

## **REVISED REQUEST FOR QUOTATIONS**

### **Procurement of Goods under RFQ/Shopping Procedures**

**Purchaser:** *Meghalaya Basin Management Agency (MBMA)*

**Contract title:** *Procurement of Drones and Software for Drones*

**RFQ No:** *GD-21*

<b>S#</b>	<b>Description</b>	<b>Date &amp; Time</b>
<b>1</b>	<b>Date of Issue of RFQ</b>	<b>December 17 ,2019</b>
<b>2</b>	<b>Last Date and Time of submission of RFQs</b>	<b>January 15, 2020 at 1600 Hrs.</b>
<b>3</b>	<b>Opening of RFQs</b>	<b>January 15, 2020 at 1630 Hrs.</b>

**Applicable Procurement Guidelines/Regulations Date:**

*[Procurement Regulations July 2016]*



## MEGHALAYA BASIN MANAGEMENT AGENCY (MBMA)

Regd. Address: House No. L/ A-56 Lower Nongrim Hills,

Shillong, East Khasi Hills, Meghalaya- 793003

(CIN No. U75144ML2012NPL008509)

Phone: +91-364- 2522921/2522992

Website: [www.mbda.gov.in](http://www.mbda.gov.in), E-mail: [mbdaprocurement@gmail.com](mailto:mbdaprocurement@gmail.com)

MBMA/CLLMP/12/DRS/GD-21/2019-20/ 343

Date: 17th December, 2019

### INVITATION FOR QUOTATIONS FOR SUPPLY OF DRONES & SOFTWARE FOR DRONES UNDER SHOPPING PROCEDURES

To

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Dear Sir/Madam,

#### Subject: INVITATION FOR QUOTATIONS FOR SUPPLY OF DRONES & SOFTWARE FOR DRONES UNDER SHOPPING PROCEDURES

Government of India has received a funding from the **International Bank for Reconstruction and Development (IBRD)** in the form of Loan toward the cost of **Meghalaya Community- Led Landscape Management Project (MCLLMP)**, **Meghalaya Basin Management Agency (MBMA)** is the implementing agency of the Project and intends to apply part of the proceeds of this loan to eligible payments under the contract for which this invitation for quotations is issued.

1. You are invited to submit your most competitive quotation for the following goods as per the mentioned lots below:-

**\*Detailed Specifications given at Annexure 1**

Lot	Brief Description of the Goods*	Quantity	Delivery Period
Lot#1	Drone Type 1	1	60 Days
Lot#2	Drone Type 2	1	
Lot#3	3D Photogrammetry Processing Software for Drone	1	

**\*: bidder may apply for one or more Lots, however they are requested to mention the Lot numbers they are bidding for.**

#### Terms and Conditions

1. **Eligibility:** A Bidder (a) shall not participate in more than one Quotation; (b) shall not have conflict of interest as defined in the Bank's Procurement Regulations; and (c) should not have been (i) temporarily suspended or debarred by the World Bank Group in compliance with the

Bank's Anti-Corruption Guidelines and its Sanctions Framework; or (ii) blacklisted or suspended by Central or any State Government Departments in India.

2. **Clarifications & Amendments:** If the Purchaser receives any request for clarification of this RFQ Document, it will upload its response together with any amendment to this document, on [www.mbda.gov.in](http://www.mbda.gov.in) and [www.cllmp.com](http://www.cllmp.com) for information of all Bidders. Bidders should check on the website, for any amendments to the terms and conditions and for Award of Contract.

3. **Place of Delivery:** Meghalaya Basin Management Agency, O/o Meghalaya Basin Development Authority, c/o Meghalaya State Housing Financing & Cooperative Society, Upper Nongrim Hills, Shillong - 793003

#### 4. **Quotation Price**

- a) The bidder must mention the Lot that they are offering. However, the quantity offered should be 100% of the requirement for the quoted Lot. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- b) All duties, taxes and other levies payable on the raw materials and components shall be included in the total price.
- c) Goods and Service Tax (GST) should be indicated separately.
- d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- e) The Prices shall be quoted in Indian Rupees only.
- f) Bidder must expressly mention the name/brand of the items offered by them in the price schedule.

#### 5. **Qualification of Bidders**

- a) Have the legal capacity to enter into a contract;
- b) Not be insolvent, in receivership, bankrupt or being wound up or subject to legal proceedings for any of these circumstances;
- c) Not have had your business activities suspended or debarred from public procurement by the State Government of Meghalaya or Government of India.

6. **Documents Evidencing Qualification:** Bidders are requested to submit copies of the following documents as evidence of your qualification.

- a. Valid trading license/registration or equivalent/Exemption Certificate.
- b. Valid certificate of GST registration;

- c. Certificate of Distributorship/Authorization from the Original Equipment Manufacturer (OEM) for the Lots offered. / The vendor should have a Manufacturer License for manufacturing the drones.
- d. Certification of NPNT compliance issued by DGCA.
- e. The vendor should have Quality Certificate of the drone being offered by them.
- f. Self-declaration to the effect the bidder is not insolvent, in receivership, bankrupt or being wound up or subject to legal proceedings for any of these circumstances.
- g. Self-declaration that the bidder's business activities are not suspended or debarred from public procurement by the State Government of Meghalaya, any other State Government or Government of India.

**7. Legalities to be adhered:**

- 1. The vendor should be able to provide ETA certificate on demand by the purchaser.
- 2. The vendor should facilitate the purchaser for submitting the application for UIN in Digital Sky platform of DGCA.
- 3. The vendor should impart hands on technical training on the usage of drones and software to the officials assigned by the purchaser.

**8. Validity of Quotation:** Quotations shall remain valid for a period not less than 90 days after the deadline date specified for submission.

**9. Evaluation of Quotations:** The Purchaser will evaluate and compare the quotations lot wise that are determined to be substantially responsive i.e. which

- (a) are properly signed;
- (b) confirm to the terms and conditions and specifications;
- (c) similar experience of supplying Drones to Government agencies; (bidder to submit copies of contracts as evidence for the Lots offered)
- (d) presence of After Sales Service Centre/s in Shillong or Guwahati with qualified engineers; (bidder to submit the details of above along with their quotation)
- (e) The Quotations would be evaluated lot wise; GST will not be taken into consideration while evaluating the quotations.
- (f) The Lowest Evaluated vendor may be asked for equipment demonstration before the purchase order is issued.
- (g) Any historical information, if required may be asked from the bidders during evaluation of quotes.

10. **Award of contract:** The Purchaser will award the supply orders to the bidders whose quotations have been determined to be substantially responsive in respective lots and who has offered the lowest evaluated quotation price for that respective lot. The announcement for this assignment will be published in [www.cllmp.com](http://www.cllmp.com) and [www.mbda.gov.in](http://www.mbda.gov.in)

- a. Notwithstanding the above, the Purchaser 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.
- b. The bidder whose quotation is accepted will be notified of the issue of Supply Order by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the supply order (sample form attached).

9. Payment shall be made within 60 days after delivery of the goods.

10. Normal commercial warranty/ guarantee shall be applicable to the supplied goods (extended warranty if required will be mentioned in the technical specifications).

11. You are requested to provide your sealed quote latest by 1600 hours on January 15, 2020. Quotations that have been submitted on or before time will be opened at 1630 Hrs. on January 15, 2020. Late quotes will be rejected.

12. We look forward to receiving your quotations and thank you for your interest in this project.

**Sd/-**

**Name:** Shri Shantanu Sharma, IAS

**Address:** Meghalaya Basin Management Agency, Office of Meghalaya Basin Development Authority, Upper Nongrim Hills, Shillong – 793003; Meghalaya

**Tel. No.:** 0364 -2522921

**Email:** [mbdaprocurement@gmail.com](mailto:mbdaprocurement@gmail.com)

**FORMAT OF QUOTATION \***

Sl. No. <sup>1</sup>	Description of Goods	Specifications (complied or Not complied as per requirement – Provide full details against the specs as well as product brochure)	Qty.	Unit	Quoted Unit Rate <sup>2</sup> Lot wise at destination in Rs.	<sup>3</sup> GST and similar other taxes applicable on finished Goods/ Services	*Total Price per line item at Destination - inclusive of discounts, all taxes and duties	
							In Figures	In Words
Lot # 1								
Lot # 2								
Lot # 3								
<b>Total</b>								

**Gross Total Cost: Rs. ....**

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs..... (amount in figures ) (Rs. .... amount in words) within the period specified in the Invitation for Quotations.

<sup>1</sup> A bidder may offer for one or more than one lots.

<sup>2</sup> Any unconditional discounts if offered shall be specified in this column along with the unit rates.

<sup>3</sup> Indicate each applicable tax separately.

We also confirm that commercial warrantee/guarantee of 12months shall apply to the offered goods.

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 agreements with competitors.

**Signature of Supplier**



**MEGHALAYA BASIN MANAGEMENT AGENCY (MBMA)**

Regd. Address: House No. L/ A-56 Lower Nongrim Hills,  
Shillong, East Khasi Hills, Meghalaya- 793003  
(CIN No. U75144ML2012NPL008509)  
Phone: +91-364- 2522921/2522992  
Website: [www.mbda.gov.in](http://www.mbda.gov.in), E-mail: [mbdaprocurement@gmail.com](mailto:mbdaprocurement@gmail.com)

**SUPPLY ORDER**

To:

M/s

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Dear Sirs,

Sub: Supply of .....  
.....

Reference: Your Quotation no..... Dated .....

1. Your quotation no.....of .....(Date) for the supply of ..... **has been accepted. You are requested to** supply the following goods/equipment at the rates quoted by you and specified against each as per the specifications and terms & conditions specified hereunder:

SL.No	Brief description of goods/ equipment	Specifications	Quantity to be supplied	Unit Rate (Rs.)	Total Price (Rs.)
Lot # 1					
Lot # 2					
Lot # 3					
			Total		

1. Delivery Period: .....days from the date of issue of this supply order.
2. Place of delivery .....
3. Consignee Address: .....
4. GST if any will be paid at actual prevailing on the date of supply (if not already included in the cost above.
5. Extended Warranty/Guarantee shall be 12months from the date of delivery and acceptance.
6. Payment shall be made within 60 days of delivery; and acceptance of the goods/equipment.



**(Purchaser)**

Date:

Name: Shri Shantanu Sharma, IAS

Designation: Executive Director&

Additional Project Director, CLLMP, MBMA

Place: Shillong, Meghalaya

## REVISED SPECIFICATIONS

SL No	ITEM	Technical Specifications	Qty
1.	Drone Type 1	<p><b>Advanced Drone -1 with compatible Tablet device</b>  Max takeoff weight: 900 gm  Diagonal distance: min 350 mm  Max Ascent Speed : 5 m/s (S-mode), 4 m/s (P-mode)  Max Descent Speed : 3 m/s (S-mode), 3 m/s (P-mode)  Max Speed (near sea level, no wind) : 72 kph (S-mode)  Max Service Ceiling Above Sea Level : 6000 m  Max Flight Time (no wind) : 31 minutes (at a consistent 25 kph)  Max Hovering Time (no wind): 29 minutes  Max Flight Distance (no wind): 18 km (at a consistent 50 kph)  Max Wind Speed Resistance: 29–38 kph  Max Tilt Angle: 35° (S-mode, with remote controller) 25° (P-mode)  Max Angular Velocity: 200°/s  Operating Temperature Range: -10°C to 40°C  Operating Frequency: 2.400 - 2.483 GHz, .725 - 5.850 GHz  Transmission Power (EIRP): 2.400 - 2.483 GHz, FCC: ≤26 dBm, CE: ≤20 dBm.  SRRC: ≤20 dBm, IC: ≤20 dBm, 5.725-5.850 GHz, FCC: ≤26 dBm, CE: ≤14 dBm, SRRC: ≤26 dBm  GNSS: GPS+GLONASS  Hovering Accuracy Range : Vertical:± 0.1 m (when vision positioning is active), ± 0.5 m (with GPS positioning)  Horizontal:: ± 0.3 m (when vision positioning is active), ± 1.5 m (with GPS positioning)  Internal Storage: :8 GB  <b>SENSING SYSTEM</b>  Sensing System :Omnidirectional Obstacle Sensing<sup>1</sup>  Forward: Precision Measurement Range: 0.5 - 20 m, Detectable Range: 20 - 40 m, Effective Sensing Speed: ≤ 14m/s, FOV: Horizontal: 40°, Vertical: 70°  Backward: Precision Measurement Range: 0.5 - 16 m, Detectable Range: 16 - 32 m, Effective Sensing Speed: ≤ 12m/s, FOV: Horizontal: 60°, Vertical: 77°  Upward: Precision Measurement Range: 0.1 - 8 m  Downward: Precision Measurement Range: 0.5 - 11 m, Detectable Range: 11 - 22 m  Sides: Precision Measurement Range: 0.5 - 10 m, Effective Sensing Speed: ≤ 8m/s, FOV: Horizontal: 80°, Vertical: 65°  Operating Environment: orward, Backward and Sides:, Surface with clear pattern and adequate lighting (lux &gt; 15)  Upward:, Detects diffuse reflective surfaces (&gt;20%) (walls, trees, people, etc.),  Downward:  Surface with clear pattern and adequate lighting (lux &gt; 15), Detects diffuse reflective surfaces (&gt;20%) (walls, trees, people, etc.)  <b>CAMERA</b>  Sensor: 1/2.3" CMOS  Effective Pixels: 12 million  Lens:  FOV: about 83° (24 mm); about 48° (48 mm)  35 mm Format Equivalent: 24-48 mm  Aperture: f/2.8 (24 mm)–f/3.8 (48 mm)  Shooting Range: 0.5 m to ∞</p>	1

		<p>ISO Range  Video:100-3200  Photo:100-1600 (auto), 100-3200 (manual)  Shutter Speed: Electronic Shutter: 8–1/8000s  Still Image Size :4000×3000  Still Photography Modes: Single shot  Burst shooting: 3/5/7 frames  Auto Exposure Bracketing (AEB): 3/5 bracketed frames at 0.7 EV Bias  Interval (JPEG: 2/3/5/7/10/15/20/30/60s RAW:5/7/10/15/20/30/60s)  Video Resolution:  4K: 3840×2160 24/25/30p  2.7K: 2688×1512 24/25/30/48/50/60p  FHD: 1920×1080 24/25/30/48/50/60/120p  Max Video Bitrate: 100Mbps  Color Mode: D-Cineline  Supported File System : FAT32 (≤ 32 GB), exFAT (&gt; 32 GB)  Photo Format : JPEG / DNG (RAW)  Video Format: MP4 / MOV (MPEG-4 AVC/H.264, HEVC/H.265)  GIMBAL  Mechanical Range: Tilt: -135–45° Pan: -100–100°  Controllable Range :Tilt: -90–30° Pan: -75–75°  Stabilization: 3-axis (tilt, roll, pan)  Max Control Speed (tilt): 120° /s  Angular Vibration Range: ±0.01°  REMOTE CONTROLLER  Operating Frequency: 2.400 - 2.483 GHz; 5.725 - 5.850 GHz  Max Transmission Distance (unobstructed, free of interference): 2.400 - 2.483 GHz; 5.725 - 5.850 GHz, FCC: 8000 m, CE: 5000 m, SRRC: 5000 m, MIC: 5000 m  Transmission Power (EIRP) : 2.400 - 2.483 GHz, FCC: ≤26 dBm, CE: ≤20 dBm, SRRC: ≤20 dBm, IC: ≤20 dBm, 5.725-5.850 GHz, FCC: ≤26 dBm, CE: ≤14 dBm, SRRC: ≤26 dBm</p>	
2.	Drone Type 2	<p><b>Advanced Drone -2 compatible Tablet device</b>  Max takeoff weight: 900 gm  Diagonal distance: min 350 mm  Max Ascent Speed : 5 m/s (S-mode), 4 m/s (P-mode)  Max Descent Speed : 3 m/s (S-mode), 3 m/s (P-mode)  Max Speed (near sea level, no wind) : 72 kph (S-mode)  Max Service Ceiling Above Sea Level : 6000 m  Max Flight Time (no wind) : 31 minutes (at a consistent 25 kph)  Max Hovering Time (no wind): 29 minutes  Max Flight Distance (no wind): 18 km (at a consistent 50 kph)  Max Wind Speed Resistance: 29–38 kph  Max Tilt Angle: 35° (S-mode, with remote controller) 25° (P-mode)  Max Angular Velocity: 200°/s  Operating Temperature Range: -10°C to 40°C  Operating Frequency: 2.400 - 2.483 GHz, .725 - 5.850 GHz  Transmission Power (EIRP): 2.400 - 2.483 GHz, FCC: ≤26 dBm, CE: ≤20 dBm.  SRRC: ≤20 dBm, IC: ≤20 dBm, 5.725-5.850 GHz, FCC: ≤26 dBm, CE: ≤14 dBm, SRRC: ≤26 dBm  GNSS: GPS+GLONASS  Hovering Accuracy Range : Vertical:± 0.1 m (when vision positioning is active), ± 0.5 m (with GPS positioning)</p>	1

		<p>Horizontal: ± 0.3 m (when vision positioning is active), ± 1.5 m (with GPS positioning)  Internal Storage: :8 GB  <b>SENSING SYSTEM</b>  Sensing System :Omnidirectional Obstacle Sensing<sup>1</sup>  Forward: Precision Measurement Range: 0.5 - 20 m, Detectable Range: 20 - 40 m, Effective Sensing Speed: ≤ 14m/s, FOV: Horizontal: 40°, Vertical: 70°  Backward: Precision Measurement Range: 0.5 - 16 m, Detectable Range: 16 - 32 m, Effective Sensing Speed: ≤ 12m/s, FOV: Horizontal: 60°, Vertical: 77°  Upward: Precision Measurement Range: 0.1 - 8 m  Downward: Precision Measurement Range: 0.5 - 11 m, Detectable Range: 11 - 22 m  Sides: Precision Measurement Range: 0.5 - 10 m, Effective Sensing Speed: ≤ 8m/s, FOV: Horizontal: 80°, Vertical: 65°  Operating Environment: orward, Backward and Sides:, Surface with clear pattern and adequate lighting (lux &gt; 15)  Upward:, Detects diffuse reflective surfaces (&gt;20%) (walls, trees, people, etc.),  Downward:  Surface with clear pattern and adequate lighting (lux &gt; 15), Detects diffuse reflective surfaces (&gt;20%) (walls, trees, people, etc.)  <b>CAMERA</b>  Sensor:, 1" CMOS, Effective Pixels: 20 million  Lens: FOV: about 77°, 35 mm Format Equivalent: 28 mm, Aperture: f/2.8–f/11, Shooting Range: 1 m to ∞  ISO Range: Video:100-6400, Photo:: 100-3200 (auto), 100-12800 (manual)  Shutter Speed: Electronic Shutter: 8–1/8000s  Still Image Size: 5472×3648  Still Photography Modes: Single shot: Burst shooting: 3/5 frames, Auto Exposure Bracketing (AEB): 3/5 bracketed frames at 0.7 EV Bias, Interval (JPEG): 2/3/5/7/10/15/20/30/60s RAW:5/7/10/15/20/30/60s)  Video Resolution : 4K: 3840×2160 24/25/30p, 2.7K: 2688x1512 24/25/30/48/50/60p, FHD: 1920×1080 24/25/30/48/50/60/120p  Max Video Bitrate: 100Mbps  Color Mode: Dlog-M (10bit), support HDR video (HLG 10bit)  Supported File System: FAT32 (≤ 32 GB),exFAT (&gt; 32 GB)  Photo Format: JPEG / DNG (RAW)  Video Format: MP4 / MOV (MPEG-4 AVC/H.264, HEVC/H.265)  <b>GIMBAL</b>  Mechanical Range: Tilt: -135–45° Pan: -100–100°  Controllable Range :Tilt: -90–30° Pan: -75–75°  Stabilization: 3-axis (tilt, roll, pan)  Max Control Speed (tilt): 120° /s  Angular Vibration Range: ±0.01°  <b>REMOTE CONTROLLER</b>  Operating Frequency: 2.400 - 2.483 GHz; 5.725 - 5.850 GHz  Max Transmission Distance (unobstructed, free of interference): 2.400 - 2.483 GHz; 5.725 - 5.850 GHz, FCC: 8000 m, CE: 5000 m, SRRC: 5000 m, MIC: 5000 m  Transmission Power (EIRP) : 2.400 - 2.483 GHz, FCC: ≤26 dBm, CE: ≤20 dBm, SRRC: ≤20 dBm, IC: ≤20 dBm, 5.725-5.850 GHz, FCC: ≤26 dBm, CE: ≤14 dBm, SRRC: ≤26 dBm</p>	
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3	<p>3D Photogrammetry Processing Software for Drone</p>	<ul style="list-style-type: none"> <li>• <b>Capture-</b> Gather RGB, thermal or multispectral images with any camera. If you are using a drone, automate flight and image-data transfer.</li> <li>• <b>Digitize-</b> Transforms images into digital spatial models. Seamlessly process projects using the cloud or the desktop photogrammetric digitization platform.</li> <li>• <b>Check-</b> Assess and improve the quality of the project. The quality report gives a preview of the generated results, calibration details, and many more project quality indicators.</li> <li>• <b>Measure &amp; inspect-</b> Measure distances, areas, and volumes. Extract elevation profile data and perform virtual inspections.</li> <li>• <b>Collaborate &amp; share-</b> Streamline project communication and teamwork. Selectively and securely share project data and insights with the team, clients, and suppliers.</li> </ul> <p>Can process 3D data (point cloud, 3D mesh, etc), generate DTM, perform cut and fill and so on</p> <p>Automatic point cloud classification, flatten and smoothen digital surfaces, easily measure surface, distance, volume &amp; elevation, Inspect &amp; Annotate</p> <p>Warranty should be included</p>	1
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- **Time Schedule for supply of materials:** 60 Days from issue of work order.