

**STATE PROJECT IMPLEMENTATION UNIT**

**NATIONAL CYCLONE RISK MITIGATION PROJECT PHASE-II**

**Department of Disaster Management and Civil Defence,  
Government of West Bengal**

Tran Bhawan, 5<sup>th</sup> Floor, 87 A, S. N. Banerjee Road, Kolkata-700 014

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**REQUEST FOR EXPRESSIONS OF INTEREST  
(CONSULTING SERVICES - FIRMS SELECTION)**

No: 80/DM/SPIU/NCRMP-II/17

Date: 07.02.2017

INDIA

**NATIONAL CYCLONE RISK MITIGATION PROJECT PHASE II (NCRMP-II)**

**PROJECT ID: P144726**

**Assignment Title: TECHNICAL SERVICE PROVIDER FOR IMPLEMENTATION OF COMPONENT - A OF LAST MILE CONNECTIVITY OF NATIONAL CYCLONE RISK MITIGATION PROJECT (NCRMP).**

**Reference No. NCRMP/WB/CONS 3/TSP-LMC**

The Government of India has applied for financing from the World Bank towards the cost of the **NATIONAL CYCLONE RISK MITIGATION PROJECT PHASE II (NCRMP-II)**, and intends to apply part of the proceeds for consulting services.

The consulting services ("the Services") include **TECHNICAL SERVICE PROVIDER FOR IMPLEMENTATION OF COMPONENT - A OF LAST MILE CONNECTIVITY OF NATIONAL CYCLONE RISK MITIGATION PROJECT (NCRMP) for Development of Last Mile Connectivity and Early Warning Dissemination System (EWDS) and Capacity building for Coastal Communities.**

The Project Director, SPIU, NCRMP II, Department of Disaster Management & Civil Defence on behalf of the Governor of West Bengal now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultant should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The short listing criteria are: **1.** The firm should have at least 2 (two) similar experiences as consultant in similar assignments related to last mile connectivity. **2.** The firm should demonstrate that they have enough capacity (including personnel) in handling assignment. **3.** The firms should submit their annual financial turnover for the last 3 (three) years and **4.** Experience in handling externally aided projects such as the World Bank and ADB will be an advantage. **5.** Prior work experience in similar geographical conditions would be an advantage.

**Expressions of interest (EOI)** must include: **1.** Introductory letter on letter head (with complete contact details - name of contact person, mailing address, telephone, fax, email etc.) explaining how the firm is best to deliver the task. **2.** Organization profile. **3.** Two years annual report (Yr. 2015 and Yr. 2016) and last 3 (three) years Financial statement. **4.** Short note on the similar projects implemented by the firm pertaining to the short listing criteria along with the contact details of past clients. **5.** The EOI should contain sufficient supporting document to substantiate the claim of the Consultant towards their qualification as per the shortlisting criteria.

The draft Terms of Reference will be available on the website <http://wbdmd.gov.in>

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrowers January, 2011 ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications. The submission should clearly state the nature of Association (JV or sub-consultant).

A Consultant will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the Consultant Guidelines.

Further information can be obtained at the address below during office hours 10:00 hrs to 17:30 hrs.

Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by fax, or by e-mail) by **06.03.2017 up to 17:30 hrs.**

Sd/-

**Project Director**

State Project Implementation Unit, NCRMP - II  
Department of Disaster Management & Civil Defence  
Government of West Bengal

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**TERMS OF REFERENCE (TOR)**  
**FOR**  
**HIRING OF CONSULTANT FOR IMPLEMENTATION OF COMPONENT - A OF LAST**  
**MILE CONNECTIVITY OF NATIONAL CYCLONE RISK MITIGATION PROJECT**  
**(NCRMP - Phase II)**

**1. Background:-**

The National Cyclone Risk Mitigation Project Phase-II (NCRMP-II) has been drawn up with a view to address the cyclone risks in the country, with World Bank Assistance. The Project Development Objective is to reduce vulnerability to cyclone and other hydro-meteorological hazards of coastal communities in project States, and increase the capacity of the State entities to effectively plan for and respond to disasters. The Government of India has initiated a number of initiatives to reconcile the aims of protection of life and livelihood of coastal communities; conservation of ecological resources in the coastal and marine areas; and promotion of economic activities that have necessarily to be located in the coastal regions. As one of the different initiatives, the Government of India along with the respective State Governments is implementing a World Bank financed project called the “National Cyclone Risk Mitigation Project” (NCRMP-II). The Project has specific objectives to support the long-term vision of the Government by building national capacity for implementation of National Cyclone Risk Mitigation Project approach in the country, and piloting the approach in the coastal states.. The Project focuses on expanding the institutional capacity and knowledge base needed for National Cyclone Risk Mitigation Project. The State Components include capacity building at the state level, preparation of investment plans, and a range of complementary local pilot investments on cyclone risk mitigation infrastructure.

In the State of West Bengal, a State Project Implementation Unit (SPIU) in the State of West Bengal has been set up. The Principal Secretary, Department of Disaster Management, Government of West Bengal heads the SPIU as Project Director. The SPIU is responsible for coordinating and monitoring the implementation of the Project. In West Bengal, the project is being implemented in the three coastal districts of Purba Midnapore, South 24 Parganas, North 24 Parganas. The Project has four principal components as mentioned below (with budget allocated for the State of West Bengal):

- A. Early Warning Dissemination System (EWDS) - Last Mile Connectivity
- B. Cyclone Risk Mitigation Infrastructure
- C. Technical Assistance for Capacity Building on Disaster Risk Management (component managed by NDMA)
- D. Project Management and Implementation Assistance

**The present request for proposal pertains to Component A: Early Warning Dissemination System (EWDS)**

**Objective**

The objective of this component is to reduce the vulnerability of coastal communities by addressing the existing gap in dissemination of warning to the communities. In turn the component will support:

- A.1 Installation and operation of EWDS allowing the state and/or district/sub district level control centre to send communication directly to the villages using various technologies like: Global System for Mobile Communications (GSM) or Code Division Multiple Access (CDMA) based technology or any other appropriate technology that is feasible. The component also envisages setting up/ strengthening emergency operation centers (EOC) to channelize the warning through different communication modes. In addition, the component should also provide for redundancy in communication using satellite phones or any other similar technology that could be provided to key officials for communicating the warnings in the villages along with suitable backup systems. The aim to establish a fool proof Early Warning Dissemination System; and
- A.2. Strengthening capacity: (i) in operating, maintaining and regular use of the EWDS equipment by officials and village representatives, and (ii) of communities in disaster preparedness and response by preparing disaster management plans and arranging mock drills etc.

**2. Scope of work:-**

The objective of the consultancy assignment is to assist the SPIU in West Bengal in implementation of Last Mile Connectivity components under NCRMP in the State of West Bengal.

The area under consideration for installation and implementation of EWDS is within the coastal areas of the North 24 Parganas, South 24 Parganas and Purba Medinipur and the details are as follows:

- Preparing an outline of communication strategy for early warning dissemination in consultation with the SPIU, participating districts and other stakeholders. The strategy should be based on feasibility of the technological options proposed for the area, covering aspects of appropriateness, ease of use, robustness, redundancy and control and command center configuration etc. including options and pros and cons.
- Organize formal consultations with all the stakeholders and help arrive at an acceptable and workable solution.
- Detail out the communication plan with cost estimates, outline technical specifications, O&M cost and arrangements; hardware, software, manpower requirements etc.
- Carry out radio site survey to determine line of sight clearance from all locations where Radio trans-receivers are to be installed and work out requirements of antenna height at all locations as well as requirement of radio repeaters if any
- Carry out site survey including soil testing if necessary, to check suitability of site locations for installation of infrastructure and work out requirement of suitable foundation
- Finalize detailed technical specifications, Procurement plan, bidding documents and a rollout plan.
- Assist the SPIU in Bid Process Management and Selection of Service Providers/Vendors/Agencies.
- Ensure that supplies and services are provided in accordance with agreed specifications and service standards.
- Coordinate with state agencies for installation, testing and commissioning of equipment and services and supervise performance and help in certification of equipment and services for operationability and final payment to suppliers/vendors.
- Assist SPIU and other State Agencies and suppliers/vendors in obtaining necessary regulatory/statutory clearances.
- Continue to monitor the O&M of the system by the supplier/vendors and state agencies for a period of two years and advise on shortcomings, additional actions etc.

- With the assistance of suppliers/vendors help prepare an Operation Manual and a Training Manual and assist the SPIU in rolling that out to the stake holders.
- Overall Monitoring of the Project implementation.
- It shall conduct Quality Audit of the equipment and the functionality of the equipment so installed.
- It shall also ensure proper/continuous supervision of maintenance of the equipment during the warranty period as per the Service Level Agreement for two years atleast after the successful commissioning of the complete system.
- Strengthening of community capacity in maintaining and operating the early warning communication infrastructure as well as in community mobilization / evacuation during an emergency.

The technical service provider is expected to undertake all the activities only after detailed consultations with SPIU.

### **3. Technical Requirements of EWDS:**

Under the project the purpose of this component is to develop a framework for dissemination of hydro-meteorological warnings and advisories from the authorities to the community and to receive feedback in the event of a disaster. Essentially, this will be a two-way communication system to reduce the vulnerability of coastal communities by addressing the critical gaps of early warning dissemination in a timely, reliable and efficient manner and providing an opportunity to the community to communicate with the authorities in the event of cyclone emergencies. The component will support:

- The installation of infrastructure allowing the State and/or District/Sub district level control centers to send communication directly to the community level and to obtain feedback from the community.
- Strengthening of community capacity in maintaining and operating the early warning communication infrastructure as well as in community mobilization during an emergency.

### **4. Timelines and Deliverables:**

- a. Total consultancy contract period is 16 months. Consultant shall complete entire design work

in initial four (4) months. Twelve (12) months is for procurement of works and construction management.

- b. The site supervision and project management team shall be mobilized keeping in view the requirement of services for procurement of works and the date for the actual commencement of works by the contractors, or as decided by the Employer.
- c. Any DPRs prepared, incomplete/inadequate or part submission shall be deemed as invalid submission. The adequacy of any submission shall be determined at the sole discretion of the client. Client will generally accord approval within 15 days of submission of reports.
- d. During the entire period of contract, the consultant shall prepare and submit the reports/deliverables as detailed below

**(a) Providing technical service/support for supply and installation of Equipment including training.**

The job is to be completed in 16 months time including three months for training with the specific time lines with respect to signing of consultancy contract and corresponding deliverables are given in the table below:

S. No.	Activity	Timeline	Deliverables
1	Finalization of Technical Specifications and Bill of Material, Preparation of Implementation Plan and Finalization of project procurement plan	Within 4 months of signing the contract	<ul style="list-style-type: none"> <li>✓ Radio site survey</li> <li>✓ Technical suitability document of all sites for installation of civil infrastructure</li> <li>✓ Technical Specifications</li> <li>✓ Project Plan</li> <li>✓ Implementation plan</li> </ul>
2	Preparation and Finalization of Bid Documents for procurement, installation and commissioning of equipments	By the end of 6 <sup>th</sup> month	Final Bid Documents as per the procurement procedures of the World Bank
3	Finalization of vendors for supply and Installation of equipment	By the end of the 8 <sup>th</sup> month	Contract signing with the selected vendor after approval of World bank and Government of West Bengal

4	Implementation of the Project (Supply and installation of equipment and services)	By the end of 15 <sup>th</sup> month	
5	3 <sup>rd</sup> party acceptance testing of the equipments and services	By the end of 16 <sup>th</sup> Month	Commissioning and acceptance of the equipments and services
6	Trainings	Training for operational staff in 16 <sup>th</sup> Month Training and for other stake holders for 3 months (period beginning of 14 <sup>th</sup> month to end of 16 <sup>th</sup> month	Training of community and functionaries for utilizing the services

**(b) Monitoring of O & M of the installed system during operational period**

The monitoring will be done for 2 years with a contract period of 2 man-months per year. The activities proposed are as follows:

- Continue to monitor the O&M of the system by the supplier/vendors and state agencies for a period of two years and advise on shortcomings, additional actions etc.
- With the assistance of suppliers/vendors help prepare an Operation Manual and a Training Manual and assist the SPIU in rolling that out to the stake holders.
- Overall Monitoring of the Project implementation.
- It shall conduct Quality Audit of the equipment and the functionality of the equipment so installed..
- It shall also ensure proper/continuous supervision of maintenance of the equipment during the warranty period as per the Service Level Agreement for two years at least after the successful commissioning of the complete system.

**INDICATIVE MAN-MONTHS FOR EXPERTS AND SUPPORT STAFF**

The Consultant will engage the minimum key experts of required qualification and experience as outlined below. The Consultants shall make its own assessment for the requirement of any additional key or non-key expert, which it feels is required for the successful and satisfactory completion of the services; and shall submit financial proposal accordingly.

<b>Sr. No.</b>	<b>Designation of the team member</b>	<b>Maximum number of positions</b>	<b>Professional profile</b>	<b>Indicative man months</b>
<b>A</b>	<b>System design, tendering and project management</b>			
1	Team Leader cum Sr. Communication Expert	1	Graduate in Engineering with minimum of 10 years experience in communication science and technology. The team leader must have previous experience in leading consultancy team in delivering services of comparable nature especially for projects funded by World Bank or other international funding agencies.	16
2	Communication cum IT system expert	1	Post graduate with relevant experience in the field of communication technology Minimum 8-10 years experience in implementation of web based communication works.	7
3	Civil / Construction design Engineer	1	The Civil Engineer shall be a Post Graduate in Civil Engineering with experience in construction of buildings and self-supporting towers	8
4	Technical Training Experts	1	Post graduate or MBA with specialization in Human Resource management. At least 5 years experience of imparting training of the nature of project under consideration	3
<b>B</b>	<b>Contract management and quality assurance</b>			
1	Procurement & Contract Management Expert	1	Graduate in Science or Engineering having minimum of 7-8 years experience in procurement and contract management. The Expert with proven experience of working on projects of similar nature funded by the World Bank or other international funding agencies will be preferred.	8
2	Quality Compliance and Audit Expert	1	Graduate with relevant experience in the field of quality compliance and their audit.	3
	<b>Total Man Months of experts</b>			<b>45</b>
<b>C</b>	<b>Support professionals (Installation supervision and acceptance testing)</b>			
1	Site Engineers/ Communications Engineers /Supervisors	2	The site engineers will have a communications engineering degree with a minimum of 3 years of experience or Diploma in engineering or Graduate in science with 5 years of experience in wireless link	12



			engineering, contour map study and site survey for line of sight verification. All engineers must have demonstrated computer skills. They will work under the close guidance of the Team Leaders for Communications and IT	
2	Site Engineers/ IT Engineers /Supervisors	1	The site engineers will have a communications / IT engineering degree with a minimum of 3 years of experience or Diploma in engineering or Graduate in science with 5 years of experience in supervision of setting-up of IT networks. All engineers must have demonstrated computer skills, whereby working knowledge of network management software is of comparative advantage. They will work under the close guidance of the Team Leaders for Communications and IT	5
3	Civil / Construction Supervision Engineer	1	The Civil Engineer shall be a graduate in civil engineering with 3 years experience or Diploma Holder with 10 years experience in construction of buildings and self- supporting towers	8
<b>Total man months of support staff</b>				<b>25</b>

**BASIS FOR ESTIMATION OF MAN MONTHS**

Sr. No.	Designation	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
		Activity	1			2		3	4										5	
																6				
1	Team Leader cum Sr. Communications Expert		→																	
2	Communications cum IT system expert				→													→		
3	Project Planning & Implementation Expert			→							→									
4	Civil / Construction Engineer Expert				→								→							
5	Technical Training Expert															→				
6	Procurement & Contract Management Expert								→											
7	Quality Compliance and Audit Expert															→				
<b>SUPPORT STAFF</b>																				
8	Site Engineers/communications Engineers /Supervisors			→												→				
9	Site Engineers/ IT Engineers /Supervisors										→									
10	Civil / Construction Supervision Engineer		→								→									

**LEGEND:**

Activity details:

Activity 1: Design and calculation of Bill of quantities for EWDS based on site survey and data from DMD / Government agencies

Activity 2: Finalisation and release of RFP for supply, installation, testing and maintenance of EWDS

Activity 3: Evaluation of bids and award of contract to supplier

Activity 4: Supply, installation of equipment and systems, civil construction etc.

Activity 5: Acceptance testing, fault rectifications and commissioning of EWDS and training of all stake holders

Activity 6: Training of operational staff, government officers, communities and other stake holders

## **5. Data and Services to be provided by the Client**

The Consultant will be provided access to all such information as is necessary to plan and execute the assignment. It shall include:

- (i) Project documents available in public domain such as procurement plan, procurement manual, etc
- (ii) World Bank Standard Bidding Documents.
- (iii) Access to sites, and support of the nodal department

## **6. Review and monitoring of Consultants work**

Consultant's performance and quality of work will be reviewed by a committee set up by the SPIU.