

No. WAP/KGHEP/Quot./2017/

Dated: 8th July, 2017

Tender Document

Name of the Work: Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan.



**WAPCOS LIMITED
(A Govt. of India Undertaking)
OFFICE OF THE SENIOR PROJECT MANAGER
KURI-GONGRI HYDRO ELECTRIC PROJECT
NGANGLAM, BHUTAN**

Contact Officer:

**Sr. Project Manager,
Plot No. 204/C, nearby Dungkhag Office,
Nganglam, (Bhutan).
Ph: +975-7-481034, Fax: +975-7-481011,
wapcoskghep@gmail.com**

July, 2017

1. General Information

WAPCOS Limited is a “MINI RATNA” Public Sector Enterprise under the aegis of the Union Ministry of Water Resources, River Development and Ganga Rejuvenation. Incorporated on June 26th, 1969 under the Companies Act, 1956, with recent amendment in its Articles of Association, WAPCOS Limited has geared itself to provide Concept to Commissioning services for developmental projects across the globe. An ISO 9001:2008 certified, WAPCOS Limited always strives to provide state-of-the-art technology, cost effective solutions and on-time implementation and delivery of projects to its clients across the world. WAPCOS Limited provides consultancy services in all facets of Water Resources, Power and Infrastructure sectors in India and Abroad.

2. Scope of Work

The scope of work shall be **Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan** which includes extraction of lineament using remote sensing technique to carry out, lithological mapping, structural mapping, landslide and geomorphological mapping through limited field check, planning and drawing of cross-sections, data compilation, ground verification and categorization of lineaments and report writing. The below mentioned items will be the part of scope of work:

- i. Quantum and area of work:
 - a. An area of 300 Km² in and around Kuri-Gongri Hydro-electric Project. The area of interest is confined between Lat 26.974° to 27.200° and Long 91.135° to 91.387°.
 - b. The Bill of Quantities is given as Annexure-VI and a sketch is attached demarcating the area to be studied.
- ii. Preparatory Works:
 - c. Procurement of satellite images, aerial photos and DEM etc.
 - d. Collection of published geological data
- iii. Desk top study
 - a. Literature Review
 - b. Digitization of maps
 - c. Processing of satellite images using combination of software including ARCGIS, ENVI, PC Geometica, and Rockworks.

- d. Extraction, interpretation and categorization of lineaments using remote sensing technique.
- e. Undertake lithological and structural, geomorphological mapping and landslide mapping using remote sensing technique/ aerial photo interpretation.
- iv. Compilation of maps
 - a. Compilation of extracted lineaments preferably on a map of scale 1:25,000 and perform lineament analysis on ARCGIS platform.
 - b. Identification and categorization of lineaments into structural and non-structural origin.
- v. First field verification

Undertake lithological and structural mapping, geomorphological mapping and landslide mapping through limited field check.
- vi. Compilation of field data

Compilation of field data (lithology, structure, landslides/ slope instability and geomorphology) on the maps of 1:25,000 scales.
- vii. Second verification
 - a. To gather additional information/data on lithology, structure, lineaments, geomorphology etc during ground check and through remote sensing/aerial photographs.
 - b. Verification of the above information/data through limited ground check.
 - c. Categorization of lineaments like faults, folds, master joints etc.
- viii. Preparation of Report
 - a. Preparation of final geomorphological, geological, and structural maps separately.
 - b. Preparation of landslide Zonation Map and other aspect maps related to landslide Zonation.
- ix. Submission of Report
 - a. To apprise the findings, especially the structure and various lineaments to technical officials of project on ground.
 - b. The final report completed in all aspects along-with maps and drawings to be submitted in 05 colour sets as well as soft copy.

3. General Terms and Conditions

The tender shall be submitted in three parts:

Part - I: EMD

Part - II: Eligibility criteria for Bidders

Part- III: Financial proposal

Each of the three parts mentioned above shall be sealed in separate envelopes duly super scribing Part – I (EMD), Part-II (Eligibility criteria for Bidders) and Part –III (Bill of Quantity). The three envelopes shall be placed under one sealed cover duly super scribing the name of the work before submission.

- 3.1 The Part - I (EMD) and Part-II (Eligibility criteria for Bidders) must contain the documents as given in clause no. 4 along with signature of the competent authority and company stamp on every page of the tender document along with the bid.
- 3.2 The Part -III (Financial proposal) the bidder shall submit cost of work (inclusive of all taxes) duly filled in the Pro-forma attached at **Annexure -VI** (Bill of Quantity) only.
- 3.3 The Tender document shall be available on the website i.e. <http://www.moea.gov.bt> from the date of publishing of the tender and shall remain online for download. **The bids received without EMD or EMD in any other form except demand draft shall be summarily rejected.**
- 3.4 The bids shall be accompanied by an EMD of **Nu. 12000/-** in the form of a **Demand Draft** drawn in favour of **“WAPCOS Limited” payable at Nganglam, Bhutan**. The EMD must be placed in the envelope super scribing Part-I (EMD). No other form of EMD shall be accepted. The bids received without EMD or any other form of EMD shall be summarily rejected. The EMD of unsuccessful bidder shall be returned after the award of work to the successful bidder. EMD of the successful bidder shall be returned on the completion of the contract.
- 3.5 WAPCOS reserves the right to accept or reject any Bid/Proposal without assigning any reason thereof.
- 3.6 Incomplete bids or bids received after the last date and time of submission of tender as mentioned in the tender document shall not be considered under any circumstances.
- 3.7 Bidder must submit a **Letter of Acceptance** on his Company’s letterhead within 10 days from the date of issue of Work Order, failing which the EMD deposited by the bidder shall be forfeited and work may be awarded to second lowest bidder.
- 3.8 Time for the completion of work:
 - i. Four month from the date of **Letter of Acceptance**.

4. Eligibility Criterion for Bidders

- 4.1 Bidder must submit a proof of Tax registrations.
- 4.3 Bidder must submit a proof of at least one Work Order and Successful completion certificate of similar works done.
- 4.5 Bidder those who are under a declaration of ineligibility for Corrupt and Fraudulent Practices issued by the Royal Govt. of Bhutan (RGoB) shall not be allowed to participate in the bid. A declaration/undertaking denying such involvement shall be submitted by the bidders/ and by the each associates/partners along with the bid.

5. Financial Conditions

- 5.1 Bidder must quote the **total cost inclusive of all taxes, duties** etc. for Lineament Mapping in the project area of Kuri-Gongri H. E. Project, Nganglam, Bhutan.
- 5.2 No additional payment shall be entertained by WAPCOS Limited i.e. Custom charges, Courier charges etc.

6. Variation in quantity

- 6.1 If the quantities are increased or decreased than the estimated quantities, the same shall continue to be paid at the fixed rate quoted by the consultant. However, extension of time may be given accordingly, for additional work without increasing the rates.

7. Liquidated Damages

- 7.1 In case of any delay, the successful bidder shall request WAPCOS Limited, in writing, for the extension in duration of delivery with appropriate reason of delay.
- 7.2 The grant of extension of period shall be solely at the discretion of WAPCOS Limited based on the genuineness of the reason of the delay provided by the successful bidder vide their request letter.
- 7.3 In case the successful bidder fails to complete work in the stipulated time including the extension of delivery period (only if permitted by WAPCOS Limited), as the case may be, the liquidated damages as mentioned in clause no-6.4 shall be applicable.
- 7.4 The liquidated damages shall be imposed as follows:

Table- 2

No.	Condition	LD%
a.	Delay up to three week	2.5 %
b.	Delay exceeding three weeks or equal to four weeks.	5.0 %

Note: - Fraction of a day in reckoning period of delay shall be eliminated if it is less than half a day. The maximum amount of agreed Liquidated damages shall be 5 % of total contract value.

7.5 In case the bidder fails to complete the work even after Table- 2 (d), WAPCO Limited reserves the right to cancel the work without any financial Liability and the bidder is likely to be blacklisted.

8. Terms of Payment

8.1 Payment in respect of the awarded Lineament Mapping work shall be made as follows:

S. No.	Payment	Milestone
1.	10% of contract value	After signing of agreement for the awarded work, Data procurement and submission of inception report
2.	70 % of contract value	Submission of Draft Report
3.	20 % of contract value	Submission and acceptance of Final Report

8.2 As regards the Income Tax, Surcharge on Income tax, any other Taxes such as Corporate Tax, & Work Contract Tax, WAPCOS shall not bear any Tax liability whatsoever. The contractor shall be liable and responsible for payment of such Tax if attracted under the provisions of law present or future in India as well as in Bhutan and WAPCOS will make deductions at source as applicable. The certificate towards the deduction shall be issued by WAPCOS Ltd.

9. Force Majeure

Force majeure is hereby defined as cause which is beyond the control of the successful bidder and WAPCOS Limited as the case may be, which they did not foresee or with a reasonable amount of diligence could not have been foreseen and which substantially affects the performance of contract, such as:

- 9.1 Natural phenomena including but not limited to floods, draughts, earthquakes and epidemics.
- 9.2 Acts of any government, domestic or foreign, including but not limited to war, declared or undeclared priorities, quarantines, embargoes, provided by either party within ten (10) days from the occurrence of such causes notify in writing of such causes.
- 9.3 Should the occurrence of Force Majeure last for more than 45 days, both parties have the right to cancel the contract. In such a case, the successful bidder shall be paid for all the work completed in meaningful manner or which has been carried out or performed before Force Majeure.

10. Resolution of Dispute

10.1 In case of any dispute or differences out of the contract in connection with the contract, the same shall be referred to the Sole Arbitrator, who shall be appointed by the CMD, WAPCOS Ltd. The award of the arbitrator shall be final and binding on both the parties.

11. Bids/Tenders

Sealed tenders are to be submitted on or before 24th July, 2017 at 15:00 hours to the below mentioned address. Sealed envelope containing Bid should be superscripted as:-

“Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan”

**Sr. Project Manager,
WAPCOS Limited
(A Govt. of India Undertaking)
Plot No. 204/C, nearby Dungkhag Office,
Nganglam, (Bhutan).
Ph: +975-7-481034; +975-7-481011,
wapcoskghep@gmail.com**

OR

**The Project Manager
Kuri-Gongri Hydroelectric Project
Department of Hydropower & Power Systems
Ministry of Economic Affairs
Thimphu, Bhutan
P.O.Box- 106; Ph (o) - 2333416**

The financial bid of technically qualified vendors shall be opened within ten (10) working days by the committee members on the date & time intimated to technically qualified bidders.

On behalf of WAPCOS Ltd

**(-s/d-)
Sr. Project Manager,
WAPCOS LIMITED**

FORMS TO BE SUBMITTED

Letter of Proposal
(On Bidder's Letter Head)

To,
Sr. Project Manager,
WAPCOS Limited
(A Govt. of India Undertaking)
Plot No. 204/C, nearby Dungkhag Office,
Nganglam, (Bhutan).
Ph: +975-7-481034; +975-7-481011,
wapcoskghep@gmail.com

Sir,

We, the undersigned bidder having read and examined in detail the Scope of work and the Conditions of Contract, do hereby furnish our proposal to carry out the work “**Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan**”.

1. We declare that the Services will be rendered strictly in accordance with the Technical Specifications and other Bid documents.
2. In line with the requirement of the bidding documents, we have enclosed the duly filled-in item wise Bill of Quantity (BOQ) for the total Bid price.
3. We are agreeable to the Terms of Payment and other conditions given in the tender document.
4. We agree that if this proposal is accepted by you, we will complete the entire work in accordance with the work Schedule / Time Schedule stipulated.

Date:

Place:

Signature

Name:

Designation

Seal:

Annexure – I
FORM FOR QUOTATION

Name of Work: “Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan”

Bidder’s Proposal Ref. No. & Date	:	
Bidder’s Name & Address	:	
Person to be contacted	:	
Designation	:	
Mobile No.	:	
Telephone No.	:	
E-Mail	:	

Annexure – III

ANNUAL TURNOVER OF THE BIDDER FOR LAST 3 YEARS
(Copies of Audited Balance Sheets to be attached)

Sl. No.	Year	Annual Turnover (Nu.)
1.		
2.		
3.		
	Average	

Annexure-IV

APPROACH & METHODOLOGY OF WORK AND MANNING SCHEDULE

Annexure-V

SUGGESTED FORMAT OF CV FOR MEMBERS OF CONSULTANT'S TEAM

Name:

Present Designation:

Years with Firm/Organization:

Area of Specialization:

Proposed Position in Team:

Key Qualification:

Education:

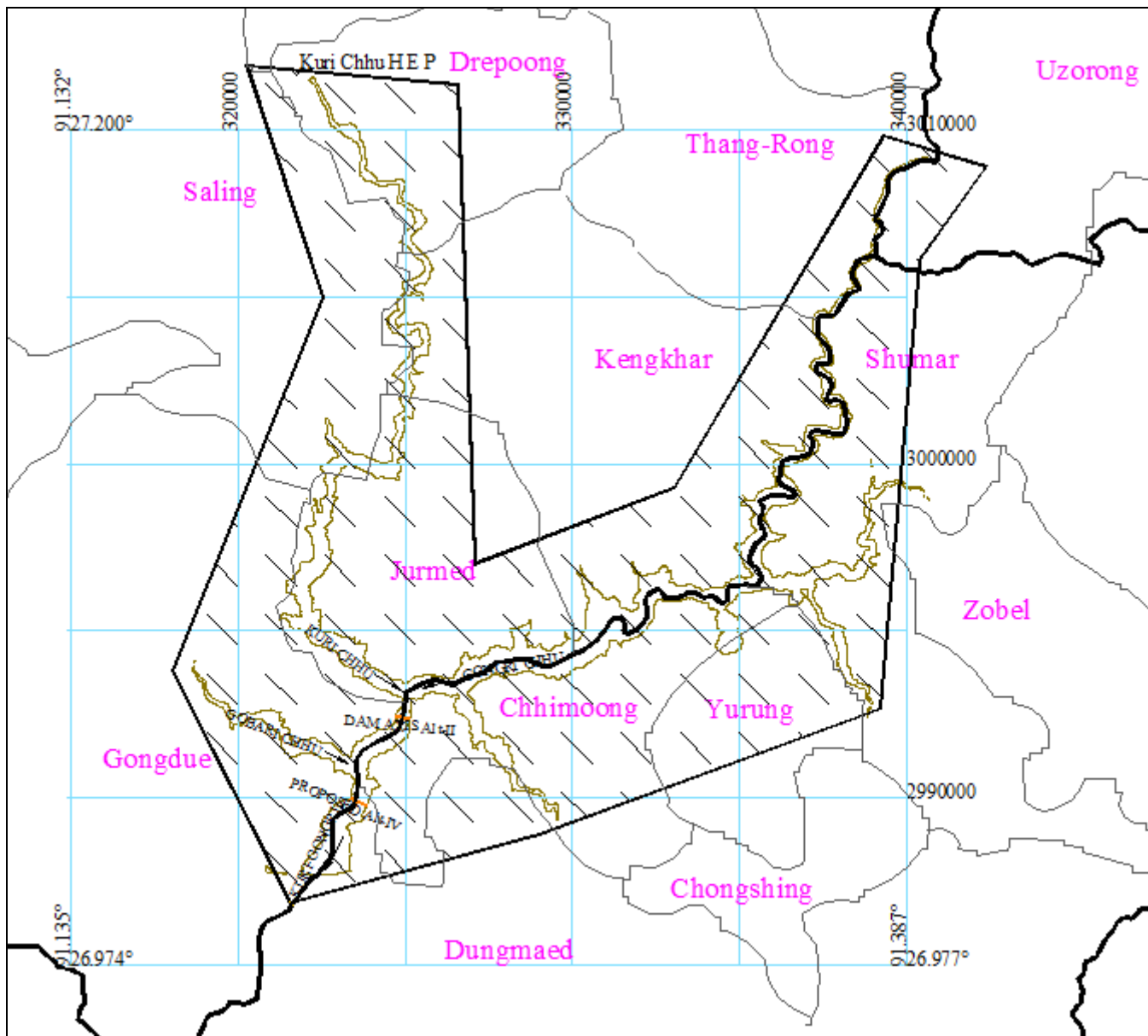
Work Experience:

Language:

(Indicate proficiency in speaking, reading and writing of each language by "Excellent", "Good" or Poor").

Signature of Staff Member

Date:-.....



Sketch showing the area to be studied

Bill of Quantities

Name of the Work: Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan

Sr. No	Description	Unit	Qty	Rate (Nu/ km ²)	Amount (Nu.)
1.	Lineament mapping in the project area of Kuri - Gongri H. E. Project, Nganglam, Bhutan which includes extraction of lineament using remote sensing technique, to carry out lithological mapping, structural mapping, landslide and geomorphological mapping, planning and drawing of cross-sections, data compilation, ground verification and categorization of lineaments, report writing and submitting the same in requisite sets of hard & soft copies.	km ²	300.0		
	TOTAL Nu.				
TOTAL in words (inclusive of all taxes except Service Tax)					