



Kenya Marine Fisheries Socio-Economic Development (KEMFSED) Project P.O. Box 58187-00200 NAIROBI

MINISTRY OF MINING, BLUE ECONOMY AND MARITIME AFFAIRS STATE DEPARTMENT FOR BLUE ECONOMY AND FISHERIES

TERMS OF REFERENCE (TOR) FOR CONSULTING SERVICES FOR CONSTRUCTION SUPERVISION OF NAMARET RESOURCE CENTER, HATCHERY AND ALL COUNTY INFRASTRUCTURE.

Credit Number: IDA 65400

PROJECT NUMBER: P163980

PROCUREMENT/CONTRACT REF NO.: KE-MOMBEMA-C1-2023-020-CS-FIRM

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Client:

State Department for Blue Economy and Fisheries

Attn; National Project Coordination Unit

P.O. Box 58187-00200, Nairobi

Tel:+254202716103

Email: info@kemfsed.org

1.0 INTRODUCTION

1.1 Background

Kenya Marine Fisheries and Socio-Economic Development (KEMFSED) Project is a Government of Kenya (GoK) World Bank supported project implemented through the State Department for Blue Economy and Fisheries (SDBE&F). The project is targeting poor households in 19 coastal sub-counties of the five coastal counties of Kenya namely; Kwale, Mombasa, Kilifi, Tana River, and Lamu, including vulnerable and marginalized groups located in the project area such as the Tswaka, Watha, Aweer, and Sanye. The primary target group are the fishers and poor fisheries-dependent households, and rural communities with direct or indirect links to fishing activities.

1.2 Project Development Objective (PDO)

The Project is geared towards improving the management of priority fisheries and mariculture and increase access to complementary livelihood activities in coastal communities.

1.2.1 Project Components

The project is comprised of the following three components:

- a) Component 1: Governance and Management of Marine Fisheries will focus on improving the management of marine fisheries in Kenyan waters. Fisheries governance interventions will be promoted through preparation of governance instruments to manage protected and threatened species, strengthen comanagement of nearshore fisheries, and infrastructure development to support the management of fisheries at both the national and county levels.
- b) Component 2: Coastal Community Empowerment and Livelihoods will contribute to the PDO by strengthening livelihoods in coastal communities through a combination of technical and financial support for the implementation of livelihood, social welfare, and environmental sub-projects, as well as through scholarship grants and complementary capacity-building and mentoring of beneficiaries;
- c) Component 3: Project Management this Component will provide the finance and capacity to support the management of the project at both national and county

levels to ensure coordinated and timely execution of project activities.

1.3 Location

The Services will be carried out in 5 Counties of Republic of Kenya, Sites located in the coastal counties namely; Tana River County in Minjila and Kipini, Lamu County in Mukowe, Kilifi County in Kilifi Town and Malindi Town, Mombasa County in Kidongo and Kwale County in Mwaepe, Msambweni and Shimoni.

1.4 Rationale

The development of the fisheries infrastructure, and related social services is the core for enhancing the production and value addition of the blue economy goods and services, creating employment opportunities, and facilitating economic integration in the project area as well as in the region. Developing of a resource centre, a hatchery, fisheries offices and fish landing sites would help integrate the fishing industry communities along the five coastal blue economy counties as well as nationally through provision of resource and research centers, hatchery, sites for services, clean water, ablution blocks, electrification, fish markets, fish cooling facilities, fishing gear mending sheds, boat yards, jetties, social halls, waste management facilities and access roads. The social services will include the socio-economic services to be provided at the fish landing sites. The construction of the fish landing sites will include basic site development for social facilities to be provided by the BMO's and private sector. In consultation with relevant agencies, the project will provide basic amenities such as water and electricity. The environmental social health safeguards (ESHS) policy implementation will primarily emphasize the execution of on-site construction and the subsequent dissemination of knowledge to end-users once the projects have been completed and transferred to facilities management and other relevant stakeholders.

1.5 Infrastructure Development for Fisheries Management

The Following infrastructure have been prioritized for implementation for the fisheries management.

TABLE 1. SUMMARY OF NATIONAL AND COUNTY FISHERY INFRASTRUCTURE

SUMMARY OF NATIONAL AND COUNTY FISHERY INFRASTRUCTURE						
S/No	County/S ub- County	NAMAR T Resource Center	NAMAR T Hatchery	County New Fisheries Offices	County Fisheries Offices Rehabilitation	Fish Landing Sites/Markets Fisheries Offices
1	Tana River County	Nil	Nil	Constructio n of Office and related infrastructu re Minjila. (1Nos.)	Nil	Kipini Fish Landing Site Construction of Meeting Hall Fish Banda Ablution/Hygiene Block Boat Yard Stalls Civil works and related infrastructure. Including slipway road access
2	Lamu County	Nil	Nil	Constructio n of Office and related infrastructu re (1Nos.)	Nil	Mukowe Fish Landing SiteFish BandaAblution/Hygiene Block
3	Kilifi County	Nil	Nil	Constructio n of Office and related infrastructu re (1Nos.)	Rehabilitation of Fisheries office Malindi (1Nos.)	 Kilifi Central Fish Landing Site Fish Mini Depot Conference Hall Ablution/Hygiene Block Fishing Gear Mending Shed Pump House Biodigester Jetty – Floating type. Floating type is preferred Civil works and related infrastructure
4	Mombas a County	Nil	Nil	Nil	Nil	 Kidongo Fish Landing Site Meeting Hall Social Fish Banda Ablution/Hygiene Block Civil works and related infrastructure. Including Road Access – 300m
5	Kwale County	Construction of Resource Center and related infrastructure Shimoni. (1Nos.)	Construction of Hatchery and related infrastructure Shimoni. (1Nos.)	Constructio n of Office and related infrastructu re Msambwen i (1Nos.)		Mwaepe Fish Landing Site Polyfunction Block Fish Banda Ablution/Hygiene Block Fishing Gear Mending Shed Boat Yard Stalls Halls/Restaurant Civil works and related infrastructure

A high-level brief of individual projects is contained in the Preliminary Report

1.6 The Need for Consulting Services

The Employer will require the Consultant so selected to render Services which include all activities, whether explicitly named or not, deemed relevant for the successful completion of construction works through construction supervision of the works contracts. The detailed description of the required Services is given in this Terms of Reference.

The Consultancy Assignment shall be Construction Supervision Services of NAMARET Resource Centre, Hatchery and all counties infrastructure and shall be time-based form of contract.

2.0 OBJECTIVE OF THE ASSIGNMENT

2.1 Overall objective

The overall objective of the Consultant's assignment is to undertake Construction supervision of works for NAMARET Resource Centre, Hatchery and all county's infrastructure.

3.0 SCOPE OF SERVICES AND SPECIFIC TASKS

3.1 Scope of Services

In the execution of this assignment, the scope of services shall include Construction Supervision of the works and Project Management Advisory Services to ensure the works contracts are completed to the required standards, contracted costs, and contracted period.

3.2 The specific tasks include:

The specific tasks of the assignment include:

- i). To prepare for implementation of supervision activities and put in place a comprehensive, documented quality assurance framework;
- ii). To carry out the construction supervision of the Works Contract in the role of the "Engineer/Project Manager" as described in the Conditions of Contract for the works contract.
- iii). To provide and/or facilitate as necessary the assessment, monitoring and management of environmental and social impacts and compliance with the applicable laws and World Bank operational procedures/guidelines in respect of environment and social safeguards and work-related health and safety regulations;
- iv). To monitor and report on all aspects of the works contract, the supervision contract and related aspects to the Employer;

- v). To advise, assist and support the Employer in contract monitoring, reporting and production of As-Built Drawings, and comprehensive progress photographs; and
- vi). To carry out all other services reasonably relating to successful execution of the construction supervision.

In pursuit of these objectives the Consultant will be expected to demonstrate deep familiarity with best practices in environmental and social impact management, building construction supervision. The consultant will also be expected to demonstrate a clear understanding of the stakeholders' requirements and to consult them extensively during the construction.

3.2.1 Supervision of Building Works and Defects Monitoring

The Consultant shall be fully responsible for supervision of the construction and defects monitoring of works and will assume responsibility for the supervision of the construction works. In this regard, the Consultant shall carry out all of the Services necessary, including but not limited to the following:

- i). Check and establish that the Contractor mobilizes and supplies to the contract all plant, equipment and machinery that has been committed in the tender and ensure that all such items of plant remain on the contract site until their release has been authorized;
- ii). Coordinate and deal with matters relating to relocation of utilities as necessary;
- iii). Approve the Contractor's work program, method statements, material sources etc.
- iv). Ensure compliance with all design parameters, inspect the setting-out, progress and quality of work, and to resolve technical issues that may arise during the course of the works.
- v). Check the quality of the materials brought to site and ensure that the quality of construction activities are in compliance with the Specifications;
- vi). Ensure the Contractor establishes testing laboratories or selected a private or government testing facilities, procedures for testing etc., including the Quality Management System stipulated in the Technical Specifications;
- vii). Lead project site inspections/meetings, including but not limited to kick-off meetings, regular progress meetings, trouble-shooting, practical completion/hand over, and final sign-off meetings;
- viii). Prepare and submit reports as defined in this Section (5) of the Terms of Reference (Reporting Obligations) and Maintain records, correspondences and diaries;
- ix). Approve and/or issue working drawings, approve the setting out of the works and give instructions to the Contractor.

- x). Measure the completed works and keep measurement records necessary for preparation of valuations of work carried out and completed and submit Interim Payment Certificates and measurements to the satisfaction of the Employer for payments;
- xi). Inspect the extraction, or fabrication, or assembly of materials and components as appropriate to affirm quality of such materials/workmanship before delivery to site.
- xii). Ensure the proper opening and reinstatement of quarries, spoil areas and borrow pits in accordance with the requirements of the Technical Specifications and the National Environment Management Authority (NEMA) regulations of Kenya.
- xiii). Assess claims notified by the Contractor and potential claims. Advise the Employer on the outcome of the review and make recommendations on appropriate action by the Employer.
- xiv). Ensure that the Contractor introduces, establishes and maintains appropriate and mandatory health and safety measures and procedures on site.
- xv). When required, review and comment on periodic financial reports including the effect of any variations on costs due to change orders.
- xvi). Carry out all administration work related to project supervision requirements including proper conduct, attendance and performance of duties of staff and ensuring that appropriate records are kept for all equipment, materials, etc. which have been supplied under the Contract.
- xvii). Prepare and submit detailed inventories on all the facilities including buildings, roads, drainage structures, traffic signs and all other basic construction details.
- xviii). At practical completion stage undertake joint-inspection of the works with all parties and agree a punch-list of deficiencies/outstanding works to be rectified.
- xix). In the event that there are outstanding claims at the end of the Construction Phase, the Consultant shall assist the Employer in claims analysis, and resolution of contractual disputes and in the litigation process that may ensue.
- xx). During the Defects Liability Period, Inspect the works at appropriate intervals during the defects liability period and certify the Defects Liability Certificate for issuance by the Employer.
- xxi). At the end of the Defects Liability Period, the Consultant shall secure and compile maintenance and operational manuals, occupation permits, fire protection certificates, Utility Inspector's Certificate for the proper commissioning of the completed built premises.
- xxii). Prepare and submit "as-built" drawings, together with the Final Completion Report for the project. This report shall include all the relevant technical and financial details of the project, including any specific recommendations for routine and periodic maintenance of facilities and those that may require special care and attention.

3.2.2 Environmental, Social, Health, Labor and Safety Risks Mitigation

3.2.2.1 Environmental and Social

The Consultant will assist the Employer in establishing a system for monitoring the application and effectiveness of environmental and social impact mitigation measures set out in the sectoral environmental assessment as per the Bank guidelines, and shall:

- (i). Enforce provision of proper road signs and road marking at appropriate places (e.g., no-overtaking lines, warning signs, edge and central reflector, etc)
- (ii). Enforce provision of proper traffic control measures during construction.
- (iii). Ensure the contractor avoids use of long deviations and haul routes.
- (iv). Ensure that all deviations and haul routes shall be kept watered to reduce dust
- (v). Ensure that safety levels for dust emission during aggregate crushing and quarrying should be strictly controlled. This shall be done jointly with the local public health officers in the area. Use of water during the crushing can reduce dust substantially.
- (vi). Ensure that the contractor employs proper construction methods to avoid loose material being washed off especially when working during the wet weather. This can be done by controlling the length of the road being opened up especially during earthworks operation.
- (vii). Ensure that all gravel pits and quarries shall be backfilled to the satisfaction of the Engineer after extraction of material. The overburden material removed shall be properly stockpiled and after extraction of material, shall be used for backfilling of the borrow pit. Where it may not be possible to backfill the borrow pit or quarry to its original level, the side slopes shall be properly trimmed before planting of trees and grass.
- (viii). Ensure that the contractor plants trees and other vegetation (e.g., grass) after the restoration of the gravel pits and quarries.
- (ix). Review of Environmental and Social Management Plans(ESMPs): The Engineer Supervision Consultant- shall carryout review and preparation of addition ESMPs, including but not limited to the following: (a) review the original ESMP, (b) follow-up preparation of additional ESMPs to be prepared by the contractor in due course of construction and before the commencement of construction works, (c) review additional ESMPs prepared by the contractor and get approval from the Employer/Employer, and (d) prepare amendments to the original ESMP and prepare additional ESMPs as required, including in cases where the contractor fails to prepare additional ESMPs required by the contract, and obtain the approval of same from the Employer.
- (x). Monitoring the implementation of the ESMPs: This involves: (a) the review and approval of implementation plans prepared by the contractor for the implementation of the mitigation measures for potential risks identified in the ESMPs, (b) monitoring the implementation of the mitigation measures, and (c) instructing the contractor to undertake additional safeguard risks mitigation measures.
- (xi). The Engineer shall monitor the contractor's effort to prevent its staff and labour notto do harm to the social and cultural values of the coastal communities.

3.2.2.2 Health and Safety

- (i). The Consultant shall monitor the implementation of the requirements set in the General Conditions of Contract (GCC) Clause 18 which covers the health and safety of all persons on the site and protection of the public and of owners and occupiers of adjacent land.
- (ii). The Consultant shall monitor that the health and hygiene of the community nearby contractor's camps, plants and construction sites is not affected by the contractor's operation, its staff, emissions from plants and equipment and dust.
- (iii). The Consultant shall monitor the implementation of the requirements set in the General Conditions of Contract (GCC) Clause 18.

3.2.2 3.2.2.3 Staff and Labor

- (i). The Consultant shall monitor the implementation of the requirements set in the General Conditions of Contract (GCC) Clause 9.3 with regard to but not limited to preventing the contractor's labor not to do harm to the social and cultural values of the local community and restricted from being involved in unlawful and disorderly conduct, including children sexual abuse, etc.; prohibition of forced or compulsory labor; prohibition of harmful child labor.
- (ii). The Consultant shall monitor the contractor's effort to sensitize its staff and labor not to harm the social and cultural values of the local community and prevention of involvement in unlawful and disorderly conduct.
- (iii). The Consultant shall report to the Employer the actions taken by the contractor to reprimand and hand over to the law enforcement authorities as required, any staff or labor that has been involved in unlawful and disorderly conduct.

3.2.2.4 Remedial Measures

The Consultant shall apply any penalties, agreed in the contract for delay of the submission of updated ESMPs, implementation plans, and not complying with the requirements of the ESMPs and international good practice.

The Engineer shall apply penalties for non-compliance with environmental, social, health, labor and safety requirements of the contract. When the non-compliance will cause severe damage to the environmental, economic, social and cultural values of the community living within the influence area of the project the Engineer may recommend to the Employer the suspension of the works contract.

3.2.4 Training

As part of Continuous Professional Development (CPD), the Consultant will facilitate professional training of two (2) counterpart Architects/ Engineers/ Electrical Engineer/ Mechanical Engineer/ Quantity Surveyors at all stages and in the various areas of the assignment (Employer's Staff) on construction project management, contract management, value engineering, project impact evaluation or equivalent. The consultant will present a detailed counterpart participation programme for the

counterpart engineer once seconded by the Employer. The Consultant will include the costs of the CPD training in the Financial Proposal as a provisional sum.

4.0 DURATION OF SERVICES

The provision of consultancy services foreseen in the context of this assignment will be carried out for a duration of Nineteen (19) months comprising of Construction Supervision of works of twelve (12) months for Construction Phase, Six (6) months for Defects Liability Period and one (1) month for preparation and submittal of the Final Account and Final Report.

5.0 REPORTING REQUIREMENTS

5.1 Contact Person

For purposes of managing the assignment and receiving reports, communications/issuing notices, the NPCU – National Project Coordinator -NPC who is responsible for the day-to-day administration of the assignment shall be the contact/interfacing point for the Consultant.

5.2 Language and Format

All reports shall be in English and prepared on A4 metric size paper and the Tender drawings shall be submitted in A3 size (photo-reduced from the original A1 size). All reports will be submitted in two (2) hard copies and two (2) soft copies in USB format. The soft copies shall be in two versions; a searchable, colour pdf version (in one single file) and editable versions of the component sections of the report (i.e., in formats compatible with MS Word, MS Excel, MS Project etc). The Consultant will discuss and get approval of the software format used to prepare the soft copies for drawings to ensure compatibility with available software in the Employer's establishment.

5.3 Deliverables

The Consultant shall prepare and submit the following reports to the Employer.

Table 2. Reporting Requirements

Report type	Description	Timeline for	Requirements
		submission	
Revised	Summary of the Consultant's work plan and state	14 days from	Two (2) hard
Workplan	of mobilization.	contract	copies and two
for the		commencement	(2) softcopies To
Services per			be submitted 14
project.			days after the

Report type	Description	Timeline for	Requirements
		submission	
			date of
			commencement
			of Consultancy
		10.1	Services.
Monthly	This shall include separate Monthly Progress	10 days after	Two (2) hard
Progress	Reports on the Consultant's Services Contract as	end of	copies and two
Reports per	well as the Contractor's Works Contract. It shall	reporting	(2) softcopies
project	summarize the narrative and bar charts or other	month for the	
	graphic presentation, illustrating details of the	duration of the	
	Contractor's progress and any changes in the	assignment	
	assignment schedule, impediments and proposed remedies as directed by the Employer. Monthly		
	Valuation reports, It shall outline the summarized		
	details of all works done since commencement		
	for every bill item and all cross sections for works		
	done in the valuation month. Safeguards		
	Performance -it shall describe the monitoring and		
	evaluation of the application and effectiveness of		
	environmental and social impact mitigation		
	measures.		
	The Consultant will include a section on training		
	progress in his regular reports outlined in Section		
	(5) of these Terms of Reference. The Consultant		
	shall detail the training of the Employer's Staff		
	covering areas trainees have been exposed to		
	during the month.		
Final	This will describe the type, quality and quantity	28 days after	Two (2) hard
Completion	of materials used in the constructions, and all	the expiry of	copies and two
Reports per	information which together with the "as built"	the Defects	(2) softcopies
project	drawings and specifications to inform the	Liability Period	
	Employer in operation and maintenance of the		
	facilities as may be necessary. The Final Account,		
	It shall tabulate on item-by-item basis all work		
	done ("final work quantity") and the		
	corresponding amount payable. Sufficient detail		
	shall be included for each item to enable the		
	work quantities to be correlated to specific		
	geographical locations or time periods as		
	appropriate. It will further tabulate all previous		
	certification for each bill item ("total certified		
	quantity") and, by comparing with the final work		
	quantity with the total certified quantity will		
	determine and implement any adjustments		
	required.		

Report type	Description	Timeline for	Requirements
		submission	
	This shall outline a summary of the principal		
	difficulties encountered during construction and		
	the means employed to overcome them, changes		
	made in the original designs and modifications to		
	specifications and conditions of contract. In		
	addition, outline all variation orders, utilization		
	of provisional and variation of price, variation		
	and physical contingencies sums, cumulative		
	monthly payments to the Contractor designated		
	by date and number of payment certificate and		
	breakdown into foreign and local currencies		
	payments, and include a similar schedule for		
	consulting services.		

5.4, Cost of Production

The Consultant shall bear the cost of printing and reproduction of all reports and documents under this assignment as well as all associated cost of submission and obtaining of approvals/Comments as appropriate and should take this into account in his financial proposal.

5.5, Return of Documents, Soft Copies and Software to the Employer

At the end of the assignment, the Consultant shall return to the Employer, documents, reports and all written communications originating from both parties and put at the disposal of the Employer for the purpose of the project, together with an inventory. Soft copies of all documents shall also be handed over to the Employer in a format which is editable by industry standard software agreed with the Employer in advance.

Neither the Consultant nor any of their staff shall claim a right of authorship or design patent on the contents of any of the reports and documents submitted during the project.

6.0, DATA, SERVICES AND ASSISTANCE TO BE PROVIDED BY THE EMPLOYER

The Employer shall provide the Consultant with the list of validated projects as well as the approved designs and basic technical specifications, BoQs, civil works contract for contractors that need to be adhered to ensure compliance of the assignment.

- (i). The Employer will make available to the Consultant, the following data, documents and information:
- a) Location details on the site of the works;
- b) Site Investigations data and reports;

- c) World Bank procurement regulations and standard procurement documents for consulting services and works;
- d) any other document the consultant finds relevant for the execution of the assignment provided that such document is in the custody of the Employer. Appropriate charges may be levied for additional documents not listed under (a) (d) above and the consultant shall pay for all levies and fees chargeable by the relevant authority for issuance of any required permits. All such costs shall be deemed included in the consultants Financial Proposal.

(ii). The Employer will provide the following services to the Consultant:

a) Liaison and assistance to obtain any other information and documents required from the Government of Kenya and which the Employer considers essential for the proper conduct of the assignment;

However, any equipment purchased by the consultant and paid for by the Employer shall become the property of the Employer upon completion of the services, or whenever it is no longer required for carrying out services, whichever occurs earlier.

7.0, MINIMUM CONSULTANT'S QUALIFICATIONS AND EXPERIENCE REQUIREMENTS

The shortlisting criteria are:

- a) Core business as a consulting firm with at least Ten (10) years relevant experience in construction supervision of similar infrastructure and related assignments.
- b) Demonstration by consulting firm of having been involved in successful execution, completion of at least two (2) projects of similar nature both in scope and complexity in similar operating environment in the last ten (10) years. Details of the assignment-Name and address of the client, scope, value, and period shall be provided;
- c) Technical and managerial capability of the consulting firm to undertake the assignment which should be supported by company' profile providing details about staff skills, necessary tools, equipment and software to undertake the assignment;

8.0, TEAM COMPOSITION AND MINIMUM QUALIFICATION AND EXPERIENCE REQUIREMENTS FOR THE KEY EXPERTS

The Consultants shall be well qualified and experienced professionals as required and appropriate for completion of the exercise. They should possess necessary resources to undertake services of such nature including equipment and software required to execute the assignment. The key professionals/expert shall personally carry out (with assistance of junior staff deemed appropriate) the services as described in this TOR. The key experts to be provided by the Consultants for this assignment are as follows: -

(i) Civil/Resident Engineer/Project Manager: The Engineer shall possess a minimum of Bachelor's degree in Civil Engineering from a recognized University.. He/She should

- be registered/accredited by the Engineer's Board of Kenya as a Professional Engineer and a member of the Institution of Engineers of Kenya (IEK). should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (ii) Architect: The Architect shall possess a minimum of a Bachelor's degree in Architecture from a recognized University.. He/She should be registered/accredited by the Board of Registration of Architects & Quantity Surveyors (BORAQS) and a member of Architectural Association of Kenya (AAK). The Architect should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (iii) Quantity Surveyor: The QS shall possess a a minimum of Bachelor's degree in Quantity Surveying or equivalent from a recognized University.. He/She should be registered/accredited by the Board of Registration of Architects & Quantity Surveyors (BORAQS) and a member of Architectural Association of Kenya (AAK). should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (iv) **Structural Engineer:** The Engineer shall possess a minimum of Bachelor's degree in Civil Engineering from a recognized University. He/She should be registered/accredited by the Engineer's Board of Kenya as a Professional Engineer and a member of the Institution of Engineers of Kenya (IEK). should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (v) Mechanical Engineer: The Engineer shall possess a minimum of Bachelor's degree in Mechanical Engineering from a recognized University. He/She should be registered/accredited by the Engineer's Board of Kenya as a Professional Engineer and a member of the Institution of Engineers of Kenya (IEK). should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (vi) Electrical Engineer: The Engineer shall possess a minimum of Bachelor's degree in Electrical Engineering or equivalent from a recognized University. He/She should be registered/accredited by the Engineer's Board of Kenya as a Professional Engineer and a member of the Institution of Engineers of Kenya (IEK). should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.
- (vii) Environmental and Social Safeguards Specialist: The Specialist shall have a minimum of Bachelor's degree in Environmental Science, Occupational Health & Safety, Community Development or equivalent from a recognized University. He/She shall be registered with NEMA as Lead Expert and have a working knowledge of World Bank's environmental and social safeguards requirements, resettlement, land acquisition, security, and communication with local authorities. should have a minimum of 8 years of general experience with 2 similar assignments done in the last 6 years. Fluency in both written and spoken English is essential.

Minimum Support Staff Requirements

The Consultant will provide the necessary local support staff – including junior engineers, clerk of works, draftsmen and office support staff – needed in order to carry out the assignment and discharge the consultant's responsibilities effectively. The Works Contract will not contain provisions for employment of support staff and all support staff will be employees of the Consultant.

9.0, ESTIMATED TIME INPUT S FOR KEY EXPERTS

The number of key experts and the estimated time input for each key expert for the assignment are presented in Table 3.

Table 3: Key Staff Inputs for All project Sites

		Construction		
Ref	Position	Construction period	Defects Liability Period	Total Inputs
		(Man months)	(Man months)	(Man months)
1	Civil Engineer /Resident Engineer/ Project Manager	12	3	15
2	Architect	12	2	14
3	Quantity Surveyor	12	2	14
4	Structural Engineer	12	2	14
5	Mechanical Engineer	12	2	14
6	Electrical Engineer	12	2	14
7	Environmental and Social Safeguards Specialist	12	2	14
	TOTAL	84	14	99

The following staff requirements and man-months are the estimated construction supervision inputs in respect of support staff for the Services and must be provided for in the technical and financial proposals as appropriate.

Table 4: Support Staff Inputs

Ref	Description	Qualifications	Number of Staff	Minimum Staff Months per person	Total Staff Months
1	Assistant Resident Engineer or equivalent	Undergraduate level qualifications in civil/structural engineering	5	12	60
2	Social/Environmental Experts	Undergraduate level qualifications in Social/Environmental Sciences or Equivalent	5	12	60
3	Clerks of Works or equivalent	Equivalent to Kenya Higher National Diploma or Ordinary Diploma with extensive experience	12	12	144
		Total	22	36	264

The Consultant will be responsible for paying all emoluments and allowances for the above support staff including housing under each Contract. Appropriate financial provisions must be made under the Consultant's Financial Proposal.

9.1, Remuneration of the firm

The consultant will carry out the Assignment as per the Terms of Reference and in line with the industry's best practice. The consultant's fees shall cover all expenses of staff covering all basic requirements that include transportation, travel, office space and accommodation and shall include the cost of these services in his Financial Proposal.

During performance of supervision services in the construction period and defects liability period the consultant shall include the cost of these services in his Financial Proposal:

a) Consultant's supervision vehicles inclusive of drivers, fuel and lubricants, servicing, insurance.