

**GHANA LANDSCAPE RESTORATION AND SMALL-SCALE MINING
PROJECT (GLRSSMP)**

TERMS OF REFERENCE (TOR)

FOR

CONSULTANCY

**TO DESIGN AND SUPERVISE SMALL INFRASTRUCTURAL
WORKS UNDER THE PROJECT AND CONDUCT THE
ENVIRONMENTAL AND SOCIAL ASSESSMENTS AND
MONITORING**

(GH-EPA-307364-CS-QCBS)

1.0 BACKGROUND

The Environmental Protection Agency (EPA), responsible for landscape restoration activities, and the Ministry of Lands and Natural Resources (MLNR), responsible for formalization of Artisanal Small-scale Mining (ASM) are currently implementing the Ghana Landscape Restoration and Small-Scale Mining Project (GLRSSMP) in support of targeted actions to address land degradation through sustainable Integrated Landscape Management (ILM).

The GLRSSMP is funded by the World Bank / International Development Association credit, with leveraged grant financing from the Global Environment Facility (GEF), the PROGREEN Trust Fund, and the Extractives Global Programmatic Support Trust Fund to upscale and support the Government of Ghana in sustainable land management to address land degradation in Ghana.

The goal of the six-year project is to strengthen integrated natural resource management and increase benefits to communities in targeted savannah and cocoa forest landscapes. The project involves five basic components:¹

- **COMPONENT 1. Institutional Strengthening for Participatory Landscape Management.**

The component aims to strengthen the planning and policy framework by carrying out spatial planning and implementation at the sub-basin level, policy support, and capacity building, working with administrative and technical agencies located within the regions and districts within the 13 target sub-basins in the project area. Support is included for ILM planning and fostering partnerships to support the adoption of sustainable landscape management approaches at scale within project areas. This component will also enhance multipurpose land and water management models at the national level by acquiring remote sensing data and geological surveys, which will allow the production of updated maps with additional layers of information. It will also support the development of spatial planning tools for mapping and monitoring impacts and effective monitoring of sustainable cocoa production.

- **COMPONENT 2. Enhanced Governance in Support of Sustainable Artisanal Small-Scale Mining (ASM).**

This component aims to strengthen the regulatory framework for ASM, with a focus on modernizing regulatory instruments and building the capacity of key government agencies involved in ASM regulation and compliance monitoring (such as Minerals Commission

¹ More information about the project, including relevant project documents, is available on the EPA website: <http://glrssmp.epa.gov.gh/index.php>

[MC], Forestry Commission [FC], and EPA) as well as district management committees. It will also support ASM formalization through (a) reclassification of mining to include medium-scale mining licenses and registration of license holders; (b) streamlining ASM administration; and (c) enhancing district capacity to manage ASM. Once the updated regulatory framework has been established, this component will also invest in improving the capacity of ASM operators' by providing training on sustainable and forest-smart mining techniques, which will draw on the analytics and modelling of Component 1.

- **COMPONENT 3: Sustainable Crop and Forest Landscape Management**

This component aims to link improved food production and ecological integrity by investing in production and forest landscapes by promoting climate-smart agriculture, conservation, and restoration activities and support agriculture value chains. This component will support sustainable practices in production landscapes for key food crops; value chains for key commodity crops, including cocoa, shea nut, and cashew; value addition for food crops; sustainable water and land management interventions, including silvo-pastoral and riparian vegetation establishment activities.

- **COMPONENT 4: Project Monitoring and Knowledge Management**

This component aims to support robust project management and monitoring (including financial, internal audit, and procurement management; monitoring and evaluation [M&E]; Environmental and Social (E&S) risk management; supervision, implementation, and monitoring of the Grievance Redress Mechanism [GRM]; monitoring the implementation of the Gender Action Plan; and so on); better communication outreach and dissemination; appropriate stakeholder engagement; and adequate knowledge management.

- **COMPONENT 5. Contingent Emergency Response Component**

A Contingent Emergency Response Component (CERC) with zero allocation will be created and made implementation-ready to allow the GoG to respond quickly in case of an eligible emergency.

1.1 INTRODUCTION

Ghana is largely agrarian and natural resource dependent. The agriculture, forestry, and fishing sector (as reported in the national statistics) employs about 3.3 million of the rural population; the cocoa sector is reported to employ 1 million households. Together, renewable and non-renewable natural resources contribute significantly to livelihoods for the most vulnerable rural communities. Rural employment makes up 49.1 percent (4.6 million) of total employment in Ghana. Informal employment, including a huge number of unskilled workers in agriculture and forestry, provides livelihoods for more than 70 percent of the rural population, particularly to the country's poorest households.

However, in the advent of climate change and resulting impacts and more recently, the COVID-19 pandemic, most rural livelihoods have become stressed leading to unsustainable incomes. It is also evident that natural resources, including land and forests will continue to serve as the vehicle for long-term inclusive growth recovery and economic empowerment. Therefore, efforts have to be made to provide alternative livelihood opportunities to the rural population, largely smallholders to cushion them against the effects of changes in the global climate and changing disease patterns on their incomes. In introducing such interventions, it is very critical to put up infrastructure that will respond to the environmental, social and economic dynamics prevailing in the zones.

The project intends to apply part of the funds to undertake construction of a number of water storage structures (i.e., dugouts and weirs), development of post-harvest processing infrastructure for natural resource based additional livelihood interventions and other facilities (such as the game platform) based on needs assessments on yearly basis. This is to improve access to water and watering of wild animals and livestock, the shelf life of agricultural products and income to contribute to the development of the national parks and socio-economic benefits of surrounding communities of the parks and agricultural communities. These subproject activities form part of the Component 3 activities.

As part of the project, EPA intends to commission services of a consulting firm to develop designs and drawings, prepare bills of quantities and cost estimates, and undertake required environmental and social due assessments and monitoring for select infrastructure.

1.2 Proposed Projects for the assignment

- Project 1: construction of two (2) waterholes for watering wild animals within the Mole National Park at the South Western part of the park
- Project 2: construction of two (2) waterholes in the Digya National Park
- Project 3: construction of Five (5) dugouts in PROGREEN Community Resources Management Areas (CREMA) communities within the Western Wildlife Corridor (WWC thus Builsa South, Kassena-Nankana West, Sissala East, Sissala West, and Wa East)
- Project 4: construction of two (2) dugouts in SLWMP CREMA communities within the Western Wildlife Corridor (WWC thus at Jang and Dabori in the Sawla-Tuna-Kalba (STK) district).
- Project 5: construction of two (2) dugouts in other CREMA communities within the Eastern Wildlife Corridor, which will be located in Nabdam and Bawku West districts).
- Project 6: Construction of (4) water management systems within the agricultural landscape (beneficiary communities within the project area in the savannah ecological zone include Sakalu, Sissala East District; Sagu, Wa East District; Tarikom, Bawku West District; and Jitong, Sissala West District);
- Project 7: Construction of post-harvest infrastructure (crop drying platforms, processing facilities) for natural resource based additional livelihood interventions within the cocoa landscape, Northern Savannah and Transitional. The facilities in the

- northern savannah will process shea, groundnut and cassava while those in the cocoa and transitional zones will process oil palm and cassava;
- Project 8: Construction of One (1) Viewing Platform, one (1) tree hide and Twenty (20) directional signs, camping sites, safari trails with rest stops within Mole National Park;
 - Project 9: Construction of Two (2) Game Viewing Platforms at elephant pools within the Digya National Park;
 - Project 10: Construction of Solar powered borehole and toilet facilities in each settler community within the Digya National Park;
 - Project 11: Construction of Weir at Kayero;
 - Project 12: Architectural design of an eco-friendly exhibition room at Odweanoma;
 - Project 13: Completion and operationalization of field research centre in Mole National Park;
 - Project 14: Construction of two room quarters for FSD/WD staff at Tilli;
 - Project 15: Development of internal access tracks/trails with appropriate culverts, irish crossings and spot improvement to facilitate ecological monitoring at Gbele Resource Reserve;
 - Project 16: Establishment of 2 dawadawa processing and training centres in the Northern Savanna Zone;
 - Project 17: Construction of palm oil crsusher in two communities in the cocoa forest landscape;
 - Project 18: Development of hiking trails/walkways at Odweanoma paragliding site within the southern scarp forest reserve;
 - Project 19: Construction of mini-industrial gari processing plant in two communities in the cocoa forest landscape; and
 - Project 20: Construction of two prefabricated offices at the EPA Head office, Accra

The proposed interventions may likely have both positive and negative environmental and social impacts and therefore environmental and social due diligence be conducted in accordance with Government of Ghana precautionary principles and relevant World Bank Environmental and Social Standards.

2.0 OBJECTIVES

The Terms of Reference is seeking to engage a consulting firm to provide individual experts to support the Project Coordination Unit (PCU) at the EPA in conducting environmental and social due diligence, feasibility, design and supervision of construction works as listed above in (Section 1.2).

The objectives of the assignments are to:

- Incorporate Environmental/sustainability issues in the planning, design, construction and implementation of the various facilities, identify potential E&S risks and impacts and propose measures to mitigate them;

- Prepare environmental assessment reports for the proposed construction and operation works of these facilities (i.e. preliminary environmental report to meet national requirement and an ESIA and ESMP to meet World Bank requirements)
- Undertake broad relevant stakeholder engagements with project implementers and beneficiaries in the decision-making process;
- Develop Grievance Redress Mechanism to address complaints and grievances that may arise in the course of Project implementation
- Provide design and costing for the water systems in accordance with requisite standards/codes and in conformity to general civil engineering and architectural practice and World Bank environment and safeguards guidelines;
- Make recommendations on measures and alternatives to ensure sustainability of these facilities after they have been established to impact positively on beneficiary communities; and
- Undertake a supervisory role for the planning, design and construction of all infrastructure and facilities to be established and assist the PCU in the procurement processes of the same.

3.0 SCOPE OF SERVICES, TASKS (COMPONENTS) AND EXPECTED DELIVERABLES

All the tasks are to be carried out with close cooperation with MoFA, WD, EPA and PCU, concerned government agencies and the World Bank.

The Consultant will undertake the design of all civil works or facilities listed in Table 1 below except the water management systems i.e., Waterholes Weirs and dugouts. The consultant is expected to coordinate closely with the consultant involved in the design of the water management systems, through regular meetings and exchange of reports. The EPA will arrange for introductions.

3.1 DESIGN PHASE

Provide design for planned works in accordance with requisite standards/codes and in conformity to general civil and agricultural engineering and architectural practice and World Bank Environment and Social Safeguards

The consultant will be responsible for development of detailed architectural designs and drawings and preparing costed bills of quantities.

Preliminary Investigations

- Review existing field designs under the Sustainable Land and Water Management Project
- Conduct comprehensive site analyses, topographical surveys, geo-technical investigations (as needed) and checks with local area development plans; inter alia indicating existing natural/man-made features, utility service lines/sources, main/access roads and planned future developments (as appropriate).
- Study and ensure full compliance with the public health, building, and environmental planning regulations, including all required approvals and permits

- Prepare climate-responsive, energy-efficient and sustainable & engineering designs/calculations/principles, construction methods & finishes schedules. Design at least two (2) options for each facility with technical specifications, indicating their suitability to the socio-cultural environments, strengths and challenges as well as climate change mitigation potentials;
- Do a power point presentation to the PCU and the beneficiary agencies implementing these activities for selection of best designs;
- Prepare preliminary site layout plans for the proposed infrastructures in compliance with the required environmental and social safeguard requirements and ESMPs

Detailed design and Tender documents

- Finalize the design process and assist in preparation of tender and contracts documents that should include ESMPs and clauses on E&S impacts/risks, LMP provisions and mitigation measures respectively.
- Submit plan services layouts to the respective statutory authorities for no-objection including anticipated E&S impacts and risks and their mitigation measures (e.g. installation of electricity, water, sewerage as appropriate).
- Prepare detailed, site layout plans the proposed infrastructures, including all civil building services and external works in guidance with ESMPs.
- Prepare detailed architectural and engineering drawings (including floor plans, sections, elevations, 3D drawings, working details and finishes/fittings schedules), as well as building interior and hard/soft landscaping designs, and equipment positioning
- Prepare detailed technical specifications, un-priced bills of quantities and detailed confidential cost estimates (priced bills of quantities) for the civil works and equipment. Assist the PCU in the various stages of the works procurement.

3.2 ENVIRONMENTAL AND SOCIAL ASSESSMENT

The Environmental and Social assessment will involve the preparation of site specific Environmental and Social Impact (ESIAs) and Environmental and Social Management Plans (ESMPs) (and other documents as may be required under the Ghana law) to strategically and comprehensively identify the potential environmental and risks and impacts of the various subproject activities in its area of influence; examine alternatives and propose mitigating, monitoring and institutional measures for adverse environmental and social impacts of these activities within their respective locations.

The Ghana EPA has requested that the projects should be subjected to preliminary environmental assessment for the requisite authorization to cover the construction and use of the dugouts/weirs. A screening of the projects mentioned in 1.2 is classified as substantial in terms of environmental and social risk under the World Bank Environmental and Social Framework. This implies that (i) potential impacts are less adverse and more limited, fewer, site specific and likely to reversible and (ii) mitigation measures can be more easily designed and implemented. Projects listed under Schedule 1 of the Ghana Environmental Assessment Regulations, 1999 (LI 1652) are equivalent to substantial environmental and social risk classification.

The consulting firm/lead consultant will undertake the preparation of Environmental and Social Impact Assessments (as determined through screening) and site specific ESMPs for facilities in the Northern Savannah Zone (NSZ), Transitional Ecological Zone (TEZ) and the Cocoa Landscape.

- An environmental and social screening have been conducted for the listed interventions in Section 1.2 to inform the level of assessment based on the potential risks and impacts of each intervention. Instruments to be prepared have been recommended for all the screened projects, however, these are further merged to have a combine instrument for a number of interventions based on geographical location and site sensitivity. The consultant will therefore prepare the following required instruments for the assignment indicated in table 1

Table 1: Required Instruments for specific activities

S/N	Site/Community	District	Proposed Subproject	Site Characteristics
(1) ESIA for Civil Works in / around Mole National Park				
1.	Mole National Park	West Gonja	Tree Hide	The site is in the park and is generally sloppy toward the south
2.	Mole National Park	West Gonja	Water Hole (Lana Pool)	Generally flat and waterlogged
3.	Mole National Park	West Gonja	Viewing Platform (Asibey Pond)	Generally flat with spots of vegetation
4.	Mole National Park	West Gonja	Water Hole (Grupe)	Existing drain (Grupe stream) that collects temporary
5.	Mole National Park	West Gonja	Complete and operationalize Field Research Centre in MNP	Existing structure
6.	Mole National Park	West Gonja	Construct Viewing Platforms, Tree hide, Camping Sites, Directional Signages and medium/long Range Foot Safari trails (km) with rest stops (camping sites)	The Viewing Platforms, Tree hide and directional signs will be done by one contractor. The trails and basic camping sites with rest stops will be done by the park staff)
7.	CREMA Community/Jang	Sawla Tuna Kalba	Dugout (Livestock watering)	The land is bear with sparse shrubs, and drained by the Henag Conbre Stream
8.	CREMA Community/Dabore	Sawla Tuna Kalba	Dugout (Livestock watering)	The site has an existing dam surrounded with vegetation

9.	Various fringe community locations		Assist develop the capacity of 4 fringe communities to develop and manage their ecotourism potentials as additional livelihood venture (Mognori, Larabanga, Jelinkon Ghana Tourist Authority and HOTCAT are responsible for such training at Murugu): Construct simple receptive centres	Brownfield developments
(2) Preliminary Environmental Assessment Report with site specific ESMPs for small community and FC infrastructure – Upper East and Upper West Regions				
1.	Tilli		Two room quarters for FSD / WD staff to manage East Wildlife Corridor and six FRs	The location is inside the Forest Reserve and is heavily degraded, not much vegetation
2.	Gbele Resource Reserve		Develop internal Access Tracks / Trails with appropriate culverts, Irish crossings and spot improvements to facilitate ecological monitoring: Tented Camp - Satellite Camp1 (12km) and Yelibie - Timmie (10km)	Small footprint, similar works were done under SLWMP (ESIF was done under SLWMP)
3.	2 communities in the Northern Savanna Zone		Establish 2 Dawadawa Processing and training Centres to train women in hygenic processing, packaging and marketing	
4.	Vieha	Wa East	Processing facility	The site has an existing old mosque that is not in use
5.	Sheiga	Bawku West	Processing facility	The site is undeveloped and has a well (not in use)
6.	Bullu	Sissala West	Processing facility	The land is flat with sparse vegetation
7.	Sakalu	Sissala East	Processing facility	The site is undeveloped with some shrubs
8.	Kayero	Kassana Nankana	Weir	The site is close to a water body
(3) Preliminary Environmental Assessment Report with site specific ESMPs for small community and FC infrastructure – Cocoa Forest Landscape				

1.	Southern Scarp forest reserve		Development of hiking trails / walkways etc. at Odweanoma paragliding site An Eco-friendly exhibition room	
2.	Two communities within the cocoa forest landscape		A community in cocoa landscape with a palm oil crusher	
3.	Two Kogyae fringe communities		Establish Mini-Industrial Gari Processing Plant for women groups in 2 fringe communities	
(4) ESIA for Digya National Park				
1.	Dome Settlement (Digya National Park)	Sekyere Central	a) Solar Powered Borehole	Generally flat terrain
		Sekyere Central	b) Toilet facilities	Bare land
2.	Agoam Saboso/Digya National Park	Sekyere Afram Plains	a) Solar Powered Borehole	The site has some trees and shrubs
		Sekyere Afram Plains	b) Toilet facilities	The site has some trees and shrubs
		Sekyere Afram Plains	Game Viewing Platform	The site is undulating (close to the Tato range) and close to the Sene River which serves as elephant pool
3.	Digya National Park		Construct Game viewing platforms at Elephant Pools Develop Safari Trails for Game Viewing	
4.	Nsugyaso/ Digya National Park	Kwahu Afram Plains South	Viewing Platform	The site is covered with trees and overlooks the existing pool
(5) Initial Registration and permit for proposed prefab offices on EPA compound				
1.	EPA Headquarters	Accra	Four room prefab offices	

- Registration of activities: Prior to the study, the consultant will work with the Project Coordinating Unit (PCU)-EPA to facilitate the registration of the proposed subproject by filling and submitting an Environmental Assessment Registration Form to EPA. This will pave the way and begin formal engagement with the EPA on the environmental

permitting process.

- Develop detailed description of the proposed interventions in consultation with the PCU.

The Environmental and Social Assessment process description is in Annex A.

Grievance Redress Mechanism (GRM)

The ESMP should also include elements of the project GRM as well as information relevant to the workers' GRM, to ensure that site workers', communities', interest groups' concerns are received and addressed appropriately.

3.3 SUPERVISION OF CONSTRUCTION WORKS (SUPERVISING CONSULTANT) AND ENVIRONMENTAL AND SOCIAL MONITORING

Supervision

It shall be the responsibility of the Consultant supervise all construction operations on behalf of the Client and to ensure that works of Contractor (s) are carried out as specified. The Consultant shall ensure that the Contractor obligations in the C-ESMPs are appropriately monitored as included in the procurement and contract documents.

Preparation and Implementation Plan

For time control of project implementation, the Consultant in coordination with the Client during the preparatory phase shall:

- Issue site handover notice to the Contractor(s).
- Check and approve drawings of base camp and other facilities.
- Review and approve the construction layout plan as per the working drawings.
- Review and approve occupational safety, health, compliance of environmental and other national policies.
- Prepare a detailed construction supervision and quality control plan.
- Review Contractor (s) proposed implementation schedule to be agreed by all parties.
- Agree on checks, daily works, meetings, reporting procedures, quality assurance and communication lines by all parties.
- Prepare inception report in accordance with project implementation plan.
- Review the Contractor Environmental and Social Management Plan (CESMP) and recommend to the client for approval

II. Supervision of Construction Works

- Supervise implementation of all Contractor (s)' activities to ensure compliance with specifications of the project ESMP and CESMP, requirements of the issued permits, contract regulations, timeliness, quality and cost control;
- Establish a positive and amicable, but impartial liaison with the construction contractor (s);
- Undertake site visits as required and as specified in the implementation plan to provide oversight of the construction works and overview of progress, with particular attention to ensuring Construction Contractors adherence to the design and construction drawings and specifications;
- Review and comment upon the Construction Contractor's work plans;
- Validate and document all requirements and works of the contracting entities;

- Conduct regular meetings to monitor progress of project;
- Record daily reports to be compiled into weekly and monthly reports;
- The Consultant shall check, approve or reject as the case may be:
 - a. Contractor (s)' construction equipment
 - b. Quality and quantity of materials for construction
 - c. Testing procedures and results
 - d. Constructed works on site
- Review and approve all submittals for temporary and permanent works.
- Assess any necessary design modifications during contract execution, and propose technically acceptable modifications, in agreement with the Client.
- Monitor any unsafe conditions and non-compliance with relevant national legal obligations and report to the Client for remedial actions.

III. Instructions to the Contractor(s)

The services will include issuing field instructions in writing as required relating to:

- Assessment of quality of materials, equipment, and methods of construction
- Testing, assessing and supervision of works
- Clarification of drawings and specifications
- Safety of activities carried out on site
- Progress of work

IV. Inspection of Progress of Works

- The Consultant will keep the Client advised continuously as the work progresses
- During implementation, at any time where work on site falls short of specifications and or drawings, it shall be removed or rectified.
- Contractor temporary designs and drawings for temporary works will be assessed and recommendations submitted to Client for approval.
- Inspection shall be carried out when substantial work has been completed to enable arrangement with the Client to issue a Certificate.
- During the Defects Liability Period (DLP) the Consultant shall undertake periodic inspections and inform the Client and Contractor of any defects on the construction work and supervise its repairs.
- Ensure strict adherence to safeguard issues as stated in the (CESMP) by the Contractor.
- In coordination with the Client the final Hand-Over Certificate shall be recommended after the expiry of the DLP.

V. Payment of Certificates

The Consultant shall:

- Keep records of works carried out.
- Study "as built" drawings provided by the Contractor.
- The Consultant and the Contractor(s) shall carry out field measurements of completed works, to certify the Contractor(s)' Interim payment Certificates

3.4 MONITOR IMPLEMENTATION OF ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT REQUIREMENTS

The Consultant would work closely with the PCU and relevant Beneficiary Agencies (BAs) staff in all key environmental and social related activities, with an emphasis on coordination and capacity building;

- a. In liaison with the Constructional Supervision Consultant (CSC), PCU and BAs staff, review contractor bids and ensure they adequately address environmental and social requirements as set out in ESMPs and all the latest environmental and social requirements of the World Bank and GOG, and ensure the Contractors have all plans, procedures, approvals, and documentation in place for ESMP compliance prior to commencement of any work;
- b. Ensure smooth implementation of the Environmental and Social Management Plans developed, including developing a system and schedule for regular site visits, environmental sampling, follow up consultations with local residents on issues and environmental and social concerns arising during project construction;
- c. Check that the environmental and social risks and impacts issues outlined in the ESMP and CESMP are being adequately addressed in the field by contractors and are being monitored closely by the CSC, including reviewing and verifying CSC monitoring reports;
- d. Ensure reporting protocols in the ESMP and CESMP are followed (including quarterly reports and annual reports) in a timely fashion, are of good quality, and ensure that reports are disseminated to stakeholders according to guidelines in the ESMS;
- e. Collaborate with Environmental Protection Agency on regulatory compliance issues (for water quality, noise and dust from construction sites, sanitation in workers campsite, etc.) and with other national authorities as needed;
- f. Assist PCU and BAs to carry out necessary issuing of penalties, works stoppage, and other non-compliance measures;
- g. Conduct follow-up consultations and interviews with local residents to identify concerns or grievances arising during the various construction contracts, and ensure that grievances follow proper channels as established by the Grievance Redress Mechanism
- h. Assess Community and District capacity gaps and training needs on environmental and social issues and propose capacity building measures to PCU for inclusion in the project Capacity Building Plan.

3.5 MONITORING THE IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY PLAN AND LABOUR MANAGEMENT PROCEDURES:

- a. The Consultant shall work closely with the PCU and staff of relevant Beneficiary Agencies in ensuring compliance with national and World Bank occupational health and safety laws, procedures, guidelines and specifications, and provide advice on measures needed to minimize hazards, accidents or unhealthy situations in construction sites;
- b. Liaise with the Contractor's supervisor to ensure Contractors develop and implement their Labour Management Plans to ensure that all contractors establish a safe workplace according to Ghana's legal standards and Labour Management Procedures (LMP) outlined in the ESMF and World Bank ESS 2 and foster a culture of attention to health and safety in all work sites under the project throughout the project life cycle;

- c. Prepare and/or update health and safety management plans, policies, systems, procedures and guidelines for construction works under the project, review them on a regular basis and keep them up to date at all times.
- d. Advise PCU, contractors, BAs, consultants and other stakeholders on various safety and health related matters related to project implementation.
- e. Support the PCU and staff of Beneficiary Agencies in raising awareness on health and safety issues among project staff, consultants, contractors and other stakeholders.
- f. Conduct risk assessment at all construction sites, outline preventive measures on health and safety and work with the PCU to enforce these measures.
- g. Initiate, organize and conduct health and safety training for BAs, PCU, contractors, consultants and other stakeholders.
- h. Inspect work sites and the work of contractors on a regular basis to identify issues or non-conformity, and recommend necessary actions to the PCU where unsafe acts or processes that seem dangerous or unhealthy are detected.
- i. Oversee installations, maintenance and disposal of substances, plant and equipment etc. to ensure they are done in conformity with applicable laws and industry best practice.
- j. Ensure the Contractor promptly notify the Project of any incident or accident related to the subproject including situations of fatalities or serious bodily harm and incidents of on SEA/SH
- k. Record and investigate incidents (including near misses) to determine the cause and to propose improvements to processes in the future. Such investigations shall exclude reports on SEA/SH.
- l. Prepare reports on incidents (including near misses) and compile statistical information on health and safety issues and present them to the PCU for action;
- m. Ensure that Contractor workers have contracts and each worker signs the workers code of conduct and adhere to the obligations under their contract and Code of conduct.
- n. Ensure that all health and safety policies, procedures, rules and regulations are adhered to by all contractors during construction works, and are regularly reviewed, updated and communicated.
- o. Ensure that safety inspections, audits, risk assessments, working procedures are managed, and contractors and their staff are aware of their responsibilities in relation to health and safety issues.
- p. Establish and conduct a structured programme of health and safety training (including a well-developed induction program) for PCU staff, BAs, contractors, consultants and other stakeholders.
- q. Participate in regular site meetings, provide necessary advice and report on relevant health and safety matters to the PCU in accordance with the terms of the contract Prepare quarterly and annual reports on health and safety matters as it relates to construction works according to standard reporting guidelines for health and safety issues;
In collaboration with the PCU, assist in coordination and implementation of health and safety related activities.
- r. Ensure workers put on appropriate Personal Protective Equipment (PPE) at construction sites.
- s. Ensure adherence and compliance to Covid-19 protocols in line with World Bank guidelines and GoG restrictions.

Supervision of Construction Works

- Supervise implementation of all Contractor (s)' activities to ensure compliance with contract regulations, timeliness, quality and cost control.
- Conduct regular meetings to monitor progress of project.
- Record daily reports to be compiled into weekly and monthly reports.
- The Consultant shall check, approve or reject as the case may be:
 - a. Contractor (s)' construction equipment and method of construction
 - b. Quality and quantity of materials for construction
 - c. Testing procedures and results
 - d. Constructed works on site
- Review and approve all submittals for temporary and permanent works.
- Assess any necessary design modifications during contract execution, and propose technically acceptable modifications, in agreement with the Client.
- The Consultancy and the Contractor (s) shall carry out field measurements of completed works, to certify the Contractor(s)' Interim payment Certificates.
 - Prepare a final project completion report.

4.0 DELIVERABLES

The Lead expert or consulting firm will be required to prepare and submit the following deliverables:

Table 2: Contract implementation schedule and required report

SN	Type of Reports	Schedule
1	Registration and Permit - Prior to the assignment, the consultant will work with the Project Coordinating Unit (PCU)-EPA to facilitate the registration of the proposed subproject by filling and submitting an Environmental Assessment Registration Form to EPA. This will pave the way and begin formal engagement with the EPA on the environmental permitting process	Two (2) weeks after contract signing
2	Inception Report – This will include the design phase where the consultant is expected to map the entire assignment and identify key features structure, criteria for success and major deliverables are all planned out. It will outline approach/ methodology to the assignment preparation. This is to be done in consultation with the Project Team and the World Bank. The inception report will also include a detailed work plan which will refine and elaborate on the information presented in these terms of reference to bring greater precision to the conduct of the assignment. It shall be based on a preliminary review of the documentation, discussions with key stakeholders, literature review, etc.	Five (5) weeks after contract signing
3	Technical Assessment and Preliminary design for the Works: - The findings and recommendation of the consultant covering all aspects (including the engineering works) of the design, aspects detailing the works that needs to be done. The report shall include maps, plans and diagrams as necessary	Four (4) weeks after the acceptance of the Inception Report
4	Environmental and Social Impact Assessments (ESIA) An ESIA predicts the environmental and social risks and impacts of the proposed interventions. It is carried out before project implementation and proposes	Twelve (12) weeks after the acceptance of the Inception Report

SN	Type of Reports	Schedule
	measures to mitigate potential adverse risks and impacts.	
5	Environmental and Social Management Plan for each of the proposed interventions. The ESMP will outline all the issues indicated/specified in the scope of work detailed in the World Bank requirements for the preparation of an ESMP. The ESMP should have annexes showing evidence of consultations, maps, photographs taken at various sites, GPS coordinates of various sites etc made for the purposes of this report	Sixteen (16) weeks after the acceptance of the Technical Assessment
6	Design Reports - Submit draft designs of the various processing facilities to the PCU and will be required to do a power point presentation for discussion and selection of preferred designs. The consultant shall submit the completed design package including all drawings and technical specifications based on the recommended viable options from the conclusion of the Technical Assessment. These would include: <ol style="list-style-type: none"> 1) Typical architectural design and detail working drawings for the specific structures. 2) Structural analysis, report and detail structural drawings of the designs. 3) Electrical layout, sanitary drawings (as applicable). 4) Costed bills of quantities 5) Detail estimation of design. 6) Specification of materials and methodology to be conducted during the construction period. 7) Quantities and consultants estimate for each of the Project 	Six (6) weeks after the acceptance of the ESMF
7	Bidding/Tender Documents Along with the design and specifications as indicated above, the consultant shall present a Bidding document for the civil works. The Bidding Document will be prepared based on the requirements of WB Procurement Regulations	One (1) week after the acceptance of the design reports
8	Supervision: - This report will outline all supervisory activities, statuses, findings and recommendations including: <ol style="list-style-type: none"> 1. Site handing over with PCU and contractors together with Consultants 2. Coordinate the preparation of contract mobilization request or certificates from contractors 3. Supervision of site preparation activities (site office, site camps etc.) 4. Inspection of construction equipment/materials to conform to contract requirements 5. Confirmation of personnel on site to ensure that it conforms to contract requirements 6. Coordinate the assessment and approval of sub-contractors where applicable 7. Daily supervision of contract implementation (construction phase) 8. Coordinate regular site meetings with PCU team 9. Coordinate certificate preparation to PCU for payment 10. Ensure compliance with approved designs and all bank regulatory requirements by contractor 	It will run through the entire implementation period of the respective contracts including DLP
9	Mobilization Report This report will describe the plan the consultant has established for the supervision portion of the assignment. It will include the Methodology, Scoping, methods and parameters for supervision, methods of consultation with the construction contractors including quality Assurance, Health and Safety issues. The report will also include detailed program of work for the supervision phase	A week after contract signing with the respective contractors

SN	Type of Reports	Schedule
10	Monthly Reports- The consultant shall submit comprehensive monthly reports on the supervision and progress of the works. The report will include, overall progress of work, based on the contractors' reports and consultant's observations, reports on environmental and social compliance, forecast of activities (including financial forecast), challenges, recommendations and all necessary contract data.	submitted not later than ten (10) days after the end of the reporting month
11	Minutes of Meetings The Consultant shall issue comprehensive minutes of regular and special meetings and distribute copies or may be attached to the monthly progress reports or depending on the circumstances, may be submitted as separate documents.	Five (5) days after each meeting
12	Certificate of Completion: - Coordinate/ensure full implementation of the contract requirements i.e. designs, BOQ, specifications and other requirements and certify that work done is 100% and deserve to be rated as such.	Two (2) week after completion notification from contractor
13	Final Completion Report A final report will be submitted within 4 weeks after the issuance of the certificate of provisional acceptance	Two (2) weeks after expiration of DLP

5.0 TEAM COMPOSITION AND QUALIFICATION REQUIREMENTS FOR THE KEY EXPERTS

The nature of the assignment requires the consultant to assemble a well-qualified and experienced team of experts, of sufficient size and capacity, covering all the professional disciplines required. Demonstrated experience of designing facilities / infrastructure is required (at least 5 comparable assignments); experience of design for infrastructure located within sensitive ecological areas (such as protected areas) will be an advantage. Demonstrated experience (at least three comparable assignments) of preparing ESIA's following the requirements of the Ghana law is required.

The assignment will be carried out by an experienced team with the following expertise and experience.² The Firm shall ensure the timely completion of the project and provide the expert personnel in line with the Project Implementation Schedule. The Consultant shall employ supervisory staff over the period of implementation.

Lead architect / Team Leader will be responsible for coordinating all the activities under this assignment. S/he shall:

- Have at least a Master's Degree Architecture and possess strong working knowledge of design, estimation, structural analysis and preparation of specification of materials and work methodology as well as a minimum of 10 years of relevant experience, including in leading teams.
- Have undertaken at least 3 similar assignment and demonstrate an extensive knowledge in building design and analysis work for rural area, as the incumbent shall be responsible for ensuring that the designs are correctly prepared and reported.

² The team as a whole need to cover the listed expertise, though individual experts' profiles may be different from the listed.

- Possess very good interpersonal, technical and communication skills.
- Have proficiency in written and spoken English

Civil Engineer shall:

- Have a at least Bachelor's Degree in Building or Civil Engineering
- Have at least five years of work experience in construction field.

Quantity Surveyor shall:

- Have a least Bachelor's Degree in Building, Civil Engineering or Quantity Surveying
- Have at least five years of work experience in quantity and cost estimation of building works.

Social risk management and Stakeholder Engagement Expert shall:

- Have a graduate degree is social development, social sciences, or community development.
- Have at least 10 years of demonstrated experience and capacity to facilitate stakeholder participation and engagement processes at field level.
- Have proficiency in written and spoken English and working knowledge of at least one of the languages spoken (Hausa and Twi) in the target areas.
- Have knowledge of the World Bank Environmental and Social Framework (ESF), at a minimum demonstrated through presentation of a certificate of completion of the free online training course *ESF Fundamentals* offered by the World Bank is a must.

Ecologist / Environmental risk management shall:

- Have a graduate degree is social development, social sciences, or community development.
- Have at least 10 years of demonstrated experience and capacity to facilitate stakeholder participation and engagement processes at field level.
- Have proficiency in written and spoken English and working knowledge of at least one of the languages spoken (Hausa and Twi) in the target areas.
- Have knowledge of the World Bank Environmental and Social Framework (ESF), at a minimum demonstrated through presentation of a certificate of completion of the free online training course *ESF Fundamentals* offered by the World Bank is a must.

Labour, Occupational health and safety specialist shall:

- Have at least a bachelor's degree in occupational health and safety or a related field.
 - Have at least 5 years of professional experience in conducting occupational health and safety risk assessments, training and monitoring of forest plantations and mechanical wood industry is a must.
- Other experts will be expected to have competences in geotechnical surveys, electrical and mechanical engineering, soil science, water resources management.

6.0 REPORTING REQUIREMENTS AND DURATION OF ASSIGNMENT

The Consultancy firm represented by a lead person shall report to the Project Coordinator on the progress of work. From time to time, the Client may require written explanations by email on the work progress, quality, accidents, problems, etc., related to the work, to which the consultant shall promptly respond, providing a full description of the situation.

As stated in the above sections, the assignment will be executed under the guidance and support of the PCU, EPA, MoFA, WD and other Project Beneficiary Agencies.

Communication protocol shall be established soon after the award of the contract.

6.1. Duration of the Assignment

The consultant will be engaged throughout the life span of the project. The assignment will commence in October 2022 and will run through the entire implementation period of the respective works.

7.0 CLIENT'S INPUT AND COUNTERPART PERSONNEL

Under the overall guidance of the Project Coordinator, the Consultancy firm will perform the assignment by adhering to the implementation arrangements under Government of Ghana/World Bank Guidelines.

The Firm will thoroughly familiarize him/herself with the relevant project documents including the Project Appraisal Document, Project Implementation Manual, Environmental and Social Management Framework, Stakeholder Engagement plan, among others, to be provided by the Client, for the successful execution of the assignment.

The Client will provide the Consultants with the following:

- Existing reports, maps and data related to the execution of the Project.
Counterpart personnel for the purpose of liaison with the Client and other Government agencies.
- The Client will provide Letter(s) introducing the Consultant wherever required and in the performance of the assignment.

8.0 MODE OF PAYMENT

The consultancy firm will be offered a lump sum fee inclusive of travel costs for this assignment; *this shall be based on a Rate that shall be concluded with the successful firm during contract negotiation.* The payments will be made in installments based upon outputs/deliverables specified in the TOR and upon certification of satisfactory work as per work plan and endorsed by PCU.

9.0 PRODUCTS

All the documents shall be written in English, each item of the deliverables i.e. all Reports shall be presented in three (3) hard copies and one (1) electronic format (USB device).

All deliverables shall be submitted to the project team for review and comments. Upon receipt of reviewed documents, the consultant will incorporate comments within two weeks and submit final document/reports of all deliverables to EPA.

10.0 INTELLECTUAL PROPERTY RIGHTS

Any reports, documents, graphics, or other materials, prepared by the Consultant and the project team for this assignment shall belong to and remain the property of the Ghana Landscape Restoration and Small-Scale Mining Project (GLRSSMP)

11.0 NOT SPECIFIED CONDITIONS

Other conditions not specified herein shall be settled by mutual understanding and agreement.

Annex A

⇒ Conduct Scoping Study

A scoping study will be required from the consultancy firm/lead consultant as the first stage of the ESIA process. The purpose of the scoping study is to gain an overall understanding of the biophysical and socioeconomic baseline situation and provide an overview of the range, depth and trend of issues to be subsequently studied in detail during the main ESIA. This overview will set the focus for further studies, data collection and other resources that will be required for the conduct of the ESIA. Specifically, the consultant shall be expected to:

- a) Collect information on baseline bio-physical and socio-economic conditions and developments in the subproject area which would aid the prediction of impacts;
- b) Facilitate the consultation and participation of relevant stakeholder government Ministries, Departments and Agencies (MMDAs), Metropolitan/Municipal Assemblies, NGOs, CBOs, CSOs and all persons or groups of persons as well as businesses who will be affected, positively or negatively, by the subproject in the process of identifying and assessing the environmental and social impacts of the subproject;
- c) Identify the most relevant and significant environmental and social issues of concern out of a myriad of issues with the aim to focusing on them in the ESIA; and
- d) Develop a draft Terms of Reference (TOR) for the ESIA and present same to the EPA for its review and agreement.

⇒ Conduct Environmental and Social Impact Assessments (ESIA)

Upon review of the scoping report and agreement on the draft TOR by the EPA and the World Bank, the consultant will proceed to undertake the impact assessment and prepare

the ESIA. The ESIA will build on activities and results from the scoping study but the level of detail shall be higher.

The ESIA will involve the following tasks:

▪ **Description of the Proposed Investments**

Detailed description of the investments with the requisite specifications and components is not available presently. The description of each of the investment would include:

- Site location including geographic coordinates;
- Description of the components and specifications of the investments;
- Planned construction to be undertaken and schedule;
- Adjoining land uses, including any proposed future developments;
- Description of work camp and other facilities to be provided on the site;
- Description of construction materials, including quantities to be used and their sources;
- Types of equipment required for the construction, repair or demolition works;
- Labour requirements for the construction, repair or demolition works; and
- Other relevant information on the investments.

The description will include maps at appropriate scales to illustrate the specific location of the investments.

▪ **Policy, Legal and Regulatory Considerations**

The consultant will identify and discuss Ghana and World Bank's policies, regulations and standards or guidelines governing environmental assessment, environmental quality, health and safety, as well as land acquisition and involuntary resettlement (including issues related to livelihoods and squatters) that are applicable to the execution of the proposed investments. The discussion will also include a gap analysis between Ghana's safeguards regulations, standards/guidelines and the World Bank's ESF and ESS and General Environmental, Health, and Safety Guidelines.

▪ **Description of the Baseline Biophysical and Socio-Economic Environments**

The consultant will assemble, evaluate, and present baseline data on the biophysical and socioeconomic characteristics of the subproject area, and its environs to aid impact identification and assessment. Although the consultant will describe the baseline in the subproject area, where peculiar baseline characteristics and conditions of environmental and social interest are found at particular investment site, they should be highlighted. The proposed approach to data collection should be clearly described in the Consultant's proposal. This will include a clear description of all site visits, surveys and proposed stakeholder meetings etc.

The baseline will cover the physical, biological and chemical aspects of the environment as well as the socioeconomic and cultural characteristics. The baseline for the biophysical environment will include:

- Climate
- Soils and geology,
- Topography,
- Wind
- Relative Humidity
- Biodiversity (flora and fauna),

- Underground and surface water resources,
- Drainage networks,
- Ambient air quality and noise
- Nuisance Species, Pest and Vectors in the project areas

The baseline socioeconomic and cultural characteristics will include:

- Communities and their structures; Governance and Administrative context
- Demographics characteristics;
- Household and Population characteristics
- Ethnicity
- Migration
- Access to education and skills training
- Gender and Vulnerability;
- Gender Based Violence (GBV) and related issues;
- Household
- Land uses, Land tenure system and access to land;
- Disability
- Agriculture
- Economic activities
- Employment;
- Income distribution;
- Goods and services;
- Recreation;
- Infrastructure and uses
- Utilities;
- Transportation networks and traffic situation;
- Solid and liquid Waste management practices and facilities;
- Public health and access to health facilities
- Tourism
- Religious Practices
- Cultural Heritage (e.g., archaeological and historically significant sites),
- Social conflict including forest wildlife conflict and
- Dependence on local and natural resources.

▪ **Public Consultations and Stakeholder Engagement**

Public consultations and stakeholder engagement during the ESIA will build on activities began during the scoping phase and the outcomes shall be inclusive. The consultant will conduct stakeholder analysis and mapping to ensure that a wide range of stakeholders (including vulnerable groups like women, the elderly, children and persons with disabilities) are afforded the opportunity to comment on the subproject; to voice opinions, concerns and suggestions; and contribute local knowledge. Whenever needed the Consultant shall hold separate engagement with women to obtain their views and concerns about the proposed subproject interventions. The consultant shall document details of meetings with all stakeholders.

- The outcomes of consultation with communities, PAPs and other stakeholders will be presented in an updated version of the Issues and Response Report. The Issues and Response Report will be incorporated in the draft ESIA. The consultant's proposed approach or methodology to public consultation and stakeholder engagement should be clearly described in the consultant's proposal. The consultations shall be guided by

the project SEP which outlines the engagement process, timing and method of consultation and engagement.

- Should the EPA decide to hold public hearing on any of the proposed investments, the consultant will prepare the required documents and lead the presentation of information on the investments and the ESIA. The consultant will take notes of issues raised and responses offered at the public hearing as well as action steps. The consultant will prepare a report on the public hearing, which will be incorporated into the ESIA.

▪ **Analysis of Alternatives to the Proposed Investments**

The consultant will analyze alternatives to the proposed investments that would meet the objective of improved flood management. The analysis will include the “No Action” or “No Project” alternative (i.e. not implementing the proposed investments) in order to demonstrate environmental and social conditions without it. In addition to the “No Action” alternative, the analysis will consider alternative locations, design options and methods of execution as well as management systems. The latter is particularly important for the construction and management of the detention ponds. The analysis may suggest options that could be more sustainable from an environmental and social (i.e., natural resource, socio-cultural and economic) point of view than the originally proposed investments. The analysis will demonstrate how the alternatives compare in terms of potential environmental and social impacts and the consultant will present the reasons for selecting the proposed investments over the alternatives.

▪ **Analysis of the Potential Impacts of the Proposed Investments**

The consultant will present a detailed analysis of the positive and negative environment and social impacts of the execution of the investments on the biophysical and socio-economic environments. This analysis will build on the preliminary identification and assessment of impacts presented in the scoping report. The consultant will identify, categorize and assess the project’s key environmental and social impacts. The consultant will indicate the approach to impact identification and assessment in the consultant’s proposal.

The consultant shall give due consideration to the identification of impacts relating to, among others:

- Public health and safety;
- Ambient air quality;
- Ambient noise and vibration;
- Climate Change Risk Assessment;
- Biological Impact on flora and fauna;
- Fresh water bodies
- Infrastructure and utilities (electricity, water, telecommunications);
- Transportation networks and vehicular and human movement;
- Land use and economic activities;
- Access Restriction and Displacement;
- Social conflict
- Construction waste management;
- Occupational health and safety;
- Labour influx and Gender relations (including Gender Based Violence),
- Child Labour, and
- Vulnerable Groups.

▪ **Formulation of Appropriate Mitigation and Enhancement Measures**

The consultant, in consultation with EPA HQ and regional offices, Wildlife Division of the Forestry Commission and relevant Assemblies recommend measures to mitigate the negative environmental and social impacts or to enhance the positive impacts. The mitigation and enhancement measures will be cost-effective measures that will be specifically tailored to the impacts identified in order to achieve the aim of preventing or limiting the negative effects of the investments.

Where feasible, some measures could be embedded in the technical engineering designs to mitigate or enhance identified impacts. If the proposed mitigation measures are not likely to be fully effective on their own, the Consultant shall propose adequate compensation measures in accordance with the relevant ESS and the project ESMF and RF&PF. Also, the consultant will make provisions for the use of “chance find” procedures if unanticipated archaeological, historical and sacred sites or materials are encountered during construction works. To this end, the consultant shall prepare chance find procedure to be included in the ESIA.

▪ **Development of an Environmental and Social Management Plan (ESMP)**

The consultant will develop site specific Environmental and Social Management Plan (ESMP) to be used as a tool for the effective implementation and monitoring of the impact mitigation and enhancement measures. The ESMP should include proposed mitigation measures and monitoring plan for both the preconstruction, construction and operation phases of the project. The ESMP should include both text and a matrix and must relate to each of the investments. The ESMP should also be revised before the start of the operation for the purpose of developing a pertinent manual for the operation phase. The ESMP should include proposed work programs, budget estimates, schedules, staffing/roles and responsibilities and training requirement and other necessary support services to implement the mitigating measures.

▪ **Development of an Environmental and Social Monitoring Plan**

The consultant will develop a detailed Environmental and Social Monitoring Plan to guide the monitoring of the environmental and social impacts and the implementation of mitigation and enhancement measures during the construction and operation phases. The monitoring plan will enable the EPA to confirm the accuracy of the impact assessment and the effectiveness of the mitigation measures contained in the ESIA. The consultant will outline the elements of the monitoring plan in the proposal.

- The institutional arrangement for ESMP and the monitoring plan implementation should be proposed and included in the ESIA (and budgeted for). The proposed institutional arrangement needs to have the capacity to implement the environmental plan recommendations. The consultant should review the capacity and capability of institutions at subproject areas and recommend actions to strengthen them so that the management and monitoring plans in the ESMPs can be implemented.