

GOVERNMENT OF UTTARAKHAND
Office of Superintending Engineer,
Research Circle
Irrigation Research Institute Roorkee-247667
E-mail: uttarkhandwrtd@gmail.com, Website: www.iriroorkee.res.in


e-Tender Notice No. : 02/SE(R)/2021-22 dated 14.06.2021

Superintending Engineer, Research Circle, Irrigation Research Institute, Roorkee, Uttarakhand on behalf of "Governor of Uttarakhand" invites online Expression of Interest for engaging Consulting Services for the Preparation of Detailed Project Report (DPR) for Fragile Slope Treatment and Sustainable Mitigation Works of Baliyanala, downstream of Tallital, Nainital, Uttarakhand

Key Dates

Key Dates			
1	Date of calling	14.06.2021	-
2	Date of Online uploading/Publishing	15.06.2021	03.00 PM
3	Date of Online downloading of EoI	15.06.2021	05.00 PM
4	Date of Start of submission of EoI	25.06.2021	03.00 PM
5	Late Date and Time of submission of EoI	07.07.2021	03.00 PM
6	Date and Time of Opening of EoIs	07.07.2021	03.30 PM

For further details please log on to www.uktenders.gov.in


Superintending Engineer
Research Circle
Irrigation Research Institute, Roorkee

**GOVERNMENT OF UTTARAKHAND
IRRIGATION DEPARTMENT**



NATIONAL COMPETITIVE BIDDING

**Expression of Interest (EOI) for Consulting
Services of**

**“Preparation of Detailed Project Report (DPR) for Fragile
Slope Treatment and Sustainable Mitigation Works of
Landslides of Baliyanala, downstream of Tallital, Nainital,
Uttarakhand”**



Irrigation Research Institute (IRI), Roorkee

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June, 2021

**SELECTION OF CONSULTANTS BY THE IRRIGATION DEPARTMENT
GOVT. OF UTTARAKHAND**

REQUEST FOR EXPRESSIONS OF INTEREST

CONSULTING SERVICES for the PREPARATION OF DETAILED PROJECT REPORT (DPR) FOR FRAGILE SLOPE TREATMENT AND SUSTAINABLE MITIGATION WORKS OF LANDSLIDES OF BALIYANALA, DOWNSTREAM OF TALLITAL, NAINITAL, UTTARAKHAND

Expressions of Interest (Eoi)

1. Introduction:

The Irrigation Department, Government of Uttarakhand intends to invite Expression of Interest (Eoi) from Indian Consultancy Firm(s) or Agency(ies)/Central or State Govt. organization(s)/ CPSUs/ PSUs/ Academic institution(s) for Consulting Services of “Preparation of Detailed Project Report (DPR) for Fragile site Treatment, Slope Protection and Sustainable Mitigation Works of Landslides of Baliyanala, downstream of Tallital, Nainital, Uttarakhand ”.

Consultant can be a Joint Venture (JV) of not more than 2 firms. No Consultant can bid for a given work simultaneously as sole Consultant and as a member of any joint venture. International Consultancy Firm(s) may be a Member/Partner other than Lead Partner in JV.

The consulting services are required to carry out detailed site investigations in respect of topographical, geological, geotechnical, geo-morphological, hydrogeological, hydrological, hydro-meteorological, seismic, social & socio-economic, environmental & ecological etc., to find out the proper reasons of landslides, to suggest sustainable mitigation/remedial measures for fragile site treatment, slope protection/stabilization of Baliyanala, downstream of Tallital, Nainital, Uttarakhand and to prepare a Detailed Project Report (DPR) of the aforesaid works. Baliya Nala emerges from Tallital area, Nainital and flows towards southeast direction. However, the data, investigation reports available with the department may be provided to the Consultants, and any additional investigation/study if required to prepare a bankable DPR, may be carried out by the Consultant at appropriate time. Details of aforesaid report(s) will be shared in Terms of Reference (ToR) of RFP.

2. Objectives & Scope of the Consultancy:

2.1 Objective(s) of the Consultancy: The primary objective of the consultancy services is to prepare a Detailed Project Report (DPR) for Sustainable Fragile site Treatment, Slope Protection/ stabilization and Mitigation/ Remedial Measures Works of Landslides of Baliyanala, Nainital. Detailed Objective(s) of the Consultancy has been described in Annexure-I.

2.2 Scope of Work:

The consultancy contract is intended to provide a Detailed Project Report (DPR) for Sustainable Fragile site Treatment, Slope Protection/stabilization and Mitigation/Remedial Measures Works of Landslides of Baliyanala, Nainital followed by detailed investigations and reports along with comprehensive plan for the sustainable mitigation / remedial measures of landslides of Baliyanala, Nainital as per activities as mentioned in the section paragraph of Clause 1 and Annexure-I of this Eoi.

3. Eol Processing Fees:

A non-refundable processing fee for Rs. 5,000/- plus GST @ 18% (Five Thousand Rupees only + Rs. Nine Hundred only as GST) in the form of a Demand draft or a Pay Order drawn in favour of "Executive Engineer, Administration Division, Roorkee" Payable at Roorkee has to be submitted along with the Eol response. Bids received without or with inadequate Eol processing fees shall be liable to get rejected. ***However, Central or State or UT Govt. organization(s) / Academic Institutions are exempted from Eol processing fee.***

4. Venue & Deadline for submission of proposal

Demand Draft in respect of Eol processing fee as specified in the Clause 3 of this Eol must be submitted to Irrigation Department, Govt. of Uttarakhand (Department) at the address specified herein earlier. Proposal, in its complete form in all respects as specified in the Eol along with soft copy of Demand Draft must be submitted online. In exceptional circumstances and at its discretion, Department may extend the deadline for submission of proposals by issuing an amendment to be made available on the <https://www.uktenders.gov.in/nicgep/app> website, in which case all rights and obligations of Irrigation Department, Govt. of Uttarakhand and the Consultant previously subject to the original deadline will thereafter be subject to the deadline as extended.

5. Validity of Offer:

The offer for Eol as per this document shall be valid for a period of four (4) months initially which may be extended further if required by the Department.

6. Gist of Consultancy Services

The details of consultancy services are described at **Annexure-I**.

7.0 INSTRUCTIONS TO CONSULTANTS

7.1 The Expression of Interest is to be submitted in the manner prescribed below:-

All information as detailed below is to be submitted online on <https://www.uktenders.gov.in> website. The consultants have to submit all information as detailed below in two hard copies in sealed envelopes and one soft copy in CD only after the requisition of the Department (IRI, Roorkee). The Eol includes the following documents:

- a. Section I - Request for submission of expression of Interest.
- b. Section II - Instructions for submission of Expression of Interest.
- c. Section III - Guidelines for Preparation of Expression of Interest.
- d. Section IV - Eligibility and short listing Criteria.
- e. Annexure -I to VIII

f. Power of Attorney in favour of Authorized Signatory with long and short signatures of Authorized person.

g. Consultancy organization should have its office in Uttarakhand/Delhi / NCR.

7.2 EOI Documents have been hosted on the website *www.uktenders.gov.in* and may be downloaded from the website *www.iriroorkee.res.in*.

The prospective Consultant(s) is expected to examine all instructions, forms, ToR and other details in the Eoi document carefully. Failure to furnish complete information as mentioned in the Eoi document or submission of a proposal not found substantially responsive to the Eoi documents will be at the Consultant's risk and may result in rejection of the proposal.

8. Short-Listing Criteria:

Short-listing Criteria shall be as specified in Section IV - Eligibility and short listing Criteria. Responses not meeting the minimum pre-qualification criteria will be rejected and will not be shortlisted.

9. Evaluation Criteria and Method of Evaluation:

'Request for Proposal' (RFP) will be issued to shortlisted Consultant(s) only and Irrigation Department, Govt. of Uttarakhand reserves the right to reject any or all the proposals without assigning any reason. Evaluation of RFP will be carried out as per Section IV and ToR of RFP.

10. Response:

Consultant(s) must ensure that their proposal response is submitted online as per the Eoi. Special comments on the objectives and scope of the service projected in the enquiry may also be submitted along with the offer.

11. Condition under which EOI is issued:

The Eoi is not an offer and is issued with no commitment. Irrigation Department reserves the right to withdraw Eoi and or vary any part thereof at any stage. The Department further reserves the right to disqualify any consultant, should it be so necessary at any stage.

12. Last date of submission of Eoi:

The last date of online submission of Eoi is 07.07.2021 (15:00 hrs.). Bid Opening Date & Time is 07.07.2021 (15:30 hrs.)

**Superintending Engineer
Research Circle
Irrigation Research Institute, Roorkee
Irrigation Department, Govt. of Uttarakhand
Roorkee – 247667
Email: uttarkhandwrd@gmail.com
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**Government of Uttarakhand
Irrigation Department
Irrigation Research Institute (IRI), Roorkee**

**Office of the Superintending Engineer
Research Circle,
Irrigation Research Institute (IRI),
Roorkee - 247667**

Date 14.th June, 2021

E-TENDER NOTICE No. 02 /SE(R)/2021-22 dated 14.06.2021

Invitation of online Expression of Interest for engaging Consulting Services for the Preparation of Detailed Project Report (DPR) for Fragile Slope Treatment and Sustainable Mitigation Works of Baliyanala, downstream of Tallital, Nainital, Uttarakhand.

Section-I

Request for submission of Expression of Interest to:

Dear Mr./Ms.:

1. The Irrigation Department, Govt. of Uttarakhand (hereinafter called "Department") intends to invite Expression of Interest (EoI) from Indian Consultancy Firm(s) or Agency(ies)/Central or State Govt. organization(s)/CPSUs/PSUs/Academic institution(s) for Consulting Services of "Preparation of Detailed Project Report (DPR) for Fragile site Treatment, Slope Protection and Sustainable Mitigation Works of Landslides of Baliyanala, downstream of Tallital, Nainital, Uttarakhand".
2. The Superintending Engineer, Research Circle, Irrigation Research Institute(IRI), Roorkee – 247667, on behalf Government of Uttarakhand, invites Expression of Interest (EoI) to provide the Consultancy Service from the eligible Indian Consultancy Firm(s) or Agency(ies)/Central or State Govt. organization(s)/CPSUs/PSUs/Academic institution(s). More details of the Services are available in the e-procurement platform www.uktenders.gov.in from 15.06.2021, 17:00hrs (IST) and on IRI Roorkee's website www.iriroorkee.res.in.
3. Short-listing of eligible Consultant will be carried out as per criteria described in Section IV of this EoI.
4. The EoI includes the following documents:
 - a. Section I - Request for submission of expression of Interest.
 - b. Section II - Instructions for submission of Expression of Interest.
 - c. Section III - Guidelines for Preparation of Expression of Interest.
 - d. Section IV - Eligibility and short listing Criteria.
 - e. Annexure -I to VIII

- f. Power of Attorney in favour of Authorized Signatory with long and short signatures of Authorized person.
 - g. Consultancy organization should have its office in Uttarakhand/Delhi / NCR or an Undertaking shall have to establish its/their offices in the territory of Uttarakhand by the Consultant as and when asked from the Department.
5. Details of the EoI's submission date, time and address is as mentioned in the Letter.

Yours Sincerely,

**Superintending Engineer
Research Circle,
Irrigation Research Institute (IRI),
Roorkee - 247667**

Section-II

Instruction for submission of Expression of Interest:

1. Consultant shall go through the guidelines provided under section 'III' and 'IV' before preparing EoI proposal.
2. Consultants who meet eligibility criteria given in section 'IV' shall prepare EoI as per the guidelines given in section 'III'. If the Consultant feels to submit certain information not covered in the guidelines would be in his interest, he may submit such information.
3. Accomplished Expression of Interest (Application) must be submitted along with all relevant documents through e-procurement platform (<https://www.uktenders.gov.in>) from **25.06.2021, 15:00 hrs (IST)** onwards. Last date/time for receipt of bid through e-procurement is on **07.07.2021 upto 15:00 hrs (IST)**.
4. The Application shall be the basis for drawing up a shortlist of eligible consultants who will be invited to submit proposal for services required.
5. All Applications shall be submitted in English.
6. Power of attorney (on stamp paper duly notarized) of the person submitting the Expression of Interest on behalf of the Applicant shall be attached. Joint Venture (JV) shall not have more than '2' members. One of the members should be a Lead Member. The JV shall clearly list-out the roles & responsibilities of each partners under the project.
7. The Consultant (including the individual members of any Joint Venture) shall submit only one Proposal, either in its own name or as part of a Joint Venture member in another Proposal, if a Consultant, including any joint Venture member, submits or participates in more than one proposal, all such proposals shall be disqualified and rejected.
8. The Application and all related correspondence and documents should be written in the English language. Supporting documents and printed literature furnished by Applicant with the Application may be in any other language provided that they are accompanied with translations in the English language. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.
9. Irrigation Department, Govt. of Uttarakhand reserves the right to reject any Applications, without assigning any reasons thereof.
10. The Consultant shall provide all the information sought under this Qualification Document. Irrigation Department, Govt. of Uttarakhand would evaluate only those Applications that are received in the required format complete in all respects and received online within scheduled timeframe. Incomplete and / or conditional Applications shall be liable to rejection.
11. No claims whatsoever will be entertained if submission is not received online by due date

and time.

12. Any details/clarification(s) may be obtained from the following:

**Superintending Engineer
Research Circle,
Irrigation Research Institute (IRI), Roorkee - 247667**
Email: uttarkhandwrd@gmail.com Mob. 8826758368

13. The Proposal of Eol must be submitted online no later than:

Date: **07.07. 2021**

Time: **15:00 hrs (IST)**

14. Opening of the Eol Proposal: The Procedure of opening shall be, Eols will be opened on **07.07.2021 at 15:30hrs (IST)** in presence of members of opening committee and Consultant(s) or its authorized representative(s) who has offered the Eol proposal may choose to remain present.

15. The opening shall take place at:

**Office of the Superintending Engineer
Research Circle,
Irrigation Research Institute (IRI), Roorkee - 247667**
Tel: +91-1332-
Fax: +91-1332
E-mail: uttarkhandwrd@gmail.com
Date: **07.07.2021**
Time: **15:30hrs (IST)**

16. The Consultant has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

17. Any submission must be addressed to the following:

**Office of the Superintending Engineer
Research Circle,
Irrigation Research Institute (IRI), Roorkee - 247667**

Section-III

Guidelines for Preparation of Expression of Interest (Eoi):

Following information shall be submitted using given formats and where no formats are specified, free format can be used.

- 1) Complete name of firm, date of establishment and type of organization whether individual, proprietorship, partnership, private limited company, public limited company etc. (Annexure-II).
- 2) Exact and complete corporate/registered/home office address, business address, telephone numbers, fax numbers, E-mail and cable address. For consultant of foreign registry, indicate if there is any branch office(s) established in India with details in aforesaid manner. Information is to be furnished by sole applicant or members of JV individually (Annexure-II).
- 3) If present firm is the successor to or outgrowth of one or more predecessor firms, fresh name(s) of former entity (ties) and year(s) of their original establishment with details in aforesaid manner. Information is to be furnished by sole applicant or members of JV individually (Annexure-II).
- 4) Present a brief narrative description of the firms. Information is to be furnished by sole applicant or members of JV individually (Annexure-II).
- 5) List of not more than two (2) principals who may be contacted by this Office. Listed principals must be empowered to speak for him or for the firm on policy and contractual matters. Information is to be furnished by sole applicant or members of JV individually. (Annexure-II)
- 6) Under this item, indicate financial figures from consultancy business for past 5 (five) financial years. (Annexure-III)
- 7) (i) Organizational strength of consultant and its constituents in case of a JV shall be given. (Annexure-IV)
- 8) (ii) Office logistics for consultant and its constituents in case of JV in terms of office space, and software. Availability of Modelling/Water Resources/Hydro-Met/Geotechnical software which are web enabled and have user licenses not older than 10 years, shall be mentioned (Annexure-V).
- 9) As many references from employers as the Consultant (for each member in case of JV) may choose shall be submitted Annexure-VI.
- 10) The Eoi needs to be supported by relevant document supporting the same.
- 11) An Undertaking regarding establishment of Consultant's office in the Territory of Uttarakhand as and when asked by the Department.
- 12) An undertaking for supply of true information shall be given as per Annexure-VII.
- 13) Some Formats are annexed in Annexure –VIII.

Section-IV

Eligibility and Short-Listing Criteria:

Following will be the minimum pre-qualification criteria for short-listing for Consulting Services of “Preparation of Detailed Project Report (DPR) for Fragile Slope Treatment and Sustainable Mitigation Works of Landslides of Baliyanala, downstream of Tallital, Nainital, Uttarakhand”. Each eligible consultant should possess all the following pre-qualification criteria. Responses not meeting the minimum pre-qualification criteria will be rejected and will not be shortlisted.

1. Consultant may be any Indian Consultancy Firm(s) or Agency(ies)/Central or State or UT Govt. organization(s)/CPSUs/PSUs/Academic institution(s).
2. Consultant can be a Joint venture of not more than 2 firms. No Consultant can bid for a given work simultaneously as sole Consultant and as a member of any joint venture. International Consultancy Firm(s) may be a Member/Partner other than Lead Partner in JV.
3. **Annual Turnover:**
 - a) Average annual turnover of the last 3 years (i.e. 2018-19, 2019-20 & 2020-21) shall be more than Rs. 5.0 crores (Rs. Five Crores). In case of JV, the Lead Member/Partner shall have more than Rs. 3.5 crores (Rs. Three crores and Fifty Lakhs) of average annual turnover in the last 3 financial years. This threshold other JV member/partner shall be Rs. 1.5 crores (One Crore and Fifty Lakhs).
 - b) The Consultant has to be profitable and should not have incurred loss in any one of the last 3 consecutive Financial Years (FY 2018-19, 2019-20 & 2020-21)
 - c) There is no requirement of showing Turnover by the Central/State/UT Govt. Organisation(s) only.

4. Experience:

The Lead Consultant must have successful experience as Lead consultant as follows:

- a) At least one project of “similar work” costing not less than Rs. 40 crores or two “similar works” each costing not less than Rs. 25 crores or Three “similar works” each costing not less than Rs. 17 crores.

“similar work(s)” means “Preparation of Detailed Project Report (DPR) of any Hill Slope Protection/ Stabilization and Sustainable Mitigation/Remedial measure Works of Landslides of at least a slope height of 25 metre”.
- b) Such “similar work(s)” must have been completed within last ten Calendar years (2011-2021).
- c) The Consultant(s), including the JV partners, should have at least 30% of the potential

core staff, including Team Leader, as permanent employees.

- d) The Consultant (s), including the JV partners, having successfully completed “similar work” in India in the past 10 years would be desirable.

5. Others:

- a) The Consultant or any partner, in case of JV should not be blacklisted by any Central Govt./State Govt./PSU/Govt. Bodies.
- b) The Consultant or any partner, in case of JV should be in the business of providing similar consultancy services for at least 03 years as on 31.03.2021.
- c) All the documents as mentioned in Table – 1 in respect of support of eligibility compliance are required to be submitted for pre-qualification & short-listing.

6. Evaluation Criteria and Method of Evaluation:

- a. Screening of Eols shall be carried out as per-eligibility conditions mentioned in Section IV of this Eol and based on verification of testimonials submitted.
- b. Eol will be evaluated for short-listing by the Selection Committee on the basis of documents submitted at per Table-1 of this Section of Eol duly verifications of the same. Decision of the Selection Committee will be final.
- c. ‘Request for Proposal’ (RFP) will be issued to shortlisted Consultant(s) only and Irrigation Department, Govt. of Uttarakhand reserves the right to reject any or all the proposals without assigning any reason.
- d. Shortlisted Consultant(s) shall have to submit its Technical and Financial proposal. The shortlisted Consultant(s) may be required to make a presentation, if required, to the Selection Committee show-casing their proposals.
- d. RFP will be finalized on the basis of Quality cum Cost Based Selection (**QCBS**) (Quality – 80% & Cost – 20%) and ToR and other Para of the RFP.

Table – 1

S. No.	Pre-qualification Criteria for Short-listing	Supporting document	Compliance
1.	The applicant shall be a firm/ company/ partnership/ proprietorship firm registered under the Indian Companies Act, 1956/ the partnership Act, 1932 and who have their registered offices in India and should have an office in Uttarakhand/ National Capital Region of Delhi.	Copy of incorporation Deed, if any	Certificate of and Partnership
2.	The Consultant should be in the business of providing similar consultancy services for at least 03 years as on 31.03.2021.	Certificate by Company Secretary of the Consultant's organization	
3.	The Consultant has to be profitable and should not have incurred loss in any of the last 3 consecutive Financial Years (FY 2018-19, 2019-20 & 2020-21)	Annexure-III to be certified & validated by Chartered Accountant (CA) of the Consultant's organization	
4.	The Consultant should have an average annual turnover of Rupees 5.0 Crores of the last 3 consecutive Financial Years (FY 2018-19, 2019-20 & 2020-21) from only consultancy Services rendered in India	CA certified document with name of CA registration number, signature and stamp	
5.	The Consultant shall have experience of providing: One "similar work" completed services costing not less than Rs. 40 Crores in last 10 years in India or as per Clause 4 of this Section.	Copy of Work Order / Contract and Performance/Completion Certificate issued by the Concerned Client.	
6.	The Consultant should have at least 03 full time Key-Experts on its pay rolls related to similar work.	Certificate by Statutory Auditor or Company Secretary of the Consultant's organization	
7.	The Consultant or any partner, in case of JV should not be blacklisted by any Central Govt. / State Govt. / PSU/Govt. Bodies	Certificate signed by the Authorized signatory to be enclosed	
8.	PAN No. / Service Tax Registration Certificate	Copy of Certificate to be enclosed.	
9.	The Consultant should have an office in Uttarakhand/ Delhi /NCR.	Details of branch offices in State of Uttarakhand/ Delhi/ NCR, if any, may be submitted. Consultant shall have to submit an Undertaking regarding establishment of its/their Office(s) in the Territory of Uttarakhand whenever asked by the Department.	

Gist of work to be undertaken under Consultancy Services

1. Background:

Nainital township is a popular hill station in the Indian state of Uttarakhand and headquarter of Nainital district. It is located in the Kumaun Lesser Himalaya, known to be vulnerable to landslides since past, and it has been reported that half of the area of the township is covered with debris generated by landslide. Habitation in Nainital started only after 1841 and the township has been repeatedly devastated by mass movements since 1867. Most disasters have so far spared urban centres of Uttarakhand and Nainital is amongst a few that have recorded history of massive and repeated devastations.

The first recorded major landslide occurred in Nainital in July 1867 when a portion of the hill side above the west end of the main bazar in Mallital came down. As a sequel a Committee was constituted for the first time, on 6th August 1867, to consider the safety of the hill slopes. The Committee considered drainage improvement as the most important aspect to be dealt with for preventing landslides.

The next major landslide occurred in Nainital in 1880 near the Alma Hill on the Sher ka Danda ridge. This catastrophe, that struck on 18th September, 1880 killed 151 persons of whom 43 were Eurasians. After the landslide, further erection of buildings, quarrying and digging of terraces or platforms were absolutely prohibited on the hill slopes. Steep slopes were turfed and planted with trees and grass. Cutting and grazing were absolutely banned. The catastrophe resulted in construction of drains, 79 km in length, to safely drain off the water from the vulnerable slopes. In 1898, Nainital had to face the wrath of nature again in the form of the Kailakhan landslide that caused the death of 27 Indians and one European. Nainital was devastated again by landslides in 1893, 1898, 1924, 1989 and 1998. The landslides of 18th September, 1880 and 17th August, 1898 took toll of 151 and 28 human lives respectively (Rautela et al., 2011). A disastrous landslide in the Rais Hotel locality on the right side of the Balia Nala struck during September, 2014 after the excessive rainfall (Gupta et al., 2016).

The third major landslide occurred in Nainital's Hari Nagar near Raees Hotel during September, 2018, prompting authorities to push for relocation of 17 families living near the area.

1.1 About Baliyanala Landslides

Baliya Nala is the outlet (Tallital, Nainital) of the Nainital lake, flowing towards southeast direction. Longitudinal profiles along the Baliyanala trending NNW–SSE indicate that the general channel gradient in the upper part near its origin from the Nainital Lake is about 250.

A major knickpoint has been observed at an elevation of about 1500 m above msl, where the channel gradient drops to about 50, which continues till 1400 m, and further downstream the channel gradient again increases to about 200. The gentle gradient in the zone between 1400

and 1500 m above msl has been well correlated with a landslide that occurred on the left bank of slope in the Kailakhan region in 1898, depositing 5.5 million tons of debris into the Nala (Middlemiss 1898).

Another small knickpoint in the profile has been observed at about 1770 m above msl. This is also related to the landslide along the Nala. The overall steep gradient of the Balia Nala is mainly because of the active movement of the Balia Nala Fault as has been evidenced by the continuous widening of cracks on the walls of the houses located on either sides of the Baliyanala.

One of the main reasons for occurrence and higher probability of landslides in the Baliyanala area is the weak geological set-up. The greater part of the area is dominantly comprised of limestone and dolomitic limestone, which is characterised by highly jointed, fractured and micro-cracked and therefore exhibits very low unconfined compressive strength. Further, these rocks are traversed by a major NW–SE-trending Nainital Lake Fault which, towards the south-eastern extremity, is also referred as Baliya Nala Fault. The offshoots from this fault have also been observed in other areas like in the Birla Vidya Mandir. The fault has also contributed towards shearing and weathering of the rocks in the area. It has further been noted that slopes in the entire area are covered with thin veneer of Quaternary deposits. These deposits are highly disturbed as interpreted by GPR survey, and the thickness of these deposits is found to be shallow of the order of 2–10 m (Gupta et al., 2017). At many places, these deposits are highly unstable and vulnerable to sliding particularly during excessive rainfall or shaking during earthquake. The area at the lower elevation is being monitored for its surface movement using GPS, and it has been observed that the area is sliding slowly at a rate varying between 10 and 60 cm/year (Kotlia et al., 2009). Cracks have also been noted on the left bank of Baliya Nala in the Kailakhan area. These cracks were noted at different elevations, prominently at about 1898, 1929 and 1950 m above msl, running along ESE–WNW direction. This side of the Baliya Nala is occupied by the army camp, and at the ridge top, Nainital Helipad is located. Thus, landslides at the lower elevation are posing serious threat to the Helipad and the army set up in the area.

The proposed study area is about 100 Hectares and is delineated by 79°27'30.65"E to 79°28'24.95"E longitude and 29°22'42.32"N to 29°22'7.21"N Latitude (towards southwest of Nainital, Fig. 1). The elevation ranges from 1476m to 2072m. The right bank of this stream has two populated localities, i.e. (a) locality nearby Government Inter College (GIC) and (b) Saraswati Vihar, both affected by landslides. Hence, presence of Nainital habitation at its right bank has high socio-economic importance.



Fig. 1: Proposed Study Area

The Geological Survey of India mapped a Lake Fault passing through the Nainital Lake and extending towards SE along which Baliyanala is flowing. The nala has historical landslide zone, which is prominently depicted in the Survey of India 1:5,000 toposheet published in the year 1980. These are: Harinagar I & II, Kailakhan. A view of Baliyanala landslides in 2018 are shown in Photograph-1. Damages and stream oozing due to Baliyanala landslide are shown in Photograph-2 and Photograph-3 respectively.



Photograph-1 A view of the Baliyanala Landslide (Source: DMMC, 2018)



Photograph-2 Damaged slope and broken road



Photograph-3 Stream oozing from the slide zone (photo taken from right side of Baliyanala near Harinagar village)

2. Objectives & Scope of the Consultancy:

2.1 Objective(s) of the Consultancy: The primary objective of the consultancy services is to prepare a Detailed Project Report (DPR) for Sustainable Fragile site Treatment, Slope Protection/stabilization and Mitigation/Remedial Measures Works of Landslides of Baliyanala, Nainital. It would include the following tasks:

- To find out the all possible reasons/causes of landslides of Baliyanala, Nainital.
- To suggest appropriate **Short Term Remedial Measures** to check/minimize further landslide.
- To suggest effective and permanent **Long Term Mitigation/Remedial Measures** for Sustainable Fragile slope Treatment/Protection/stabilization with case studies.
- To integrate the results of topographical survey as per requirement and Geotechnical investigations as per direction of GSI for the preparation of the DPR.
- To carry out environmental and social impact assessment (during the project construction and afterwards), including suggestion of remedial measures and estimation of environmental release in different months.
- To provide a comprehensive Plan for Short & Long Terms Mitigation/Remedial Measures comprising of **Pilot Project** along with Structural & Non-structural measures for implementation.
- To suggest a comprehensive plan for construction methodology, construction schedule, source of construction materials and prepare other chapters of DPR.

- To carry out detailed design (Hydraulic & Structural) of the proposed structures with detailed drawings, specifications, cost estimate and construction schedule.
- To help build capacity within officials of the Irrigation Department, Govt. of Uttarakhand, and to improve knowledge of landslide mitigations through project implementation.

2.2 Scope of Consultancy Services: All the services as mentioned in Para 2.1 “Objective(s) of the Consultancy” are the major parts of the Scope of services. The consultancy contract is intended to provide a Detailed Project Report (DPR) for Sustainable Fragile site Treatment, Slope Protection/stabilization and Mitigation/Remedial Measures Works of Landslides of Baliyanala, Nainital followed by detailed investigations and reports along with comprehensive plan for the sustainable mitigation / remedial measures of landslides of Baliyanala, Nainital as per activities as mentioned in the second paragraph of Clause 1 of this EOI. The consultancy contract is also intended to provide high-level support for the implementing agencies to assist them to achieve high quality project implementation, and to support project implementation activities. The role of consultant is also to help build capacity within officials of the Irrigation Department, Govt. of Uttarakhand, and to assist them to improve their ability to manage our HIS (Human Systems Integration) and improve knowledge of landslide mitigations through project implementation.

In addition to above, Scope of Services includes:

- Field Reconnaissance
- Hydro-meteorological Data Collection:
- Topographical Surveys
- Geological, Geotechnical & geo-morphological Investigations
- Hydrological, hydrogeological, hydro-meteorological, etc. Investigations
- Seismic Studies
- Ecological, Environmental, Social and Socio-economic Studies at primary level
- Hydraulic & Structural Design of proposed Structural & Non-structural measures
- Preparation of DPR

3. Time Schedule:

Details of Time Schedule will be mentioned in Request for Proposal (RFP).

4. Inputs to be provided by the Department:

Details of any input provided by the Department will be mentioned in Request for Proposal (RFP).

Expression of Interest Form for Consulting Engineering Firm or Joint Venture (To be filled up by each of the constituent in case of a Joint Venture)

1.

Consultant	Date of Establishment	Country	Type of organization			
			<i>Individual</i>	<i>Partnership</i>	<i>Corporation</i>	<i>Other</i>
<i>Name</i>						

2. Corporate/registered Office / Business Address / Telephone Nos. / Cable Address/ E-mail address of consultant and its branch offices for Consultant (including members in case of JV)
3. Consultant's former name and year of establishment (including that of members in case of JV)
4. Narrative description of Consultant firms if any (Use other sheet, if necessary)
5. Name of, not more than two (2) principals who may be contacted with title, telephone number/ fax number, E-mail address.

Financial Statement of the three financial Years

Sr. No.	Particulars		2018-19	2019-20	2020-21
1.	Annual turnover from Consulting business	Lead member/partner			
		other member/partner			
2	Net Profit.	Lead member/partner			
		other member/partner			

Notes:

- i. Values should be duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do so as recognized by the Government of India.
- ii. The amount shall be stated in Indian Rupees (INR).
- iii. For the purpose of short listing, conversion to Indian Rupees shall be based average of the buying and selling rates of Reserve Bank of India as on the Proposal submission date.
- iv. In case the exchange rate for any currency is not available as per the provision of this section, then Irrigation department, Govt. of Uttarakhand reserves the right to use the rate available from an alternative source at its sole discretion.

Organizational Strength

1. Staff strength of the Organization/s

S No.	Area of Expertise	Total No. of Staff	No. with Doctoral Degree	No. with Post-graduate Degree	No. with Graduate Degree	No. of Permanent Employees	No. of years with the firm
Key Expert							
i.	Geotechnical Expert						
ii.	Geological Expert						
iii.	Hydrologist and Hydrological Modeling / Hydro-morphological Expert						
iv.	Hydrogeologist and Ground Water Modeling Expert						
v.	Hydro-meteorological Expert						
vi.	Structural Engineering Expert						
vii.	Earthquake Expert						
viii.	social & socio-economic Expert						
ix.	Environmental & Ecological Expert						
x.	Slope Protection/ Stabilization Expert, if any						
Non-Key Experts							
i.	Surveyor						
ii	GIS & Remote Sensing Expert						
iii	Estimator						
iv	Draftsman						
v	Technical Supporting Staff						

2. Keys Experts/ Project Staff that would form the team in RFP

S. No.	Position	Key Qualifications
Key Experts		
1	Team Leader	Master degree in Geotechnical/ Foundation Engineering or related field. 20 years' experience in the related field.
2	Geotechnical Expert	Master degree in Geotechnical/ Foundation Engineering or related field. 20 years' experience in the related field.
3	Geological Expert	Master degree in Applied Geology. 20 years' experience in the related field.
4	Hydrologist and Hydrological Modeling Expert	Post-graduate qualification in hydrology or similar 15 years professional experience in water resources management / hydrology projects including instrumentation, data management, flood forecasting, reservoir management
5	Hydro-meteorological Expert	Post-graduate in relevant science or engineering 10 years professional experience in an instrumentation role in international projects, with good experience in hydromet. instrumentation and telemetry systems
6	Hydrogeologist and Ground Water Modeling Expert	Post-graduate qualification in hydrogeology or similar 10 years professional experience in international groundwater resources management / hydrogeology projects and groundwater modelling
7	Structural Engineering Expert	M. Tech/ M.E in Structural Engineering Minimum of 5 years' working experience, preferably with an organisation dealing with design/ consultancy projects
8	Social and Environmental Expert	Graduate/ Post Graduate Degree in Environmental Management / Social / fields Engineering Minimum of 5 years' working experience in the field of social and environmental impact assessment of projects Degree in Civil Engineering or related discipline would be preferable
9	Seismic Expert	Graduate/ Post Graduate Degree in Earthquake / fields Engineering Minimum of 5 years' working experience in the field of seismic studies and impact assessment of projects
10	Slope Protection/ Stabilization Expert (Optional)	Master degree in Geotechnical/ Foundation Engineering or related field. 10 years' experience in the related field.
Non-Key Experts		
1	Surveyor	ITI certificate in Field Surveying At least 5 years' working experience in field surveying
2	GIS & Remote Sensing Expert	M.Sc. Geography /Geosciences/Geoinformatics, with specialization in RS / GIS or post-graduate diploma in remote sensing and GIS At least 5 years' working experience in field of RS/GIS
3	Estimator	Graduate in Civil Engineering/ Masters in Finance or Economics Minimum 3 years of working experience in project cost estimation Adept in rate analysis, cost estimation with special reference to projects at the DPR stage
4	Draughtman	ITI certificate in draughtsman ship At least 3 years' working experience in engineering design office Experience in barrage/dam projects
5	Technical Supporting Staff	Graduate in Engineering, preferably with 2 years professional experience: Should have adequate knowledge of Computer maintenance and networking Extensive knowledge and experience on MS Office

Office Logistics and Software Availability

a) Office space in sq. m. and ownership status

b) List of Hydro-Metrological/Geotechnical along with Modelling Software available

Name of Software	Whether Web Enabled?	Number of Concurrent Users	Cost of Purchase In Rs.	Year of Purchase	Utility and Functions of the Software

**Details of Experience
Annexure-VI**

Sr. No.	Projects Name / Year	Type of services rendered	Cost of the assignment Rs. in Cr.	Client (With Complete address, contact person, telephone No. Fax No and E mail address)	Fee in INR (Applicant's share in case of JV/ Consortium)	Completion certificate from client (Reference page no)	Duration in months	Funding Agency	Sole /JV/Consortium (if JV-state Lead /Partner with share)
1	2	3	4	5	6	7		9	10
1									
2									

Note: Only those assignments shall be considered for which consultant has provided services as lead member in case that work is done by a JV/ Consortium. Each assignment shall be supported by following details:

Name of Overall assignment:

Location of Overall assignment:

Owner's Name and Address:

Completion (Actual/Estimated vis-à-vis Stipulated):

Description of assignment:

Description of Services provided by the firm:

Authorized Signatory
Name of the client:

Undertaking

I certify that the information in the above Expression of Interest forms is true to the best of my knowledge. I also understand that any misleading or wrong information will disqualified this application straightaway.

*President/Managing Director or
Authorized Signatory of Applicant*

Different Formats
FORMAT – 1

APPLICANT'S EXPRESSION OF INTEREST

To,

Superintending Engineer,
Research Circle,
Irrigation Research Institute, Roorkee
Distt. Haridwar (Uttarakhand)
PIN-247667

Sub: Submission of Expression of Interest to undertake Consulting Services for the Preparation of Detailed Project Report (DPR) for Fragile site Treatment, Slope Protection and Sustainable Mitigation Works of Baliyanala, downstream of Tallital, Nainital, Uttarakhand

Dear

In response to the Invitation for Expressions of Interest (EOI) published on xx.xx.xxxx for the above purpose, we would like to express interest to carry out the above proposed task.

As instructed, we upload the soft copies of following documents:

1. All the information and related documents As per Annexure – II to Annexure-VI and Table-1.
2. Additional information (Format-2)
3. Organizational Contact Details (Format-3)

Sincerely Yours,

Signature of the applicant

[Full name of applicant]

Stamp.....

Date:

Encl.: As above.

Note: This is to be furnished on the letter head of the organization.

FORMAT – 2

Additional Information

1. List all enclosures related to the previous sections.

S.No.	Description	No. of pages

2. Additional information to support the eligibility should not be more than 2 pages.

Sincerely Yours,

Signature of the applicant

[Full name of applicant]

Stamp.....

Date:

FORMAT- 3

S. No.	Organizational Contact Details	
1.	Name of Organization	
2.	Main areas of business	
3.	Type of Organization Firm/ Company/ partnership firm registered under the Indian Companies Act, 1956/ the partnership Act, 1932	
4.	Whether the firm has been blacklisted by any Central Govt. / State Govt./PSU/ Govt. Bodies / Autonomous? If yes, details thereof.	
5.	Address of registered office with telephone no. & fax	
6.	Address of offices in i) National Capital Region of Delhi ii) All other State/UT's	
7.	Contact Person with telephone no. & e-mail ID	

Enclose:-

1. Copy of Certificate of Incorporation.
2. Copy of Article of Association in respect of 3 above.
3. Undertaking in respect of 4 above.

Sincerely Yours,

Signature of the applicant

[Full name of applicant]

Stamp.....

Date: