

**Request for Proposal for Supply of Digital Terrain Model
(DTM) for Specified areas of River Basins of Union
Territories of Jammu & Kashmir and Ladakh**

[Abstract](#)

Supply of Digital Terrain Model (DTM) for Specified areas of River
Basins of Union Territories of Jammu & Kashmir and Ladakh

Date 13 Nov 2020

Contact address
muralikrishna.m@rmsi.com

Tender Summary

Tender Title: Terms of Reference for Supply of Digital Terrain Model (DTM) for Specified Areas of River Basins of Union Territories of J&K and Ladakh

Contract Period: 4 months

Package Number: 4/DTM/2018-02

Date of Issue: 13th Nov 2020

Pre-Proposal Meeting: Nil

Queries: By email on or before 19th Nov 2020

Selection process: Technical and Financial Proposal Evaluation

Mode of Submission: By email in 'pdf' format – separate technical and financial proposals. Financial proposal should be **password protected**

Bid Closing Date: 23 rd Nov 2020, 17.00 IST.

1. General Condition for Bidders

RMSI Private Limited is inviting proposal from reputed firms for supply of Digital Terrain Model (DTM) for Specified areas of Union Territories of J&K and Ladakh River Basins. This is as part of the Multi Hazard Risk Assessment Project RMSI is implementing for the Government of J&K (Jhelum Tawi Flood Recovery Project; PMU-JTFRP) under the funding of the World Bank.

RMSI reserves the right to accept or reject any or all proposals without incurring any obligation to inform the affected applicant/s of the grounds. RMSI also reserves the right to allocate the work to multiple vendors. The cost of preparation of the proposal is the responsibility of the vendor. The eligibility criteria will be first evaluated as defined below for each bidder. Detailed technical evaluation will be taken up in respect of only those bidders, who meet with the prescribed eligibility criteria. RMSI will provide in writing to the PMU-JTFRP, all observations regarding acceptance or rejection of proposal of bidders.

2. Eligibility Criteria for participating Consultancy Firm

S. No.	Minimum criteria	Document proof
1.	A legal entity registered in India or outside India and in operations for at least 3 years.	Registration certificate copy/ proof of incorporation/ commencement of business
2.	Annual average turnover of firm for the last 3 financial years should be at least INR 1 crores	Certified audited copy of financials for last three years
3.	Executed at least one similar project of INR 0.5 crore in the last 5 years in India or elsewhere.	Work order or Completion certificate

3. Area of Interest

Under this RFP, we are inviting quotation for two packages (Package 1 and Package 2) and the vendors are free to quote for both the packages and single package. Evaluation will be carried out separately for each package and separate contracts will be issued for each package.

Package 1: Supply of 1.0 m resolution Digital Terrain Model (DTM) for rest of River Basins of UT of J&K and UT of Ladakh

Package 2: Supply of 0.5 m resolution Digital Terrain Model (DTM) for Jhelum River Basins, UT of J&K.

The eligibility and qualification criteria is same for both the packages. Technical methodology should be submitted separately for the two packages. The financial proposal for the two packages should be submitted separately as password protected pdf.

4. Submission of Quotation

Technical and Financial proposal should be submitted in pdf format by email to muralikrishna.m@rmsi.com before 17.00 IST on 23rd Nov 2020. The email subject line should clearly mention the title of package 1 or 2. The receipt date and time of email containing proposal will be considered as the time of receipt of the proposal.

The **financial proposal** should be submitted in pdf and password protected. RMSI will ask the technically qualified vendors to provide the **password of the financial proposal to designated email id of PMU**.

5. Bid Submission format

The following information should be included in the technical proposal:

1. Covering letter (1 page)
2. Firms profile and experience (2 pages)
3. Firms experience of working in similar projects (1 page case study maximum of 5 case studies and work order/completion certification for each case study)
4. Brief Methodology for DTM generation and quality assurance criteria (5 pages)
5. Registration certificate copy
6. Certified audited copy of financials for last three years
7. Work order or completion certificate

The following information should be included in the financial proposal:

1. Cover letter
2. Financial proposal should be quoted in Indian Rupees per sq km (considering the total study area) as per the financial proposal performa attached in annexure. **This document must be password protected.** The applicable tax and any other service fee (of NRSC) amount should be mentioned separately. Tax amount and service fee will not be considered for evaluation. Tax will be as per government rules.

6. Queries

Any queries should be submitted by email before 5 PM on 19th Nov 2020 and RMSI will provide its response by 20th Nov 2020 by 5 PM. Queries should be submitted by email to muralikrishna.m@rmsi.com.

The query responses will be shared with all vendors.

7. Evaluation criteria

Following criteria will be considered for the evaluation of the bid:

1. Firms profile and experience (20 marks)

2. Firms experience working in similar projects (2 projects minimum) (30 marks)
3. Brief Methodology and quality assurance criteria (5 pages only) (30 marks)
4. Experience working in India or elsewhere (20 marks)

Minimum qualification marks: Minimum of 75 marks on technical proposal is required to qualify for financial proposal opening.

8. Financial bid opening

The technically qualified firms will be requested to submit the password of the financial proposal. The financial bid will be opened in the presence of PMU, JTFRP.

9. Contract award

A firm will be selected under Least Cost Selection (LCS) Method. RMSI will select the lowest Financial Proposal of a vendors whose Technical Proposal has qualified.

10. Delay damages

A delay damage amount of INR 10,000 per day of delay in delivery with a maximum ceiling of 5% of the contract value is applicable.

11. Payment Terms

Payment terms will be 20% as advance against Bank Guarantee, 50% on submission of the DTM and balance 30% after the approval of the DTM data submitted.

Note: The contract term is for 4 months and the final deliverable should be submitted by 4 months from signing of contract.

Terms of Reference for Supply of Digital Terrain Model (DTM) for Specified areas of River Basins of Union Territories of J&K and Ladakh

Introduction

RMSI is implementing the Multi-hazard Risk Assessment project for the Government of J&K under Jhelum Tawi Flood Recovery Project; JTFRP, funded by the World Bank. As part of this project there is a need to understand the terrain of River Basins to carry out the flood modeling.

Requirement

The Firms should supply Digital Terrain Model (DTM) for Specified areas of River basins of UTs of J&K and Ladakh for the two packages as per the specification mentioned below:

Package 1: Supply of 1.0 m resolution Digital Terrain Model (DTM) for rest of River Basins of UTs of J&K and Ladakh.

Table 1: Technical Specification for 1.0 m DTM (Package 1)

Area (Sq km)	Resolution (meter)	Vertical Accuracy*	Horizontal Accuracy	Vintage**
10,178	0.5	1.0 m LE90	1.0 m LE90	2016 and newer

* Vendor can suggest in case they can provide better vertical accuracy

** In case vendor proposed to use satellite data product to extract DTM.

Package 2: Supply of 0.5 m resolution Digital Terrain Model (DTM) for Jhelum River Basins, of UT of J&K

Table 2: Technical Specification for 0.5 m DTM (Package 2)

Area (Sq km)	Resolution (meter)	Vertical Accuracy*	Horizontal Accuracy	Vintage**
1,200	0.5	0.5m LE90	0.5m LE90	2016 and newer

* Vendor can suggest in case they can provide better vertical accuracy

** In case vendor proposed to use satellite data product to extract DTM.

Scope of work

Supply of Digital Terrain Model (DTM) for Specified areas of River Basins of UTs of Jammu & Kashmir and Ladakh as per the specification mentioned under the Package 1 and 2 under the requirement section above.

Methodology

The vendor can suggest the right technology/method (including data product) for delivering the required DTM. Any approach which can provide better vertical accuracy will be given preference. In case, bidder wants to propose different methodology they are free to submit stating the advantage of different methodology, its accuracy level and financial quote. RMSI reserve the right to decide the methodology suitable for the assignment.

The technical proposal should contain a brief methodology (**separate methodology for the two packages**). The methodology should clearly explain how DTM is generated and quality control will be done by the vendor. Vendor needs to share the data which will be generated as part of quality validation process. In case vendor has to carry out field operation for collection of any data or information, RMSI will facilitate this by getting letters from the Government. It is the sole responsibility of vendor to conduct the field operations.

RMSI project manager & technical team will review the supplied data and provide comments if any regarding the quality of the data delivered.

Quality

The firm needs to provide high quality data outputs on time. Data of inferior quality will be rejected. The DTM delivery has to be completed in 4 months from the date of award of the contract.

In case the quality of delivered DTM is not good, RMSI will terminate the contract and consider the next bidder for the job. No payment will be given if the firm fails to deliver quality outputs.

Expected completion of work

The entire data should be delivered (for both the packages) in 4 months from date of award of the contract.

Tax

The firm should provide GST certificate or certificate proving exemption of GST/any tax along with the technical proposal. The financial proposal should clearly mention the total payable amount and the tax amount separately. The tax amount will not be considered during the evaluation of the bid.

Area of Interest for DTM Procurement

The area of interest (AOI) of package 1 and 2 are marked in Figure 1 and Figure 2. Details of area under the two AOIs are provided in Table 3.

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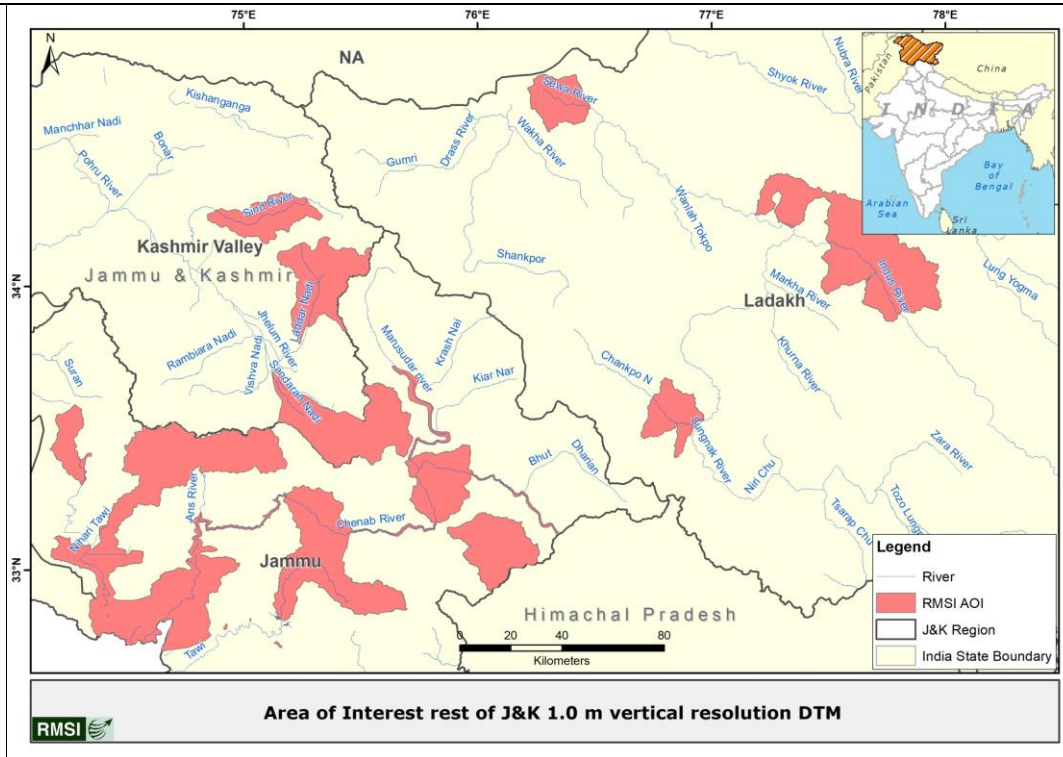


Figure 1: Package 1: Area of Interest for 1.0 m resolution DTM Procurement

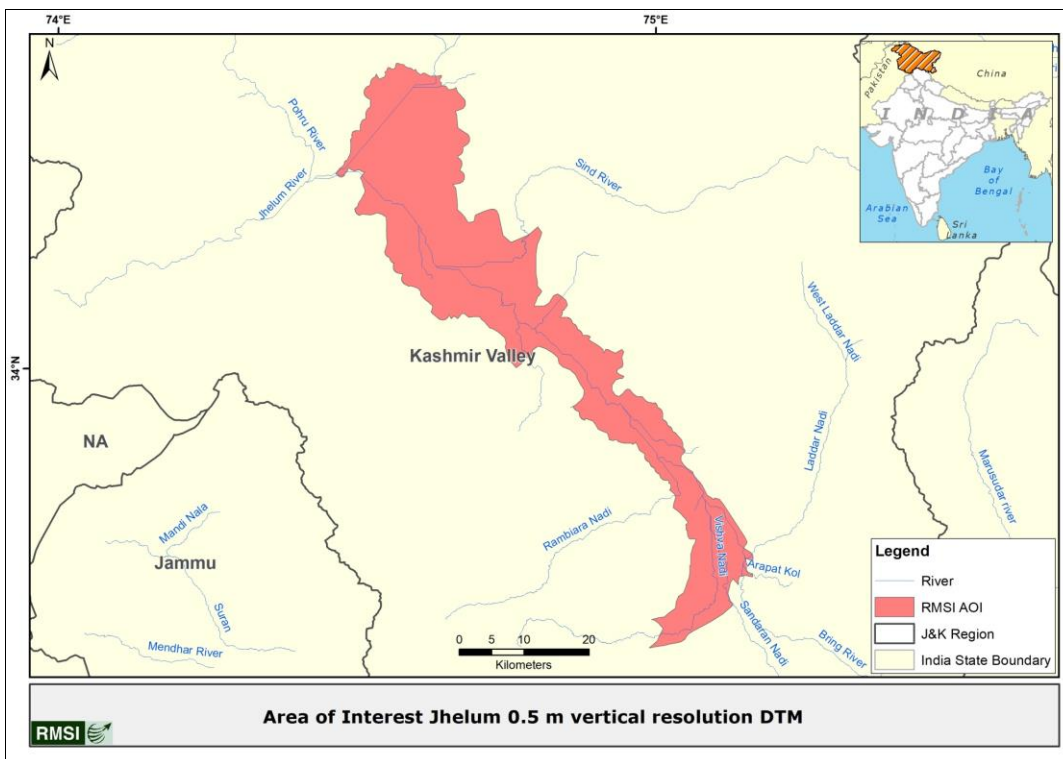


Figure 2: Package 2: Area of Interest for 0.5 m resolution DTM Procurement

Table 3: Region wise area details

Package	Area (Sq Km)	Vertical resolution
Package 1	10,178	1.0 m
Package 2	1,200	0.5 m

The shp /kmz file of the AOI is also enclosed.

Other instructions:

1. Vendor has to design appropriate number of GCPs required and establish their own GCP's as part of this assignment to get the desired quality.
2. Vendor has to follow the bench mark of Survey of India references.
3. Vendor should provide separate sealed financial proposal for the two packages and the evaluation will be conducted separately.
4. The data processing can be preferred at vendor's office premises.
5. Vendor needs to devise mechanism to provide good quality output.
6. As part of the final deliverable the vendor has to deliver elevation value and coordinates (attributes) and should be provided as Geotiff and ESRI grid. No need of delivering the satellite data however, the DTM will be exclusive property of PMU-JTFRP.

Support from RMSI/JTFRP

1. The image will be procured by the vendor from NRSC. RMSI/JTFRP will facilitate this.
2. RMSI/JTFRP will issue necessary letter to districts to permit vendor to carry out any field survey related to the assignment.

Annexure

Format for financial proposal of Package _____ :

S.No.	Unit Rate Per Sq km (INR)	Total Area (sq km)	Total Cost (INR)	Taxes