



Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)
National Fisheries & Aquaculture Authority
P. O. Box 10-1384
United Nations Drive, Bushrod Island
1000 MONROVIA 10, LIBERIA



REQUEST FOR EXPRESSION INTEREST (REOI) (Consulting Services – Firm Selection)

Country: Liberia

Name of Project: Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)

Loan No./Grant No.: I5809P

Date: December 18, 2025

Assignment Title: Recruitment of a Firm to Conduct Feasibility Studies and Environmental and Social Impact Assessment (ESIA) for the Construction of a Solar-Powered Integrated Large-Scale Aquaculture Off-Taker Farm in Sanniquellie, Nimba County

Reference No.: NAFAA/IFSSP/QCBS/002/2025

The Government of Liberia through the National Fisheries and Aquaculture Authority (NaFAA) has received financing support from the OPEC Fund for International Development (OPEC Fund) towards the implementation of the “Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)”, and intends to apply part of the proceeds towards eligible payment of the services of a consulting firm to conduct Feasibility Studies and Environmental and Social Impact Assessment (ESIA) for the Construction of a Solar-Powered Integrated Large Scale Aquaculture Off-Taker Farm in Sanniquellie, Nimba County.

NaFAA, through the LIFSS Project, is soliciting the services of a qualified Consulting Firm or Consultant Consortia to conduct the feasibility studies and ESIA which will provide decision makers with the necessary baseline information to justify the Construction of the Solar-Powered Integrated Large-Scale Aquaculture Off-Taker Farm from technical, economic, environmental, and social development points of view. The studies are expected to further determine economic and financial feasibility based on projections of financing, operating costs, revenues, as well as sensitivity analyses in relation to key internal and external parameters and constraints and the investment impacts on the economic objectives of the country. The studies will then inform the choice of design and scale of the Industrial Aquaculture Solar Powered Farm. The assignment is expected to be completed in a period of six (6) months after the signing of the Contract.

The detailed Terms of Reference (TOR) for the assignment can be obtained from the address below and can be found at the following websites:

a) www.nafaa.gov.lr

b) www.emansion.gov.lr

The National Fisheries and Aquaculture Authority (NaFAA), through the LIFSS Project, 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 for the firms include the following:

- Relevant General Experience of the Firm with at least 10 years of general consulting experience, experience working in fisheries, aquaculture, agriculture, infrastructure, or environmental projects and prior experience with donor-funded projects;
- Specific Experience in Similar Assignments of conducting Feasibility Studies for large-scale infrastructure, fisheries, aquaculture, or agro-industrial projects, Environmental and Social Impact Assessments (ESIA) for comparable projects and at least one (1) similar assignment successfully completed within the last 10 years;
- Experience with Regulatory Frameworks specifically familiarity with Liberian environmental laws and EPA EIA Procedures and experience preparing ESIA reports approved by Liberia EPA
- Technical and Managerial Capacity of the Firm with availability of a qualified multidisciplinary team, including Team Leader / Project Manager, Fisheries/Aquaculture Specialist, Environmental Specialist, Social Specialist, Economist/Financial Analyst, Civil/Infrastructure Engineer, etc.

The attention of interested Consultants is drawn to Section G and Appendix II of the OPEC Fund's Principles of Procurement of Goods, Works and Services setting forth the OPEC Fund's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consultancy Firm will be selected in accordance with the Quality and Cost Based Selection Method (QCBS) method set out in the Procedures for the Procurement of Consulting Services.

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 Friday, January 16, 2026, @ 4:00 PM GMT

Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)

National Fisheries and Aquaculture Authority

Attn: Austin Saye Wehye

Project Manager

Freeport of Monrovia, Adjacent LPRC

Tel: +231886 942170/ +231 775 717273

E-mail: awehye@nafaa.gov.lr ; pbkiadii@nafaa.gov.lr



Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)

National Fisheries & Aquaculture Authority

P. O. Box 10-1384

United Nations Drive, Bushrod Island

1000 MONROVIA 10, LIBERIA



Terms of Reference

For the conduct of

Feasibility study and Environmental and Social Impacts Assessment (ESIA)

for the construction of a solar-powered integrated large-scale aquaculture offtake
farm

under the

Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP)

I 5809P

Table of Contents

1. INTRODUCTION	5
2. PROJECT DESCRIPTION	6
2.1 Description of Project	6
3.2 Environmental and Social Impact Assessment (ESIA) Studies	7
3.2.1 Indicative Outline of the ESIA	8
3.2.2 Expected outputs and deliverables	11
3.2.3 Stakeholder Engagement Plan (SEP)	11
3.2.4 Labour Management Procedure	11
4.0 METHODOLOGY	11
4.1 Feasibility studies	11
4.2 ESIA studies	12
4.2.1 Detailed methodology, outputs/deliverables for vehicle traffic impact studies	12
4.2.2 Detailed methodology, outputs/deliverables for socio-economic studies	13
5.0. DELIVERABLES	13
7.0. QUALIFICATION REQUIREMENTS AND COMPOSITION OF STUDY TEAMS	15
11.0. DURATION OF CONSULTANCY: Six (6) Months	16
12.0. LOCATION: Monrovia, with occasional travel to project communities	16
13.0. PROCUREMENT METHOD: Quality and Cost Based Selection (QCBS)	16

I. INTRODUCTION

Global aquaculture has reached a pivotal inflection point in the trajectory of aquatic food systems. According to the Food and Agriculture Organization (FAO), 2022 marked the first time in recorded history that aquaculture surpassed capture fisheries as the primary source of aquatic animal production. Total global aquaculture output reached approximately 130.9 million metric tons, of which 94.4 million tons consisted of aquatic animals. This accounted for 51% of total global aquatic animal production, underscoring aquaculture's emerging dominance in global food systems and its critical role in ensuring future food and nutritional security.

In Liberia, aquaculture is increasingly recognized as a high-potential subsector within the broader fisheries and blue economy domain. However, it remains in an early stage of development, characterized by low productivity, subsistence-level operations, and limited commercial integration. The 2023 Aquaculture Frame Survey conducted by the National Fisheries and Aquaculture Authority (NaFAA) identified approximately 1,704 fish ponds across 160 rural communities, covering a total surface area of 113.9 hectares. Of these, 1,125 ponds (73.3 hectares) are currently in active use, primarily culturing *Oreochromis niloticus* (Nile tilapia) and *Clarias gariepinus* (African catfish).

Annual national aquaculture production is estimated at only 2,000 metric tons, representing a small fraction of domestic fish demand, which is met predominantly through imports. Nonetheless, Liberia's aquaculture sector holds substantial potential for scale and impact, owing to its abundant freshwater resources, favorable agro-climatic conditions, and a growing domestic market for affordable fish protein.

The Government of the Republic of Liberia has received funding from the OPEC Fund for International Development for the implementation of the Liberia Integrated Fisheries Sector Strengthening Project (LIFSSP) and intends to apply part of the proceeds of this fund for eligible payments under the contract for Consulting services for the conduct of A feasibility study and an Environmental and Social Impact Assessment (ESIA) for the issuance of an environmental permit for the construction and operation of an aquaculture off-taker farm in Nimba County. Nimba County, located in northeastern Liberia and bordering both Guinea and Côte d'Ivoire, stands out as a strategic hub for aquaculture development. According to the 2022 census, Nimba is home to 621,841 people—making it one of the most populous and economically active counties in the country. Geographically, it sits between Bong County and Grand Gedeh County, serving as a natural link between central and southeastern Liberia. Furthermore, a recent training and survey sponsored by the LSMFP revealed that Nimba has the highest number (243) of aquaculture farms among the three major aquaculture counties (Bong- 200, and Lofa- 90). The feasibility analyses (FA) will provide the decision makers with the necessary baseline and information to justify the proposed investment from a technical, economic, environmental and social development point of view, including the proposed financing and implementation modalities. A key component of the study is to determine economic and financial feasibility based on projections of financing, operating costs, on revenues and profitability, as well as sensitivity analyses in relation to key internal and external parameters and constraints and the investment impacts on the economic objectives of the country. The FA will propose various options to inform the choice of design and scale of the aquaculture off-taker farm.

1.1 Objectives of the Off-taker Farm

The primary objective of the off-taker is to catalyze the transformation of Liberia's aquaculture sector from a predominantly subsistence-based activity into a scalable, commercially viable, and environmentally sustainable industry that enhances national food security, creates rural and urban employment.

The specific objectives of the off-taker farm are catalog below:

1. Creation of about 400 direct jobs and increase aquaculture production by 20,000 metric tons.
2. It will serve as a demonstration and training ground for smallholders' farmers within the region to enhance their production capacities.
3. It will supply quality broodstock and fingerlings to smallholders' farmers, thereby reducing the reliance on importations.
4. It will service as an introductory point for youths that aspire to engage in fish farming activities.
5. Reduce the reliance on the importation of wide fish imported to Liberia.

2. PROJECT DESCRIPTION

2.1 Description of Project

The physical infrastructure proposed under the project consists of the construction of an aquaculture hub:

The aquaculture hub shall comprise of a) Covered fish handling area, b) Chilled storage room, (c) Ice cube making Machine d) Male and female hygiene block, (e) indoor and outdoor hatcheries, (f) fish ponds and concrete tanks. The facility shall be equipped with solar-powered, water supply borewell, rainwater harvesting system, liquid waste treatment system, municipal solid waste containers, Igloo cooler boxes for ice storage, and solar photovoltaic (PV) panels and batteries to run LED lighting and pumping requirements (borewell and header tanks) and stainless-steel work benches. The hub layout will also have other facilities, such as, building for administrative activities including conference and training rooms, fresh and processed fish markets as well as fishermen changing rooms and eateries.

3.0 SCOPE OF STUDIES

3.1 Feasibility Analyses/Studies

These studies will be conducted in close collaboration with the local stakeholders and will compile and review all relevant background information including holding meetings with NaFAA, the local Authorities, stakeholders in the aquaculture sector to obtain their input.

The scope of the proposed consultancy will include the following tasks:

1. Assess the current situation and identify the current and future aquaculture resources based on the existing data.
2. Collect, analyze and describe the most current technical and socio-economic information available on the project's geographic location and the project beneficiaries;
3. Conduct an assessment of the existing and potential markets and revenues.
4. Identify data gaps and specialized studies which need to be undertaken.

5. Assess the current status and future needs of the aquaculture development in Liberia.
6. Assess the infrastructure intended and determine whether it is favorable socially, technically and economically, and provides the most financial and economic benefits to Liberia.
7. Analyze the lessons drawn from other similar structures in and outside Liberia, especially the R&B farm in Ghana.
8. Estimate operating costs and potential revenues from various options of the infrastructure investment and prepare business plans accordingly.
9. Assess the skills gaps within Liberia and particularly in the project area to operate the infrastructure.
10. Prepare various scenarios of design options and management plans and discuss with the stakeholders for the most suitable choice based on sound sustainability indicators.
11. Carry out initial consultations with key project stakeholders and beneficiaries of the proposed investment. Provide record of stakeholder consultations.
12. Prepare a strategic guide to ensure smallholders benefit from reliable and fair priced inputs, guaranteed markets and local value chain jobs, training, extension and institutional support, inclusive and transparent governance and access to finance.
13. Prepare an assessment report based on technical, financial, economic and institutional, feasibility of the proposed infrastructure investment.
13. Make recommendations on the scale of the infrastructure including scale and type of facilities, associated facilities, scale of social infrastructure.

3.2 Environmental and Social Impact Assessment (ESIA) Studies

The proposed activities are on the Environmental Protection Agency (EPA) of Liberia mandatory list of projects, activities and undertakings that are subjected to the conduct of an ESIA. A full ESIA is therefore required for the proposed construction, operation and decommissioning activities covering:

1. Identification of the extent of the site suitability in relation to construction and operational activities of the project design, including land ownership and title deeds;
2. Geotechnical investigation for the study area to determine the soil properties (load-bearing capacity stratigraphy, and porosity/permeability characteristics for the borewell, including water tests);
3. Assess the potential impacts of the overall project operations and other ancillary facilities,
4. Environmental, social, health and safety management of construction, operation activities, and decommissioning.

The ESIA report will be prepared to satisfy the requirements of the World Bank Environmental and Social Framework (ESF), the World Bank Group General Environment, Health, and Safety Guidelines (EHSGs), the EHSGs for Fish Processing, and National environmental laws and regulations. The ESIA will also be prepared to be fully compliant with all relevant national environmental policies, laws, and guidelines, including the Environmental Protection and Management Law of Liberia and the EPA EIA Procedural Guidelines.

3.2.1 Indicative Outline of the ESIA

The objectives of the ESIA are to ensure that all environmental, health and safety and social risks and impacts due to construction, operation and decommissioning of the proposed cluster of activities are evaluated and mitigation measures provided in the form of an Environmental and Social Management Plan (ESMP) including an Occupational Health and Safety Plan (OHS Plan), which also should address Community Health and Safety Risks.

The assignment will include the following tasks:

Task 1: Project Description Statement (PDS). Concise description of the proposed project and its geographic, environmental, social and temporal context, including any offsite investments that may be required (e.g. access roads, power and water supply), as well as the project's primary suppliers. Through consideration of the details of the project, the ESIA must indicate the need for any plan to meet the requirements of ESSs I through IO. Include maps with sufficient detail, showing the project site and the areas that may be affected by the project's direct, indirect, and cumulative impacts. Include a summary of the Feasibility Study and the Detailed Design leading to the present design.

The PDS shall provide a description of the proposed development as follows:

- a. Current topographic survey of the project site at a scale not smaller than 1:1000 showing all salient features, including but not limited to access within the town area, utilities, existing buildings etc.;
- b. Details and cross-sections of existing structures within the project area;
- c. Details and cross sections of planned aquaculture hub;
- d. Detailed geotechnical description of the site;
- e. Details of the planned sourcing of materials in terms of aggregates and/or sand quantities and their geotechnical suitability for the proposed structures;
- f. Layout, size and capacity of resource networks if present in the area;
- g. Detailed traffic analysis in and around the project area with special reference to the quantification of traffic flows, quantification of pedestrian flows, identification of committed routes and existing property boundaries.

Task 2: Baseline Data. The ESIA must set out in detail the baseline data that is relevant to decisions about project location, design, operation, and mitigation measures. This should include a discussion about the accuracy, reliability, and sources of the data, as well as information about dates surrounding project identification, planning and implementation. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with the predictions. Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological and socioeconomic conditions, including any changes anticipated before the project commences. The ESIA studies must also take into consideration existing, current and proposed development activities within the project area, but not directly connected to the project (cumulative impacts). The consultant shall evaluate and present baseline data on the relevant national and site specific environmental, social and economic characteristics which include a *minimum* the following chapters:

- Climatic characteristics
- Morphological and Topological characteristics
- Geological characteristics
- Freshwater and Seawater environment, as appropriate

- Air environment
- Noise
- Biotic environment
- Socioeconomic environment
- Technical infrastructures
- Assess risks and impacts of pit latrines on groundwater and recommend appropriate locations for situating latrines;
- Assess the suitability of boreholes and conduct groundwater sampling for physio-chemical parameters and bacteriological quality. A detailed borehole report must also be inclusive; and
- Existing pressures on the human and natural environment

Task 3: Environmental and Social Risks and Impacts. Analysis should take into consideration all relevant environmental and social risks and impacts of the project. Analysis shall include the environmental, social and health and safety risks specifically identified in ESSs2 to 8, and any other environmental, social, health and safety risks and impacts arising because of the specific nature and context of the project, including risks and impacts identified in ESS1, paragraph 28.

Task 4: Mitigation Measures. Identify mitigation measures and significant negative residual impacts that cannot be mitigated and, to the extent possible, assess the acceptability of those residual negative impacts. Identify differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged and vulnerable. Assesses the feasibility of mitigating the environmental and social risks and impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; the institutional, training and monitoring requirements for the proposed mitigation measures.

Task 5: Stakeholder analysis. Identify the various groups who may be directly affected by the project and those that have an interest or a stake in the project. Examine opportunities and conditions for participation by stakeholders – particularly the poor and vulnerable – in the development process (e.g. contributing to project design, implementation and/or monitoring; influencing public choices and decision-making; etc.). Assess potential social conflict/tensions associated with the construction of the aquaculture hub. Propose stakeholder plan to facilitate engagements before, during and after project implementation.

Task 6: Analysis of Alternatives. Compare feasible alternatives to the proposed project site to inform design and operation – including the “without project” situation – in terms of their potential environmental and social impacts. Assesses the alternatives’ feasibility of mitigating the environmental and social impacts; the capital and recurrent costs, and their suitability under local conditions; the institutional, training and monitoring requirements for the alternative mitigation measures. For each of the alternatives, quantifies the environmental and social impacts to the extent possible and attaches economic values where feasible.

Task 7: Design Measures. Set out the basis for selecting the particular project design proposed and specifies the applicable EHSGs, or recommend emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

Task 8: Prepare an Environmental and Social Management Plan (ESMP), which includes an Occupational Health and Safety Plan also addressing Community Health and Safety, as a stand-alone document, since it needs to be included in the Bidding Documents and Contractor Contracts. The ESMP should include a set of mitigation, monitoring and institutional measures to be taken during construction, operation and

decommissioning of the Project. The ESMP also should include measures and actions to implement these mitigation measures.

Task 9: Monitoring. The ESMP should specify monitoring objectives and the type of monitoring, with linkages to the impacts assessed in the ESIA and the mitigation measures described in the ESMP (see also ESS I Footnote 48).

Task 10: Capacity development and training. The ESMP should provide a detailed and specific description of institutional arrangements, the requirement for the different parties to establish and implement an Environmental and Social Management System as required by ESS I, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., operation, supervision, enforcement, monitoring of implementation), remedial action, financing, reporting and staff training.

Task 11: Implementation schedule and cost estimates. For all three aspects (mitigation, monitoring and capacity development) the ESMP provides: a) implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans (e.g., some mitigation measures need to be integrated in the detailed design to mitigate impacts during operation); and b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP.

Task 12: Integration of ESMP with project. Integrate the ESMP in the Environmental and Social Commitment Plan (ESCP) and finalize the ESCP. **Task 13: ESIA and ESMP disclosure and public consultation -** Consults affected population, stakeholders, NGOs and other interested groups at least twice: (a) shortly after environmental screening and (b) once a draft ESIA report and ESMP are prepared. Disclosure and consultations should be carried out in compliance with the requirements of the World Bank policy ESS I, ESS I0 and WB Policy on Access to Information.

Task 14: Vehicle Traffic Studies: The consultant must also conduct a detailed traffic analysis in and around the project area with special reference to the quantification of traffic flows, quantification of pedestrian flows, identification of committed roads, baseline air quality data and noise levels at selected points and identification of development planning likely to generate excess traffic.

Task 15: Socio-economic Studies: conduct an assessment of the population, land use, particularly agricultural land use in the area, planned development activities, settlement and community structures, employment, distribution of income, goods, and services, recreation, health and cultural properties.

Task 16: Stakeholders Engagement Plan. The Consultant shall develop a Stakeholders Engagement Plan (SEP) that provides an inclusive process for engaging stakeholders throughout the project life cycle (ESS I0, EPA 2002 law and the 2022 Revised Environmental Impact Assessment Guidelines of Liberia).

Task 17: Resettlement Action Plan. The consultant will prepare a Resettlement Plan proportionate to the subprojects impacts on economic/physical displacement due to land acquisition or land use restriction per ESS5 requirements.

Task 18: Labor Management Procedures: The Labor Management Procedures (LMP) shall be developed in accordance with the World Bank Environmental and Social Standards 2: Labor and Working Conditions.

3.2.2 Expected outputs and deliverables

The environmental and social impact assessment consulting firm will be responsible for the standard of workmanship of the output of the specialist sub-contractors and consultants hired to carry out any of the fieldwork.

3.2.3 Stakeholder Engagement Plan (SEP)

The consultant will be required to develop a SEP that facilitates this engagement throughout the life of the project in accordance with ESS 10.

3.2.4 Labour Management Procedure

The consultant is required to develop a Labour Management Procedure (LMP) under ESS2 on Labour and Working Conditions is required for this project.

4.0 METHODOLOGY

4.1 Feasibility studies

In order to carry out the above tasks, the firm will be required to adopt the Fisheries Infrastructure Assessment Tools¹ (FIAT) which provides a useful framework and checklist as the core methodological guide to implement the assignment. Additionally, the firm should apply methodologies that incorporate the following so as to meet the objective of this consultancy:

4.1.1 Technical Feasibility Assessment

- a. Prepare technical feasibility assessment for the aquaculture hub infrastructure investments, with several options for NaFAA to choose from, including long-term sustainability of operation and maintenance and possible cost recovery.
- b. Assess gender needs, roles, and dynamics with attention to constraints, risks and opportunities for women.

4.1.2 Economic and Financial Feasibility Assessment

In accordance with guidelines acceptable to the client and the OPEC Fund and as per good international industry practices (GIIP), the firm will carry out an economic and financial assessment of the proposed investments. The firm will do so by using economic and financial valuation methods that can best

¹ Fisheries Infrastructure Assessment Tools (FIAT), World Bank

demonstrate all expected outcomes in costs and positive effects between the interventions and project beneficiaries within a time horizon which is long enough to justify the project interventions and derive development impacts. The firm will create a baseline scenario including:

- Identification of all assets to be financed by the OPEC Fund, including all initial costs (infrastructure, equipment, marketing, training, institutional strengthening, etc.) required to commence operation of the aquaculture hub (i.e. total estimated project cost)
- Development of fully allocated operating model (including employment).
- Construction of a financial model that enables forecasting of cash flow, revenue and profitability requirements against current and incremental operating costs, debt repayments and dividends over a period of at least 10-years. The model should provide for cost overruns and other contingencies, and
- Application of the financial model for sensitivity analyses with respect to key operating and financial parameters, based on volumes of fish produce, fish prices on domestic and export markets, labour and utility costs, and variation in sales volumes, for which the following parameters will be finalized:
 1. Net Present Value (NPV) considering a 15% discount rate;
 2. Benefit-Cost Ratio (BCR) considering a 15% discount rate; and
 3. Internal Rate of Return (IRR).
- Using the data generated to prepare a business plan for the aquaculture hub. The business plan should be structured around, but not limited to, the following key components: Business Description, Market Analysis, Products and Services, Operations Plan, Marketing and Sales Strategy, Management and Organization, Financial Plan, Risk Analysis and Mitigation, and Implementation Timeline. Various versions of the business plan will be proposed based on the options described for the aquaculture farm.

4.1.3. Institutional and management feasibility assessment

- a. Assess the capacity and capacity building needs at NaFAA for the planning, operations, management and maintenance of the proposed infrastructure.
- b. Assess institutional capacity for overall gender awareness and particularly in fisheries governance and management. Identify gender gaps and recommend relevant measures for filling the gaps including gender integration and capacity building and suggest optimum levels of female participation and staffing in the operations, management and maintenance of the proposed infrastructure.
- c. Develop an operational/management plan for management of the aquaculture hub that will enable each of them to operate on a self-sustaining basis.
- d. Develop an outline of the capacity building plan for NaFAA with a timeline that meets the management and operational needs of the fish infrastructure.

4.2 ESIA studies

4.2.1 Detailed methodology, outputs/deliverables for vehicle traffic impact studies

A detailed traffic analysis in and around the project areas during construction and operations will be required, with special reference to:

- quantification of current and projected traffic flows (trucks and private vehicles);
- quantification of pedestrian flows between the site and the main road;
- identification of committed arterial routes within the town limits;
- baseline air quality data;
- noise levels at selected points, including noise from auxiliary engines;
- identification of development planning likely to generate excess traffic.

4.2.2 Detailed methodology, outputs/deliverables for socio-economic studies

The operation of the aquaculture hub is expected to have major positive results on the fisheries sector. The socio-economic studies will cover the project proposals holistically and will include the anticipated effects on:

- The labour market during the construction and operational phase;
- The adverse impacts on human habitation around the project site during both construction and operation due to increased noise and air pollution;
- The housing market and real estate during the operational phase;
- Socio-cultural activities and places of worship;
- The potential for traffic accidents (at sea and on the access road);
- The generation of increased wastes of all types.

5.0. DELIVERABLES

5.1 Feasibility studies

The Consultant will produce the following deliverables (described further below):

1. Inception Report for Feasibility Assessment;
2. Draft Feasibility Assessment Report;
3. Final Feasibility Assessment Report

The preparation and delivery of the above documents will be organized and presented in three steps, as follows:

1. Inception Report submitted within 1 (One) month of contract signing. The Consultant will submit an Inception Report detailing the methodological approach for the entire assignment covering all items under "Scope of Services" and "Methodology" as outlined in this Terms of Reference. The Inception Report will inter alia describe the method of data collection including field work plan, verification, field work with project stakeholders and beneficiaries, and analysis. The Inception Report will provide an outline of the team tasks and team members' inputs and deliverables. The Inception Report will provide a list of the available/collected information, identify studies to be carried out and timeline to fill in the gaps. It will comment on the TOR and propose changes / clarification (if any) to the TOR. This Inception Report will be subject to review and comment by the NaFAA and the OPEC Fund for International Development. The Consultant will revise the inception report based on those comments. The final Inception Report will be submitted to the NaFAA after incorporation of comments.
2. Draft Feasibility Assessment (FA) Report submitted **3 (three) months** after contract signing: the Consultant will prepare a Draft FA Report covering all tasks under the assignment with specific

recommendations on the feasibility of project interventions for the site. It will be accompanied by a draft executive summary. After submission of the draft reports, a presentation shall be disseminated to the Client for obtaining feedback. The Client's comments on the draft final report will be incorporated in the final report.

3. Final Feasibility Assessment Report submitted **5 (Five) months** after contract signing: this deliverable should include all the review comments and suggestions by the client, OPEC Fund for International Development and other relevant stakeholders. It will include all relevant data in a tabulated format used by the Consultant for the baseline, raw and processed data, toolkits and questionnaires used for the social-cultural assessment, and other supplemental information that will constitute the project file for the site. The Report will be prepared in the English language.

5.2 ESIA studies

The reports are to be submitted as follows:

5.2.1 Inception Report

The consultant will be required to prepare and submit an inception report one (1) month after contract effective date. The essence of the inception report is to provide assurance that the contractor understands the scope of the assignment. It also provides additional guarantee of adherence to, and interpretation of the TOR. Therefore, the Inception Report at a minimum should contain the consultant's detailed work plan and schedule, the consultant's approach to completing the task as well as review of the available reference documents and baseline environmental and social data and an overview of applicable project related standards. The report should also contain summary of preliminary discussions with stakeholders like EPA, municipal authorities and the communities adjacent to the site of interest. The inception report should include challenges to the completion of the ESIA and suggest solutions, and a categorical statement confirming that the consultant understands the assignment and is able to accomplish it within the stipulated time and budget of the contract.

5.2.2 Draft Scoping Reports

The consultant shall also submit a draft Scoping Report within two (2) months after contract effective date. This will be accompanied by the proposed draft detailed work plan for the feasibility and ESIA and will also present the overview of all environmental and social baseline data. This will include an overview of all the environmental baseline data available and, based on the data gap analysis, the baseline data which are still required to be collected during the ESIA phase including the work-plan how to collect these data.

5.2.3 Initial Draft Report

The consultant shall submit a draft ESIA report and a draft synthesized report after the final Scoping Report has been approved by the Client and the OPEC Fund for International Development, and the scope of the ESIA has been approved by the EPA. The draft ESIA and synthesis report will be submitted within four (4) months of contract effective date. The second round of public hearings will be held at this point after the draft ESIA reports have been approved by the Government and the OPEC Fund for International Development.

5.2.4 Final Draft Report

Following the review by the client and the OPEC Fund after the submission of the draft ESIA Reports, the Draft Final Reports containing recommendations on mitigation measures to reduce impacts of the

development project on the environment, health and socio-economic activities in the site of interest, and incorporating results of the second public consultations and comments from the Government and the OPEC Fund for International Development on the draft reports to be submitted five (5) months after contract effective date.

The second round of stakeholder consultation will be conducted during this period. Prior to any disclosure, the Consultant shall, through communication with the government, receive clearance from the OPEC Fund for International Development team. At least 2 weeks prior to the public consultation, and as stated in the consultation announcement, the Consultant shall prepare summaries of the documents to be disclosed, in the English language and make them available to all participants. The consultant shall ensure adequate attendance of local authorities, non-governmental organizations, local citizens, and vulnerable groups that shall lead to meaningful inputs from such consultations.

Final report that incorporates comments and suggestions by the government and the OPEC Fund for International Development team on the above draft final report, together with the feedback from the second consultation, to be submitted six (6) months after contract effective date.

5.2.5 Technical Reports

Technical reports, containing baseline data/results of the following detailed studies in different sections of the report, i.e. Benthic studies, Water Quality and Sediment Analysis, Air Quality Assessment, Noise Assessment, Disposal Management Plan, Biodiversity Management Plan, Vehicle and Vessel Traffic Impact studies, stakeholders engagement plan, labour management procedures, economic studies and Socio-economic and GBV studies for the project, to be submitted 3 (three) months after contract effective date.

6.0 SCHEDULE

The entire feasibility studies and ESIA process is expected to take approximately six (6) months. The Consultant is requested to submit an implementation schedule based on the requirements of these Terms of Reference.

7.0. QUALIFICATION REQUIREMENTS AND COMPOSITION OF STUDY TEAMS

7.1 Feasibility Studies

In order to complete the feasibility study, the firm will assemble a multi-disciplinary team of technical design engineer, financial and economic, environmental and social, and fisheries and aquaculture specialists with substantial experience (no less than 8 years) and adequate educational backgrounds (Master's degree and higher) who will ensure the services are carried out in a professional and timely manner. The leader of the feasibility studies shall have at least 15 years of experience, and 8 years of experience for other key staff in similar fisheries infrastructure development or related projects.

7.2 ESIA Studies

The minimum requirements for the firm for the ESIA studies are (i) the firm must be certified by the EPA and the firm must have shown recent and in-depth experience in preparing Environmental and social instruments and feasibility studies and must have successfully implemented at least one (1) similar project in the past 10 years. The firms shall ensure that staff deployed for this assignment possesses the required qualification and expertise in civil engineering, ecology, Environmental Impact Assessment and Management, occupational health and safety, sociology, with established experience in the fisheries and

aquaculture sector. The firm should also be conversant with Liberian Environmental Regulatory requirements and World Bank Environmental and Social Framework.

8.0. CLIENT RESPONSIBILITIES

The client, NaFAA, will provide timely 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 term of reference. NaFAA will also provide a favourable 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 ESIA report.

9.0. CONSULTANT RESPONSIBILITIES

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. Field surveys and field data collection will be carried out in coordination with Department of Statistics & Research, NaFAA. The Consultant will be responsible to the client for the execution of the contract according to the terms and conditions spelled out therein. Consultants will organize presentations and dissemination events to enable the monitoring of progress and study results by the relevant NaFAA personnel.

10.0 PAYMENT SCHEDULE

Payment will be made according to the following schedule:

- (i) 10% after signing the contract and upon submission of an advance payment guarantee
- (ii) 30% after submitting the Inception report
- (ii) 40% after submitting the draft reports
- (iii) 20% after submitting the final reports

All the payments will be made only after acceptance of the reports and deliverables by the Client.

11.0. DURATION OF CONSULTANCY: Six (6) Months

12.0. LOCATION: Monrovia, with occasional travel to project communities

13.0. PROCUREMENT METHOD: Quality and Cost Based Selection (QCBS)

