

REQUEST FOR EXPRESSIONS OF INTEREST CONSULTING SERVICES

Selection #: GY-T1098-P002

Selection Method: Quality and Cost Based Selection (QCBS)

Country: Guyana Sector: Transportation

Funding – TC #: ATN/OC-14135-GY

Project #: GY-T1098

TC name: Guyana – Brazil Land Transport Link and Deep-Water Port

Description of Services: The Co-operative Republic of Guyana has received financing from the Inter-American Development Bank (IDB), and intends to apply part of the proceeds to payments under the project, for the conduct of diagnostic studies of port options as it relates to the consideration of a land link between Guyana and Brazil and the location of a Deep-Water Port. The objective of the Deep-water Port rationalization study is to provide various project alternatives for the location and construction of a deep-water port and associated infrastructure in the estuaries of any of Guyana's three main rivers; Essequibo, Demerara or Berbice, or at a point along Guyana's Atlantic coast. It is envisioned that integration will be achieved through the establishment of a land transport link between the Brazil-Guyana border at Lethem in the south and a Deep-Water Port along Guyana's coast in the North. Under the TC agreement, the Ministry of Public Infrastructure has requested the Inter-American Development Bank to support studies for the development of the Guyana Deep Water Port Project which will examine various development scenarios and options available for the various choices of port sites in the estuaries of the Essequibo, Demerara or Berbice Rivers or Guyana's Atlantic coast. Once this Project is implemented, it is expected to have a significant potential for increased development and economic activities between Guyana and its South American neighbors

Link to TC document: [Web link to approved document]

The Inter-American Development Bank (IDB) is executing the above-mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (http://beo-procurement.iadb.org/home) by: January 31st, 2018, 5:00 P.M. (Washington D.C. Time).

The consulting services ("the Services") include . the Identification of the most viable deep-water port sites along Guyana's coastline based on existing marine conditions and allowances for required land transportation infrastructure. The conduct of conceptual designs for each port site as well as an assessment of the technical, social, environmental and economic viability of the different alternatives and the development of a comprehensive set of selection criteria to aid in the identification of the most viable site will be expected. Results of the study are projected to be completed by the third quarter of 2018.

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: <u>Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work</u> - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter

will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described below in the <u>draft summary</u> of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: brianm@iadb.org

Inter-American Development Bank

Division: *INE/TSP*

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DRAFT SUMMARY TERMS OF REFERENCE

Deep-Water Port Engineering Study

GUYANA

PROJECT NUMBER: GY-T1098

TECHNICAL COOPERATION NUMBER: ATN/OC-14135-GY

Web link to approved document

TECHNICAL COOPERATION NAME:

GUYANA – BRAZIL LAND TRANSPORT LINK AND DEEP-WATER PORT

I. BACKGROUND

1.1 The Ministry of Public Infrastructure and the Inter-American Development Bank entered into a Technical Cooperation agreement GY-T1098 Guyana – Brazil Land Transport Link and Deepwater Port signed on Feb 18th 2013 for a period of 3 years to support Guyana's integration efforts with countries in South America and thus improve the competitiveness of the country. It was envisioned that integration will be achieved through the establishment of a land transport link between the Brazil-Guyana border at Lethem in the south and a Deep-Water Port along Guyana's coast in the North. Accordingly, under the TC agreement, the Ministry of Public Infrastructure has requested the Inter-American Development Bank to support studies for the development of the Guyana Deep Water Port Project which will examine various development scenarios and options available for the various choices of port sites in the estuaries of the Essequibo, Demerara or Berbice Rivers or Guyana's Atlantic coast. Once this Project is implemented, it is expected to have a significant potential for increased development and economic activities between Guyana and its South American neighbors.

From preliminary studies conducted, the implementation of the Deep-Water Port will impact of the following developmental issues related to the land and river transport in Guyana:

- Possible reorganization, restructuring and renewal of the Georgetown East Demerara berths or their reversion to urban use.
- Traffic improvements in Georgetown and the extent to which heavy goods traffic serving the port needs to be catered for.
- Provisions for and encouragement of transit traffic to and from Brazil.
- National and local road transport plans with provisions for freight exports.
- Arrangements and organization of river transport to facilitate exports.
- Traffic on the Demerara River Bridge.

It is envisaged that the services to be provided under this consultancy will aid in the decision-making process as regards implementation of a deep-water port and related infrastructure through the identification of viable alternatives for locating the proposed facility including marine and land related infrastructure.

II. CONSULTANCY OBJECTIVES

- **2.1** The general objective of the consultancy is to provide various project alternatives for the construction of a deep-water port and associated infrastructure in the estuaries of any of Guyana's three main rivers; Essequibo, Demerara or Berbice, or at a point along Guyana's Atlantic coast.
- **2.2** The specific objectives of the consultancy are as follows:

- 1) Identify the most viable deep-water port sites along Guyana's coastline based on existing marine conditions and allowances for required land transportation infrastructure.
- 2) Conduct the conceptual designs for each port site as well as assess the technical, social, environmental and economic viability of the different alternatives.
- 3) Develop a comprehensive set of selection criteria to aid in the identification of the most viable site for the development of the proposed deep-water port project and conduct a comparative analysis of the proposed alternatives. The results of the comparative analysis are to be presented in a concise site selection matrix. Based on the analysis conducted the consultants will develop a ranking of the sites and make a recommendation for the preferred site for developing the project.

In undertaking the various objectives outlined above, the effects of climate change, international trade, developments in the Oil and Gas sector, social, including envisaged industrial parks would be investigated.

III. DESCRIPTION OF CURRENT STATUS OF DEEPWATER PORT

- **3.1** The subject of a deep-water port in Guyana has been studied in two separate instances as shown below:
 - 1998 Ashar and Woodbury Examination of Major Alternatives for the establishment of a Deep-Water Port in Guyana funded by the Inter-American Development Bank
 - 2010 Indian Ministry of Shipping, Report of Study Team on the Construction of a Deep-Water Port in the Berbice River of Guyana

The Ashar and Woodlbury Report examined a total of eight sites, one in the Essequibo River, five in the Demerara River and two in the Berbice River. The demand used in the study was 20,000 TEUs for a low scenario and 40,000 TEUs for a high scenario. The Demerara River sites were most favorable for both demand scenarios with a site south of Georgetown and below the harbor bridge. The report cautions that because of the limited scope of the budget of the study, some critical inputs were based on preliminary estimates and assumptions. It further stated that, the inputs should be further investigated and substantiated if an action based on the report recommendations was to be undertaken.

The Indian Ministry of Shipping Report focused on a port in the Berbice River without considering alternatives in Demerara and Essequibo River. The demand analysis prepared to justify the Project applied

the projected GPG growth rate to the current container traffic in the Georgetown port while making projections for traffic from Brazil and Suriname. None of the projection was done in a detailed manner.

IV. MAIN ACTIVITIES

- 4.1 The consultant will collect and analyze all information from previous studies relevant to the current Project. These would include the Market Study prepared in Component 1 of the Technical Cooperation along with technical, economic, environmental and social studies, including public consultations. This shall be carried out in sufficient detail for each Project option to allow for: selection of design standards; identification of design and/or 'constructability' constraints; conceptual designs; and estimated costs inclusive of the expected cost of mitigating environmental and social issues such as property acquisitions etc. On the basis of this examination, the consultant is expected to refine the Project options in order to develop the Project alternatives acceptable to the Bank and GCROG (Government of the Co-operative Republic of Guyana).
- 4.2 The design alternatives must also examine a phased implementation of the Project based on the projected growth in demand.

Data collection and assessment - Port: Collect and assess data on the existing port conditions (draft and berth characteristic) shipping volumes and type, and forecasts, and conduct site assessments, hydrographical surveys, geotechnical surveys and, tidal and hydrodynamic evaluations.

Technical analysis - Port: Investigate at a minimum, ports sites in the estuaries of the Essequibo, Demerara and Berbice Rivers and the Atlantic coast and determine the natural depth and dredging requirements (construction and maintenance), technical requirements for berths, navigation requirements, storage needs and land expropriation and utility requirement.

Evaluation – Estimate the projected work quantities and cost of each alternative. Prepare Bill of Quantities, conceptual drawings for each alternative. Determine the locations of required construction materials. Establish appropriate administrative and maintenance requirements, and safety features.

4.3 Identification of Alternative port sites

In consultation with the Guyana Land and Surveys Department, Transport and Harbours Department, Maritime Administration (MARAD) and the public stakeholder entities, identify potential sites on the estuaries of the Essequibo, Demerara and Berbice Rivers for the deep-water port including the current Demerara port site. At minimum, the sites identified in the 1998 Ashar and Woodbury study and the 2010 Indian Ministry of Shipping study should be considered. To facilitate inputs from public stakeholders, the consultant will organise and conduct a solicitation process for the submission of proposals from individuals and public entities and coordinate a public stakeholder consultation meeting in collaboration with the

Ministry of Public Infrastructure. The recommendations emanating from public stakeholder consultations will form part of the assessment alternative sites.

Conduct a survey of identified sites which shall consist of but not be limited to:

Hydrographical surveys - The surveys should determine the natural water depth of the harbour sites and the approach channels and the location of the natural water channels relative to the coast or river banks and the layout of the river in the horizontal planes with emphasis on the radius of bends and turns. The frequency of the measurements should be made to produce plans which could be used to determine the dredging needs for the development of the port.

Hydrodynamic Conditions – For each port site, determine the tidal levels (extreme and regular); the velocity and direction of currents by season and depth profile, wave height, frequency and direction.

Sediment Transport – Determine the sediment transport volume at the identified sites including the type of sediments and the trends observed over time regarding deposits and erosion. The best estimation of annual sediment deposit volumes should be determined to inform maintenance needs.

Land Side Surveys: On the land side, conduct preliminary surveys to establish of the landside topography to inform facility development and design.

Site Parameters Report: Prepare a site parameters report based on the findings.

4.4 Geotechnical / Materials Survey

Conduct geotechnical investigations at the site to determine the classification of the soil, its strength, consolidation properties and the like. Determine the requirements for the foundation of the structures which would be required for the port.

Identify and map possible sources of naturally occurring building materials in the vicinity of the site that are relevant to this Project.

Give recommendations on the preferred type of building material and blends of materials based on local deposits.

Prepare a geotechnical / materials report detailing the findings.

4.5 Demand Forecasts

Using the results of the Market Study, create demand scenarios corresponding to the cargo estimation, projections and type.

Based on these scenarios select an appropriate design vessel(s) to be used for the design of the port.

4.6 Alternative Designs and Costs

Propose design alternatives for the port (landside and waterside) and any ship channel required to enter the port. The proposed design alternatives must include different structure types as well as phased development to increase capacity as the demand grows.

Prepare a time-line for the Deep-Water Port.

Evaluate the maintenance regimes and annual maintenance costs for alternatives.

Give recommendations on the most appropriate port Project.

Prepare cost schedules and engineer's estimates in Bill of Quantities format and a Report on Alternative Designs.

4.7 Development of Site Selection Criteria and Comparative Analysis Matrix

Develop a comprehensive set of site selection criteria based on site characteristics, social and environmental impacts, financial and economic impacts, viability of transportation links, harmonization with other developmental initiatives etc.

Establish a scoring systems (points system) to facilitate ranking of the alternative sites based on selection criteria and develop a comparative analysis matrix to aid in decision making with regard to future implementation of the project.

Based on the comparative analysis conducted, the Consultant shall make a recommendation for the most viable site proposed for implementing a Deep-Water Port on the coast of Guyana.

4.7 Institutional analysis and management for the port

Consider local experiences and initiatives as well as best practices in the Amazon Region and internationally with respect to the management of ports and propose the most viable management structure to ensure the sustainability of the proposed deep-water port with respect to institutional, technical, regulatory and operational aspects.

Review the structure of MARAD in light of the development and the demands that would be placed on that institution.

Conduct relevant stakeholder consultations to ensure sustainability of proposed solutions.

Review the Maritime Act and existing legal and institutional framework for compatibility with proposals.

Propose options for the technical management and administration of the port

4.8 Workshops and Training

The Consultant would facilitate three (3) workshops and training sessions for the Ministry of Public Infrastructure (MPI) during the course of the study. The workshops will be in the form of presenting the results of the study in a setting that would allow interaction between the Consultants Team, MPI. These sessions will would both inform the client parties and offer feed back to the consultant. The training sessions would be in technical subject areas that are relevant to the study being undertaken. The topics for the training would be decided upon at the inception of the study through consultations between the Consultants Team, MPI and the Bank.

VI. CHARACTERISTICS OF THE CONSULTANCY

Type of Consultancy

The consultancy will require the services of an international consulting firm with extensive experience in, ports and transportation engineering, and in conducting feasibility studies. It is essential that the consulting firm demonstrate experience working on such studies in developing countries, particularly in the Caribbean and Latin American region.

Financing

8.2 The cost of the consultancy will include the consultant's remuneration as well as the costs of all incidentals associated with the conduct of the consultancy. The incidentals include, but are not limited to: surveys, field tests, trips, travel allowances, international calls, local transportation, secretarial expenses, copying and office supplies.

Duration

8.3 The duration of the study shall be 12 months.

Location

8.4 The study shall be carried out in Guyana.

Expertise Required

8.5 The key experts required for the Consultant's team, and their minimum qualifications and experience are:

• Key Expert No. 1: Maritime Civil Engineer

- Education: MSc. in Civil Engineering

- Experience: 10 years of experience in port design, including project experience in landside

and waterside infrastructure, with 5 year experience in developing countries. If proposed as

Team Leader, experience must include being 'Team Leader' in at least 2 projects of a similar

nature in developing countries.

• Key Expert No. 2: Structural Engineer / Bridge Engineer

- Education: MSc. in Civil Engineering

- Experience: 10 years experience in bridge design and bridge construction with 5 years

experience in developing countries

• Key Expert No. 3: Hydraulic Engineer

- Education: MSc. in Civil Engineering

- Experience: 10 years experience in drainage, erosion control and hydrological evaluations

with 5 years' experience in developing countries.

• Key Expert No. 4: Geotechnical Engineer

- Education: MSc. in Civil Engineering

- Experience: 10 years experience in geotechnical and road material evaluations with 5 years'

experience in developing countries.

Key Expert No. 5: Transport Economists

- Education: MSc. in Economics (with focus on transportation)

- Experience: 10 years of experience in port design, including project experience in landside

and waterside infrastructure, with 5 year experience in developing countries. If proposed as

Team Leader, experience must include being 'Team Leader' in at least 2 projects of a similar

nature in developing countries.

The language of all reports will be English and all experts shall have a good command of English. The

Consultant must specify the qualifications and experience of each key expert to be assigned to the assignment.

For each key expert proposed, curriculum vitae of about 4 pages should be provided detailing the relevant

experience and qualifications. Members of the consultancy team must have working experience in developing

countries.

The Consultant is free to define the individual duration of assignments and recommend changes to the composition of the team. All team members must be present in Guyana when conducting their assignments.

VII. REPORTS, OUTPUTS AND PAYMENTS

The progress and findings of the assignment will be presented in the following reports:

- Inception Report. This should set out clearly and concisely the approach to be adopted by the consultant to meet the objectives of the study. It shall contain the finalized schedule and work plan for the implementation of the consultancy, which will update the schedule proposed in the consultant's technical proposal for bidding
- Progress Reports. These will indicate the progress and summary of conclusions at the following phases: (i) fieldwork; (ii) traffic scenarios; and (iii) concept of design alternatives. They will form the basis for consultations with the MPI and the IDB through progress meetings
- Draft Final Report. This will contain the findings of the study, the supporting evidence and a full description of the methods used to meet the study objectives
- Final Report. This will incorporate the consultant's responses to the clients' comments on the Draft Final Report

All reports shall be presented in Six (6) printed copies (including all appendices, drawings, tables and graphs) and in electronic form (editable and non-editable formats). The Consultant shall supply six additional printed copies of the Final Report (including all appendices, drawings, tables and graphs) and in electronic form (editable and noneditable formats).

The outputs/deliverables of the study shall be presented as follows:

Inception Report shall be submitted to the IDB four weeks after the commencement date of the contract

Progress reports shall be submitted to the IDB in accordance with the Consultants Schedule in Inception Report but not further apart than two (2) months.

The consultant shall facilitate three (3) workshops to present the findings and concept of design alternatives during the course of the study.

Draft Final Report shall be submitted to the IDB at the end of 36 weeks after the commencement date of the contract

Final Report shall be submitted to the IDB at the end of 48 weeks after the commencement date of contract (including 8 weeks for receipt of comments and 4 weeks to make any necessary changes following comments)

VIII. Payments

The payments will be done according to the following schedule:

- 10% upon signing of the contract
- 10% upon submission of acceptance Inception Report
- 40% total, 10% upon submission of each of the four progress reports
- 20% upon submission of the Draft Final Report
- 15% upon approval of the Final Report
- 5% on completion of Workshop and Training

IX. COORDINATION

The IDB is the executing agency for the Consultancy on behalf of the Government of Guyana. The Consultant shall report to the Ministry of Public Infrastructure who will be the technical administrator of the contract. The IDB Project Team and Ministry of Public Infrastructure will have a role entailing the reviewing and evaluation of the outputs and approving the study.

The MPI will facilitate the issuing of any permits required for the Consultant to carry out their duties and make available all relevant reports, documents, maps and data.