

# **EXPRESSION OF INTEREST**

For

**Annual Maintenance and Minor Upgrade of the Tele-terminal system and MICS server**

**Consulting Firm/Joint Venture:**

.....  
.....  
.....

**Prime Consultant (in case of a JV):**

.....  
.....

Employer:

Government of Nepal  
Ministry of Population & Environment  
Department of Hydrology and Meteorology  
Naxal, Kathmandu

December, 2017

## **Abbreviations**

CV	-	Curriculum Vitae
DHM	-	Department of Hydrology and Meteorology
DO	-	Development Partner
EA	-	Executive Agency
EOI	-	Expression of Interest
GON	-	Government of Nepal
PAN	-	Permanent Account Number
PPA	-	Public Procurement Act
PPR	-	Public Procurement Regulation
RLS	-	Radar Level Sensors
TOR	-	Terms of Reference
VAT	-	Value Added Tax

## A. Request for Expression of Interest



Government of Nepal  
Ministry of Population and Environment  
Department of Hydrology and Meteorology  
Naxal, Kathmandu  
Notice No: 1/MFD/DHM/2074-75  
First Date of Publication: 15/9/2074

### Expressions of Interest (EOI)

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 Companies/firms and or their joint ventures for **Annual Maintenance and Minor Upgrade of the Tele-terminal system and MICS server** works.

1. The budget to this purpose has been allocated by the Government of Nepal (GON) for the fiscal year 2074/075.
2. Experienced, eligible and interested Consulting Firms or companies are invited to submit their EOI, either alone or in joint venture with other firms with a certified copy of Consultancy /Company Registration Certificate, VAT and Tax Clearance (2073/74) Tax Return Submission receipt for the last fiscal year.
3. EOI documents could be obtained free of cost from DHM upon request during office hour on all government working days within the 15<sup>th</sup> 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.
4. Applications for EOI must be clearly marked **Annual Maintenance and Minor Upgrade of the Tele-terminal system and MICS server** and shall be submitted in sealed envelopes by companies 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:- 30/9/2074 12:00 noon  
Date of EOI opening :- 30/9/2074 02:00 pm
5. 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.
6. 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/companies will be selected in accordance with quality and cost Based Selection procedure (QCBS).
7. 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  
Naxal, Kathmandu  
E-mail: [dhmprocurement@gmail.com](mailto:dhmprocurement@gmail.com)  
Website: [www.dhm.gov.np](http://www.dhm.gov.np)

## **B. INFORMATION TO THE CONSULTING FIRM**

### **General Information**

**Purpose of inviting the EOI:** The main purpose shall short-list suitable consulting firms or software development companies for development of online weather and climate related products 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 or company (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 software development companies, consulting firms/company registered at VAT office and tax clearance certificates.

**Deadline for submission of EOI:** at or before 12 Noon of 30/9/2074 (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 completion:** Duration to complete the works will be 6 month 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](http://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.

## C. Objective of Consultancy Services or Brief TOR

### Background

DHM operates hydro-meteorological stations all over Nepal that measures the hydrological and Meteorological parameters like river water level, temperature, humidity, precipitation etc. DHM Operates manual as well as automatic hydro-met stations and most of the Automatic Stations have telemetric systems to remotely transfer the station data to an online server. The objective of the work is to maintain and ensure smoothly operation of the SYNOP/METAR data acquisition system established by Meteorological Forecasting division (MFD) of DHM in the following 15 synoptic and aero-synoptic stations: Dadeldhura, Dipayal, Dhangadhi, Surkhet, Nepalgunj, Jumla, Dang, Pokhara, Bhairahawa, Simara, Janakpur, Okhaldhunga, Taplejung, Dhankuta, and Biratnagar.

Currently, the generated SYNOP/Metar data from various stations is pushed into the MICS Database and the data is stored in the MICS Database which is pushed into the website: [www.mfd.gov.np](http://www.mfd.gov.np), RTH Delhi, and China. To send data to RTH Delhi, and China, the SYNOP/Metar id (code) from [mics.wscada.net:8888/tele/tele-terminal](http://mics.wscada.net:8888/tele/tele-terminal) is copied into [202.166.206.141:8888/bull3/index.php/mics/client](http://202.166.206.141:8888/bull3/index.php/mics/client) and then sent. There is not any facility of adding a new place in the system. The Station name in the [mics.wscada.net:8888/tele/tele-terminal](http://mics.wscada.net:8888/tele/tele-terminal) is not in the same order with their code (id) in the [202.166.206.141:8888/bull3/index.php/mics/client](http://202.166.206.141:8888/bull3/index.php/mics/client).

### Objectives

The objective of the work is to maintain and smoothly run the MICS server and is to push SYNOP/METAR data, web-camera images into MICS Database and from Mics Database to website: [mfd.gov.np](http://mfd.gov.np) at National Information and Technology Centre (NITC) of Government of Nepal at Singh durbar established by Meteorological Forecasting Division of DHM, Kathmandu.

### Area of works:

The following synoptic and aero-synoptic weather stations are equipped with tele-terminal system which is to be monitored and visited if necessary during the contract period.

S.N	Station Name	Equipments	Accessibility
1	Dadeldhura	mini-pc or embedded pc, monitor, ADSL internet, ADSL router, mouse, keyboard, DC battery charged by a solar panel etc. and software	Road
2	Dipayal	As above mentioned	Road
3	Dhangadhi	As above mentioned	Road
4	Surkhet	As above mentioned	Road
5	Nepalgunj	As above mentioned	Road
6	Jumla	As above mentioned	Road
7	Dang	As above mentioned	Road
8	Pokhara	As above mentioned	Road
9	Bhairahawa	As above mentioned	Road
10	Simara	As above mentioned	Road
11	Okhaldhunga	As above mentioned	Road
12	Taplejung	As above mentioned	Road
13	Dhankutta	As above mentioned	Road
14	Biratnagar	As above mentioned	Road

15	Janakpur	As above mentioned	Road
16	Kathmandu	MICS , online database server of MFD at NITC Singh durbar	Road

## Methodology

- Review the status of all the stations as listed above and identify the problems that are possible remotely.
- Prepare a priority plan based on review and report to DHM as inception report
- Visit the stations during contract period as per the comments on inception report submitted on priority basis & perform maintenance work.
- Upgrade the software and system as inception report and scope of work.

## Scope of work

(A)Minor upgrade of Tele-Terminal System, MICS Server and MFD website should include the following:

1. The integrated system should include the following:
  - i) Any type of copy/paste should not be required to send data.
  - ii) A sub menu is to be added to User Action Menu of mics.wscada.net:8888/tele/tele-terminal that send/transmit data automatically to 202.166.206.141:8888/bull3/index.php/mics/client with identical order of station name and code (ID).
  - iii) An admin page is to be created in the 202.166.206.141:8888/bull3/index.php/mics/client. The admin should have facility of adding a new address by entering IP address and port of new place. The admin should have facility of removing and blocking any address when needed.
2. The present weather (code) template of mics.wscada.net;8888/tele/tele-terminal is to be edited.
  - i) In number 42, there must be sky visible instead of sky invisible.
  - ii) In number 43, there must be sky invisible instead of sky visible
  - iii) Any other problem related with mismatch of code and description found within the contract period should be corrected.
3. The metar data entry in mics.wscada.net:8888/tele/tele-terminal should be changed to half and one hour interval.
4. A SPECI menu should be added to the mics.wscada.net;8888/tele/tele-terminal where the recent data can be entered and time of data entry is to be displayed in the mics.wscada.net:8888/tele/tele-terminal.
5. Provision should be made to add new stations in the mics.wscada.net:8888/tele/tele-terminal.
6. MICS Software should be upgraded. Display is in HTML now. It should be upgraded to PHP or Higher Level Language.
7. There is not C-panel in the website: [www.mfd.gov.np](http://www.mfd.gov.np). A C-panel should be created for the site owner.

8. The website [www.mfd.gov.np](http://www.mfd.gov.np). Should have two menu on the top corner:  
i) Nepali ii) English.

For Nepali Menu, the page should be in Nepali Language and for English menu, the page should be in English language. The English sentences should be translated into Nepali automatically and vice versa and displayed in the same format/ template in the both pages/menu.

9. The Satellite and NWP images stored in the website: [www.mfd.gov.np](http://www.mfd.gov.np) should be deleted automatically after six months.
10. The satellite menu of the website [www.mfd.gov.np](http://www.mfd.gov.np). Should have two sub-menu for satellite images display:  
i) FY2 Satellite image ii) Himawari Satellite image  
On clicking on FY2 Satellite image sub-menu, the FY2 Satellite images should be displayed and on clicking on Himawari Satellite image sub-menu, the Himawari Satellite images should be displayed. But, in default, the FY2 satellite images should be displayed as present. Satellite images should be of recent 24 hours. There should be a provision of Play/Pause, Backward and Forward button. Below the satellite images, the line should read “Courtesy of Chinese Meteorological Agency or Japanese Meteorological Agency” for FY2 and Himawari respectively.
11. There should be recent satellite images notification facilities in the website: [www.mfd.gov.np](http://www.mfd.gov.np). The FY2/Himawari images should be notified in the interval of 3/3 hours. The late 3 hours images should be notified by writing “recent images not available” and older than three hours images should not be displayed in the website. Similarly, the late 24 hours NWP Product should be notified by writing “recent NWP Product not available” and older than 3 (three) days NWP Product should not be displayed in the website.
12. There should be a provision of expiry date of every user account in the system. After two years, every user is notified in their corresponding email before expiry date automatically. If he/she does not respond to the email, his/her user account will be automatically deactivated from the system. This should be applicable not only for mfd website but for all systems operated by MFD.
13. There should be a feasible platform for web camera in the website: [www.mfd.gov.np](http://www.mfd.gov.np) as present.

(B) Annual Maintenance of Tele-Terminal System, MICS Server and MFD website should include the following:

It is the responsibility of the consultant to keep the following system and its components owned/operated by MFD in up and running condition.

- i) MFD Website ii) MFD Web Camera Page iii) Tele-Terminals iv) MICS

This may require on site visit to MFD Office at TIA, MFD server located at NITC, Singhdarbar, and Tele-terminals, web camera outside valley.

1. There should be a dedicated link to report the technical problem related to MICS Database, Tele-terminals, Web camera and the transmission of data from sixteen plus station and web camera to MICS Database and from MICS Database to website: [www.mfd.gov.np](http://www.mfd.gov.np), RTH Delhi, China and any other place. The reported problem should be acknowledged within three (3) hours on the working days and solved as soon as possible, preferably by the next working day.
2. There should be up to 4 (Four) outside valley field maintenance visits in case there is problem in Tele-terminals/Web camera.
3. The Consultant should prepare regular reports on the problem reported and action under taken.
4. The Report should be submitted every three months.
5. At the end of the consultant period, the final report should also include the following:
  - i) Complete description of the existing system.
  - ii) Research on how MICS is being used by various neighboring countries.
  - iii) Need assessment for a better system.
  - iv) Requirement, Specification, and mock up for a new system.
6. At the end of the consultant period, one day training should be conducted about the system and its component

Remarks:

- 1) The Minor upgrade is to be completed in 3 months.
- 2) The maintenance contract will be effective from the date of signing to ASAD, 2074.
- 3) The rate analysis/ cost break down of maintenance contract will be done on monthly basis.



## Manpower

The following technical experts and assistants are envisaged for the completion of the study.

### Input of professionals:

#### For Minor Upgrade

<b>SN</b>	<b>Professionals</b>	<b>Number</b>	<b>Tentative Days required</b>
<b>1</b>	<b>Monitoring operation</b>		
	Senior Software Developer	1	15
	Support Engineer/ Software Engineer	1	32
	Technician	1	32
<b>2</b>	<b>Software Development and Analysis</b>		
	Senior Software Developer	1	15
	Software Engineer	1	22
	Android Developer	1	22
<b>3</b>	<b>Documentation</b>		
	Admin Assistant/ Secretary	1	7

#### For Maintenance

<b>SN</b>	<b>Professionals</b>	<b>Number</b>	<b>Tentative Days required</b>
<b>1</b>	<b>Field Work/ Site Inspection</b>		
	Software Engineer	1	23
	Technician	1	23
	Transportation	4	

## Timeline

The duration of the monitoring and maintenance work is 1 year effective from date of signing of contract.

## Schedule of Implementation

The time schedule for the completion of the report is as follows:

<b>S.N.</b>	<b>Description</b>	<b>No. of Reports to be Submitted</b>	<b>Due date for submission after effective date of contract agreement</b>
1.	Inception report	2 Copies	1 month after the date of agreement
2.	Draft report and minor software upgrade	2 Copies	2 months after the date of agreement
3.	Submission of Stations' status Report in first eight months	2 Copies	4 months after the date of agreement
4	Final report submission	3 Copies	6 Months

## Schedule of Payment

Schedule of Payment for documentation, analysis and monitoring work will be as follows:

S.N.	Description	% of Contract Amount
1.	Submission and approval of Inception Report	20
2.	Submission and approval of Draft Report	30
3.	Submission of Stations' status Report in first eight months	25
4.	Submission of final report in twelve months	25

## Output

- Regular monitoring of the specified stations during the time period of the contract.
- Site visit to required station if and when the need arises.
- Need assessment for a better system
- Requirement specification and mockups for a new system

## Deliverables

- Upgrading of the Tele-terminal system according to the TOR
- All algorithms and data created during the upgrade of the Tele-terminal system and MICS system.
- The preliminary and draft report should be presented in MFD/DHM for review and approval.
- All the algorithms used for calculation, spatial interpolation should be provided to MFD/DHM.

## D. Evaluation of Consultant's EOI Application

### (I) Eligibility Criteria (Pass / Fail)

Sr. No.	Eligibility Criteria	Requirement	Compliance	Remarks
1.	Corporate Registration	Mandatory	Yes/ NO	Pass/Fail
2.	Tax Clearance / 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. 5years of standing.	Yes/ NO	Pass/Fail

**II) Ranking Criteria (Out of 100%)**

<b>Experience of Consultant (70 marks) <i>Work, completed during last 10 years</i></b>		<b>Office Set up and Logistics (10 marks)</b>	<b>Availability of Staff (10 marks)</b>	<b>Financial Turnover Last three years (10 marks)</b>
<p><b>Overall experience of Firm. (40 marks) 5 Projects</b></p> <p>Work Experience of firm in Application software developments, software system supply etc  (5x8=40 marks)</p>	<p><b>Work Experience in Specific Projects. (30 marks) 2 Projects</b></p> <p>Work Experience of firm in related field (Hydrological/Meteorological software development, Climate software development and supply, development of aviation meteorology related software and scientific study related to hydrology and meteorology)  (2x15=30 marks)</p>	<p><b>Office equipment, space, communication facilities, Vehicle and related Software (10 marks)</b></p> <p>1. Office equipment &amp; data visualization software -5 marks (equip-2, soft.-3 marks)  2. Office Space -3 marks.  3. Communication facilities -2 marks  .</p>	<p><b>Related Technical Human Recourse (10 marks)</b></p> <p>1. Senior Software developer -1 number – 4 marks 2. Software Engineer – 1 number – 2 marks 3. Android developer – 1 number – 2 mark 4. Technician – 1 number – 1 Mark 5. Admin assistant/Secretary-1 number-1 mark</p>	<p><b>Financial Turnover of the consultant within last three years</b></p> <p>1. Less than one million - 4 marks 2. UP to two million- 6 marks 3. More than two million- 10 marks</p>

NOTE: The consultant should score more than 60 percent on the overall ranking criteria as mentioned above to qualify for short listing

## 1. Letter of Application

(Letterhead paper of the Applicant or partner responsible for a joint venture, including full postal address, telephone no., fax and email address)

Location:.....

Date: .....

To:

The Director General  
Department of Hydrology and Meteorology  
Nagpokhari-Naxal  
Kathmandu, Nepal

Being duly authorized to represent and act on behalf of .....(hereinafter "the Applicant"), and having reviewed and fully understood all the short-listing information provided in EOI, the undersigned hereby apply to be short-listed by *DHM* as Consultant for *the Maintenance Contract For Real Time Data Acquisition System*.

1. *DHM* and its authorized representatives are hereby authorized to verify the statements, documents, and information submitted in connection with this application. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
2. *DHM* and its authorized representatives are authorized to contact any of the signatories to this letter for any further information.
3. All further communication concerning this Application should be addressed to the following person,  
  
[Person & Designation]  
  
[Company]  
  
[Address]  
  
[Phone, Fax, Email]
4. We declare that, we have no conflict of interest in the proposed procurement proceedings and we have not been punished for an offense relating to the concerned profession or business and our Company/firm has not been declared ineligible.
5. We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.

The undersigned declares that the statements made and the information provided in the duly completed application are complete, true and correct in every detail.

Signed :

Name:

For and on behalf of (name of Applicant or partner of joint venture)

## **2. Applicant's Information Form**

*(In case of joint venture of two or more firms to be filled separately for each constituent member)*

Information shall be provided in the following format. No field shall be left vacant.

### **a)General**

1. Name of Firm/Company:
2. Type of Constitution (*Partnership/ Pvt. Ltd/Public Ltd/ Public Sector/ NGO*)
3. Date of Registration / Commencement of Business (*Please specify*):
4. Country of Registration:
5. Registered Office/Place of Business:
6. Telephone No; Fax No; E-Mail Address
7. Name of Authorized Contact Person / Designation/ Address/Telephone:
8. Name of Authorized Local Agent /Address/Telephone:
9. Consultant's Organization:
10. Total number of staff:
11. Number of regular professional staff:

*(Provide Company Profile with description of the background and organization of the Consultant and, if applicable, for each joint venture partner for this assignment.)*

**b) Joint Venture Information**

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.

Name of Firm	Address	Telephone	Email	Fax	JV Percent
Lead Firm					
Partner Firm					

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

1. *Maximum four (4) Firms can make Joint Venture.*
2. In case of JV, the minimum share percentage of lead firm must be 40 which must be mentioned in the JV agreement.. Also the lead firm should hold the power of attorney.
3. *provide duly signed and stamped joint venture agreement and power of attorney of the signatories by each member in the JV.*

**Attachment**

1. Joint Venture Agreement
2. Power of attorney of the signatory (ies) of the Applicants

Yes/N
o

**3. Experience**

**3. a) General Experience**

Overall experiences of the firm in relevant work during last ten years are as follows (Work completion certificates are attached.) (Each consultant or member of a JV must fill in this form)

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

**3.b) Specific Experience\***

Experiences of the firm in related field during last ten years are as follows. Work completion certificates are attached. (Each consultant or member of a JV must fill in this form)

Name of Assignment	Location	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.*

## 4. Capacity

### 4.a) Financial Capacity

Annual turnover over the last five years are as follows. The auditor's report/tax clearance certificates are attached. (In case of JV of two or more firms to be filled separately for each firm)

Fiscal year	Turnover (Rs.)

### 4.b) Infrastructure/equipment related to assignment

No	Infrastructure/equipment Required	Requirements Description

## 5. Human Resources (Key Experts)

Human Resources in the company

*(In case of joint venture of two or more firms to be filled separately for each constituent member)*

SN	Name	Position	Highest Qualification	Work Experience (in year)	Specific Work Experience (in year)	Nationality
1						
2						
3						
4						
5						



## 6. 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		
Photocopy, Printers	set		
Computer, Laptops	set		
vehicles(Four wheel Drive)	no		

Authorized signature:

Seal:

Date: