



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Foreign Cooperation Branch
Jwagal, Lalitpur

REQUEST FOR EXPRESSION OF INTEREST (REOI) (CONSULTING SERVICES-INDIVIDUAL)

Date of first publication: February 03, 2018

Name of Project: Nepal India Regional Trade and Transport Project

The Government of Nepal (GON) has received financing from the World Bank towards the cost of the Nepal India Regional Trade and Transport Project (NIRTTP) and intends to apply part of proceeds for consulting services of individual Consultants to the Foreign Cooperation Branch, Department of Road. The consulting services ("the Services") include providing consultancy services: **FOR CONSTRUCTION SUPERVISION OF 4 BRIDGE CONSTRUCTION WORKS along Narayanghat - Mugling Road.**

The Ministry of Physical Infrastructure and Transport, Department of Roads (DoR), now invites eligible individual Consultants for the services mentioned below to express his/her interest in providing the Services indicating the contract number. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services as per Terms of Reference.

The details of contract and duration for each post are indicated below:

S.N.	Contract no.	Service Type	Duration of service (months)
Bridge Name: Khani Khola, Mauri Khola, Dasdhunga Khola and Jalbire Khola along Narayanghat - Mugling Road			
1	NIRTTP-DOR-S-IND-1	Bridge Engineer (Resident Engineer)	20
2	NIRTTP-DOR-S-IND-2	Quality Control Inspector	20
3	NIRTTP-DOR-S-IND-3	Environmental and Social Safeguard Supervisor	20

The attention of interested individual 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 dated January 2011 ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest. A Consultant will be selected in accordance with the Individual Consultant (IC) selection method set out in the Consultant Selection Guidelines.

Interested Consultant may obtain required qualification information and Terms of Reference (ToR) for the mentioned assignment title from <http://www.dor.gov.np>. Further information can be obtained at the address below during office working days, 10:00 to 17:00 hours.

Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by fax) by 5:00 PM February 18, 2018.

Government of Nepal, Ministry of Physical Infrastructure and Transport
Department of Roads, Foreign Cooperation Branch
Jwagal, Lalitpur, Nepal
Phone: 977-1-5542686

Only short-listed Consultants will be contacted for further information or interview if any. (The interview will be conducted only if it is felt necessary.)

Project Coordinator



GOVERNMENT OF NEPAL
MINISTRY OF PHYSICAL INFRASTRUCTURE AND TRANSPORT
DEPARTMENT OF ROADS
FOREIGN COOPERATION BRANCH
Nepal India Regional Trade and Transport Project

TERMS OF REFERENCE
of
Bridge Engineer (Resident Engineer)
For
CONSTRUCTION SUPERVISION
OF
Construction of Khani Khola, Mauri Khola , Dasdhunga Khola and Jalbire Khola Bridge
on
Narayanghat – Mugling Road Road

January, 2018
Jwagal, Lalitpur



TERMS OF REFERENCE
of
Bridge Engineer (Resident Engineer)

For
CONSTRUCTION SUPERVISION
OF
Construction of Khani Khola, Mauri Khola , Dasdhunga Khola and Jalbire Khola Bridge
on
Narayanghat – Mugling Road Road

1. INTRODUCTION AND BACKGROUND

The Government of Nepal has received financing from the World Bank toward the cost of the Nepal India Regional Trade and Transport Project for the improvement of Naryanghat – Mugling Road. Under the project it has started to construct the new bridges in following rivers:

- a) Khani Khola
- b) Mauri Khola
- c) Dasdhunga Khola and
- d) Jalbire Khola

Nepal India Regional Trade and Transport Project has procured contracts of "Construction of Bridges over Khani, Mauri, Dasdhunga and Jalbire River" in two following contracts which are in construction stage.

Contract ID No.	Name of Contractor	Bridge Name
NIRTTP-DOR-W-NCB-4	Lama Construction Company Pvt Ltd, Maharajgunj, Kathmandu	Construction of RCC Bridges over Khani, Mauri and Dasdhunga River along Narayanghat – Mugling Road
NIRTTP-DOR-W-NCB-5	Rautaha Construction Pvt Ltd, Triyuga municipality, Udaypur	Construction of Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road

Nepal India Regional Trade and Transport Project, Foreign Cooperation Branch, Department of Roads under the Ministry of Physical Infrastructure and Transport intends to apply part of the proceeds for consulting service of the Bridge Engineer (Resident Engineer). The scope of the Individual Consultant is to perform construction supervision of *Construction of RCC Bridges over Khani, Mauri and Dasdhunga River and Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road (Hereinafter called 'Works')*.

2. OBJECTIVES

The main objective of the consulting services of the Bridge Engineer (Resident Engineer) is to maintain compliance monitoring of works execution in order to achieve top quality works on schedule with effective Contract Management.

3. SCOPE OF SERVICES



The Bridge Engineer (Resident Engineer) will lead the supervision of construction works and make conducive environment to implement the scope of services herein defined for the works. The scope of services shall include but not limited to the following:

- (a) The initial briefings from the Foreign Cooperation Branch DOR, Project-In-Charge and other relevant competent authorities regarding overall context of the input and anticipated outcomes;
- (b) Conduct detail review of Contract Documents including detailed design and drawing, BOQ, Specification, Quality Assurance Plan, Quality Control System, Work Schedule and all relevant information available for effective Contract Management;
- (c) Review appropriateness and adequacy of the working drawings proposed by the Contractors;
- (d) Review proposed working methodology (with resources-labor, materials and equipment), work schedule and working drawings matching with each other and prepare a comprehensive report of the assessment and suggest working methodology and strategy to be adopted in order to finish the Contract on stipulated time frame and discuss in details with the Project-In-Charge [include all possible flushes/gaps in design drawings, BOQ; specification, possible VOs and areas of disputes and strategy to be adopted]
- (e) Review Quality Assurance Plan and Quality Control System including materials laboratory, standards available, standard template for data collection and analysis, logistic, staff (skill/ unskilled), frequency of tests projected and all other requirements in details and find the gaps to be timely addressed;
- (f) Establish working/communicating procedures between the consulting team and the Employer's team and agreed-upon with concerned authority;
- (g) Assist in closely monitoring and evaluating project progress.

4. Team Composition and Tasks

The supervision team will comprise of a Bridge Engineer (Resident Engineer), a Quality Control Inspector (QCI), and an Environmental/Social Safeguard Supervisor. The team shall be led by Bridge Engineer (Resident Engineer).. The supervision team shall be wholly and individually responsible to Foreign Cooperation Branch of DOR and to Project In Charge, NM road. They have to report to the Project In Charge, NM road on daily basis.

5. Qualification requirement

Professionals with following qualification are required

- **Bridge Engineer (Resident Engineer):**

Broad Qualification and Requirements:

A. Education

Minimum : Bachelor in Civil Engineering

Preferable : Master's Degree in Bridge/Structural/Highway Engineering

B. Experience

a) General Civil Engineering Works

Minimum : 10years

Preferable : 15 years



b) Experience in Road/Bridge projects

Minimum : 5years
Preferable : 10years

C. Experience as Resident Engineer in construction supervision of Road/Bridge project

- Minimum: One Road/Bridge Project
- Preferable: Three Road/Bridge projects

D. Language :Capable of communicating fluently in English Language

E. Registration to Nepal Engineering Council

6. Responsibility of Bridge Engineer (Resident Engineer)

Responsibility of the Bridge Engineer (Resident Engineer) but not limited to the following:

General

- Reporting to and taking direction from Project-In-Charge
- Providing guidance and direction to QCI and Safeguard Consultant
- Overseeing QCI and Safeguard activities to ensure specification compliance, including environmental, social and traffic management compliance
- Maintaining a separate Daily Diary for each Contract, completed each day
- Where correspondence is received from the Contractor which explicitly requires the Resident Engineer to act outside his authorized duties and responsibilities, forwards the letter to the PIC for his action;
- Assists the PIC as requested;
- General administration of Resident Engineer's Office including daily vehicle management
- Other duties as directed by the PIC and FCB, DOR

Correspondence

- Principal writer of correspondence to Project-in-Charge and Contractor. Actions all correspondence received from Project-in-Charge and Contractor, directly or in exceptional circumstances, forwards draft response to PIC for approval.
- Any correspondence with implication of cost, forward draft response to PIC for approval
- Arranges for copies of all incoming/outgoing correspondence to be sent to PIC within 5 days of receiving/sending.

Reports

- Review and approve QCI works including materials test results/reports and Daily Reports, and forward to PIC for information.
- Prepare separate Weekly Reports for each Contract using a standard form and forward to PIC for approval as soon as possible.
- Prepare Monthly Progress Report timely and forward to the PIC for review prior to sending to all other concerns;



Quality Control

- When any non-conforming work is undertaken by the Contractor, issue and sign a Notice of Non Conformance to record the defect and forward to the Contractor and the PIC for necessary action
- Forward copies of all Non-Conformance Reports to the PIC for information;
- When Non-Conformance work is correctly completed, sign off the Non-Conformance Reports. If necessary, seek the PIC's concurrence to agreement for corrected work.
- Prepares full listing of all Non-Conformance Reports including status for inclusion in Monthly Progress Report, and forwards to PIC.
- In conjunction with QCI, take the lead in reviewing and make recommendations to PIC regarding the Contractor's QA Plan submittal
- Ensures Contractor compliance with the up-dated approved Quality Assurance Plan

Drawing Records

- Undertakes periodic checks to ensure that the QCI has maintained up-to-date copies of all drawings and field survey information issued to Contractor

Payment Applications

- Check Interim Payment Certificates submitted by the Contractor undertaking a review of quantity calculations for each BOQ item submitted and detailed measurement jointly taken by OCI at the field
- Check that draft Certificate includes all signed Variation Orders, agreed Claims, any deductions for non-compliant work, retention and advance repayments
- Undertake a cursory review of the arithmetic correctness of the Certificate
- Agree and sign Payment Certificate for recommendation and forward to PIC in specified time;

Cost Control

- Receives any claims from Contractor (either cost or time), reviews and makes written recommendations to PIC, including a write up of the issues and circumstances.
- Discusses and negotiates any conceptually agreed Variation Orders and makes recommendations to the PIC regarding changes to the Contract rates, schedule impacts, other.

Schedule

- Reviews Contractor's Initial and Monthly Schedule updated for agreement, and observe any slippage.
- Report any slippage to PIC. Comment on Contractor's proposals to catch up and also make independent recommendation as to how any lost time can be made up.

Meetings/Conversation/Photographs

- Leads all meetings with the Contractor
- Prepare, review and finalize notes of all meetings with Contractor and distribute to PIC and Contractor. Include action items and dates.



- Record any relevant conversation to prepare a written summary of all discussions with project participants (e.g. personnel from Contractors, Employer, land owners, other etc.) and forwards completed records to all concerns.
- Prepare photographic record of all Contracts works as required.

Design issues occurring during construction

- Approve with prior consent PIC any minor issues in design details with no financial implication and issue to Contractor (these may be either in tabular form or sketches). Forward all design information to PIC for information and records.
- For major design issues, advise PIC and propose course of action to resolve.
- Provides setting out information to the Contractor

Safety and Environmental

- Provides guidance and oversight to the QCI and Safeguard Consultant regarding the Contractor's safety operations and environmental compliance
- Reviews Contractor's safety reports and forwards to PIC with comments
 - Review ESH&S forms submitted daily through field team of the Consultant for accuracy and completeness. Address non-compliant issues with the Contractor.

Completion

- As per Condition of Contract in coordinating PIC .
- Inspections during Defects Liability Period

As-Built Drawings

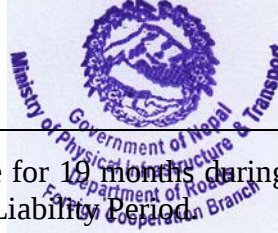
- Keep up-to-date copies of issued drawing details and design sketches and on contract completion uses records to check As-Built drawings preparation. After review and approval, forwards Contractor's As-Built drawings to PIC for necessary action.
- Assist Project In charge by coordinating with the Environmental/Social Safeguard Inspector in preparation of site specific EMAP within one month of signing of the contract and ensure that the recommendations of the "Environmental Management Guidelines" of the Road sector in Nepal are implemented in the project with especial attention to the following:
 - Ensure that all borrow pits are operated and closed according to the environmental requirements
 - Identify environmentally safe tipping areas for surplus mass of excavated or any other material in addition to that specified in the design specifications. The consultant shall also assist DOR to ensure that the contractor and construction work force is aware and comply with the spoil disposal restrictions.
 - Ensure that the contractor removes surplus materials and leaves the site in clean condition.

7. DURATION OF THE CONSULTANT'S SERVICES

Bridge Engineer (Resident Engineer)

7.1 Construction Period

The Bridge Engineer (Resident Engineer) is expected to begin his services after finalization of his contract with DOR within agreed time frame and his responsibilities shall continue until the



completion of the works. The services shall be for 19 months during the construction phase and 1 month intermittent input during the Defects Liability Period.

However in the event of arbitration or other proceedings after the completion of construction, the Bridge Engineer (Resident Engineer) shall be available to assist DOR, under the same conditions of engagement as applicable to this Agreement.

7.2 Defects Liability Period

During the Defects Liability period the Bridge Engineer's services shall be for one month on an intermittent basis and during the period the Bridge Engineer (Resident Engineer) shall check and ensure that the contractors are carrying out their contractual obligations with respect to maintenance, repair and reconstruction of the works. Shortly before the end of the Defects Liability period, the Bridge Engineer (Resident Engineer) shall carry out thorough inspection of the works. He shall prepare the details of the rectification work to be done, submit it to the PIC and supervise the rectification works. He has to review/ check/ approve the As built drawings of the respective contractor and submit it in the Project Completion Report.

The total estimated professional input of the Bridge Engineer (Resident Engineer) during the construction and the defect liability period is Twenty (20) months and the service is expected to start from February 2018.

8. Reporting Requirement

The Bridge Engineer (Resident Engineer) shall keep full records relating to all aspects of the work progress covered by his service contract. Such records shall be available for inspection to the Employer and shall be handed over to the Project In Charge on completion of its service. In addition to the above, the Bridge Engineer (Resident Engineer) shall submit the following Reports during the course of his services:

8.1 Inception Report (Three copies)

Within two weeks of start of the service, the Bridge Engineer (Resident Engineer) shall submit an Inception report. The report will include the following:

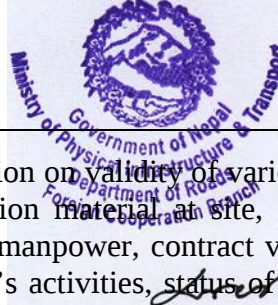
- Consultant's detail work program, organization setup
- Initial findings of the design review as suggested in the scope of services
- Contractor's approved work schedule and his resources requirement and their mobilization schedule to support the execution of the contractor's work program
- Approved Traffic management plan for management of efficient traffic flow during construction
- Site specific EMAP, RAP.

8.2 Site specific EMAP (Three Copies)

The Bridge Engineer (Resident Engineer) shall update site specific EMAP, RAP before start and during the execution of construction works.

8.3 Monthly Progress Reports (Three copies)

The Bridge Engineer (Resident Engineer) shall prepare a monthly progress report on the project activities during construction period. The reports shall include physical and financial



status of the construction activities, information on validity of various guarantees submitted by the contractors from the bankers, construction material at site, information on contractor's equipment and their condition, contractor's manpower, contract variation order details, detail on contractor claims (if any) and contractor's activities, status of public grievances, status of environmental and social safeguard issues. Report should also include information on its service.

8.4 Project Completion Report (Three copies)

On completion of the contract, the Bridge Engineer (Resident Engineer) shall prepare a consolidated Final Report covering the whole of the works. The report shall be submitted along with all original records. It should include recommendation on changes to the applied methodology for implementing future similar works, financial statement of the contract, variation in contracts, contractor's claim and consultant's recommendation, and other relevant project information.

8.5 Confidential Report (two copies for each contract)

The Bridge Engineer (Resident Engineer) shall also support the Supervision Team in preparing a confidential report on the performance of the contractor upon completion of the work.

9. FACILITIES

9.1 To Be Provided by the Employer

The Employer shall provide followings for the performance of its service:

- Related reports and contract documents.
- Access to all other necessary available data required for performance of the consultant's duties.
- Office space at PIC Office Mugling or between Mugling-Narayanghat section.
- One supervision vehicle (Double cab Pickup) for construction supervision with driver, fuel and maintenance. Supervision vehicle shall be shared with the other two members (QCI, ESSS) of the supervision team in a coordinated way.

9.2 To be arranged by the Bridge Engineer (Resident Engineer)

The Bridge Engineer shall arrange the following facilities and the necessary cost shall be borne by the Consultant:

- Logistic supports lap top, mobile phone for the performance of the service.
- Accommodation

10.0 TAXATION

The Consultant shall be fully responsible for all taxes imposed by Government of Nepal. The Consultant must be registered in PAN/VAT within one month from the date of signing of contract agreement. The consultant will be responsible for the costs of the Premium of any insurance plan including accidental insurance he/she takes up.

11.0 CONTRACTUAL ARRANGEMENTS

The Bridge Engineer (Resident Engineer) contract will be based on a contract agreement consistent with the World Bank guidelines for consultancy services contracts.



12.0 WORKING DAYS, LEAVE AND OVERTIME

As per Government rules and practice. *There shall be no extra payment for any overtime work. The Consultant shall be entitled to have Government approved weekdays off and holidays.*

Well in advance the Consultant should plan his/her work plan showing the site visits and let the PIC knows his/her program. Every fortnight the consultant is required to prepare his work plan showing the visits to the sites, details of office works. A good coordination with the contractors' responsible team will be required while visiting the respective sites.



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Nepal India Regional Trade and Transport Project

TERMS OF REFERENCE
of
Environmental and Social Safeguard Supervisor
For
CONSTRUCTION SUPERVISION
OF
Construction of Khani Khola, Mauri Khola , Dasdhunga Khola and Jalbire Khola Bridge
on
Narayanghat – Mugling Road Road

January, 2018
Jwagal, Lalitpur



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1. INTRODUCTION AND BACKGROUND

The Government of Nepal has received financing from the World Bank toward the cost of the Nepal India Regional Trade and Transport Project for the improvement of Naryanghat – Mugling Road. Under the project it has started to construct the new bridges in following rivers:

- a) Khani Khola
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- d) Jalbire Khola

Nepal India Regional Trade and Transport Project has procured contracts of "Construction of Bridges over Khani, Mauri, Dasdhunga and Jalbire River" in two following contracts which are in construction stage.

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NIRTTP-DOR-W-NCB-5	Rautaha Construction Pvt Ltd, Triyuga municipality, Udaypur	Construction of Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road

Nepal India Regional Trade and Transport Project, Foreign Cooperation Branch, Department of Roads under the Ministry of Physical Infrastructure and Transport intends to apply part of the proceeds for consulting service of the Environmental and Social Safeguard Supervisor. The scope of the Individual Consultant is to support construction supervision of *Construction of RCC Bridges over Khani, Mauri and Dasdhunga River and Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road and to ensure the environmental and social safeguard activities (Hereinafter called 'Works')*.

2. OBJECTIVES

The objective of the consulting service of Social and environmental safeguard implementations are integral part of project execution. This should be carried out with the objective of sustainable development. The basic tenet of this consultancy service is to ensure that the environmental and social safeguard measures specified in ESMF, in general and road/ bridge specific measures in particular are complied with; and standard of living of affected people are restored or improved, all the resettlement



and compensation measures are applied in practice, and all environmental mitigations measures are implemented.

The main objective of the consultancy service is to provide support GESU and Project Office for the implementation, monitoring and reporting on the environmental and social safeguard measures in NIRTTP of DoR.

3. SCOPE OF SERVICES

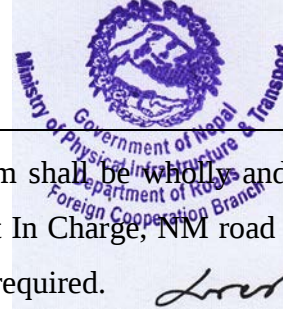
The **Environmental & Social Safeguard Supervisor (ESSS)** will support the supervision team led by the Bridge Engineer/ Resident Engineer for the implementation/ monitoring/ reporting of environmental and social safeguard activities during the construction period. The scope of services shall include but shall not necessarily be limited to the following:

With the above set objectives, the **Environmental & Social Safeguard Supervisor (ESSS)**, whose work station shall be under the Narayanghat – Mugling Road Project, Mugling; is required to assist Bridge Engineer (Resident Engineer)/GESU carrying following responsibilities to:

- a) Execution, monitoring of actions implemented under Initial Environmental Examination(IEE), Environmental impact assessment [EIA] and Environmental management action plans [EMAP] for NM road Bridge Construction Works.
- b) Assist Bridge Engineer (Resident Engineer) to prepare updated EMAP, ESMF in order to make these more relevant and specific to the proposed works.
- c) Review SSEMAPs and report the comments and suggestions to GESU via PIC.
- d) Monitor BOQs, contract clauses and other document for each package for incorporation of relevant mitigation measures specified in IEEs, EIAs and SSEMAPs, and report the findings to PIC/GESU.
- e) Support GESU to undertake, the preparedness check and periodic compliance check for NM Bridge Construction works.
- f) Monitor, evaluate the findings and recommendations, and report as well, for the implementation of IEE, EIA and SSEMAP activities.
- g) Consolidate bridge wise environmental status separately for each bridge highlighting the main issues and successes.
- h) Assist GESU to Coordinate with other agencies, raise the awareness, and disseminate information on Environmental and Social aspects of road/bridge development among various stakeholders.
- i) Assist GESU to perform the Environmental and Social roles and responsibilities as mentioned in Project appraisal Document for NIRTTP.
- j) Co-ordinate and assist RE on activities of Environmental and Social Safeguard works in NM Bridge constructions Works.
- k) Assist RE in reviewing and updating site specific EMAP within one month of signing of the contract and ensure that the recommendations of the “Environmental Management Guidelines” of the Road sector in Nepal are implemented in the project with especial attention.
- l) It is a field e based assignment along Narayanghat – Mugling Road.

4. TEAM COMPOSITION AND TASK

The ESSS needs to work under the NM Road project and within the Bridge supervision team. The supervision team will comprise of a Bridge Engineer (Resident Engineer), a Quality Control Inspector (QCI), and an Environmental and Social Safeguard Supervisor. The team shall be led by Bridge



Engineer (Resident Engineer). The supervision team shall be wholly and individually responsible to Foreign Cooperation Branch of DOR and to Project In Charge, NM road project. They have to report to the Project In Charge on daily basis and as when required.

5. QUALIFICATION REQUIREMENT

Professionals with following qualification are required

- **Environmental and Social Safeguard Supervisor:**

Broad Qualification and Requirements:

A. Education

Minimum : Intermediate in Science, Environmental Science/Engineering
Preferable : Bachelor's degree in environmental science/engineering

B. Experience

a) General Environmental and Social Safeguard related Works

Minimum : 2 years
Preferable : 5 years

b) Experience in Environmental and Social Safeguard Works in road / bridge construction projects

Minimum : 2 year
Preferable : 5 years

C. Language :Capable of communicating fluently in English and Nepali Languages

D. Other Capabilities:

- Understanding of DoR publications on (a) Environmental Management Guideline,(b) Guide to Road Slope Protection and (c) Environmental and Social Management Framework etc
- Understanding of Construction Work schedule
- Preparation of Action Plan for monitoring and reporting
- Critical review of field problems during construction and maintenance
- General Computer skills that needed for the execution of duties

E. Training:

- Training in Environmental and Social Management Framework
- Any other training specific to RAP, SAP and EMAP Engineering



6. RESPONSIBILITY OF ENVIRONMENTAL AND SOCIAL SAFEGUARD SUPERVISOR

The scope of services of Environmental and Social Safeguard Supervisor (ESSS) shall include but not necessarily be limited to the following:

- (a) Familiarization and review of the Environmental and Social Safeguard related documents related to the project and Government and Donor (World Bank) specific documents make available by the client.
- (b) Assist the Bridge Engineer (Resident Engineer) during the supervision of Civil Works regarding the environmental and social safeguard measures implementation such as quarry site management, health and safety issues, land compensation issues etc.
- (c) Assist Bridge Engineer in closely monitoring and evaluating project in social and environmental safeguard measures as per the standard documents, project specific documents and Government and World Bank's Guidelines.
- (d) Assist Bridge Engineer in certification and acceptance of each part of work as completed by the contractors in terms of Social and Environmental Safeguard measures.
- (e) Assist Bridge Engineer to ensure that the recommendations of the "Environmental Management Guidelines" of the Road sector in Nepal are implemented in the project with especial attention to the following:
 - Ensure that all borrow pits are operated and closed according to the environmental requirements
 - Identify environmentally safe tipping areas for surplus mass of excavated or any other material in addition to that specified in the design specifications. The consultant shall also ensure that the contractor and construction work force is aware and comply with the spoil disposal restrictions.
 - Ensure that the contractor removes surplus materials and leaves the site in clean condition.

7. DURATION OF THE CONSULTANT'S SERVICES

Environmental and Social Safeguard Supervisor (ESSS)

7.1 Construction Period

The **Environmental and Social Safeguard Supervisor (ESSS)** is expected to begin his services after finalization of his contract with DOR within agreed time frame and his responsibilities shall continue until the completion of the works. The services shall be for 20 months during the construction period of bridges and the service is expected to start from February 2018.

8. REPORTING REQUIREMENT

The **Environmental and Social Safeguard Supervisor (ESSS)** shall keep full records relating to all aspects of the work progress covered by his service contract. Such records shall be available for inspection to the Employer and shall be handed over to the Project In Charge on completion of its service. In addition to the above, the Environmental and Social Safeguard Supervisor (ESSS) shall assist Bridge Engineer (Resident Engineer) in the preparation of reports during the course of his services.



9. FACILITIES

9.1 To Be Provided by the Employer

The Employer shall provide followings for the performance of its service:

- Related reports and contract documents.
- Access to all other necessary available data required for performance of the consultant's duties.
- Office space at PIC Office Mugling or between Mugling-Narayanghat section.

9.2 To be arranged by the Environmental and Social Safeguard Supervisor (ESSS)

The **Environmental and Social Safeguard Supervisor (ESSS)** shall arrange the following facilities and the necessary cost shall be borne by the Consultant:

- Logistic supports lap top, mobile phone for the performance of the service.
- Accommodation
- One supervision vehicle (motor bike) for the performance of his/her service with fuel and Maintenance cost all complete.

10.0 TAXATION

The Consultant shall be fully responsible for all taxes imposed by Government of Nepal. The Consultant must be registered in PAN/VAT within one month from the date of signing of contract agreement. The consultant will be responsible for the costs of the Premium of any insurance plan including accidental insurance he/she takes up.

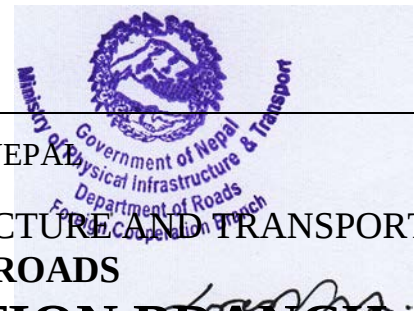
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Well in advance the Consultant should plan his/her work plan showing the site visits and let the RE and PIC knows his/her program. Every fortnight the consultant is required to prepare his work plan showing the visits to the sites, details of office works. A good coordination with the contractors' responsible team will be required while visiting the respective sites.



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- d) Jalbire Khola

Nepal India Regional Trade and Transport Project has procured contracts of "*Construction of Bridges over Khani, Mauri, Dasdhunga and Jalbire River*" in two following contracts which are in construction stage.

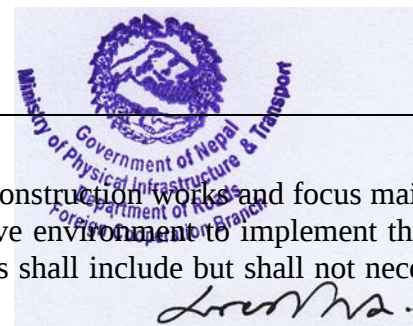
Contract ID No.	Name of Contractor	Bridge Name
NIRTTP-DOR-W-NCB-4	Lama Construction Company Pvt Ltd, Maharajgunj, Kathmandu	Construction of RCC Bridges over Khani, Mauri and Dasdhunga River along Narayanghat – Mugling Road
NIRTTP-DOR-W-NCB-5	Rautaha Construction Pvt Ltd, Triyuga municipality, Udaypur	Construction of Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road

Nepal India Regional Trade and Transport Project, Foreign Cooperation Branch, Department of Roads under the Ministry of Physical Infrastructure and Transport intends to apply part of the proceeds for consulting service of the Quality Control Engineer. The scope of the Individual Consultant is to perform construction supervision of *Construction of RCC Bridges over Khani, Mauri and Dasdhunga River and Prestressed Concrete Bridge over Jalbire River along Narayanghat – Mugling Road* (Hereinafter called 'Works').

2. OBJECTIVES

The main objective of the consulting service of the Quality Control Inspector is to conduct compliance monitoring of works including materials and workmanship as per specification and design drawings at the field.

3. SCOPE OF WORK



The Quality Control Inspector will assist in supervision of construction works and focus mainly on the quality assurance and control of works and make conducive environment to implement the scope of services herein defined for the works. The scope of services shall include but shall not necessarily be limited to the following:

- (a) The initial briefings from the Resident Engineer, Foreign Cooperation Branch DOR, Project-In-Charge and other relevant competent authorities regarding overall context of the input and anticipated outcomes;
- (b) Conduct detail review of approved Quality Assurance Plan and Quality Control system, approved Work Schedule, materials lab facility, logistic etc to achieve quality product as per design drawings, specification on stipulated time;
- (c) Supervise laboratory activities for specification conformance and report Resident Engineer for any inadequacy in laboratory facility including logistic etc;
- (d) Support Resident Engineer for review and in approval of the Contractor's Quality Assurance Plan;
- (e) Review and if appropriate provide recommendation to Resident Engineer for approval of all materials results/reports submitted by Contractor and carry out supervision of testing operations including joint sampling of materials to ensure contract compliance;
- (f) Review and if appropriate provide recommendation to Resident Engineer for approval of concrete mix designs;
- (g) Supervise Contractor's field activities for materials and installation technique to achieve top quality works including compliance with Contractor's quality control proposal;
- (h) In case of post-tension concrete bridges, review and if appropriate provide recommendation to Resident Engineer for approval of working drawing of each component of bridge, high strength concrete mix designs, post-tension cable test results, design of tension cable placing and positioning, post-tensioning process and equipment to be used for post-tensioning and schedule of post tensioning;
- (i) Undertake initial and continuing inspections of each Contractor's concrete plants;
- (j) Undertake independent materials testing when considered necessary or when so instructed by Resident Engineer.

4. Team Composition and Tasks

The supervision team will comprise of a Bridge Engineer (Resident Engineer), a Quality Control Inspector (QCI), and an Environmental/Social Safeguard Supervisor. The team shall be led by Bridge Engineer (Resident Engineer). In case of vacancy of Bridge Engineer (Resident Engineer) by any reason the client shall assign the QCI to lead the team. The supervision team shall be wholly and individually responsible to Foreign Cooperation Branch of DOR and to Project In Charge. They have to report to the Project In Charge on daily basis.

5. Qualification requirement

Professionals with following qualification are required to undertake the task.

- **Quality Control Inspector:**

Broad Qualification and Requirements:

A. Education



Minimum : Certificate Level in Civil Engineering

Preferable : Bachelor in Civil Engineering

B. Experience

a) General Civil Engineering Works

Minimum : 5 years

Preferable : 10 years

b) Experience in Quality Control Works in Road/Bridge projects

Minimum : 3 years

Preferable : 5 years

C. Language :Capable of communicating fluently in English Language

Individual Consultant shall be responsible for:

6.0 Responsibility of Quality Control Inspector

The scope of services of Quality Control Inspector shall include but shall not necessarily be limited to the following:

Responsibility of the Quality Control Inspector but not limited to the following:

General:

- (a) Reporting to and taking direction from Resident Engineer;
- (b) Undertake role of Quality Control Inspector within limits of the defined scope of works and responsibilities;
- (c) Coordinating with and providing feedback to Resident Engineer on a daily basis for quality related aspects;
- (d) During supervision and compliance monitoring, where necessary provides direction to Contractor's Engineer and materials testing technicians to ensure that adequate testing is undertaken and that the laboratory and field test methods are specification-compliant. If found necessary provide written instruction through Resident Engineer;
- (e) Providing guidance to Resident Engineer for quality control;
- (f) Maintaining a Daily Diary sorted by contract, completed each day;
- (g) Monitor Contractor's progress regarding materials and physical progress and advise Resident Engineer;
- (h) Additional duties as directed by Resident Engineer;
- (i) In-overall support Resident Engineer in discharging the Engineer's duties in the administration of contracts, supervision of construction works and quality control related works including verification of bills (IPC) submitted by the Contractors;
- (j) Develop weekly schedule for progress achievement based on approved Work Schedule in close consultation with the Resident Engineer and the Contractor.

Reports:

- (k) Prepare separate Weekly Reports addressing materials issues and physical progress for each contract and forward Resident Engineer;
- (l) Prepare input to Monthly Progress Report to Resident Engineer within 7 days of month end;
- (m) Prepare draft Notice of Non-Compliance where Contract requirements have not been met for Resident Engineer;
- (n) Record all disrupt issues arise at the site in details and report timely to the Resident Engineer;



- (o) All reporting will be on standard template agreed with the Project-In-Charge through Resident Engineer;

Meetings/ Conversation (verbal/telephone)/Photographs

- (p) Attend all Monthly Meetings with the Contractors unless otherwise instructed by Resident Engineer and provide input regarding action items and status issue;
- (q) Conduct weekly meeting with the Contractor for reviewing the running week progress at the end of each week and fixing the work targets for next week;
- (r) Prepare summary of all verbal and telephonic conversation related to the Contract;
- (s) Keep written records of all conversation with Contractor's personnel;
- (t) Maintain photographic evidence with date of work progresses in different stage of work progress.

Drawing Records

- (u) Maintain up-to date drawing register of all drawings issued to Contractor;
- (v) Review Contractor's working drawing submitted and within 7days of receipt forward recommendation to Resident Engineer either for acceptance, or annotated with proposed revisions to suit design requirements;
- (w) Maintain separate file of suspended drawings and specification;
- (x) Maintain record of any changes to construction details for as-built purposes.

Environmental, Social, Health and Safety

- (y) Undertake daily environmental, social, health and safety inspection for compliance monitoring and maintain record as specified;
- (z) Make sure all works are fully aware and use all required OHS gears in working hours;
- (aa) Monitor labor camps as per labor laws requirements
- (bb) Help and support GESU team for implementing ESMF and compliance monitoring.

Payment Applications:

- (cc) Provide details of measurement work items completed to Resident Engineer on a monthly basis for each BOQ item;
- (dd) Under take joint measurement with Contractor's field staff of works completed to specified date of each month, and jointly sign measurement sheets;
- (ee) Keep up-to date records of all quantities agreed to date, for each BOQ items.

7.0 DURATION OF THE CONSULTANT'S SERVICES

7.1 Quality Control Inspector

7.1.1 Construction Period

The Quality Control Inspector is expected to begin his services after finalization of his contract with DOR within agreed time frame and his responsibilities shall continue until the completion of the works. The services shall be for 20 months during the construction phase.

However in the event of arbitration or other proceedings after the completion of construction, the Quality Control Inspector shall be available to assist DOR, under the same conditions of engagement as applicable to this Agreement.

The total estimated professional input of the Quality Control Inspector during the construction is twenty (20) months and the service is expected to start from February 2018.



8.0 REPORTING REQUIREMENT

The QCI shall keep full records relating to all aspects of the work progress covered by his service contract. Such records shall be available for inspection to the Employer and shall be handed over to the Project In Charge on completion of its service. In addition to the above, the Quality Control Inspector shall assist in preparing monthly progress report, Project Completion Report and other related document preparation with the incorporation of Quality Control related aspects covered by Service Contract and Contract Documents, Government and Donor Guidelines.

9.0 FACILITIES

9.1 To Be Provided by the Employer

The Employer shall provide followings for the performance of its service:

- Related reports and contract documents
- Access to all other necessary available data required for performance of the consultant's duties.
- Office space at Mugling or between Mugling-Narayanghat. Desk top computer available at the PIC Office.

9.2 To be arranged by the Quality Control Inspector

The Quality Control Inspector shall arrange the following facilities and the necessary cost shall be borne by the Consultant:

- Logistic supports, mobile phone for the performance of the service.
- Accommodation
- One supervision vehicle (Motor bike) for quality control works with fuel and maintenance cost all complete.

10.0 TAXATION

The Consultant shall be fully responsible for all taxes imposed by Government of Nepal. The Consultant must be registered in PAN/VAT within one month from the date of signing of contract agreement. The consultant will be responsible for the costs of the Premium of any insurance plan including accidental insurance he/she takes up.

11.0 CONTRACTUAL ARRANGEMENTS

The QCI contract will be based on a contract agreement consistent with the World Bank guidelines for consultancy services contracts.

12.0 WORKING DAYS, LEAVE AND OVERTIME

As per Government rules and practice. *There shall be no extra payment for any overtime work. The Consultant shall be entitled to have one day paid leave per month.*

Well in advance the Consultant should plan his/her work plan showing the site visits and let the RE and PIC knows his/her program. Every fortnight the consultant is required to prepare his work plan showing the visits to the sites, details of office works. A good coordination with the contractors' responsible team will be required while visiting the respective sites.