

Terms of Reference

CONSULTANCY SERVICES FOR DETAILED DESIGN AND PREPARATION OF TENDER DOCUMENTS FOR THE PROPOSED MORINGA PROCESSING PLANT AT EMALI.

1. Background

ChildFund International is a non-sectarian and non-profit development organization working in more than 30 countries worldwide to improve the well-being of about 15.2 million children and families, regardless of race, creed, religion and gender. ChildFund Kenya's core intent is to help deprived, excluded and vulnerable children have the capacity to improve their lives and the opportunity to become young adults, parents and leaders who bring lasting and positive change in their communities; and societies whose individuals and institutions participate in valuing, protecting and promoting the worth and rights of children.

The MFAT funded Agriculture, Dairy and Economic Development Project (ADED) will deliver improved agriculture, diversified livelihoods and reliable and beneficial market pathways for 1,250 farming households, who are included within the 2,875 direct beneficiaries (5,750 indirect). By the end of the project, food security and incomes in Emali farming communities will be improved and Maasai and Kamba households will be more resilient to climatic and economic shocks.

ChildFund Kenya has undertaken a Farmers mobilization around growing and production of Moringa which has increased the yield of the crop. To minimize post-harvest loses of the crop, ChildFund intends to put up a moringa processing plant to maximize income for the farmers. ChildFund Kenya therefore wishes to engage a reputable Architectural Firm with experience in design of similar infrastructure to carry out the designs of the proposed plant.

ChildFund Kenya is required to report to the New Zealand Government, ChildFund New Zealand, ChildFund Kenya, Emuka Moringa Farmers' Co-operative Society Limited and Private Equity Investors on the impact of the moringa processing plant proposed to be set up at Emali town in Makueni County

SCOPE OF THE CONSULTANCY

1. TECHNICAL DETAIL OF THE PROJECT

Description of Work:	Construction of Moringa Processing Plant
Location:	Emali

The scope of the consultancy services shall comprise of the following:

- i. Site survey and develop site layout for the Processing Plant.
- ii. Architectural drawings including sewerage and plumbing facilities in complete sets.
- iii. Structural drawings with complete detailing and bar bending schedule for foundation.
- iv. Electrical drawings complete with cable connection from nearby pole inclusive of transformer if needed.
- v. Detailed plant drawing and schematics
- vi. Detailed specifications for the various items of works.
- vii. Detailed cost estimate, BOQ and rate analysis wherever necessary.
- viii. Obtaining the building permit and the necessary approvals of the designs for construction of the building from the authorities concerned.
- ix.

It shall be the responsibility of the consultancy firm to:

- i. Carry out the physical verification of the site for assessing the scope of work; and
- ii. Conduct necessary tests to determine the design parameters.

2. DETAILED DESIGN WORK

Description of Work:	Design, Drawing and Estimation of the Moringa Processing Plant construction and equipping
Location:	Emali
Duration:	6 Weeks

3.1. Objective

The consultant is expected to prepare master plan of the Moringa processing plant building, carry out layout of the proposed infrastructure and site development works on a 50X80 feet plot of land, soil investigation, detail electrical, and sanitation design, preparation of drawings of all designs, Bill of Quantities (BoQ), cost estimate including rate analysis for the whole project and obtaining of necessary design approval for construction from authority concerned.

3.2. Scope of the consultancy services

The services to be provided by the consultant will include, but not limited to the following:

a) Site Investigation and Survey Works:

- i. Prospective consultancy firms should visit the proposed site at its own costs to familiarize with the existing site conditions. A copy of the site location map of the project will be provided for reference.
- ii. A detailed survey should be carried out showing all the topographical features as may be required for the purpose of design

b) Soil Investigation:

- i. All the pre-requisite studies such as site study, surface study and investigations, tests, collection of data, (adequate trial pits) etc. should be carried out (Bearing capacity of soil) and incorporate in the structural design before detail design of building structures.
- ii. The soil investigation shall furnish necessary information to decide on the type and depth of building foundations among others.

c) Design of the Building/Infrastructure

- i. The total land for the proposed office construction is 50 by 100ft plot. The infrastructure should be properly laid out in the appropriate location.
- ii. The lay out plan shall allow provisions for storage, Septic tank, overhead water tank, water supply pipeline, telephone cables, and power cables.
- iii. The detail design should conform to the requirements of the Client. The consultants are required to make changes considering the site conditions.
- iv. The Processing plant shall be hosed in at most two 40ft containers.

d) Detail Drawings for the Building and other infrastructure

- i. The drawings should be done in an appropriate style and the scales suitably fixed so that they are easily readable at site or processing plant by naked eyes. Except for the general views, the drawings should preferably be made to the scale of 1:50 and for showing minute details to 1:20 / 1:10 where necessary.
- ii. Adequate number of drawings should be produced to appropriately represent all the necessary details, views, etc.

- iii. The detail reinforcement schedule will be a part of the drawings.
- iv. Except for similar components, each different component shall have separate drawings in cross section, elevation and plan.
- v. For the purpose of tendering, drawings printed on A3 sizes would be accepted. However, the drawings should be easily readable by naked eye.
- vi. All drawing dimensions shall be in metric system (i.e. meter, cm and mm)

e) Bill of Quantities

- i. The BoQ should be explicit covering all items of work. It should be as exhaustive as possible to avoid changes, additions, deletions and substitutions during execution and therefore the undesired disputes and claims.
- ii. The detailed technical and material specifications should be a part of the BoQ. One copy of the Technical Specifications shall be submitted to Project Office for its comments & suggestions before making the required number of copies.
- iii. The quantities should be worked out as accurately as possible to avoid unnecessary variations during the execution of the work.
- iv. Availability of materials may also be specified for those that are unique in features. As far as possible, the materials should be readily available in Kenya. The materials may be suggested to suit the climatic and operating conditions of the Project location.
- v. The client recommends the use of two 40ft containers to put up the processing facility.

f) Rate Analysis & Cost Estimates

- i. The cost estimates should be appropriately worked out to indicate the approximate cost of the entire project. It should be accompanied by analysis of rates where necessary.
- ii. All forms of taxes – excise duties, sales tax, royalties, etc. applicable in Kenya and abroad when materials are imported, should be incorporated in the cost analysis.
- iii. The cost estimate should be treated as highly confidential.

3.3. Key Personnel

While building the Consultancy team, the Consultant has to have the flexibility to propose adequate team composition, in order to provide most appropriate and well-targeted expertise to ensure fulfilment of his duties, including more appropriate

distribution of the m/m amongst the experts. The Consultant shall provide qualified experts with a minimum of five years of professional experience, required for the implementation of the services described in this ToR. For the execution of the project the following expertise is required:

- i. Team leader
- ii. Civil Engineer
- iii. Electrical Engineer
- iv. Quantity Surveyor

i. Team Leader

Qualifications and skills

- university degree in architecture from a recognized University
- project management skills
- fluency in English and Kiswahili
- computer skills – MS Office, AutoCAD
- Certificate for designer's qualification registered in the Chamber of engineers in investment designing
- Registered with the relevant professional body with a valid practising certificate

General professional experience

At least 10 years sound professional experience, including:

- Implementation and management of site planning, landscape planning, design works and constructions projects;
- consultancy and building supervision in designing and construction of public services, road buildings, industrial buildings, electrical networks, telecommunication networks;
- Geodesic surveying or metal structures surveying
- Experience in organizing and overseeing administrative and logistical support;

Specific professional experience

- Knowledge about the Kenyan legislation in the sphere of construction works
- At least 5 years' experience in supervision of works conducted in conformity with the requirements of the National Construction Authority
- Experience in managing a supervision team
- Experience in supervising and coordinating all technical aspects of supervision

ii. Civil Engineer Expert

Qualifications and skills

- University degree in industrial or civil engineering at a recognized University
- Fluency in English
- Computer skills – MS Office, AutoCad
- Registered with the relevant professional body with a valid practising certificate

General professional experience

At least 10 years of experience in the construction engineering, including:

- constructional engineering for industrial projects
- consultant and building supervisor in designing and construction projects in the scope of public services, road building, construction of office-buildings and industrial buildings
- consultant and building supervisor in designing and construction projects in the scope of electrical networks, telecommunication networks

Specific professional experience

- At least 5 years' experience in supervision of works conducted in conformity with the requirements of the National Construction Authority
- Experience in supervising and coordinating all technical aspects of supervision contracts;
- Experience in organizing and overseeing on site activities
- Registered with EBK with a valid practising certificate

iii. Electrical engineer expert

Qualifications and skills

- University degree in electrical supply and equipment engineer at a recognized University
- Fluency of English
- Computer skills – MS Office
- Registered with the relevant professional body with a valid practising certificate

General professional experience

- At least 10 years of experience in the electrical engineering, including:
- design and service of transformers and electrical supply installations
- Specific professional experience
- At least 5 years in consultancy and building supervision in designing and construction projects public services, office buildings, industrial buildings, electrical networks, telecommunication networks, local exchanges, etc.

iv. Quantity Surveyor

- Must have at least Diploma in Civil Engineering.
- Must have at least 5 years of experience in Quantity Survey.
- Must be fluent in spoken & written English.
- Registered with the relevant professional body with a valid practising certificate

3.4. Services and Facilities for the Consultant:

The Consultant would be provided with the copy of site map for the purpose of preparation of lay out plans, designs and drawings. For the purpose of detail design and layout, the Consultant will have to carry out detail survey of the site on its own and shall take full responsibility for accuracy of the data collected.

3.5. Reports and Documents:

The selected Consultancy Firm shall be required to submit and present the followings reports for Client's review and approval:

- ❖ Inception Report, at the end of second week from the date of commencement of the services, and the followings:
 - i. Preliminary Master Plan
 - ii. Soil investigation data and report of the site
- ❖ Interim Report, at the end of Fourth week from the date of commencement of the services:
 - i. Master plan with complete site development works
 - ii. Architectural drawings with complete details
 - iii. Plant Drawings and schematics
- ❖ Draft Final Report, at the end of sixth week from the date of commencement of the services:
 - i. Master plan with complete site development works
 - ii. Architectural drawings with complete details
 - iii. Plant drawings with complete details
 - iv. Plumbing drawings
 - v. Drainage and sanitation drawings
 - vi. Electrical drawings
 - vii. Telephone and LAN line layout drawings
 - viii. Structural drawings with complete details
 - ix. Structural analysis and design calculations
- ❖ Final Report, at the end of last quarter from the date of commencement of the services are the followings:
 - i. Specification of the works
 - ii. Details of measurement and abstract of estimated cost and BOQ
 - iii. Tender documents
 - iv. Building permit and design approvals from concerned authority
- ❖ The final report shall also consist of the following documents:
 - i. A Compact Disc containing the plot files as well as the drawing (.dwg) files.
 - ii. Three sets of BoQ & Materials/Technical specifications printed and bound and also in CD.
 - iii. Three sets of detail design drawings printed on A3 size paper for the purpose of tendering.
 - iv. Three sets of detailed plant drawings printed on A3 size paper for the purpose of tendering.
 - v. Cost estimate and rate analysis for all items of work– one hard copy (properly sealed) and soft copy in a Compact disc in editable format.

- vi. Two copies of detail structural analysis and design of the buildings for the reference of Departmental engineers.
- vii. Post Approval Process: The consultancy should facilitate the approval of all the drawings. After obtaining the approved drawing, the Estimate shall be revisited for any changes on the structure marked by the drawing approving agency.

3. TERMS & CONDITIONS

- i. The consultant should be willing to work within the target areas for this assignment including but not limited to Emali Dedicated Children's Agency (EDCA)/ChildFund's catchment area and its Environs;
- ii. The consultant may have his/her own team to work with where in that case such a team will entirely be under the jurisdiction of the consultant and at no time will Emali Dedicated Children's Agency (EDCA)/ChildFund's be held responsible for them; and
- iii. All documents and data produced during the contract period will be sole property of Emali Dedicated Children's Agency (EDCA)/ChildFund's and the consultant will not be authorised to use the information, in any forum.
- iv. All taxes should be included in the financial proposal.

4. EXPRESSION OF INTEREST

Qualified consultants are invited to submit expression of interest through a capability statement, financial proposal and CVs of the technical team as follows:

- i. Technical proposal that summarizes the understanding of the assignment; specifically proposed Moringa Processing Plant technical design, and cost and maintenance requirements and;
- ii. Financial proposal providing cost of carrying out the consultancy services.

Bids clearly labelled '**Bids detailed Design for Moringa Processing Plant**' should be submitted in sealed envelope to ChildFund Kenya National Office during working hours not later than **11th February 2019**. Please note that the organization reserves the right not to award the lowest bidder and organization decision will be final.