



Specific Procurement Notice

Request for Quotations

Country: Zambia and Zimbabwe

Name of Project: Kariba Dam Rehabilitation Project

Contract Title: Unmanned Aerial Vehicle (UAV) for Site Monitoring (Drone)

Loan No./Credit No./ Grant No.: ADF Loan 2100150032548; ADF Grant 2100155029116; TSF Grant 590015; WBG Cr#5563-ZM)

RFB Reference No.: ZRA-KDRP-NC-02-23

1. The Zambezi River Authority (“**the Authority**”) received financing from the African Development Bank (AfDB), European Union, the Swedish Government and the World Bank’s International Development Associations (IDA) towards the cost of the Kariba Dam Rehabilitation Project and intends to apply part of the proceeds for the supply, delivery, testing, commissioning and training of staff in the utilization of an Unmanned Aerial Vehicle (UAV) for site monitoring (Drone).
2. The Authority is a corporate body jointly and equally owned by the Governments of Zambia and Zimbabwe (“**Contracting States**”) and is mandated with the management of the Kariba Complex and the stretch of the Zambezi River (from Kazungula to Kanyemba) forming a common border between the two Contracting States.
3. Bidding will be conducted through international competitive procurement using Request for Quotations (RFQ) as specified in the *World Bank’s Guidelines for Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers January 2011 edition*.
4. Description of Goods – capability and technical specifications of the UAV Equipment and Software
 - a. The UAV shall have the following capability and characteristics.
 - Usage: Mapping small to large scale areas – Construction monitoring
 - Application: Land surveying, GIS, natural hazards,

- Specs: Quadcopter or equivalent
 - Landing and take-off: Automated vertical take-off and landing
 - Range: not less than 50Km
 - Flight time: 30 minutes minimum
 - Lidar Module: Lidar Sensor/Module integrated with Camera
- b. The UAV shall comprise 2 cameras to be supplied which should be included in the supply offer:
- One that can be used to create topographic maps and DEMs,
 - Excavation and Quarries Monitoring (RGB, 42 MP, 1.5 cm resolution)
 - Useful for land cover mapping and vegetation indices extraction (RGB NIR RE/ LWIR: TIR, 4.5 cm per band and around 60 cm for thermal band).
 - Capable of a 4x Zoom
- c. The supply offer for the UAV should also include technical deliverables:
- Camera resolution: 42MP (RGB) minimum
 - Sampling distance: \approx 1.5 cm (RGB) minimum
 - Payload capability and compatibility: the payload should prove capability and compatibility to hold LiDAR scanners for future consideration.
 - Radio linkage range: > 7 km
 - Automatic 3D flight planning: Yes
 - Wind tolerance: 9 m\sec
 - GPS with compass: yes
 - PPK to reduce GNSS geotagging errors: Yes
 - Ground control Station: yes
 - GNSS reference station: yes
 - Automatic landing: linear and/or vertical landing with \leq 5m accuracy
 - Multi-drone operation: Yes
 - Software: flight planning & control software
 - Point Cloud: Real-time point clouds to provide immediate insights onsite for operators to informed critical decisions quickly.
 - Lidar Sensor: Frame Lidar with up to 100% effective point cloud results and integrated operation with Camera
4. Interested eligible Bidders may obtain further information and the Request for Quotations document from Zambezi River Authority, E-mail: Langton.Pfaira@zambezi.org during office hours 0800 hours to 1630 hours at Kariba House, 32 Cha Cha Cha Road, Lusaka, Zambia.

5. The Request for quotation document in English (Request for Quotation and Specifications) will be sent to interested Bidders upon the submission of a written application/request by email. The document will be sent by electronic e-mail.
6. Quotations must be delivered Electronically by Email on or before 28th April 2023 at 1600 hours Zambia local time. Submit quotation in PDF format. Late Bids/Quotations will be rejected.

Submit by **E-MAIL ONLY in PDF on or before 28th April 2023, 1600hrs on the following Electronic E-mail Tender Box.**

Electronic Email Tender Box: uavdrone@zambezi.org

The Quotations must be addressed to;
The Chief Executive
Zambezi River Authority
Kariba House, 32 Cha Cha Cha Road
Lusaka, Zambia.
Tel.: +260 211 227970-3

Att: Manager Procurement