

**REQUEST FOR EXPRESSIONS OF INTEREST**  
**CONSULTANT’S QUALIFICATIONS BASED SELECTION (CQS)**

**Project:** Federated States of Micronesia Maritime Investment Project (P163922)

**Grant No.** IDA-D4500

**Assignment Title:** Needs Assessment for Component 1 (Maritime Infrastructure) and Component 2 (Maritime Safety and Security) Activities

**Reference No.:** FM-PIU-MIP, DOTCI-126203-CS-CQS

The Federated States of Micronesia has received financing from the World Bank toward the cost of the Micronesia Maritime Investment Project, and intends to apply part of the proceeds for the following consulting services.

The consulting services (“the Services”) will focus on the following four key areas:

- (i) Identifying gaps and actions needed for FSMIP ports to become compliant with ISPS requirements;
- (ii) Conducting inventories of quay structures and furniture that relate to safety such as bollards, cleats, fenders and ladders and recommend actions to bring them in-line with international standards;
- (iii) Conducting inventories of the present system of AtoNs at FSMIP project ports including buoys, markers, harbor lights and identify system elements that are missing, damaged, in states of decline, or in need of upgrade, and to recommend measures to repair, replace or upgrade the AtoNs so that they are aligned with international standards, and
- (iv) Assessing the state of surfacing and drainage at the existing port container yards, analysing alternative options for improvements, and prioritizing improvement works based on a transparent comparative cost / benefit analysis.

It is intended the consulting assignment shall be completed in six months and will require a total of ten (10) person-months input by key experts to complete. The Government of FSM is seeking a firm to provide the necessary expertise to identify specific measures to strengthen maritime infrastructure and maritime security and safety. The areas of specialization are detailed in the ToRs and include: (i) ISPS compliance; (ii) marine structures; (iii) AtoNs; and (iv) container yard improvements & port infrastructure.

The detailed Terms of Reference (TOR) for the assignment are attached here below.

The Department of Transportation, Communication and Infrastructure (DoTC&I) now invites eligible consulting firms (“Consultants”) to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

The attention of interested Consultants is drawn to paragraph 3.14, 3.16 and 3.17 of the “World Bank Procurement Regulations for IPF Borrowers”, dated July 2016, revised November 2017 and August 2018 (“the Regulations”), setting forth the World Bank’s policy on conflict of interest.

The best qualified firm to carry out the services will be selected in accordance with the Consultant's Qualifications Based Selection (CQS) method set out in the Regulations, and based on the following criteria:

- i. General experience in the core areas of infrastructure planning, feasibility studies, design and construction supervision (a minimum of 10 years' experience will be required)
- ii. Experience on similar assignments as per the Terms of Reference (at least 3 similar assignments over the past 10 years)
- iii. Proof of technical, managerial and financial capacity of the firm
- iv. Experience in the pacific region is desired

Further information can be obtained at the address below during office hours.

Expressions of interest must be delivered in a written form to the address below (in person, by mail, by fax or by e-mail) by **Friday, 4 October, 2019**.

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## Terms of Reference (ToRs)

### Needs Assessment for Component 1 (Maritime Infrastructure) and Component 2 (Maritime Safety and Security) Activities

#### Background

The Federated States of Micronesia (FSM) are located between Palau and the Philippines to the west and the Marshall Islands to the east. The country is made up of four, semi-autonomous states (Kosrae, Pohnpei, Chuuk, Yap). FSM has more than 600 islands scattered over an area of about 2.6 million square km, and has a total land area of only 700 square km. The overall population is about 102,500 (est. 2016), with approximately 45% living in Chuuk, 37% in Pohnpei, 11% in Yap, and 7% in Kosrae.

FSM is highly dependent on its maritime services for both international and domestic trade. In addition, maritime services support inclusive economic growth and social development by providing communities with reliable access to economic opportunities, services and information. As such, the provision of safe, efficient, reliable and affordable sea transport services is considered essential for the country's basic economic and social functions, and to achieving national development plans.

Maritime Security: Threats to the maritime transportation industry are not limited to storms, swell, shoals, or other adverse natural conditions at sea. The actions of terrorists, pirates, smugglers, stowaways, and criminals exploiting the sea for illicit ends has demonstrated the need for the world's flag and port states to work cooperatively to reduce risk. In an effort to codify and standardize a comprehensive approach to effective, consistent international maritime security, the International Maritime Organization (IMO) and its Member States developed the International Ship and Port Facility Security (ISPS) Code.

As an internationally accepted blueprint for maritime security measures, the ISPS Code serves as a sound foundation from which countries can build their maritime security system. By exchanging port security--related information and sharing best practices, countries can better protect the international maritime transport system through the application of adequate and proportionate security measures.

Vessels arriving at ports in the United States of America (USA) from foreign ports that have adequate security measures are less likely to be targeted for port state control actions, which reduce potential delays and facilitate safe and secure maritime trade. Vessels arriving at USA ports from foreign ports that do not comply with the ISPS Code might be subject to additional costs for the vessels while in USA ports, delays in transit times due to security requirements, or decreased traffic to that foreign port because of increased costs in security, insurance, and other precautionary measures.

Maritime Security in FSM: Unclear roles and responsibilities, a shortage of funds, manpower capacity and training, and a lack of security awareness, has generally contributed to an overall lack of security policy, organisation, procedures and facilities in FSM ports. There are concerns about security and non-compliance with the ISPS Code at ports in FSM.

Role of United States Coast Guard (USCG): The USCG's International Port Security (IPS) Program was established in 2003 to reinforce implementation of the ISPS Code. Through the assessment of ISPS Code implementation and other anti-terrorism security measures in foreign ports, and through bilateral discussions to share and align port security practices, the Coast Guard's IPS Program seeks to reduce risks to U.S. ports and ships, and to the entire maritime transport system.

Through its IPS Program, the USCG is committed to assisting those nations that have not fully implemented the ISPS Code. IPS Program visits and discussions are instrumental to USCG to obtain confidence in the effectiveness of a port state's implementation of the ISPS Code.

USCG has liaison officers dedicated to maritime trading nations globally. These liaison officers maintain regular communication with local maritime professionals, including government authorities responsible for maritime and port security, as well as port officials and port facility security officers. In addition, the liaison officers coordinate visits to foreign ports to observe port security measures in place.

Through the IPS Program nearly every coastal state in the world has been visited, and there are targets to visit countries at least annually to maintain cooperative relationships.

Port Infrastructure: the unsurfaced condition of container yards combined with a lack of drainage leads to disruption and low efficiency of container loading and offloading operations in FSM ports. Physical port infrastructure, comprising port authority and customs buildings, access roads and the utility services that supply the buildings and ships in port are in need of repair, rehabilitation, upgrading or replacement for the ports to be able to operate more efficiently and effectively.

Integrity of Maritime Structures in FSM: Unclear roles and responsibilities, a shortage of funds, manpower capacity and training, and a lack of basic maintenance has resulted in a gradual deterioration of quay and apron structures and related quay furniture, such as bollards, cleats, ladders and fenders. In addition, quay aprons throughout most ports in FSM, as well as small boat landing facilities on outlying islands, have suffered significant deterioration over time. Vulnerability to climate change and severe weather events is another challenge and there are concerns about the safety of international and domestic vessels calling at ports in FSM.

Unsafe and inefficient port (ship-to-shore) operations contribute to damage to vessels, prolonged port calls (port turn-around times), an increase in cost of imports and exports for FSM, and potentially adverse environmental and social impacts.

Aids to Navigation: Several organizations regulate international shipping. The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) is a non-profit, non-governmental organization devoted to the harmonization of marine aids to navigation. IALA was formed in 1957 as a technical association to provide a framework for aids to navigation authorities, manufacturers and consultants from all parts of the world to work with a common effort to:

- harmonize standards for aids to navigation systems worldwide;
- facilitate the safe and efficient movement of shipping; and
- enhance the protection of the maritime environment.

IALA's manual "Navguide 2014" assists maritime organizations, training institutions and individuals who are associated with aids to navigation (AtoNs). The purpose of the manual is to assist AtoN authorities to harmonize marine AtoNs by providing a first point of reference on the provision of AtoN services.

Aids to Navigation in FSM: Unclear roles and responsibilities, a shortage of funds, manpower capacity and training, and a lack of basic maintenance has resulted in a gradual deterioration of AtoNs, including elements such as buoys, markers, leading lights and harbour lights, at FSM ports, maritime facilities, and access channels. There is a concern for the impact on safety and efficiency of international and domestic vessels calling at ports in FSM.

## **World Bank Support for FSM**

To enhance the safety, efficiency, and climate resilience of maritime operations and by so doing, reduce their vulnerability, the Federated States of Micronesia Investment Project (FSMIP) will focus on maritime infrastructure improvements and investments in maritime safety, efficiency and climate resilience. The

Department of Transportation, Communication and Infrastructure (DoTC&I) has been identified to implement the FSMIP. This will be achieved through four basic components:

- Component 1: Maritime Infrastructure
- Component 2: Maritime Safety and Security
- Component 3: Technical Assistance for Port Planning and Project Management
- Component 4: Contingent Emergency Response

Under FSMIP funding will be allocated to: (i) ensure compliance with ISPS requirements; (ii) improve the condition of quay structures and mooring systems at key docks/ports; (iii) improve the condition of AtoNs; and (iv) improve the surfacing and drainage of container yards

There are four key docks/ports that will be assessed as part of this assignment, including:

1. Okat Port (Kosrae)
2. Pohnpei Port
3. Weno Port (Chuuk)
4. Tomil Port (Yap)

### **Technical Expertise Required**

The Government of FSM is seeking a firm to provide the necessary expertise to identify specific measures to strengthen maritime infrastructure and maritime security and safety. The areas of specialization are detailed in these ToRs and include: (i) ISPS compliance; (ii) marine structures; (iii) AtoNs; and (iv) container yard improvements & port infrastructure.

### **Review of recent studies, consultations and assessments**

To inform and guide the assignment, the firm is strongly encouraged to review recent studies and assessments on ports and maritime shipping in FSM, including the maritime infrastructure assessment and hydrographic surveys recently carried out by the US Navy.

The consultants shall review the outputs of the environmental audits of the ports conducted as part of the recently completed (March 2019) safeguards consultations and assessments and, where relevant, include a summary of the findings in the evaluation of existing conditions on the ground. In addition, the consultant should review the safeguards documents to identify potential environmental and social risks of proposed improvements.

### **Scope of Assignment**

The assignment will focus on the following four key areas:

- (i) Identifying gaps and actions needed for FSMIP ports to become compliant with ISPS requirements;
- (ii) Conducting inventories of quay structures and furniture that relate to safety such as bollards, cleats, fenders and ladders and recommend actions to bring them in-line with international standards;
- (iii) Conducting inventories of the present system of AtoNs at FSMIP project ports including buoys, markers, harbor lights and identify system elements that are missing, damaged, in states of decline, or in need of upgrade, and to recommend measures to repair, replace or upgrade the AtoNs so that they are aligned with international standards, and

- (iv) Assessing the state of surfacing and drainage at the existing port container yards, analysing alternative options for improvements, and prioritizing improvement works based on a transparent comparative cost / benefit analysis.

The consultancy will involve: (i) an assessment of maritime infrastructure under Component 1 to identify urgent needs; (ii) recommend upgrades to improve the safety, efficiency, and climate resilience of the infrastructure; and, (iii) provide a framework that prioritizes the recommended investments across the Project ports.

### **Assignment Objectives**

Each of the four tasks has a separate objective, but some activities within separate tasks will overlap.

#### ***Task 1: ISPS Compliance***

##### Objective

The objective of Task 1 is to identify gaps and actions needed for key docks/ports in FSM to become compliant with ISPS requirements.

##### Scope of Work

The Consultant will make inventories of the present organisational structures of the four ports receiving international traffic in FSM<sup>1</sup>, and designated functions, procedures, and practices to identify shortcomings and gaps in compliance with the ISPS Code. Also, improvements and actions needed to bring the key docks/ports into compliance with ISPS requirements will be prioritized. As a starting point, the Consultant will review recent ISPS assessments that have been prepared by the USCG.

The following activities will be carried out for each of the FSM docks/ports included in the assignment:

- Under the direction of the FSMIP Project Manager and other FSM officials, as appropriate, undertake consultations with officials from the United States Coast Guard (USCG) in Honolulu and Guam with particular focus on the results of the recent ISPS assessments carried out by USCG.
- In consultation with Government of FSM (GoFSM) and USCG officials, conduct site assessments at key docks/ports in FSM.
- Discuss the ISPS facilities, organisation, procedures, practices and audits with relevant representatives of port authorities and/or GoFSM maritime departments.
- Describe the state of existing ports and terminals and prepare inventories of physical infrastructure and superstructure facilities relevant for ISPS, such as access gates, buildings, fencing, etc., and prepare maps of the port areas with references to relevant assets.
- Prepare inventories of, and describe the existing management and organisation structure in, ports and terminals in FSM, particularly the organisational structure, functions and designated persons related to ISPS requirements.
- Prepare inventories and describe the existing procedures, practices, checks, training arrangements and drills in ports and terminals related to ISPS requirements.

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<sup>1</sup> FSM has four ports, including: (i) Okat Port in Kosrae; (ii) Pohnpei Port; (iii) Weno Port in Chuuk; and (iv) Tomil Port in Yap.

- List shipping lines that regularly call at the international ports using international vessels (multi-purpose, tankers, fishing).
- Compare the existing facilities, organisation, procedures, practices, checks, training arrangements and drills of shipping lines with those described in the ISPS Code.
- Describe differences between the existing situation in ports and what they should be as per the ISPS Code (gap analysis).
- Assess potential risks as a result of the gap analysis and recommend specific improvements to physical infrastructure and superstructure facilities, organisation, procedures, practices, and training to meet ISPS requirements at each of the key docks/ports.
- Report and discuss preliminary findings, outputs and deliverables, including minutes of any meetings related to FSM ports with representatives of the US Coast Guard (tbd), as designated by FSM officials.
- Based on discussions with FSM and USCG officials, prioritize and sequence key recommendations to enable docks/ports to meet ISPS requirements, and prepare cost estimates to implement them.
- After consultation with USCG, report findings, outputs and deliverables, including minutes of meetings related to FSM ports, with FSM officials.
- For agreed recommendations, develop conceptual engineering designs and drawings to inform the firm preparing the detailed designs.

## ***Task 2: Marine Structures***

### Objective

The objective of Task 2 is to make inventories of quay structures and quay furniture, such as bollards, cleats, fenders and ladders; identify bottlenecks, damage, and deterioration; and recommend improvements and actions to bring key docks/ports in FSM<sup>2</sup> more in-line with international standards for improved safety, efficiency, and climate resilience.

### Scope of Work

**Note:** With respect to inventories of quay structures and quay furniture, the recently completed study entitled *Underwater Construction Team Two - Maritime Infrastructure Assessment, Colonia, Yap, Federated States of Micronesia, April 2018*, provides a good example for carrying out the marine infrastructure assessments.

The following activities will be carried out for each of the key docks/ports identified:

- Visit the four key docks/ports in FSM and evaluate the current state of the maritime infrastructure at these facilities.
- Discuss the integrity of quay structures, apron structures and quay furniture with representatives of port authorities and/or government maritime departments.
- Review the findings of the recent maritime infrastructure assessments carried out by the US Navy.
- Study “as-built” drawings, when available, of the existing physical quay and apron structures, as well as the related quay furniture, for the international ports.

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<sup>2</sup> FSM has four international ports: (i) Okat Port in Kosrae; (ii) Pohnpei Port; (iii) Weno Port in Chuuk; and (iv) Tomil Port in Yap.

- Carry out underwater and above water inspections of the above facilities and describe the condition and shortcomings (including vulnerability to climate change and severe weather events) of the existing physical quay and apron structures and the related quay furniture at the international ports. ***It should be noted that the consultant will be required to provide its own underwater diving equipment to conduct the inspections.***
- Prepare cross sectional and longitudinal views of the relevant facilities indicating the locations of shortcomings.
- Identify potential risks as a consequence of the above shortcomings.
- In consultation with relevant FSM and USCG officials, recommend improvements (i.e. repairs of quay wall structures, and replacing or repairing quay furniture) to upgrade the safety, efficiency and resilience of the structures, prepare cost estimates for each improvement and agree on a prioritized list.
- For agreed prioritized recommendations, develop the scope of work, conceptual engineering designs and drawings to inform the firm preparing the detailed designs.

### ***Task 3: Aids to Navigation (AtoNs)***

#### Objective

The objective of Task 3 is to make inventories of the present system of aids to navigation at the key docks/ports,<sup>3</sup> including buoys, markers, harbour lights, and leading lights, and to identify system elements that are missing, damaged, in states of decline, or in need of upgrade, and to recommend measures to repair, replace or upgrade AtoNs so that they are in-line with international standards.

#### Scope of Work

The following activities will be carried out for each of the key docks/ports identified:

- Describe the legal and governance arrangements, including responsibilities, of the Federal and State Governments regarding the installation and maintenance of aids to navigation systems.
- Visit the key docks/ports in FSM.
- Study “as-built” drawings, when available, of the systems of aids to navigation and of the individual elements of the systems in the international ports and respective access channels.
- Discuss AtoN systems with relevant FSM representatives.
- Carry out surveys and inspections of the condition of current AtoN systems, including buoys, markers, leading lights and harbour lights, at the international ports and respective access channels.
- Prepare maps of key docks/ports and access channels indicating the locations of current AtoN systems, and list shortcomings of the present systems (missing elements, damage, poor operational condition, wrong location, etc.).
- Assess potential risks as a consequence of the above shortcomings and recommend improvements that are in-line with IALA’s most recent Navguide manual to eliminate shortcomings, including specific types of AtoNs to be installed/upgraded.
- Report and discuss findings, outputs and deliverables with relevant FSM and USCG officials and agree on a prioritized list of AtoNs to be improved/upgraded.
- For prioritized investments, prepare cost estimates, and develop conceptual designs and outline

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<sup>3</sup> International ports for FSM comprise: (i) Okat Port in Kosrae, (ii) Pohnpei Port. (iii) Weno Port in Chuuk, and (iv) Tomil Port in Yap.

specifications to inform the firm carrying out the detailed design.

In carrying out this Task, the consultant should make reference to the Pacific Safety of Navigation Project Visit Report – Federated States of Micronesia Visit Dates – 29 January to 9 February 2018, which includes detailed information and recommendations relating to AtoN for Pohnpei and Kosrae including service provision, technical issues and training.

#### ***Task 4: Options analysis and prioritization of improvements to container yards***

##### Objective

The objective of Task 4 is to (i) assess the comparative economic and financial costs, benefits and risks of alternative surfacing and drainage improvement options for the existing container yards at the four FSM international ports and (ii) make substantiated recommendations for the prioritization of improvements at these facilities, based on a transparent cost / benefit analysis.

##### Scope of Work

- Visit the four international ports in FSM;
- Study “as-built” drawings, when available, of the existing container yards at Kosrae, Pohnpei, Chuuk and Yap;
- Carry out surveys and inspections of the existing container yard at each of the four ports and assess the scope of work involved at each location;
- Prepare dimensioned plans of the four existing container yard including quay-side and land-side accesses and possible drainage outfall routes;
- Analyze the movement of freight traffic, passenger traffic, and vessel traffic and recommend optimization of port layouts to improve safety, efficiency and climate resilience of port operations;
- Determine the critical activities that should be located within each port (such as Customs and Immigration, EPA, etc.) and assess options to reconfigure the layout to improve productivity and operational efficiency;
- Hold detailed discussions with the stakeholders’ representatives for all four ports (e.g. State Port Authorities / Transport Departments, container yard operator, port users etc) on improving port layouts;
- Discussions should include the phasing of construction works to minimise disruption to ongoing port operations, and assessment of options for the removal of scrap and rubbish from the container yard prior to construction;
- Carry out conceptual design, analysis and cost estimates for alternative surfacing and drainage options for each container yard to inform the consulting firm undertaking the detailed design;
- Develop a transparent cost / benefit framework to substantiate prioritization of improvements to one or more of the ports, that will be dependent on available funding resources, undertake analysis (e.g. multi-criteria analysis considering economic evaluation, vulnerability of infrastructure to climatic events, etc.), and make recommendations for priority investments;
- Report and discuss findings, outputs and deliverables with relevant FSM officials, and agree on preferred options for container yards and other prioritized port infrastructure;
- For preferred options, prepare Terms of Reference for detailed design and supervision of priority container yard improvements and port infrastructure development.

## **Deliverables**

### ***Inception Report***

Prepare an Inception Report detailing the methodology, team composition and roles, workplans and timetables after initial consultations with FSM officials and other stakeholders where appropriate.

### ***Draft Final & Final Reports***

Prepare Draft Final Report that describes the inputs, analysis and outputs for each Task, viz:

- Task 1 – ISPS Compliance
  - the existing conditions on the ground for each of the key docks/ports, facilities, organisation, operations, procedures, and other findings related to ISPS requirements;
  - bottlenecks and shortcomings to reaching compliance with ISPS requirements;
  - recommendations for improving physical infrastructure, including cost estimates and preliminary designs; and
  - recommendations for improvements to organizational arrangements for ports and terminals, staff, procedures, practices, and training, including cost estimates.
- Task 2 – Marine Structures
  - quay and apron structures and the related quay furniture at the three ports and three small boat landing facilities;
  - shortcomings and/or failures of maritime structures (including as a result of vulnerability to severe weather events); and
  - recommendations for improving physical infrastructure, including cost estimates and concept designs to inform the firm preparing the detailed designs.
- Task 3 – AtoNs
  - Assess AtoN systems and the individual elements of the systems at each of the key docks/ports, and respective access channels;
  - Assess legal and governance arrangements, including responsibilities, the Federal and State Governments regarding the installation and maintenance of aids to navigation systems;
  - Include maps indicating the locations of the current AtoN systems; and
  - Recommend improvements to overcome shortcomings that are in-line with IALA's most recent Naviguide manual to eliminate shortcomings and prepare work schedules and cost estimates to implement the recommendations.
- Task 4 – Container yard improvements
  - Provide dimensioned, contoured surveys and plans of existing infrastructure at the four international ports; and
  - Present the options considered for one or more prioritized container yard surfacing and drainage improvements including a conceptual design options analysis with reasoned recommendations for the preferred options to inform the firm preparing the detailed designs.
- Task 5 – Finalization of Needs Assessment
  - Present and discuss the findings of the draft final reports to FSM officials; and
  - Address all stakeholder comments received into Final Reports.

## **Reporting & Logistics**

The consultant will report to Secretary of DoTC&I, which is responsible for FSMIP activities and will work under the overall direction of the FSMIP Project Manager.

All reports and outputs will be in English and submitted electronically.

During field work, FSM will provide the Consultant with office space and internet access, and access to equipment, such as printers, fax machines and photocopiers. The Consultant will provide its own computer, software and data backup facilities.

### Qualifications and Experience

The Consultant shall provide a well-qualified and experienced team of professional specialists in the relevant disciplines to carry out all aspects of this assignment, including the following key expertise:

<i>Task / Specialty</i>	<i>Minimum Qualifications</i>	<i>Desirable Experience</i>
(i) ISPS Compliance	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering, business, logistics, risk analysis or security-related discipline.</li> <li>• A minimum of seven years of post-graduate public or private sector experience in port and terminal engineering and/or operations including security aspects.</li> <li>• Working experience in physical, organisational and managerial ISPS aspects.</li> <li>• Fluency in written and spoken English.</li> <li>• Developing country experience.</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific island or atoll country working experience.</li> <li>• Experience in donor-funded projects and working with development partners, such as World Bank, Asian Development Bank, USAID, etc.</li> </ul>
(ii) Marine Structures	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering (conforming to the Washington Accord or equivalent).</li> <li>• A minimum of seven years of post-graduate public or private sector experience in above and below water port and terminal engineering and/or operations including security aspects.</li> <li>• Fluency in written and spoken English.</li> <li>• Developing country experience.</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific island or atoll country working experience.</li> <li>• Experience in donor-funded projects and working with development partners, such as World Bank, Asian Development Bank, USAID, etc.</li> </ul>
(iii) Aids to Navigation (AtoNs)	<ul style="list-style-type: none"> <li>• Bachelor's degree in shipping or maritime transport or engineering.</li> <li>• A minimum of seven years of post-graduate public or private sector experience in port engineering, including design and installation of AtoNs.</li> <li>• Fluency in written and spoken English.</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific island or atoll country working experience.</li> <li>• Experience in donor-funded projects and working with development partners, such as</li> </ul>

	<ul style="list-style-type: none"> <li>• Developing country experience.</li> </ul>	World Bank, Asian Development Bank, USAID, etc.
(iv) Container yard surfacing & drainage	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil and structural engineering</li> <li>• A minimum of seven years of post-graduate public or private sector experience in port engineering, including design and installation of container yard surfacing and drainage</li> <li>• Fluency in written and spoken English.</li> <li>• Developing country experience.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific island or atoll country working experience.</li> <li>• Experience in donor-funded projects and working with development partners, such as World Bank, Asian Development Bank, USAID, etc.</li> </ul>

Please note that while it is noted above that each of the key experts above must have a minimum of 7 years of post-graduate public or private sector experience, the individual serving as Team Leader must have a minimum of 10 years of such experience.

The Consultant shall also provide suitably qualified and experienced support staff to enable all the fieldwork, marine work and office work to complete the requirements of this assignment, to be carried out efficiently, effectively and timeously. This support staff will also provide quality assurance under the assignment including, but not necessarily limited to, ensuring the firm's outputs delivered to the client are well-written and professionally presented.

**Duration and Level of Effort**

The assignment should be completed in six months and will require a total of ten (10) person-months input by key experts to complete.