

EXPRESSION OF INTEREST

For

**Study of Climate Change Impact Study in Major Rivers of
Nepal (Kosi, Narayani & Karnali)**

Consulting Firm/Joint Venture:

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Prime Consultant (in case of a JV):

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Employer:
Government of Nepal
Ministry of Science, Technology & Environment
Department of Hydrology and Meteorology
Babar Mahal, Kathmandu

.....2014



Government of Nepal
Ministry of Science, Technology & Environment
Department of Hydrology and Meteorology

Babarmahal, Kathmandu

Notice No: 1/HD/DHM/2071/072

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Expressions of Interest (EOI)

1. The Government of Nepal, Department of Hydrology and Meteorology (DHM) invites EOI (Expressions of Interest) for the purpose of short listing the qualified, eligible and experienced domestic Consulting Firms and or their joint ventures to **“To Study the Impact of Climate Change on Discharge of Major Rivers of Nepal.”**
2. The budget to this purpose has been allocated by the Government of Nepal (GON) for the fiscal year 2071/072.
3. Experienced, eligible and interested Engineering Consulting Firms are invited to submit their EOI, either alone or in joint venture with other firms with a **notary certified copy of *Engineering Consultancy Firm Registration certificate along with its confirmed validity period to date, Tax Clearance Certificate for the last FY year {FY (070/71)}, Self Declaration of not being blacklisted, VAT/PAN Registration Certificate.***
4. EOI documents could be obtained free of cost from DHM upon request during office hour on all government working days within the 15th day of the first date of publication of this notice or can also be downloaded from the website: <http://www.dhm.gov.np>. The instruction to the consultant, prescribed format, evaluation criteria, scope of the work and duration of the study and other details of the project are mentioned in the EOI. Only lead firm may obtained EOI form mentioning the names of all members of Association/JV and submitting Association/JV agreement.
5. Applications for EOI must be clearly marked **“To study the impact of climate change on discharge of major rivers of Nepal.”** and shall be submitted in sealed envelopes by consultant or their joint venture received by the due date and within the specified time in the presence of the applicant or their authorized representatives. Absence of any applicant (or their authorized representative), however, shall not obstruct or prevent the opening of the EOI in any way, which must be delivered to the following address within the given time below.
Last Date of EOI Submission:- 13/09/2071 12:00 pm
Date of EOI opening :- 13/09/2071 02:00 pm
6. Certified evidences of the client reference indicating satisfactory completion of the projects along with the cost of consulting services in NRs and date of completion of the assignment only will be counted.
7. In case the day of submission of the EOI falls on a public holiday, it shall then be submitted on the following working day at same hour. Only the short-listed Consulting Firms shall be invited for RFP (Request for Proposal). During the RFP process, the consulting firm will be selected in accordance with quality and cost Based Selection procedure (QCBS).
8. DHM reserves the right to shortlist any or reject all of the Firms without assigning any reasons whatsoever. Further information or clarification can be obtained from DHM during office hours.

Procurement Unit

Department of Hydrology and Meteorology

Babarmahal, Kathmandu

E-mail: rajendra_706@hotmail.com spd_acharya@yahoo.com cbhetuwal@yahoo.com

Website: www.dhm.gov.np

1. INFORMATION ON THE CONSULTING FIRM

Information shall be provided in the following format. No field shall be left vacant. In case of a joint venture, the same form shall be filled by each of the JV partners separately. The form shall be submitted in the time, date and venue as mentioned in the published notice.

1. General

Name of Firm	Address	Telephone	Email	Fax	JV Percent

Out of the above list, will be the Prime Consultant.

2. Financial Capacity

Annual turnover over the last three years are as follows. The auditor's report/tax clearance certificates are attached.

Fiscal year	Turnover (Rs)

3. Overall Experience*

Overall experiences of the firm in relevant work during last five years are as follows (limit 5 projects, which will be considered for evaluation). Work completion certificates are attached.

Name of Project	Project	Client	Contract amount (excluding VAT)	Year of completion	Description of work carried out

4. Specific Experience*

Experiences of the firm in related field during last five years are as follow (limit 2 projects, which will be considered for evaluation). Work completion certificates are attached.

Name of Project	Project	Client	Contract amount (excluding VAT)	Year of completion	Description of work carried out

* The firm/s shall produce certified evidences of the client reference indicating satisfactory completion of the mentioned projects along with the cost of consulting services in NRs and date of completion of the assignment are required for the consideration of that project for evaluation. Sublet works or assignment as a sub consultant shall not be considered for evaluation.

5. Human Resources

We are in a position to deploy the following personnel for this project:

Staff Member	Number	
	Permanent	Part time
Team Leader ++		
Senior Hydrologist ++		
Sediment expert ++		
Environment specialist ++		
Hydrologist ++		
Meteorologist ++		
Office Assistant ++		

++ CV must be attached for these key personnel.

7. Other Resources

Other relevant resources available with us are as follows. The office layout, invoice/bill of equipment/ vehicle/ software/ computer is attached.

Resource	Unit	Total Available	Engaged by Works on Hand
Office area	m2		
Telephone lines	line		
Theodolite with accessories	set		
Levelling machine with accessories	set		
Photocopy	set		
GPS	Set		
Hydro climatic modeling software	no		
High capacity Computer for model run	set		
vehicles (Four wheel Drive)	no		

Authorized signature:

Seal:

Date:

ANNEX 1: INFORMATION TO THE CONSULTING FIRM

General Information

Purpose of inviting the EOI:	The main purpose shall short-list suitable consulting firm for to study climate change impact study in major rivers of Nepal, so that proposals could be invited from them only. However, the client may extend the short-list to include additional relevant consulting firms which are capable of giving the desired output.
Format and Signing of Application:	Applicant intending to file an application in response to this EOI should submit an “Application together with the duly completed EOI form providing all the information required therein after signing in by Authorized Representative of Consulting Firm (in case of Joint Venture, Authorized Representative of Lead Firm) with Company’s seal in every page of EOI forms.
Minimum eligibility of the firm:	Registered civil engineering consulting firm, registered at VAT office and tax clearance certificates.
Deadline for submission of EOI:	at or before 12 Noon (NST-Nepal Standard Time) within 16 days of the first publication of the Invitation notice for EOI
Number of copies to be submitted:	Two
Joint Venture:	A firm may apply to be short-listed alone or in joint venture with other firms. However once short-listed, JV partners are unchangeable.
Duration of Study:	Duration to complete the works will be 5 months from the signing of the contract agreement.
Information from the Client:	In due course of time, the shortlist shall be published on the Client’s notice board, at the website: www.dhm.gov.np . The Client shall mail the short-list to each of the firms/JV submitting the EOI and initiate the process of RFP without waiting for the receipt from the firms that they have received the short-list.

2. Project Description

The major rivers of Nepal are fed by melt-water from over three thousand glaciers scattered throughout the Nepal Himalayas. These rivers feed irrigation systems, agro-processing mills and hydroelectric plants and supply drinking water for villages for thousands of kilometers downstream. Climate change will contribute to increased variability of river runoff due to changes in timing and intensity of precipitation as well as melting of glaciers. Runoff will initially increase as glaciers melt, then decrease later as the glaciers disappear. Climate change may alter rainfall and snowfall patterns. The incidence of extreme weather events such as droughts, storms, floods and avalanches is expected to increase. This can lead to loss of lives and severely reduce agricultural production. Traditional wisdom and knowledge to cope with such natural hazards that once ensured food security may no longer prove effective. Climate induced natural hazards have very serious human implications because they affect the livelihood security of the majority of the population.

Climate change has been a major global issue since last decade and serious concerns have arisen at national and international level to assess the nature and extent of changes. Himalaya regions are sometime referred as third pole which has 34660 km² of glacier reserved. Higher temperatures will increase the ratio of rain to snow; accelerate the rate of snow- and glacier melt; and shorten the overall snowfall season. Since the end of the Little Ice Age, the temperatures have been generally increasing and the majority of the world's glaciers are retreating (IPCC, 2001). Increasing temperature shifts the permanent snowline upward. This could cause a significant reduction of water storage in the mountains, which is likely to pose serious problems of water availability to many people living downstream. The Himalayan glaciers are melting faster in recent years than before (IPCC, 2007). However, the degree of sensitivity may vary among the river systems. The magnitudes of snowmelt floods are determined by the volume of snow, the rate at which the snow melts and the amount of rain that falls during the melt period (IPCC, 1996). Because the melting season in the Himalayas coincides with the summer monsoon season, any intensification of monsoon or accelerated melting would contribute to increased summer runoff that ultimately would result in increased risk of flood disasters (IPCC, 2001). Stream-flow in most of the rivers in Nepal is at a minimum in early spring because flows recede rapidly after the summer rains. This period of minimum flow is problematic for the run-of-river hydroelectric facilities. Snow fed rivers provides sustained flow even during this critical period through the melt-water contribution. A possible decrease in river runoff, as indicated by most projections, would reduce not only the electricity generation of existing plants but also the total hydropower potential of Nepal. In addition, there might be significant declines in the dry season flows and an increasing trend in the number of flooding days because of climate change, which is critical for hydropower generation.

The flows of glacier-fed rivers first increase due to warming, as more water is released by the melting of snow and glaciers. As the glaciers get smaller and the volume of melt-water reduces, the dry season flows will no longer be supported by melt-water and eventually will decline. Therefore, the reduced dry season flow caused by a temperature rise could result in reduced hydropower potential. Climate change will lead to increased climatic variability, which would lead to increased frequency and magnitude of hydro-meteorological extreme events. In this context, the Department of Hydrology and Meteorology (DHM) has planned to study on impact of climate change in major rivers of Nepal in this fiscal year 2070/71. For this work, DHM intends to procure the service of local consultants for preparing report on mentioned study.

3. Objective

The main objective of the study is to study the impact of climate change on discharge of major rivers of Nepal.

4. Specific Objective

Beside the overall objective; the specific objective can be listed as below:

- To identify changes in discharge/ water level impact by climate change process.
- To analyze seasonal variation of water availability in the Rivers.
- To find out the Annual / seasonal/ extreme/ low flow/ high flow change with long term data analysis.
- To establish relationship between temperature / Precipitation / River discharge.
- To quantify and analyze the impacts of climate change on discharge, hydrological parameters and water resources in the major three river basins of Nepal (Koshi, Narayani and Karnali)
- To suggest the policy makers for appropriate policy for the future to manage the future impacts on the effect of climate change on river discharge.

ANNEX 2: EVALUATION CRITERIA

(I) Eligibility Criteria (Pass / Fail)

<i>Sr. No.</i>	<i>Eligibility Criteria</i>	<i>Requirement</i>	<i>Compliance</i>	<i>Remarks</i>
1.	Corporate Registration	Mandatory	Yes/ NO	Pass/Fail
2.	Tax Clearance / Tax Return Submission receipt for the last fiscal year	Tax return submission receipt for the last fiscal year. Mandatory	Yes/ NO	Pass/Fail
3.	Vat Registration	Mandatory	Yes/ NO	Pass/Fail
4.	Minimum Years of Standing	The applicant or the Lead partner of J/v applicant must have min. 5 years of standing	Yes/ NO	Pass/Fail

(II) Ranking Criteria (Out of 100%)

Experience of Consultant (60 marks) <i>Work, completed during last 5 years</i>		Office Set up and Logistics (10 marks)	Availability of Staff (20 marks)	Financial Turnover Last three years (10 marks)
<p>Overall experience of Firm. (20 marks) 5 Project</p> <p>Work Experience of firm in relevant work (5x4=20 marks)</p>	<p>Work Experience in Specific Projects. (40 marks) 4 Project</p> <p>Work Experience of Firm in related field (hydrological/hydrodynamic modeling, climate modeling etc) (4x10=40 marks)</p>	<p>Office equipment, space, communication facilities, Vehicle and related Software (10 marks)</p> <p>1. Office equipment & modeling software -5 marks (equip-2, soft.-3 marks) 2. Office Space -3 marks. 3. Communication facilities -1 marks. 4. Vehicle four wheel drive – 1 mark.</p>	<p>Related Technical Human Recourse (20 marks)</p> <p>1.Team Leader(Senior Hydrologist/Climate Change Specialist) - 1no (1x5=5 marks) 2.Senior Hydrologist - 1no, (1x5=5 marks) 3.Sediment expert- 1no (1x2=2 marks) 4.Hydrologist–1 no. (1x5=3 marks) 5.Environmental Specialist- 1No. (1x2=2 marks) 6.Meteorologist-3No. (1x3=3 marks)</p>	<p>Financial Turnover of the consultant within last three years</p> <p>1. Less than two million - 4 marks 2. UP to three million- 6 marks 3. More than three million- 10 marks</p>

NOTE: The consultant should score minimum 50 percent on each criterion and more than 60 percent on the overall ranking criteria as mentioned above to qualify for shot listing.