Liberia Sustainable Management of Fisheries Project (LSMFP)
National Fisheries & Aquaculture Authority
P. O. Box 10-1384
United Nations Drive, Bushrod Island
1000 MONROVIA 10, LIBERIA

REQUEST FOR EXPRESSION INTEREST (REOI)

Loan/ Credit No. IDA V3100

PROJECT ID: P172012

Subject: Request for Expression of Interest (REOI) for Provision of Consulting Services for Preparation of Detailed Design and Supervision of Mesurado Industrial & Artisanal Landing Facilities and other fisheries Infrastructures to be Constructed

Reference No.: LR-NAFAA-290545-CS-QCBS

Assignment Title: To Prepare Detailed Design and Supervision of Mesurado Industrial & Artisanal Landing Facilities and other fisheries Infrastructures to be Constructed

The government of Liberia through the National Fisheries and Aquaculture Authority (NaFAA) has received support from the World Bank Group toward the implementation of the "Liberia Sustainable Management of Fisheries Project (LSMFP)", and intends to utilize part of the funds for the construction of an industrial fish export terminal and an artisanal fish landing site at Mesurado Pier in Monrovia. The artisanal fisheries landing site will be equipped with post-harvest processing facilities, fish market facilities and store facilities for the sale of vessel engines and nets, engine repair shops, toilets and water supply facilities.

The Government of Liberia through NaFAA is soliciting the services of a qualified Consultant Firm or Consultant Consortia for detailed design and supervision of Mesurado Industrial & Artisanal Landing Facilities and other fisheries Infrastructures to be constructed with funds from the World Bank. The general objective of the assignment is to is to contract a consulting firm to undertake studies, prepare engineering designs, bidding documents, including drawings, Technical Specifications and Bills of Quantities (BOQ) herein termed as "Design Phase" and, upon satisfactory performance, supervise the construction contract executed by the Contractor and, in addition, provide the associated services during the required Defects Liability Period (DLP) hereafter termed as "Supervision Phase".

The National Fisheries and Aquaculture Authority (NaFAA) now invites eligible consulting firms to indicate their interest in performing the Services. Interested firms must provide information indicating that they are qualified to perform the services (brief corporate profile, description of similar assignments, experience in similar conditions, availability of appropriate skills, etc.)

The shortlisting criteria includes the following qualifications:

Qualification Requirements and Composition of Study Team:

The Firm must show evidence of minimum fifteen (15) years' general experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the

assignment, the firm must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- preparing detailed technical designs and supervision of industrial port construction. The firm specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. Experience with the World Bank or Donor Funded Project is required.

The firm will assemble a multi-disciplinary team of technicians which must include the key experts as stated below, though the consultant may propose additional expertise as required as non-key experts; however, their qualifications will not be considered in the evaluation of proposal.

Key 1: Team Leader – Ports Engineer (1): S/he shall have a post-graduate degree in Civil Engineering, and a membership in a recognized professional association. S/he shall have a minimum of 20 years of overall professional experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the assignment, the Team Leader (TL) must have specific in-depth and recent experience in at least one similar assignment in the last 10 years-port works, design and construction of rubble mound breakwaters, dredging and reclamation works. S/he shall have experience in risk assessment and devising mitigation measures for risk reduction. The TL specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. Experience with the World Bank or Donor Funded Project as a TL is required.

Key 2: Architect/Civil Engineer (1): S/he shall have at least a post-graduate degree in Architecture and/or Civil Engineering, and a membership in a recognized professional association. S/he shall have a minimum of 20 years of overall professional experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the assignment, the civil engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port work of a relevant nature. The Civil Engineer specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. His/her tasks and responsibilities shall include but not be limited to the providing technical support to the TL on the matters related to planning and design of the shore-based infrastructure.

Key 3: Infrastructure Engineer (1): S/he shall have at least a Graduate degree in Civil Engineering, and a membership in a recognized professional association. The infrastructure engineer shall have a minimum of 15 years working experience. To demonstrate required competence and adequacy to successfully complete the assignment, the infrastructure engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port work of a relevant nature. The infrastructure engineer with specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. His/her tasks and responsibilities shall include assisting the TL in all matters relating to the design of the shore-based infrastructure components.

Key 4: Electrical Engineer (1): S/he shall have at least a Graduate degree in Electrical Engineering and a membership in a recognized professional association. The electrical engineer shall have a minimum of 15 years of general working experience in the engineering field. To demonstrate required competence and adequacy to successfully complete the assignment, the infrastructure engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port work of a relevant nature. The electrical engineer specific experience in fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage.

Key 5: Mechanical Engineer (1): S/he shall have at least a Graduate degree in Mechanical Engineering, and a membership in a recognized professional association. The mechanical

engineer shall have minimum 10 years of general working experience in the engineering field. To demonstrate required competence and adequacy to successfully complete the assignment, the infrastructure engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port work of a relevant nature. The mechanical engineer specific experience in fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage.

Key 6: Sanitation Engineer (1): S/he shall have at least a Graduate degree in Sanitation or Water Engineering, and a membership in a recognized professional association. The sanitation engineer shall have minimum 10 years of general working experience in the engineering field. To demonstrate required competence and adequacy to successfully complete the assignment, the infrastructure engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port/marine work of a relevant nature. The sanitation engineers specific experience in fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage

(*) Key Positions that will be included in the technical proposal evaluation (based on the detailed CVs of the proposed respective team members).

The detailed Terms of Reference (TOR) for the assignment can be found at the following websites:

a) www.nafaa.gov.lr
b) www.emansion.gov.lr
c) www.moa.gov.lr

The attention of interested individual Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" dated July 2016, revised November 2017, August 2018, and November 2020 setting forth the World Bank's policy on conflict of interest. Please refer to paragraph 3.17 of the Procurement Regulations on conflict of interest related to this assignment which is available on the Bank's website at http://projectsbeta.worldbank.org/en/projects-operations/products-and-services/brief/procurement-newframework .

A Consultancy Firm will be selected in accordance with the **Quality And Cost-Based Selection Method (QCBS)** set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours, i.e. 0900 to 1600 hours GMT.

Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by fax, or by e-mail) by **Monday April 17, 2023 @ 4:00PM GMT**

Liberia Sustainable Management of Fisheries Project (LSMFP)
Attn: The Project Coordinator
Mesurado Pier, Freeport of Monrovia
Monrovia, Liberia
Tel: +2310886532901/0770538462
E-mail: l.i.braimah@gmail.com, kpelewahj100@gmail.com
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Terms of Reference: Consultancy Services for Preparation of Detailed Design and Supervision of Mesurado Industrial & Artisanal Landing Facilities and other fisheries Infrastructures to be Constructed

- BACKGROUND

The Government of Liberia through the National Fisheries and Aquaculture Authority (NaFAA) has secured funding from the World Bank Group to help develop the Liberia fisheries and aquaculture sector with the overall Project Development Objective (PDO) to improve fisheries management and enhance livelihood and income for government and targeted beneficiaries. To achieve this objective the project has been divided into 5 components, as follows:

Component 1: Improving Management and Governance of Fisheries

Under this component the project will focus on improving governance and management reforms; developing human and institutional capacity; improving policies, strategies, and institutional and legal frameworks to make them climate smart; and other relevant activities that are aimed at improving fisheries management and marine environmental health and resilience to climate change.

Component 2: Improving Value-Addition of Fish and Fish Products

Under this component, the project will support major civil works aimed at strengthening national post-harvest value systems. This will include the construction of an industrial fishing port and artisanal fish landing site at Mesurado Pier in Monrovia to improve quality of landings and the fish supply in Monrovia.

Component 3: Support to Aquaculture Development

Under this component the project will finance the development and rehabilitation of the Klay hatchery, one of the government-run hatcheries, as a suitable fish hatchery model and aquaculture research center equipped with a standard laboratory for conducting research on fish feed, fingerling production, testing water quality, fish disease, etc.

Component 4: Project Management

This component will support the implementation, management, coordination, and oversight of the proposed project, including establishing and implementing a simple and smart monitoring and evaluation (M&E) system where a climate risk screen tool will be integrated throughout project implementation to identify risks, communication, awareness, and training of the implementing entities on applying the World Bank's Environmental and Social Framework (ESF)/Environmental and Social Standards (ESS), World Bank Group ESHS[1] Guidelines and Good International Industry Practice

Component 5: Contingent Emergency Response Component (CERC)

The objective of this component is to provide immediate response to an eligible crisis or emergency, as may be presented in the future.

Under component 2, the Government of Liberia intends to utilize part of the funds for the construction of an industrial fish export terminal and an artisanal fish landing site at Mesurado Pier in Monrovia. The artisanal fisheries landing will be equipped with post-harvest processing facilities, fish market facilities and store facilities for the sale of vessel engines and nets, engine repair shops, toilets and water supply facilities.

2. - DESCRIPTION OF THE PROJECT

The physical infrastructure proposed under the project consists of the construction of an integrated artisanal fisheries landing (*henceforth referred-to as the **Canoe Hub***) and an export terminal at Mesurado (geographical location 6º.21'.33.85"N - 10º.47'.37.34"W).

Mesurado Pier, located at the southern side of the lee breakwater at the Freeport of Monrovia, will be the main site of the civil works activities proposed under the project. The land around

[1] ESHS = Environmental, Social, Health, and Safety.

the shoreline on the port side has several infrastructures including the old Mesurado Fish Company's processing facility and the Armed Forces of Liberia (AFL) Coast Guard Base. The access road leading to the project area is the object of a separate consultancy.

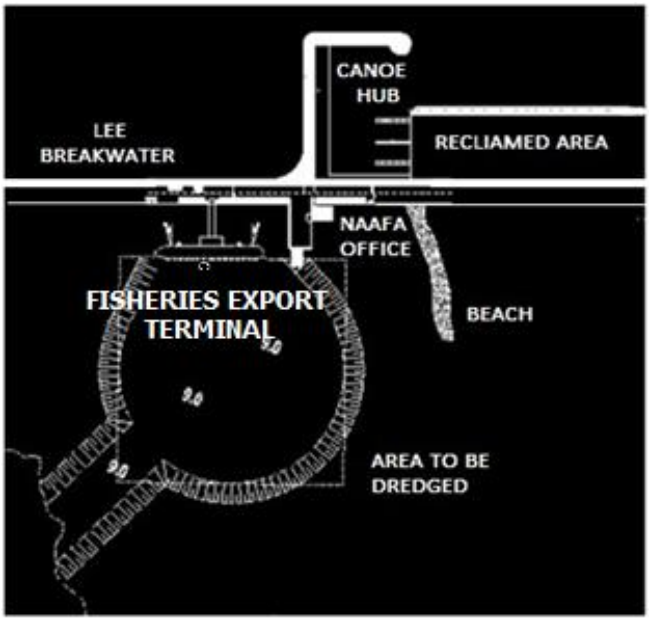
The canoe hub will be established on the north side of the root of the lee breakwater and will involve the reclamation of around 3 hectares land using sand dredged from the turning circle of the proposed export terminal, see figure 2 below. The location on the north-side of the breakwater will facilitate easy access for canoes from New Kru town, which relies mainly on fishing income and is located along the shore, north of the lee breakwater. The position of the canoe hub will ensure that the canoes will have a dedicated mooring and unloading basin away from the larger commercial vessels within the harbour area.

Figure 1 – Location of the project site at Mesurado at the Freeport of Monrovia

The canoe hub reclamation will provide land for fish processing initiatives by the private sector. The reclaimed area will be bounded on one side by a rock bund and the other by the lee breakwater of the Freeport. The resulting bounded area will be filled with sand dredged from the turning basin opposite the proposed export terminal, see figure 2 below. The reclaimed area will be divided up to include space for cold stores, processing areas, an administrative area and a utilities area for power, water and fuel storage and liquid waste treatment. The area will be equipped with all the required hygiene facilities and also provide land for resettlement of hawkers.

The fisheries export terminal, figure 2 below and reference drawing, will be established on the port side of the lee breakwater with a turning circle dredged to -9.0 m below chart datum. The sand dredged from the turning circle will be utilised for the reclamation.

Figure 2 – Layout of the proposed integrated fisheries hub



3. - OBJECTIVES OF THE CONSULTANCY

The objective of the consultancy is to contract a consulting firm to undertake studies, prepare engineering designs, bidding documents, including drawings, Technical Specifications and Bills of Quantities (BOQ) herein termed as "***Design Phase"*** and, upon satisfactory performance, supervise the construction contract executed by the Contractor and, in addition, provide the associated services during the required Defects Liability Period (DLP) hereafter termed as **"*Supervision Phase".***

4. – SCOPE OF PHYSICAL WORK TO BE DESIGNED

The consultancy service shall comprise a review of the output of the Environmental and Social Impact Assessment (ESIA), including the topographic and bathymetric surveys, the geotechnical investigation and the wave penetration modelling followed by the detailed design and supervision of the following components:

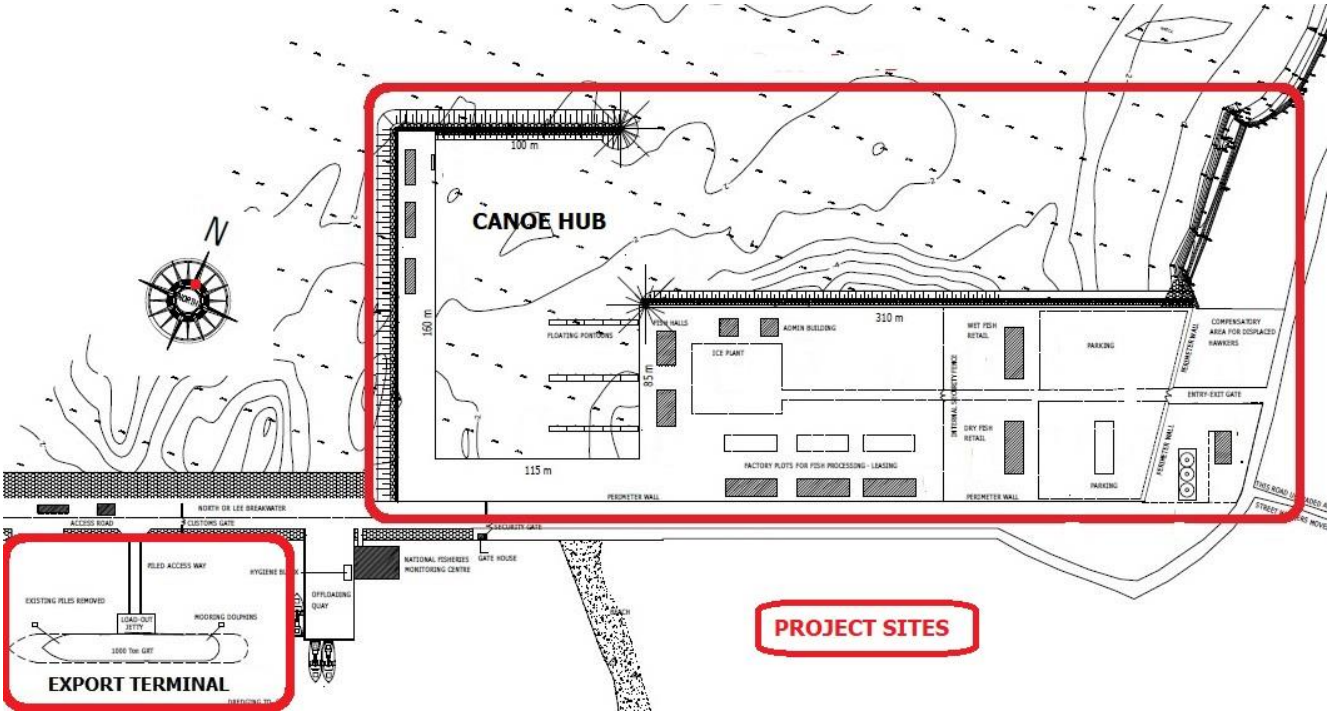


Figure 3 – Proposed layout of the integrated fisheries hub

Export Terminal

1. Piled export jetty, 28m x 12m;
2. Piled access way to jetty, 44.50m long, 8.50m wide;
3. 2 No mooring dolphins on piles.

Integrated canoe hub

1. Main rubble mound breakwater with internal service quay approximately 160 m + 115 m +85 m long forming the canoe basin;
2. Reclaimed area, approximately 300 m long x 100 m wide, including the wave spending containment bund;
3. 3 No floating pontoons, each 50 m long, with a maximum freeboard of 0.5 m;
4. Hub administration building, with a footprint of *ca* 100 m^2;
5. Flake ice plant building, including ice stores, with a footprint of *ca* 80 m^2
6. 2 No first landing fish-halls each with a footprint of *ca* 200 m^2;
7. 2 No retail markets (wet and smoked/dry retail), each with a footprint of *ca* 300 m^2;
8. 3 No Open-plan fishing gear stores, each with a footprint of *ca* 100 m^2;
9. Underground 3-day emergency water reservoir with header tank;
10. Serviced factory plots, including utilities, for leasing to private investors (number TBD);

11. Wastewater treatment plant;
12. Sub-station;
13. Refuelling station for canoes with outboards;
14. Internal road network, including boundary fences separating port area from public area;
15. Open car parks;
16. Set-aside area for hawkers;
17. Public lighting, including CCTV;
18. Reticulation.

5. – SCOPE OF SERVICES

The scope of services to be carried out by the Consultant shall involve all engineering and structural services, including designs of all civil works, equipment and quantity surveying works. The Consultant's services shall include assistance with the bidding of the works. The services shall be categorized in four phases, and shall include but not limited to the following:

DESIGN PHASE

Phase I – Inception Report

Data Collection - The Consultant shall visit and examine the project site where the services shall be provided and obtain all information necessary for the preparation of project inception report. The consultant shall provide a specific Project Quality Plan in accordance with the principles of ISO 9001.

The consultant shall also prepare and update throughout the project a Design Basis Report comprising Codes and standards applied for the project. For all structural design work, Eurocodes shall be the basic system, supplemented as necessary by other international or Liberian codes, directives or rules. The design life for all the static structures (floating pontoons excluded) shall be 75 years and shall include all the recommendations for climate change, including sea level rise.

The consultant shall prepare, maintain and update as required, a detailed implementation schedule for the planned engineering work and construction services.

Phase II – Preliminary Engineering Design

The Consultant shall provide a preliminary engineering design of the entire canoe hub (i.e. site plan, breakwater cross sections, building floor plans and sections, rendering, landscaping and sewerage and utilities). The preliminary design shall be accompanied by an outline cost estimate. The proposed design must respect the outcome of the ESIA conditions. The use of green infrastructure components is a requirement. The Consultant shall prepare and present a presentation (preferably in Power Point) of the preliminary design to the Client and all the stakeholders (including the World Bank) at a meeting to be attended by all the relevant private sector operators and stakeholders.

Phase III – Detailed Engineering Design and Tender Documents

Following feedback from the Client during the presentation of the preliminary design, the Consultant shall be required to prepare detailed draft final engineering design report and drawings. This shall comprise:

- Detailed Design Drawings;
- Technical Specifications, including but not limited to:
    - Preliminaries incl. requirements to Contractor's Health- Safety - Environment Plan and Construction Management Plan; Demolition and site clearance; Dredging; scour protection if required; berthing structures; floating pontoons, fenders, bollards, navigational aids, steel, concrete including reinforcement, drainage, water and sewerage, power and lighting, paved areas and perimeter walls and fences.
    - Each construction item section shall at least contain: Scope; Materials; Workmanship incl. tolerances; Testing; Measurement for calculation of payment.

- Bills of Quantities (BOQ) organised in separate bills with detailed quantities including Daywork Rates, and Summary Sheet. The Bills shall be itemized and prioritized so as to allow the final Works Contract to be adjusted to meet budget, if so required. Work items that may be thus omitted or phased-in (such as the export terminal) shall be clearly marked as such.
- Priced Bill of Quantities, i.e. the Bills of Quantities completed with unit price estimates to provide updated construction budget. The BOQ cost estimates shall also include the costs for the implementation of the Environmental and Social Management Plan (EMP), to be derived from the ESIA report.
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In accordance with: World Bank "STANDARD BIDDING DOCUMENTS; Procurement of Works; October 2017. The consultant shall prepare the tender documents for the project organised in 5 volumes plus the ESMP:

i. **Vol. 1**: Instruction to Bidders (Prepared by the Client, with relevant technical inputs from the Consultant);
ii. **Vol. 2**: Conditions
   - General Conditions of Contract. *Standard document not to be changed*;
   - Special Conditions: Special document to be prepared by the Consultant in accordance with any amendments required for the specific Works;
iii. **Vol. 3**: Technical Specifications;
iv. **Vol. 4:** Construction Drawings;
v. **Vol. 5**: Bill of Quantities;
   ESMP (Environmental and Social Management Plan).

SUPERVISION PHASE

Phase IV: Construction Supervision

The construction supervision of the project does not form part of this contract. The Consultant shall only be invited to take on the duties of the "Project Manager" as defined in the General Conditions of Contract following the successful completion of the design stage (Phases I to III) to the client's satisfaction. The supervision package shall include but not be limited to:

a. Represent the interest of the Client in any matter related to the construction contract and the proper execution thereof.
b. Furnish all necessary geodetic survey data for the use of the Contractor as required for setting out of all permanent and temporary feeder benchmarks.
c. Review and approve the Contractor's work schedule or revision thereto and any such plans or programs which the Contractor is obliged to furnish for the engineer's approval.
d. Assess the adequacy of all inputs, such as materials and labor provided by the Contractor and their methods of work in relation to the required rate of progress and when required, take appropriate action in other to expedite progress, keep and regularly update a list of the Contractor's equipment (and their conditions) to ensure compliance with the Contractor's commitments in their bids and environmental requirements.
e. Inspect and evaluate all of the Contractor's installations, housing, warehouses and other accommodations to ensure compliance with the terms and conditions of the contract.
f. Examine and make recommendations to the Client on all claims from the Contractor for extension of time, extra compensation, work or expenses or other similar matters.
g. Examine, approve and supervise all temporary traffic management schemes proposed by the Contractor, if applicable, during the construction phase of the

project and prepare all necessary change/variation orders including alteration of plans, specifications and other details for the approval of the Client.

h. Undertake all measurements of completed or partial works where required, determine quantities of approved works and materials, and check, certify and make recommendations to the Client in collaboration with the representatives of the Ministry of Public Works, and the Client, on the Contractor's invoice for payments.
i. Prepare and submit all necessary reports required by the Client on the progress of works, the Contractors' performance and quality of works.
j. Propose and present for the approval of the Client any change in the contract documents deemed necessary providing information on any effect the change may have on the contract on the contract sum, and prepare all necessary change/variation orders including alteration of plans, specifications and other details for the approval of the Client.
k. Inform the Client on potential problems which may arise with the construction contract and make recommendations for possible solutions.
l. Maintain representatives at the site in such a manner that adequate supervision of construction works is ascertained at all times and to ensure that all works are executed in accordance with the drawings and specifications.
m. Organize the supervision of the work with proper allocations of responsibilities to the individual inspectors and supervise their work to ensure effective execution.
n. Prepare and maintain inspection and engineering reports and record to adequately document the progress and performance of the works.
o. Perform all laboratory and field testing of materials and products needed to assure that the quality as specified in the contract documents are obtained.
p. Inspect the security and safety aspect of construction works to ensure that every reasonable measure has been taken to protect life and property.
q. Supervise the implementation of ESMP activities during the project implementation and monitor environmental health and safety related issues of the ESMP.
r. The consultant shall propose to the Client a date for a joint inspection prior to the issuance of the taking over certificate. During the inspection, the consultant shall present to the Client a list of all outstanding activities and remedial works to be undertaken by the Contractor during the defect liability periods. The taking over certificate shall be issued based on the consensus arrived at after the inspection.
s. Perform all other tasks not specifically mentioned above, but which are necessary and essential to successfully supervise and control all construction activities in accordance with the terms of the construction contract.
t. Avoid taking any action under a civil works contract designating the Consultant as "Engineer", for which action, pursuant to such civil works contract, the written approval of the Client as "Employer" is required.*"*

Defects Liability Period (12 months)

The scope of services for this stage includes, but is not limited to the following:

a) Inspect and supervise any remedial works undertaken by the Contractor;
b) Inspect the works prior to the expiry of the Contractor's Defects Liability Period, prepare a final deficiency list, supervise remedial works and recommend to the Client the date of the final inspection report of the completed works;
c) Carry out final inspection of Works together with representatives of the Client and the Contractor;
d) Prepare quarterly reports on the state of the works;
e) Prepare and issue the Final Acceptance Certificate;
f) Prepare and issue the final Payment Certificate;

g) Prepare as-built drawings in digital format acceptable to the Client;
h) Make recommendations to the Client for the return of any outstanding bonds, guarantees, etc., provided earlier by the Contractor under the terms of the contract, e.g. Advance Payment Guarantees, Performance Bonds, or Performance Guarantees and Retention Guarantees;
i) Prepare a Project Completion Report (PCR) in accordance with a format to be agreed with the Client.

6. – DELIVERABLES

The deliverables for the design, tendering and contracting period shall comprise:

Document *(English)*	Hard copy Number	Electronic copy 1 No.
Phase I		
Inception Report	3	PDF
Quality Plan	3	PDF
Design Basis Report	3	PDF
Phase II		
Preliminary Design Presentation		PPT
Draft Detailed Design Report	3	PDF
Draft Detailed Design Drawings	3	PDF
Draft detailed BOQs	3	XLSX
Phase III		
Final Design report	1	PDF
Final Design Drawings	3 sets	PDF+ACAD
Technical Specifications	3	PDF
Bills of Quantities	3	PDF
Priced Bills of Quantities	3	DOCX
Tender Documents Vol 1 to Vol V	3	PDF
ESMP	3	PDF

Table 1 - Deliverables

7. – DURATION OF CONTRACT

The contract under these terms of reference will cover the Phases I to III only and its duration will be 8 months from the Inception Report to the submission of the Tender Documents.
Phase 4 (supervision) is expected to last a maximum of 2 years. The project implementation period will also cover the defect liability period of the works (1 year).

8. –QUALIFICATION REQUIREMENTS AND TEAM COMPOSITION OF KEY EXPERTS

Firm

The Firm must show evidence of minimum fifteen (15) years' general experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the assignment, the firm must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- preparing detailed technical designs and supervision of industrial port construction. The firm specific experience in the design, construction and

supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. Experience with the World Bank or Donor Funded Project is required.

Team of Key Experts

The firm will assemble a multi-disciplinary team of technicians which must include the key experts as stated below, though the consultant may propose additional expertise as required as non-key experts; however, their qualifications will not be considered in the evaluation of proposal.

Key 1: Team Leader – Ports Engineer (1): S/he shall have a post-graduate degree in Civil Engineering, and a membership in a recognized professional association. S/he shall have a minimum of 20 years of overall professional experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the assignment, the Team Leader (TL) must have specific in-depth and recent experience in at least one similar assignment in the last 10 years-port works, design and construction of rubble mound breakwaters, dredging and reclamation works. S/he shall have experience in risk assessment and devising mitigation measures for risk reduction. The TL specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. Experience with the World Bank or Donor Funded Project as a TL is required.

Key 2: Architect/Civil Engineer (1): S/he shall have at least a post-graduate degree in Architecture and/or Civil Engineering, and a membership in a recognized professional association. S/he shall have a minimum of 20 years of overall professional experience in civil engineering field, construction works, architectural design, managing construction and supervision. To demonstrate required competence and adequacy to successfully complete the assignment, the civil engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port work of a relevant nature. The Civil Engineer specific experience in the design, construction and supervision of fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage. His/her tasks and responsibilities shall include but not be limited to the providing technical support to the TL on the matters related to planning and design of the shore-based infrastructure.

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Key 6: Sanitation Engineer (1): S/he shall have at least a Graduate degree in Sanitation or Water Engineering, and a membership in a recognized professional association. The sanitation engineer shall have minimum 10 years of general working experience in the engineering field. To demonstrate required competence and adequacy to successfully complete the assignment, the infrastructure engineer must have specific in-depth and recent experience in at least one similar assignment in the last 10 years- in port/marine work of a relevant nature. The sanitation engineer specific experience in fishing ports, fish post-harvest infrastructures in the past 5 years is an added advantage.

All key experts shall be proficient in speaking and writing in English, familiar working with public sector entities in developing countries. Specific experience in Africa, Sub-Saharan region is an added advantage.

Staff	Design Phase			Supervision Phase			
	Staff Req'd	*Man-months*	*Sub-Total*	*Staff Req'd*	*Man-months*	*Sub-Total*	
Team Leader Ports Engineer	**1**	**8**	**8**	**1**	**6**	**6**	**14**
Architect Civil Engineer	**1**	**4**	**4**	**1**	**2**	**2**	**6**
Infrastructure Engineer	**1**	**4**	**4**	**1**	**24**	**24**	**28**
Electrical Engineer	**1**	**2**	**2**	**1**	**6**	**6**	**8**
Mechanical Engineer	**1**	**2**	**2**	**1**	**4**	**4**	**6**
Sanitation Engineer	**1**	**2**	**2**	**1**	**6**	**6**	**8**
Env - H&S Safeguards	**-**	**-**	**-**	**1**	**24**	**24**	**24**
Quality Control Engineer	**-**	**-**	**-**	**1**	**12**	**12**	**12**
Surveyor	**-**	**-**	**-**	**1**	**18**	**18**	**18**
Clerk of Works	**-**	**-**	**-**	**1**	**24**	**24**	**24**
Man-Months Totals			**22**			**126**	**148**

Table 2: Deployment of Key Staff for the Design and Supervision Phases

It is estimated that a total of 148 person-months of key professional time will be required, broken into 22 person-months for the Design Phase and 70 person-months for the Supervision Phase.
Non-key staff expected for the Supervision Phase amounts to 78 man-months and include one Geodetic Surveyor, and one Quality Control Engineer, one Civil Engineer/ Clerk of Works and one Environmental Safeguard Specialist.

9. – PAYMENT SCHEDULE

The Consultant shall deliver the following output within the prescribed timelines:

Documents & Reports	Submission Date	Percentage Payment
Phase I	Contract signature	20%

Inception Report	Latest at end of Month 1	
Quality Plan	Latest at end of Month 1	
Design Basis report	Latest at end of Month 1	
Phase II		
Preliminary Design Presentation	Latest at end of Month 3	10%
Draft Detailed Design Report	Latest at end of Month 3	
Draft Detailed Design Drawings	Latest at end of Month 3	
Draft detailed BOQs	Latest at end of Month 3	20%
Phase III		
Final Design report	Latest at end of Month 5	
Final Design Drawings	Latest at end of Month 5	
Technical Specifications	Latest at end of Month 5	
Bills of Quantities	Latest at end of Month 5	
Priced Bills of Quantities	Latest at end of Month 6	
Tender Documents Vol 1 - Vol V	Latest at end of Month 6	
ESMP		40%
Assistance with Bid Evaluation		10 %
		Total 100%

Table 3: Payment schedule

10. – CLIENT'S INPUT

The Client shall make available the following reports:

- All relevant and available data;
- The project's Environmental and Social Impacts Study, including all field surveys and marine studies;
- Design Standards of the Republic of Liberia

11. – INSTITUTIONAL ARRANGEMENTS

NaFAA is the implementing agency of the project hence, the Consultant will work under the direct supervision of the LSMFP Project Coordinator.

12. CONSULTANT'S RESPONSIBILITY:

Data, personnel, facilities and services will be provided by the Consultant as detailed in this ToR. The Consultant will mobilize the necessary expertise for the effective delivery of the services as stipulated in the scope of works and ToR. The Consultant will carry out the services in the best interest of the Client, the GoL represented by NaFAA, with reasonable care, skills and diligence in line with sound professional, administrative and financial practices. The Consultant will be responsible to the client for the execution of the contract according to the terms and conditions spelled out therein. Consultant will organize presentations and dissemination events to enable the monitoring of progress and study results by the relevant NaFAA personnel.

13. CLIENT'S RESPONSIBILITY:

The client, NaFAA, will provide access to available data, reports and information, and to relevant personnel of NaFAA and officials of government institutions with important roles in achieving the objectives of this terms of reference. NaFAA will also provide a favorable work environment and logistical support for the consultant, and support/facilitate stakeholder consultations. NaFAA will review all draft reports and provide comments and suggestions to enable the consultant finalize the detailed architectural designs and supervision of the works.

14. Method of Procurement: Selection method will be through the Quality and Cost-Based Selection Method (QCBS).