate to the coordinator designated in paragraph 4. Payments shall be made to Aerial Drone surveyor bank account <i>[insert banking</i>

		[details]
4.	Project Administration	<p>A. <u>Coordinator.</u> The Client designates Mr./Ms. <i>[insert name]</i> as Client's Coordinator; the Coordinator will be responsible for the coordination of activities under this Contract, for acceptance and approval of the reports and of other deliverables by the Client and for receiving and approving invoices for the payment.</p> <p>B. <u>Reports.</u> The reports listed in Annex C, "Aerial Drone surveyor Reporting Obligations," shall be submitted in the course of the assignment, and will constitute the basis for the payments to be made under paragraph 3.</p>
5.	Performance Standards	The Aerial Drone surveyor undertakes to perform the Services with the highest standards of professional and ethical competence and integrity.
6.	Inspections and Auditing	The Aerial Drone surveyor shall permit, the Bank and/or persons or auditors appointed by the Bank to inspect and/or audit its accounts and records and other documents relating to the submission of the Proposal to provide the Services and performance of the Contract. Any failure to comply with this obligation may constitute a prohibited practice subject to contract termination and/or the imposition of sanctions by the Bank (Including without limitation s determination of ineligibility) in accordance with prevailing Bank's sanctions procedures.
7.	Confidentiality	The Aerial Drone surveyor shall not, during the term of this Contract and within two years after its expiration, disclose any proprietary or confidential information relating to the Services, this Contract or the Client's business or operations without the prior written consent of the Client.
8.	Ownership of Material	Any studies reports or other material, graphic, software or otherwise, prepared by the Aerial Drone surveyor for the Client under the Contract shall belong to and remain the property of the Client. The Aerial Drone surveyor may retain a copy of such documents and software ³ .
9.	Drone surveyor Not to be Engaged in	The Aerial Drone surveyor agrees that, during the term of this Contract and after its termination, the Aerial Drone surveyor and any entity affiliated with the Aerial Drone surveyor, shall be disqualified from providing goods, works or services (other than consulting services that would not give rise to a conflict of interest) resulting from or closely related to the Consulting Services for the preparation or implementation of the Project
10.	Insurance	The Aerial Drone surveyor will be responsible for taking out any appropriate insurance coverage.
11.	Assignment	The Aerial Drone surveyor shall not assign this Contract or sub-contract any portion of it without the Client's prior written consent.
12.	Law Governing Contract	The Contract shall be governed by the laws of Republic of India, and the language of the Contract shall be English.
13.	Dispute	Any dispute arising out of the Contract, which cannot be amicably settled between the parties, shall be referred to adjudication/arbitration

	Resolution	in accordance with the laws of the Client's country at Guwahati								
14.	Corrupt and Fraudulent Practices	The World Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Procurement Regulation. In further pursuance of this policy, Quotationers shall permit and shall cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.								
15.	Termination	<p>The Client may terminate this Contract with at least ten (10) working days prior written notice to the Aerial Drone surveyor after the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause:</p> <table border="1"> <tr> <td>(a)</td> <td>If the Aerial Drone surveyor does not remedy a failure in the performance of its obligations under the Contract within seven (7) working days after being notified, or within any further period as the Client may have subsequently approved in writing;</td> </tr> <tr> <td>(b)</td> <td>If the Aerial Drone surveyor becomes insolvent or bankrupt;</td> </tr> <tr> <td>(c)</td> <td>If the Aerial Drone surveyor, in the judgment of the Client or the Bank, has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices (as defined in the prevailing Bank's sanctions procedures) in competing for or in performing the Contract.</td> </tr> <tr> <td>(d)</td> <td>If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.</td> </tr> </table>	(a)	If the Aerial Drone surveyor does not remedy a failure in the performance of its obligations under the Contract within seven (7) working days after being notified, or within any further period as the Client may have subsequently approved in writing;	(b)	If the Aerial Drone surveyor becomes insolvent or bankrupt;	(c)	If the Aerial Drone surveyor, in the judgment of the Client or the Bank, has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices (as defined in the prevailing Bank's sanctions procedures) in competing for or in performing the Contract.	(d)	If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
(a)	If the Aerial Drone surveyor does not remedy a failure in the performance of its obligations under the Contract within seven (7) working days after being notified, or within any further period as the Client may have subsequently approved in writing;									
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(c)	If the Aerial Drone surveyor, in the judgment of the Client or the Bank, has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices (as defined in the prevailing Bank's sanctions procedures) in competing for or in performing the Contract.									
(d)	If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.									

FOR THE CLIENT

FOR THE AERIAL DRONE SURVEYOR by

Signed by _____

Signed _____

Title: _____

Title: _____

LIST OF ANNEXES

Annex A: Terms of Reference and Scope of Services

Annex B: Aerial Drone surveyor Personnel

Annex C: Aerial Drone surveyor Reporting Obligations

BOQ FORMAT (uploading in financial folder of e procurement portal www.assamtenders.gov.in) FOR HIRING OF AGENCY FOR ORTHOMOSAIC MAPPING USING UAV DRONE FOR ASSESSMENT OF LAND ACQUISITION AND DAMAGE COMPENSATION UNDER DIBRUGARH AND BARPETA-CHIRANG W.R DIVISION UNDER ASSAM INTEGRATED RIVER BASIN MANAGEMENT PROGRAMME(AIRBMP) PROJECT

Lot /Contract No	Lot. /Contract Description	Reach Length in Meter along with width of 20m from the center of Embankment for both sides	Unit rate/Meter along with width of 20m from the center of Embankment for both sides inclusive of all Taxes (in Rs.)
1	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Dibrugarh W.R. Division.	110205	
2	Orthomosaic mapping using UAV drone for assessment of land acquisition and damage compensation under Barpeta and Chirang W.R. Division.	17670	