

**Request for Expressions of Interest (REOI)
(Consulting Services-Firms Selection)**

Date: 3.03.2017

Country: India
Name of Project: National Cyclone Risk Mitigation Project (NCRMP) II
Credit No.: CR.5693-IN
Assignment Title: Selection of Consultancy firm for Third Party Quality Auditor in the State of Karnataka

Reference No: IN DRM KAR 2594-CS-QCBS

The Government of India has received financing from the World Bank towards the cost of the National Cyclone Risk Mitigation Project (NCRMP-II), and intends to apply part of the proceeds for consulting services.

The consulting services ('the Services') include hiring of **THIRD PARTY QUALITY AUDITOR FOR NCRMP-II** to assist the State Project Implementation Unit (SPIU), Karnataka in maintaining the quality standards of the works by independent assessment/audit of quality of works at various stages of construction of Multipurpose Cyclone Shelters (MPCS), Saline Embankment, Roads, Bridges and providing training to the SPIU staff in improving their Engineering/ Technical/ Managerial skills over a period of 24 months.

The Project Director, SPIU, NCRMP-II, Government of Karnataka 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 shortlisting criteria are:

- a) The firm should have at least 2 similar experiences as TPQA consultant (costing not less than INR 5 crores) in assignments related to Civil engineering projects such as buildings, saline embankments, roads and bridges and experience in rehabilitation or restoration projects will have advantage over general experiences;
- b) The firm should demonstrate that they have enough capacity (including personnel) in handling Civil engineering projects such as building, roads and bridges and saline Embankments;
- c) The firms should have an average annual turnover of at least INR 7 cores in the last 3 years; and

Experience in handling externally aided projects such as the World Bank and ADB will be an advantage.

d) **Expressions of interest (EOI) must include:**

- 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;
- Organization profile
- Two years annual report (Year 2013-14 and Year 2015-16) and 3 years Financial statement;
- Short note on the similar projects implemented by the firm pertaining to the shortlisting criteria along with the contact details of past clients;
- 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 (TOR) is be available at website www.ksndmc.org under tenders

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 and Grants) by World Bank Borrowers January 2011 updated July 2014 ("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. Such association must be clearly stated in the EOI.

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

Further information can be obtained at the address below during office hours i.e. 10 AM to 5:30 PM on or before **25.03.2017**. Expressions of Interest must be delivered in the written form to the address below on or before **25.03.2017**

Secretary to Government

Revenue Department (Disaster Management) & E/o Project Director,

State Project Implementation Unit (SPIU),

National Cyclone Risk mitigation Project (NCRMP) -II

Government of Karnataka

No.546, 5th Floor, Gate 2, M. S. Building,

Bengaluru-560001, Karnataka, India

Tel: **080-22340676, 22032582**

Email: pdncrmkar@gmail.com

Terms of Reference
For
Third Party Quality Auditor

STATE PROJECT IMPLEMENTATION UNIT
NATIONAL CYCLONE RISK MITIGATION PROJECT PHASE II
REVENUE DEPARTMENT (DISASTER MANAGEMENT)
GOVERNMENT OF KARNATAKA

Address: M.S.Building, Gate No. 2, 5th Floor, Bengaluru –560001
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Terms of Reference

Third Party Quality Audit- NCRMP-II

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**Terms of Reference for
The Appointment of Firm for Third Party Quality Auditor for NCRMP II
Karnataka**

1.0 Project Background

The Government of India has initiated the National Cyclone Risk Mitigation Project (NCRMP) with a view to address cyclone risks in the country. The overall objective of the Project is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones and other hydro meteorological hazards in the coastal States/UTs of India.

The Project has identified 13 cyclone prone States and Union Territories (UTs) with varying levels of vulnerability. These States/UTs have further been classified into two categories, based on the frequency of occurrence of cyclones, size of population and the existing institutional mechanism for disaster management. These categories are

Category I Higher Vulnerability States i.e. Andhra Pradesh, Gujarat, Orissa, Tamil Nadu and West Bengal

Category II Lower Vulnerability states i.e. Maharashtra, Goa, Karnataka, Kerala, Daman & Diu, Puducherry, Lakshadweep and Andaman & Nicobar Islands

The project has the following four components:

Based on the above objectives, the Project has been divided into four components, namely:

Component A – Last Mile Connectivity for the dissemination of cyclone warnings and advisories from district/sub-district level to communities and vice versa. This will be implemented by NDMA in consultation with participating States/UTs.

Component B - Construction of physical infrastructure for cyclone risk mitigation. This Component will be implemented by the States/UTs.

Component C - Technical assistance for capacity building on hazard risk management. NDMA and NIDM are the implementation agencies for this component.

Component D - Project Management and Monitoring applicable to all implementing agencies.

Project Implementation Arrangements

- a) A central Project Implementing Unit ('PIU') has been set up at the State. This PIU is responsible for coordinating and monitoring the implementation of the Project by the respective implementation agencies. The line departments are the implementation agencies on ground, and are responsible to ensure timely completion of the works at desired quality levels.
- b) The Third Party Quality Auditor ('TPQA') will be appointed by the PIU who shall report to it on its findings.

c) Details of Implementation of NCRMP II Karnataka

Nodal Agency	Revenue Department (Disaster Management)
Executing Agency	Public Works Department and Minor Irrigation Department.

Executing Agency and Civil Works - Physical Outlay

Public Works Department	No / Km	Minor Irrigation Department	No / Km
Multi-Purpose Cyclone shelters (MPCS)	10	Saline embankments	07 07 Kms
Roads	25 47.63 Kms		
Bridges	02		

2.0 Objectives of the Third Party Quality Audit (TPQA)

- Assist the SPMU/SPIU in maintaining the quality standards of the civil works by independent assessment/audit of the quality of works at various stages of construction of Cyclone Risk Mitigation Infrastructure (Multi-purpose Cyclone Shelters, Saline Embankment, Roads and bridges) being implemented by Implementing Agency (IA) and contractor.
- Certify the quality, and provide the necessary guidance and support to address any necessary improvements for proper completion.
- Assess and report on the compliance with the requirements of Environmental and Social Framework (ESMF), including the management measures provided in the Environmental Management Plans.

3.0 Outline of tasks to be carried out

The scope of services for the TPQA assignment includes:

i. Project Inception

1. At this stage the Consultant shall conduct a preliminary review of standard contract documents, drawings, specifications, materials reports and status of the work for the current contracts to obtain understanding of the scope and complexities of the assignment. This exercise will also include familiarization with the Environment and Social Framework (ESMF) and Environment Management Plans (EMP).
2. The Consultant will also have discussions with the key stakeholders at SPIU to understand implementation status, basis for site selection, the various manuals and guidelines prepared for the project, specific concerns of PMU (if any) and the nature and frequency of various field tests to be performed on civil works and reporting arrangements.
3. After the initial study and discussions, the Consultant will prepare and submit a Project Inception Report, within 30 days of issue of work order. The Inception report would include items like:
 - a) Detailed methodology for execution of the audit, including the various tests that will be conducted and outlining quality audit procedures.
 - b) Detailed methodology for checking compliance to Environment and Social Management Framework (ESMF) including the EMPs and applicable laws pertaining to environment protection and labour welfare.
 - c) Audit plan for the first year clearly identifying the audit stage for each type of work.
 - d) Overall team deployment schedule
 - e) Reporting formats including schedule of reporting and verification of compliance to observations.
 - f) Reporting and escalation protocols including methodology for integrating the audit results in payment certification system and
 - g) Evaluation of the project MIS and suggesting updating requirements for capturing the audit reports, compliance and linking with payment certification system

ii. Audit Planning

4. During the inception for first year and subsequently at the beginning of next year an audit plan will be prepared in consultation with SPMU/SPIU. The audit plan would be updated quarterly and may be revised on the basis of findings of the audits conducted in the preceding quarter.

iii. Execution of audits

The execution of audits will be in accordance with the approach and methodology agreed in the Inception Report and in accordance with the audit plan. In general the purpose of quality audit exercise is to ensure that the works are executed according to the designs, drawings and specifications as specified in the bidding documents / applicable standards, and that good engineering practices are followed in construction. True to desired lines, levels and finishing. The quality audit at construction sites shall include (but not be limited to) the following:

Executed following the EMP provisions included in the bidding documents and in general follow the agreed provisions in the ESMF.

iv. Executed following the relevant laws / statutes and practices / guidelines related to workers welfare, safety at worksite, insurances, etc.

- Assess independently the quality of construction vis-à-vis the standards specified in the bidding documents and good engineering practices including disaster resistant construction standards.
- Review the degree of quality control exercised during the construction by the contractor maintaining adequate arrangements / practices (tests, numbers, frequency, approach and timing etc.) / documentation (QC registers, test reports, observations of supervisory staff, compliances etc) and the degree of monitoring done by the line department identify non-compliances and suggests necessary improvements and compliance methodologies.
- Review that the materials have been procured stored and used in accordance with the quality standard requirements set forth in the contract agreement.
- Assess if the progress of work is as per scheduled in the contract.
- Carry out required field testing of quality of materials and works during various stages of construction.

- Review that the test reports of the materials / workmanship that were tested by the contract as required in the individual contract document are satisfactory.
- Carry out additional testing of the materials and on works at any stage of construction wherever necessary at site or in the approved laboratories.
- The Field Engineer of TPQA or DPM should remain present during all critical stages of execution.
- Review the action taken on the earlier reported non-compliances and recertify including following up with the heads of implementing agencies for action on earlier reported non-compliances.
- Assist the PIU/ line departments in resolving the issues related to non-compliances. The consultant's responsibility does not end by merely pointing the defects rather they should facilitate the follow up action required to rectify the defects.
- Create photo documentation of quality related issues including its compliances with date and geo-tags.

Check and report on compliance to:

- i. Environment Management Plans (EMP) defined in the contract document
- ii. Environment laws / regulations of Govt. of India and rules formulated by the concerned State Government.
- iii. Labour laws/ regulations applicable to construction sites.
- iv. Safety management at the construction sites as per the relevant IS codes such as (but not limited to) IS 3764: Code of safety for excavation work (first revision), IS 5916: Safety code for construction involving use of hot bituminous materials etc.
- v. Specifications of agencies like Indian Road Congress, Ministry of Shipping and Road Transport, Central Public Health Engineering Organization, Bureau of Indian Standards, Ministry of Rural Development (MORD), Ministry of Road Transport and Highways (MORTH) etc as applicable.

The Consultants shall also

- i. Inspect, review and report the adequacy and competence of contractor' staff, labour and machinery.
- ii. Review the works progress in accordance with agreed milestones and work schedules and provide regular updates for including need for increasing resources and / or change in work plan for timely execution.
- iii. Certify the compliances to the observations made during the earlier visits; and provide overall opinion on the quality of works based on audit done.

Other Requirements:

- All the apparatus and equipment for the field testing shall be procured by the Firm at its own cost. The Firm shall be free to take back these apparatus and equipment on completion of the contract.
- The tests shall include all common tests as specified. Where use of back office laboratory is necessary, Consultant will take the samples and get it tested in accredited/approved laboratories which will be first inspected and recommended for accrediting by Consultant under the project by SPMU. The identification and certification of the testing agency will be specific to the tests that can be carried out in a particular laboratory.
- The Consultant shall establish a mobile laboratory exclusively for Embankments.
- To the extent possible field testing and sampling shall be done in the presence of Engineer/Contractor's representative and the process should be photo documented with geo tagging.
- Surprise field visits shall also be carried out without advance information to the PIU's and Contractors.
- Upon field inspection and tests the Consultants, where required and in critical cases through the Engineer in Charge shall arrange to issue, stop work' notice to the contractors and assist in remedying the defects. This shall be done only in exceptional cases where continuance of works may jeopardize the ultimate quality and safety of structure, safety of workers and of third parties etc.

- The Contract Documents are the basis of all works to be undertaken under the Project. These are standard documents which will be made available to the Consultant.
- Annexure A contains a list of indicative quality checks on materials, equipment and appurtenances that should not be considered as limiting. In consultation with the other consultants, PMU and line Departments; based on Annex A of the ToR; the specifications in the bid documents and relevant standards; prepare standard Quality Assurance Plan (tests, stage, frequency, standards to be complied, guidance on judging from test results, critical workmanship requirements, critical stages of work that require Engineer' presence "as a must" etc.) for various types of works to be audited and formats for documenting the quality test results and reporting of such tests.

Reporting

- a) State PIU of the State will be the nodal agency for the execution of this assignment. The consultants will submit all the reports to PIU as per the specified timelines.
- b) The field visits which shall be an on going activity shall be undertaken as per the audit strategy finalized. Audit reports will be submitted within 3 days of inspection of the work. The reports shall highlight for each contract package, status and progress of work, audit opinion, status of compliance to earlier observations, critical issues, and follow-up actions. The Consultants will submit all the work audit inspection reports to PMU with one copy each to the Engineer of the Contract and head of the concerned line department. Any critical issues needing stoppage of work need to be reported immediately both to the Engineer and the SPMU, through different means (telephone, SMS, e-mail, fax etc.)
- c) At the end of every week the Consultant shall submit a report containing the details of field visits undertaken during the week indicating the date of visit. In addition to the site level reports and weekly report, consolidated reports would be submitted every month and quarter, compiling the findings in the site reports, summary audit opinion, corrective actions, progress of works and issues etc. The Consultant may be also required to make presentations on audit findings at the designated forums as and when required by the client.
- d) Annual review report would be submitted at the end of financial year and a final review report would be submitted at the end of the project / this consultancy assignment. The monthly, quarterly annual and final review

reports should also include good practices and lessons learnt with regard to quality systems and ESMF implementation.

- e) In addition, the consultant will comply with any other reporting requirements as agreed in the project inception stage. Reports on non-compliances are to be transmitted immediately (on real time basis through email/ other means) and the communication shall be simultaneous to the concerned engineer, line department and the SPIU.

Training and Orientation of contractors and implementation agencies

30. Trainings will be organized by the state PIU every quarter. The consultant will conduct training sessions for the staff of the implementing agency and the contractor teams to highlight the key audit findings, guide on the corrective action required and also train them on the required construction techniques, environment and social management aspects etc. The proceedings of each such individual training session shall be properly documented by the Consultant and shared with the SPIU of State. The cost of such trainings is reimbursable as per agreed conditions.

Update the Project monitoring system

All site visit reports, audit findings, Non-compliance Reports (NCR's), progress reports, suggested corrective action, status of completion of corrective action etc. along with photographs should be uploaded to the website, separate access to the Consultant for uploading all reports. In case of any difficulty in uploading in website, the Consultant shall make its own arrangements for creation of separate website and uploading all its audit reports

4.0 Schedule for completion of tasks

- 1) The consultancy will be initially for a period of 24 months. The consultants shall start audit within 10 days of finalization of audit plan and thereafter within 10
- 2) Days after the end of each quarter. The SPIU will facilitate for the Consultant to conduct audit as per the strategy.
- 3) The key deliverables for the assignment along with respective timelines are as follows:

Deliverable	Timeline
Inception report containing the Quality Audit methodology, field procedures and quality control plan	Within 30 days of signing the contract.
Audit Plan/Audit Strategy, QAP and reporting format	Within 1 month of signing the contract as part of inception report, within 7 days from end of earlier quarter
Site Visit Report	Within 7 days
Non-compliance event report	Immediate (to be simultaneously reported to the engineer over phone)
Monthly progress report	Within 7 days from end of reporting month
Quarterly Summary Report	Within 15 days from end of quarter
Annual Review Report	Within 15 days from end of financial year
Final Review Report	Three months prior to winding up of the Project or completion of the Consultant's contract, whichever is earlier
Presentation to the PIU on the findings of the audit and suggestions	Every quarter

5.0 Team composition and estimated man month inputs

i. Profile -agency

The Agency will have 10 years of experience in Quality Audit (Technical and performance audit) especially in infrastructure projects in India. Familiar with M&E systems and MIS Proficient in English, Kannada , both written and spoken.

Priority will be given to candidates with experience in post-disaster reconstruction projects, and having undertaken projects in cyclone prone areas.

ii. Team Composition

The list of sites proposed to be audited in has been provided as **Annexure B**.
The consultant's team shall be organized as follows:

Team	Position	Qualification
Project Management Team	One Project Manager (Civil Engineer)	The Team Leader shall be a Post graduate in civil engineering with additional qualifications in project management; should have minimum of 10 years of experience in management of public infrastructure
Site Team	3 Civil Engineers (Multi-purpose Cyclone Shelter, Evacuation Roads, Bridges, Saline Embankments)	At least 7-10 years in the field of civil engineering and should have worked in technical/ quality audit teams in the past. Should have experience in construction of disaster resilient buildings/ construction Experience of working in the coastal regions is desirable Demonstrate expertise in one or more of the following areas: - Construction of roads, bridges, sluice - Construction of bunds - Construction of shelters

The desired qualifications for various team members are as follows:

Sl. No	Key Position	Minimum Qualification	Minimum Desired experience	Age as on	Estimated man–months input
1	Project Management Team				
2	Site Team				

6.0 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:

List of sites, contracts/tenders for selected sites, including special specifications
Project documents available in public domain such as ESMF, Procurement Plan, Manuals, etc, access to sites, and support of the line department

7.0 Review and monitoring of consultants work

Consultant's performance and quality of work will be continuously reviewed by a Committee set up as below at PIU. There would be formal review, monthly/annually by the Committee set up at PIU at the inception stage. Unsatisfactory performance will invite action including pre closure of contract in accordance with the contract provisions.

Committee is as follows:

Sl.No	Committee	Designation
1	Chairman	Project Director
2	Member	Technical Director
3	Member	Additional Technical Director
4	Member	Deputy Secretary, Revenue Department(DM)
5	Member	Director KSNDMC
6	Member Convenor	Project Manager, NCRMP

10.0 Annexure A: Indicative test requirements: Line agency preparing indicative test requirement

Civil Works: The main materials to be inspected are as follows:

- Reinforced concrete

- **Building works**
- **Building service appurtenances and associated works**
- **Soil tests**
 - **Reinforced concrete**

The relevant tests are included in the standard specifications; they shall include but not be limited to the following

11.0 Annexure B: List of proposed project site - Karnataka NCRMP

Dakshina Kannada District

Mangaluru Taluk

1) Cyclone Shelter:-

Sl. No.	Name of work
1	Construction of Multipurpose cyclone shelter near Zilla Panchayath Higher Primary School, Hosabettu in Mangalore Taluk.

2) Roads:-

Sl. No.	Name of work	Length in Kms.
1	Construction and improvements to Mukka-Sasihithlu road from Km. 0.00 to 5.50 Km. in Mangalore Taluk, Dakshina Kannada District.	5.50
2	Improvements to road from Chitrapura River side towards East Upto NH, Mulki Town in Mangalore Taluk, Dakshina Kannada District.	1.70
3	Construction and improvements to road from Adamkudru School to Adamkudru Church in Mangaluru City South Constituency. (Total length is 1.8 km out of which 600 mts is developed as cement concrete road and balance 1.2 km needs to be developed).	1.20
4	Construction and improvements to KFDC Hoige Bazaar 3 rd stage to Fisheries Jetty road and road from Hoige Bazaar to Railway gate to Marigudi Temple, Bolar Leewel Feery Road in Mangalore Taluk, Dakshina Kannada District.	1.60

5	Construction and improvements to road from Someshwara Temple sea shore to Thokkottu in Mangalore Taluk, Dakshina Kannada District.	3.00
6	Construction and improvements to road from Ullala Beach, Ullal Dargha via to Thokkottu in Mangalore Taluk, Dakshina Kannada District.	2.40
	Total	15.4

Udupi District

Kundapura Taluk -MPCS

Sl. No	Name of Work
1	Construction of MPCS near Govt. Higher Primary Kuvempu School, Thekkatte of Kundapur constituency of Kundapur Taluk.

ROADS

Sl. No	Name of Work	Length in Km
1.	Road from Herikudru temple to NH, Anagalli	2.12
2.	Road from Herikudru School to NH, Anagalli	0.82
3.	Road from Gangolli light house to Trasi Gangolli Main road, Gangolli	0.90
4.	Road from Bengeri Naga temple to Trasi Gangolli Main road, Gujjadi	1.04
5.	Uppunda Medical Alvekodi fisheries road, Paduvari	1.80

6.	Road from Yedthare Paduvari customs to NH 66, Yedthare	1.60
7.	Road from Yedthare Market road, Yedthare	1.60
8.	Road from NH 66 to Shirur under bridge approach road	1.20
9.	Thekkatte to Kome fisheries road (Subramanya temple road), Tekkate	2.10
10.	Beejadi fisheries road, Bejadi	2.15
11.	Shiroor Alvegadde fisheries road, Shiroor	1.90
12.	Koderi Fisheries road, Koderi	1.00
13.	Road from Yedthare to Paduvari Someshwara road, Yedthare	3.30
	Total	21.53

Udupi Taluk - MPCS

Sl. No	Name of Work
1	Construction of Multipurpose Cyclone Shelter near Govt. Higher Primary School and PU college in Padu Kapu Village

Bridge

Sl. No	Name of Work
1	Construction of bridge and approach road Manooru to Nadubettu across Boodanagundi River

2	Construction of bridge and approach road @ Kelageri to Kodi Kanyana Temple
	Total

Roads

Sl. No	Name of Work	Length in Km
1	Malpe-Tottam-Gujjarabettu Fisheries Road	2.00
2	Hejamadi Kodi Fisheries Road	1.20
3	Tenka Fisheries Road	2.00
	Total	5.2

Uttara Kannada District - MPCs

Sl. No	Name of Work
1	Construction of Multipurpose Cyclone Shelter at Chittakula village, Chittakula GP Karwar Taluk, Uttara Kannada
2	Construction of Multipurpose Cyclone Shelter at Amadalli Village, Amadalli GP, Karwar Taluk, Uttara Kannada
3.	Construction of Multipurpose Cyclone Shelter at Pujgeri Gram Panchyat Shetgeri, Ankola, Uttara Kannada
4.	Construction of Multipurpose Cyclone Shelter at Govt. HPS, Kharviwada Belekeri GP, Ankola, Uttara Kannada
5.	Construction of Multipurpose Cyclone Shelter at Manaki, Kumta, Uttara Kannada District

6.	Construction of Multipurpose Cyclone Shelter at Manki High School, Honnavar, Uttara Kannada District
7.	Construction of Multipurpose Cyclone Shelter at Shirali Village (Tattlihakkal), Shirali GP, Bhatkal, Uttara Kannada

Roads

Sl. No	Name of Work	Length in Km
1	Improvements to Manki Banasale to Halemath Fisheries Link Road in Honavar Taluka of UK Dist.	1.5
2	Improvements to Manki Banasale Hosahitlu Doddagunda Talmakki Fisheries Link Road in Honavar Taluka of UK Dist.	2
3	Murudeshwar-Tudalli fisheries link road, Bhatkal Taluk	2.00
	Total	5.50

Saline Embankment

Sl. No	Name of Work	Length in m
1	Construction of protection work near Manikatta from ch. 0.0m to 3.0Km in Kumta Taluka. Uttara Kannada District.	3000
2	Construction of protection work near Aganashini (near Manikatta) in Kumta Taluka, Uttara Kannada District. Ch. 3.0 to 7.00M	4000
	Total	7000