



GOVERNMENT OF SAINT LUCIA

DISASTER VULNERABILITY REDUCTION PROJECT

TERMS OF REFERENCE

FOR SENIOR ENGINEER

June 2013 (v1)
September 2013 (v2)
Modified October 2013
Updated March 2019
Updated February 7, 2020

Saint Lucia Disaster Vulnerability Reduction Project
Terms of Reference
Senior Engineer

I. Background

In an effort to reduce the Country's vulnerabilities to these hazards the Government of Saint Lucia (GoSL) obtained financing from the World Bank towards then implementation of the Disaster Vulnerability Reduction Project. The Disaster Vulnerability Reduction Project (DVRP)¹ aims to measurably reduce vulnerability to natural hazards and climate change impacts in Saint Lucia includes various activities related to institutional strengthening and training as well as the execution of various civil works to retrofit or protect national assets. To support the execution of the civil works activities the Department of Economic Development Transport and Civil Aviation (DEDTCA) seeks to engage a Senior Engineer / Environmental Safeguards Officer with expertise in engineering to provide technical support to DEDTCA with coordination, implementation, environmental management and oversight during execution of the works and provide environment related training/awareness raising activities, monitoring of the quality of all construction and civil works activities under the Project. The SE / ESO is expected to ensure the integration of disaster vulnerability reduction and climate resilience in the construction/reconstruction/ rehabilitation of the works component.

The Department of Infrastructure, Ports and Energy (DIPE) serves as project manager for all works investments under the prevention and adaptation component of the project. It is anticipated that the civil works activities that may cause environmental impacts which will require mitigating measures to ameliorate the impact. Therefore, the Senior Engineer / Environmental Safeguards Officer would be engaged full time to provide support. Planned civil works activities are included in Appendix 1.

II. Objective of the Assignment

The objective of the assignment is to engage a suitably qualified engineer (the Consultant) to provide construction management, environmental management and oversight and technical services to the DEDTCA with execution with review of designs and technical information, supervision to ensure the compliance et quality of the works, contract management services and development of implementation plans for guidance to the staff of the DIPE and Project Manager, DVRP.

III. Scope of Services

The consultant shall ensure that the activities are implemented according to the approved designs, approved contract sums, and time frames as contracted and are in compliance with the environmental safeguards policies of the World Bank. Given the prevalence of slope stabilization/structural / reconstruction of major public facilities identified provide technical

¹ (Report #87044- LC; IDA Credit 5493-LC SCF PPCR Loan #TF017101, SCF PPCR Grant #TF017143)

expertise in the related technical areas such as Geotechnical/Structural Engineering/Mechanical and Electrical engineering. The Consultant will also be responsible for planning, review and enhancing of design, construction supervision, **and monitoring of all works contracts for compliance.**

Specific Scope of Services

General Responsibilities

Provide expert advice on construction of works, contract management, quality control of works, compliance to contracts by consultants and environmental management.

Maintain project management tools for effective tracking and monitoring of all activities;

Use Microsoft Project to develop a gantt chart for each activity which should be updated quarterly and shared with the Bank and executing agencies

Environmental Management and Oversight

1. Sensitize stakeholders including contractors on the provision of the EMF, ESHS and specific ESMP activities to be complied with by contractors and users;
2. Provide orientation to contractors and workers on application of labor management and Occupational Health and Safety guidelines and supervise the compliance of those guidelines;
3. Facilitate and supervise the implementation of ESMP activities;
4. Develop a program on the operationalization of environmental safeguards (environmental awareness, orientation and training) targeting key stakeholders and contractors; and implement, once approved by project management;
5. Implement other environmental related activities as outlined in the project's EMF and ESMPs;
6. Ensure the effective compliance to ESHS requirements, EMF and ESMPs during planning, implementation and monitoring of the works being implemented;
7. Facilitate environment friendly implementation of works in accordance with the approved contract; and
8. Prepare environmental monitoring reports for submission to the project management team and World Bank;
9. Work closely with key agencies including line ministries, beneficiary agencies, environmental health, Physical Planning, Solid Waste Management
10. Ensure citizen engagement by conducting regular workshops;
11. Prepare necessary documents, such as environmental guidelines and tools in consultation with stakeholders and help the client in commissioning and managing additional and/ or special studies/ assessments, if necessary;
12. Assist the project team in preparing the technical aspects of reports relevant to civil works;
13. Work closely with the Social Safeguards Officer of the PCU.

Responsibilities during Pre-Construction

1. Prepare and update project implementation plans to guide procurement, work schedules and work programs in an effort to monitor implementation as well as the agreed budgets;
2. Review preliminary and final designs and make recommendations for enhancements /improvements; where these may be minimal carry out the necessary change
3. Review deliverables submitted by design consultants including studies, bill of quantities, bidding documents, plans and specifications for works and estimates of costs. Apply value analysis and comparison of technologies, and justify recommendations for approval in sufficient details as to allow the DEDTCA to consider and approve the suitability of such designs. Such designs, studies and drawings shall conform to standards published by the Council of Caribbean Engineering Organizations and to normally accepted building code of good practice
4. Identify any technical issues as it relates to the implementation of government policy and/or any organizational issues requiring the involvement of decisions made by the GOSL or the World Bank;
5. Use the project's Environmental Management Framework (EMF) to screen proposed works to determine the potential environmental risks or impacts and identify, document, develop required mitigation measures to be implemented.
6. Review and verify the comprehensiveness, accuracy and compliance of the technical specifications and other technical information (bills of quantities, drawings) with the approved design. Review and verify the coherence of bidding requirements, evaluation criteria, **ESHS requirements**, and particular conditions to be included in the bidding documents for all civil works and goods contracts, as well as TORs for consultant services;
7. Review and verify the compliance of the technical documentation for request for proposals, technical evaluation reports, minutes of negotiations and draft contracts for all the procurement activities relating to the engagement of designing or supervising consultants;
8. Participate as may be required as a member to the Evaluation Committee to provide technical input in relation to the procurement of works, and for the consulting services of design and supervision of works.
9. Ensure environmental and social safeguards, and gender sensitivities in the design and execution of all works projects;
10. Draw upon lessons learnt and best practices at the national level during implementation and promptly submit proposals aimed at building technical and institutional capacity which could also include environmental and social management plans;

11. Provide technical support in the review of the designs including technical specifications against standards, code of practices and make recommendations enhancement. In review of the designs ensure climate resilient standards are utilized and that adequate environmental and social protection measures are included;
12. Under the direction of the Permanent Secretary of DEDTCA, represent the Government of Saint Lucia, (GOSL) in all dealings with engineering designs, architectural plans, work drawings and other technical documents;
13. Review all files periodically to ensure that supervisory personnel (that of Consultants, DEDTCA and DIPE staff) are recording and filing all relevant and accurate data in regard to progress, activities, workforce, materials, equipment, environmental practice, adherence to Environmental Management Plan (EMP), site and weather conditions consistent with contract requirements;

Responsibilities during Construction Phase

14. Monitor, the physical and financial progress on the execution of civil works activities for all sub-projects. Follow up and ensure that required structural surveys and engineering evaluations on civil and structural engineering works are carried out to conform to quality control and environmental requirements and consistent with the approved technical specifications and agreed performance monitoring framework of such works;
15. Conduct weekly inspections of ongoing works supervised by the DIPE covering, but not limited to the quality of executed works and the follow-up of the progress schedule, as per agreed specifications, contract dispositions, and applicable standards.
16. Following inspections, of works supervised by the DIPE establish jobsite meeting reports also covering cost-control issues on the basis of updated surveys, projection of final costs, and foreseen variations. When necessary, prepare draft correspondence for review by the Project Manager, DVRP, as required to all parties;
17. Review and approve supervision reports provided by consultants engaged in supervision of works; conduct monthly site visits of these works to ensure compliance by the supervisory consultant and the contractor
18. Review and approve Certificates for Payment after certification by supervisory staff or supervising consultant.
19. While monitoring the performance of assignments and works being carried out by the consultants and works contractors, make recommendations for improvement of quality of works and other deliverables.

20. Review and approve the updated EMP prepared by Consultants
21. Monitor and report on ESHS requirements for each works site
22. Attend Site Meetings and meetings related to ongoing contracts
23. Consider and/or review requests for any variation to the agreed scope of work submitted by Consultants/ DIPE. If considered beneficial to the project, technically feasible, and economically efficient, collect all relevant drawings, bills of quantities, and accurate estimates, and submit a detailed justification with a recommendation for approval by PS DEDTCA and the Central Tenders Board. Record and file all approved variations orders including changes to working drawings and scope of works;
24. Review draft written instructions for approval as and when necessary in accordance with Conditions of Contract on a timely manner, to ensure that design changes are accurately communicated to the contractor;
25. Following request by the Contractor after the completion of the work, participate in the detailed inspection of works along with the Supervisory Team (Management Team appointed by DEDTCA, DIPE and Consultant) to determine snags and issuance of the necessary certifications of completion as per contract and approved variation orders. Jointly with supervisory staff conduct final acceptance inspections, review and prepare contractor discrepancy reports (punch list/snag list), if any, and assist with the final inspection after completion of any corrective work. Ensure acknowledgement and concurrence by beneficiary user's institution if applicable;
26. Ensure that “as-built” drawings are submitted and accurately filed after the completion of works contracts.
27. After satisfactory completion of the work, formally report to GOSL on the recommendation for acceptance of the work.
28. Ensure timely issuance of a Certificate of Completion, release of retention and securities (performance and insurance) attesting acceptance, and transmit to the Contractor for contract close out.
29. Review and approve the final Certificate for Payment.

Responsibilities Post Construction Phase

30. Coordinate and assist as directed, responsible line ministries with timely inspections and documentation of required contractor actions during the Defects Liability Period and jointly

inspect and report contractor progress in addressing noted defects as a condition for final contract payment;

31. Provide technical assistance, as directed, to line agencies in the preparation of regular maintenance requirements and plans for works completed under the project.
32. For works where the Defects Liability period extends beyond the Bank's project closing date, prepare an inspection plan noting key inspection activities and timing, to be completed by the DIPE for submission to the DEDTCA and PCU

The Consultant will be accountable to the Permanent Secretary, DEDTCA or other duly authorized officer for the efficient and effective obligations of the contract. The Consultant shall carry out his duties in accordance with the relevant laws and regulations of the Government of Saint Lucia and the applicable guidelines and procedures of the World Bank, as agreed in the Financing Agreement. These services shall be executed to the best ability of the consultant and in accordance to approved and recognized international code and ethics for the profession. The Consultant shall cooperate fully with relevant Government Agencies (Ministries and Departments).

DELIVERABLES AND REPORTING REQUIREMENTS

Quarterly Work Plan based on Work Plan and Implementation Plan prepared by Project Manager. The Work Plan should be submitted to the Project Manager for review by the 15th day of the first month of the quarter.

Monthly Reports

- Monthly Report by the 7th day following the end of the reporting period on the status of all civil works contracts and activities (design, construction, supervision), strategies unstilted for monitoring of delayed activities undertaken during the period; updated EMP for each works contract

Quarterly Reports

- a) Quarterly progress report on the status of works contracts, highlighting achievements, delays, expenditure on each contract, approved variations, project's compliance with the EMP, forecast for planned activities for the next six months, update on indicators on data / information collected on physical, biological and socio-cultural environmental elements related to civil works activities.

The Report should be submitted to the Project Manager for review by the 5th day of the first month of the quarter.

- **Report to the oversight Management for the respective civil work activities**

- **Report to the Project Coordinating Committee**
- **Prepare final progress report and Contract Completion Reports for all works contracts within three months after issuance of the Certificate of Substantial Completion**
- **End of assignment Report to inform the ICR**

DURATION

The assignment is on a fulltime basis and is expected to start on March 1, 2020 to November 30, 2021.

WORKING ARRANGEMENTS

The Consultant will report to the Permanent Secretary DEDTCA and work directly with all technical officers assigned to the Project, the PCU and the various executing agencies of the Project and with Contractors and Consultants employed under the Project.

The employer will provide the Consultant with office space, office equipment including computers, printers and all necessary software required for discharge of the duties, communication equipment.

The Employer will initiate the consultation and co-operation of other agencies required to provide support to the Consultant for the implementation of the relevant aspects of the assignment

The Consultant will need to own and maintain a vehicle for use on field trips and in country travel related to the assignment and access to a project vehicle for work related activities (to project sites).

Performance Indicators

1. Updated EMP for every work contract (updated 30th day of the month).
2. Updated gantt chart for each works contract (updated every 15th the end of the quarter).
3. Updated files on work activities (updated every 15th and 30th)
4. At least two designs reviewed and accepted
5. At least 4 works contract completed within time, scope and cost
6. At least four asbuilt drawings reviewed and accepted

7. Reports submitted within the agreed time frame

QUALIFICATIONS

Academic:

- a) Master's degree in Civil Engineering, Construction Management, Structural Engineering, Architecture, with a minimum of five years' experience in construction and contract management of civil, structural, mechanical, electrical engineering projects of building construction, road work, drainage and slope stabilization projects or
- b) a Bachelor's Degree or equivalent in Civil Engineering, Construction Management Structural Engineering, Architecture with a minimum of ten years' experience in construction and contract management of civil, structural, mechanical, electrical engineering projects of building construction, road work, drainage and slope stabilization projects

Experience:

Specific experience with procurement procedures of multilateral lending agencies is an asset.

Knowledge of the public service operations

To ensure impartiality, the Consultant (including her/his home office, if any) must not in any way be affiliated with business entities that are currently providing or are seeking to provide goods or services to the project.

Interested eligible candidates must provide information indicating that they are qualified to perform the services and are invited to submit their CV (Curriculum Vitae), including employment records, description of similar assignments, experience in similar conditions, availability of appropriate skills, previous remunerations, etc.

Deadline for submission of applications March 7, 2020 and should be sent to;

Project Coordinator
Project Coordination Unit
Department of Economic Development, Transport and Civil Aviation
2nd floor Finance Administrative Building
Pointe Seraphin
CASTRIES
Saint Lucia

Appendix 1

- (a) identified Community infrastructure, at Roblot, Piaye, Marcus Garvey, Blanchard, Bexon and Odsan;
- (b) rehabilitation and construction of bridges at Piaye and Volet ;
- (c) improving resilience to climate risks in water supply system through improvement of the water intake at Millet;
- (d) rehabilitation of the Vanard / Venus Anse La Raye Road;
- (e) improved drainage island wide in selected communities – Dennery South, Castries South East and Micoud South
- (f) assessment of critical slopes, slope stabilization works.
- (g) construction of the union fly nursery
- (h) Retrofitting of selected public buildings to improve disaster resilience through: (a) rehabilitation of Micoud Secondary School; Victor Archer Building at Sir Arthur Lewis Community College and (b) construction of Micoud Wellness Centre and Dennery Polyclinic.