TERMS OF REFERENCE
FOR
FEASIBILITY STUDY AND DETAILED DESIGN FOR THE CONSTRUCTION OF NKHATA BAY PORT

Procurement Reference: RA/CON/DEV/SADC/2025/01

1.0 Background

The Government of Malawi has received financing from the African Development Bank (AfDB) under the SADC Sub Regional Transport and Trade Facilitation Project. Now the Roads Authority (RA) intends to use part of this financing towards the cost of a Feasibility study, Detailed Architectural and Engineering Design, Environmental and Social Impact Assessment (ESIA) and preparation of tender documents and Construction Supervision for constructing port facilities comprising a jetty for passengers and cargo, passenger waiting shelter and goods shed, Ro-Ro facilities at Nkhata Bay harbor in order to improve the Malawi's inland water transport system.

Malawi's inland water transport system largely consists of Lake Malawi and the Upper Shire River which includes Lake Malombe. The entire Lake Malawi is navigable and is used for passenger and freight movement along its length from Kiwira Port in Tanzania to Chipoka and across the lake from Mbamba Bay to Nkhata Bay where there is frequent movement of locally made boats moving on trade of different types of merchandise. While the lake remains an essential transport link from the north to the south of the country, transport services on Lake Malawi have declined in the recent years. This is mainly due to road network development, all along to the northern part of the country, which was relatively limited at the peak of inland water transport in the 1980s. In addition, while other transport modes have evolved, there has not been any progressive change to the inland water transport resulting into a loss of modal share.

Lake Malawi has four major ports namely; Chipoka, Monkey Bay, Chilumba and Nkhata Bay, which are strategically located on the Malawi side of the lake. By way of enhancing the Public Private Partnerships and improve on port efficiency, the Malawi Government has, since 2013, concessioned out management of ports and operations of shipping services to private operators. Currently, shipping services are offered by Malawi Shipping Company (MSC) while the ports of Chipoka, Monkey Bay, Chilumba and Nkhata Bay are managed under a concession by Malawi Ports Company (MPC). The concession for the Ports is a landlord model where the concessioning Authority still holds ownership of all the assets.

Nkhata Bay port, just like Nkhota Kota and other call points, does not have proper port facilities. Although water borne transport is one of the main modes of transport for Nkhata Bay, the port has had no proper jetty thus subjecting the water transport users to harsh and perilous conditions during embarkation and

disembarkation. The floating jetty that used to service the port got sunk due to harsh weather. Nkhata Bay port is a gateway to and from Likoma/Chizumulu islands, Mbamba Bay and other areas on the Eastern shore of Lake Malawi and the north.

Nkhata Bay Port is about 46km by road from Mzuzu. The port forms part of the Mtwara Development Corridor, which is a Spatial Development Initiative (SDI) comprising Southern Tanzania, Northern Mozambique, Northern and southern Malawi and northern Zambia. Development of port infrastructure for Nkhata Bay is expected to offer an alternative cost-effective route to the sea. This is important now when the traditional northern transport corridor for Malawi is being challenged with the congestion being experienced at Dar-es-Salaam port.

Construction of Nkhata Bay port shall include all the basic port facilities, expected to contribute significantly to the policy of Government of Malawi of ensuring an integrated, well managed, viable, sustainable, and resilient water transport infrastructure that meets national and regional goals.

With financing from the African Development Bank (AfDB), Government of Malawi through the Roads Authority now seeks to procure a consultant for the feasibility study, detailed designs for the construction of port facilities comprising a passenger terminal, general cargo terminal, passenger waiting shelter and goods shed, Perimeter fencing, parking facilities and Ro-Ro facilities at Nkhata Bay harbor. Consultancy services are therefore required to carry out environmental feasibility study, social impact assessment, detailed engineering design and preparation of bidding and prequalification documents for the construction of the proposed port facilities.

2.0 Description of the Port Project

The project is located on the shores of Lake Malawi in Nkhata Bay District. The exact location of the area shall be defined by the results of the feasibility study. The project is expected to comprise the following port facilities; -

2.1 Construction of a resilient landing facility (concrete jetty) to accommodate general cargo and passenger operations at the same time. The quay shall be positioned at an optimal place with a minimum water depth of 5 meters.

2.2 Construction of resilient auxiliary port facilities, i.e. passenger service facilities and shall include; waiting shelter fitted with security features, ablution block, Cargo service facilities and shall include; warehousing, cargo handling equipment and associated works.

2.3 Provision and installation of Aids to Navigation facilities in the harbor.

2.4 Provision of an all-weather road network (concreate surface) within the port area, connecting all proposed port facilities.

2.5 Provision of vehicular parking facilities

2.6 Construction of roll on- roll off (Ro-Ro) facilities

3.0 OBJECTIVES OF THE PROJECT

3.1 Overall Objective

The main objective of the project is to implement operationalization of the Mtwara corridor that will provide improved transportation links and access to the port of Mtwara. The corridor will support economic growth of the sub-region including Malawi, Zambia, Mozambique, the DR Congo and Tanzania.

The objective of this assignment is to conduct a comprehensive feasibility study; environmental and social impact assessment; and detailed Engineering Design for the construction of Nkhata Bay port in order to demonstrate its technical, economic, social and environmental viability.

3.2 Specific Objectives

The specific objectives as stipulated in this consultancy include the following:

a) Undertake a detailed survey of the project area (Nkhata Bay harbour) by collecting data on the hydrographical and hydrological systems to the most possible extent and to prepare detailed technical planning parameters on the basis of the results of the field surveys.

b) Deliver a detailed construction plan;

c) Demonstrate the technical, economic, social, ecological, and environmental viabilities of constructing a port in Nkhata Bay port in line with the proposed project.

d) Prepare Architectural and Detailed Engineering designs based on the results of the feasibility studies.

e) Prepare the Environmental and Social Impact Assessment (ESIA), as well as the Resettlement Action Plan (RAP).

f) Prepare and deliver technically specified bills of quantities and standard bidding documents for works suitable for international competitive bidding.

4.0 Scope of the study

The study will be done in accordance with the requirements of the project specific objectives which demands a full feasibility study for the construction of Nkhata Bay port. All the tasks carried out under the scope of work needs to be performed after a climate risk assessment (hazard and vulnerability) to identify the hazard prone areas and vulnerable assets and accordingly propose the climate resilient strategies/methods/designs to withstand the future climate impacts. The Project study will be undertaken in two distinct stages as follows: -

4.1 Phase I: Feasibility Study (Environmental and Social Impact Assessments) and Preliminary Design

4.1.1 The Port Project Section

The Consultant shall undertake Feasibility Study (environmental and social) and Preliminary Engineering Design for the Port facilities and prepare the relevant reports including Environmental and Social Impacts Assessment Report together with associated management plans and Preliminary Engineering Design Report covering the different concept candidates (not less than three) necessary for the Port. The consultant will also be required to make recommendations of the most viable option in terms of cost and environmental / social considerations.

In order to achieve this, the consultant shall undertake the following: -

4.1.2 Preliminary Engineering Investigations and Design

I. Determine site location and its development potential within the specified area (Existing port area).

II. Use the necessary information on wind/waves strength to determine the effects that they may have on the proposed Port structure and its layout.

a) <u>General</u>

Within the scope of this study the Consultant shall:

I. Use necessary data on Meteorology, Hydrographic Survey, and Aerial photography.

II. Carry out sub-surface soil explorations, materials survey.

III. Carry out any other field and laboratory investigations in such detail that will be required for both the preliminary engineering examination of the

alignment, location of suitable construction materials and preliminary, detailed design of the proposed Port.

b) Meteorological (Climate)

The Consultant shall describe the climatic conditions of the study area providing details on prevalent winds (effects of extreme wind, mainly Easterlies), rainfall (monthly distribution of intensity including rain days per month), temperature (minimum, medium and maximum monthly ranges throughout the year), and any other climatic factors of importance.

c) Hydrographic Survey

The Consultant shall use the necessary seabed topographic data to analyse and show the existing details for the designated location of the port, and also the turning basin area. Bathymetric map may have an impact on the port design.

d) Topography and Geology

The Consultant shall provide a topographical description of the port area, including the position the jetty is to be constructed.

The surface topographic survey shall show all existing details within the designated port area. This shall include a catalogue of the relevant geological features of the study area, including a description of the soils and rocks within the jetty area and their effect and influence on such factors as port location and design. The seabed topography shall show all existing details the designated location for the jetty, and also the turning basin area.

The Consultant shall be required to set out and peg the site of the jetty and its facilities for inspection and approval by the client.

e) Mapping and Aerial Photography

Existing mapping and aerial photography may be obtained at the following scales:

i) Aerial photography	1:10,000
ii) Conventional mapping	1:50,000
iii) Geographical mapping	1:25,000
iv) Hydrographic mapping	1:10,000

The photographs and maps are available at the Department of Surveys, Government of Malawi. The responsibility to source the photographs and maps shall rest with the consultant. The cost of which shall be included in the cost proposal.

f) Hydrological Investigations

Using the necessary data on lake levels, the consultant shall be able to make projections on changes of lake levels that may have an impact on the jetty design and usage.

g) Materials Investigations

I. Material surveys, sampling and soils investigations shall be carried out on prospective borrow pits as potential sources of materials for construction.

II. Detailed soil investigations shall be carried out on all the types of soils and materials investigated in accordance with internationally accepted standards such as AASHTO and ASTM or BS1377:1990 but with prior agreement and approval by the Client.

III. Investigations for potential sources of materials for the construction of the pavement, earthworks and structures shall also be carried out and sites of potentially suitable materials surveyed and shown in a materials report. Analysis and testing shall be carried out as necessary on the construction materials.

IV. Samples of potential construction materials shall be tested for particle size distribution and plasticity characteristics, linear shrinkage, maximum dry density and optimum moisture content, aggregate crushing value, ten percent fines value (dry and soaked state), as required. Other relevant tests that may be necessary as prescribed shall also be undertaken.

V. Quarries as possible sources of aggregates shall be located. The aggregates shall undergo the necessary grading tests, strength/ durability tests, chemical tests, flakiness tests and other tests, as necessary.

Potential sources of hard stone

- Ten per cent Fines
- Los Angeles Abrasion
- Aggregate Crushing Value
- Sodium Sulphate Soundness
- Specific Gravity and Water absorption, and
- Chloride and Sulphate Content

h) Design Options

The Consultant shall, based upon the results of the preliminary engineering investigations, derive alternative feasible design options (at least three concept

candidates), ascertain the merits and demerits of each option, evaluate each in terms of the total construction costs, compare them and select appropriate design options for the preferred port location and prepare the preliminary engineering design for the selected location as follows:

I. Design Life

The design life of the jetty shall be at least 50 years.

II. Preliminary Design Drawings

All drawings shall as far as possible follow recommendations of the Client. Drawings for this stage shall, however, include but not limited to:

1) Location Plans at a scale of 1:50,000.

2) General layouts of the jetty infrastructure.

3) Typical cross sections of the proposed design at scales acceptable to the Client.

i) Ship berth location

The berth area shall be located at a minimum depth of five metres of the lowest recorded lake level. Information on Lake Levels can be sourced from the National Water Resources Authority under the Water Department.

4.1.3 Environmental and Social Analysis

The Consultant shall carry out an Environmental and Social Impact Assessment (ESIA) to determine possible effects on the environment arising from the project and shall define mitigation measures to be included in the construction and operation phases of the project in order to mitigate and/or reduce negative impacts, and also in consideration for the disabled in accessing the port facilities; and enhance the project benefits. The legal framework for the environmental analysis shall be the Environment Management Act of 1996 under the Malawi Government, which shall be followed accordingly. The consultant shall define the objectives of the ESIA and summarise the scope of work to be carried by indicating the key tasks to be undertaken during the study. The scope and level of work involved in the preparation of the ESIA shall be proportional to the project's potential impacts. For instance, if the project is likely to have major adverse impacts on social components but limited impacts on the environment, the ESIA should focus more on social components.

Major tasks to be undertaken shall include the following: -

a) Describing the proposed project by providing a synthetic description of the project relevant components and presenting plans, maps, figures and tables.

b) Identifying the policy, legal and administrative framework relevant to the project.

c) Defining and justifying the project study area for the assessment of environmental and social impacts, of particular concern is the impact the project shall have on the disabled.

d) Describing and analysing the physical, biological and human environment conditions in the study area before project implementation. This analysis shall include the interrelations between environmental and social components and the importance that the society and local populations attach to these components, in order to identify the environmental and social components of high value or presenting a particular interest.

e) Presenting and analysing alternatives to the proposed project, including the "without project" option, by identifying and comparing the alternatives on the basis of technical, economic, environmental and social criteria.

f) For the selected alternative, identifying and assessing potential importance of beneficial and adverse environmental and social, direct and indirect, short and long-term, temporary and permanent impacts, on the basis of a rigorous method.

g) Defining appropriate mitigation/enhancement measures to prevent, minimise, mitigate, or compensate for adverse impacts or to enhance the project environmental and social benefits, including responsibilities and associated costs.

h) Addressing potential cumulative effects taking into account other initiatives planned in the study area.

i) Developing an Environmental and Social Monitoring Program, including indicators, responsibilities and associated costs.

j) As appropriate, preparing an environmental hazard plan including an analysis of the risk of accident, the identification of appropriate security measures and the development of a preliminary contingency plan.

k) Preparing the ESIA report according to the generic contents as provided in the Environment Management Act of 1996.

l) Identifying institutional responsibilities and needs for capacity building, if necessary, to implement the recommendations of the environmental and social assessment.

m) Carrying out consultations with primary and secondary stakeholders in order to obtain their views on and preoccupations about the project. These consultations shall occur during the preparation of the ESIA report to identify key environmental and social issues and impacts, and after completion of the draft ESIA report to obtain comments from stakeholders on the proposed mitigation/enhancement measures.

4.1.4 Preliminary Cost Estimate

The Consultant shall produce preliminary estimates of financial construction costs which shall be derived from each of the proposed design options, a minimum of three.

4.2 Phase II: Detailed Engineering Design

After approval by the Client of the Preliminary Design, the consultant shall undertake a Detailed Engineering Design of the port facilities and prepare all relevant engineering reports and tender / bidding documents. Bidding documents shall be prepared in line with the guidelines from the bank The consultant shall also prepare Confidential Cost Estimates for implementing the works.

In this regard, the Consultant shall perform the following tasks which are in no way exhaustive:

4.2.1 Engineering Design

a) Hydrographic Survey

The Consultant shall carry out additional analysis of the hydrographic data as necessary which may have been missed during the preliminary phase. The Consultant shall identify areas that may require dredging.

b) Topographic Surveys

(i) The Consultant shall review the preliminary surveys and check the specific position, identify pertinent existing features, establish, and identify benchmarks and setting out beacons on the proposed port area. Any survey marks, benchmarks or beacons shall be sufficiently permanent as agreed with the Client. No major deviation from the agreed specific position shall be made without the prior approval of the Client.

(ii) The coordinates of all benchmarks and setting out beacons shall be tied to the National Survey Grid and levels related to the National Benchmarks.

(iii) Plan and profile drawings shall clearly show designed port facility positions whereas construction drawings shall clearly define all the relevant setting out details for all the various elements of the work.

c) Soils and Materials Investigations

The Consultant shall carry out any additional tests deemed necessary which may have been missed during the preliminary phase. Siltation and sedimentation analysis on the proposed site of the jetty and turning basin sites shall be carried out during this phase.

d) Hydrological Investigations

Hydrological investigations shall be carried out on the lake levels, taking into consideration the effects of sediment movement and siltation.

e) Geometric Design

The Consultant shall verify and carry out geometric design of the proposed port infrastructure in accordance with internationally recognized Codes of Practice. Design calculations shall be presented accordingly.

f) Structural Design

The Consultant shall carry out design for port infrastructure in accordance with the internationally recognized Codes of practice. Design calculations shall be presented accordingly.

4.2.2 Environmental Matters

a) Environmental and Social Impact Assessment

The Consultant reviews the Environmental and Social Impact Assessment (ESIA), and Resettlement Action Plan (RAP) prepared under Phase I taking into account the detailed engineering design final interventions. A final full Environmental Mitigation and Monitoring Plan (EMMP) will then be prepared and priced accordingly in the Bills of Quantities of the project.

b) Climate Change Impact Assessment

i) Conduct a climate risk assessment to understand the potential impact of climate change on the project vis-à-vis the current risk from weather events, future climate change impacts and vulnerabilities within the region under question. The assessment should be based on the data that has been observed for a period not less than 50 years in order to come up with a credible forecast.

ii) Once the key potential impact of extreme weather events and climate change on the project components has been identified, attention should focus on those areas which are particularly vulnerable. Bearing in mind the principles of effective adaptation, the consultant should identify and assess measures which can be implemented to reduce the impact of climate change on the project and to increase its resilience to extreme weather events.

iii) Incorporate measures to reduce the impact of climate change and to increase its resilience to extreme weather events into the project investment options and recommendations put forward in the Feasibility Report.

4.2.3 Bill of Quantities and Cost Estimate

a) Bill of Quantities

Calculated quantities for the items of work to be executed shall be based on the finalized construction drawings. A final detailed bill of quantities shall be produced in a format approved by the client, based on the final detailed engineering design. A breakdown of quantities calculations will be supplied to the client in electronic form.

b) Cost Estimate

i. The Consultant shall prepare a confidential estimate of the construction cost based on the final bills of quantities. The cost estimates will be based on unit price analysis of each item using basic cost elements of labour, materials, equipment, tools, overheads, profit, supervision, etc but excluding and showing separately the cost of all taxation (direct or indirect).

ii. The Consultant shall prepare separate cost estimates for supervision of the construction works. He shall provide a detailed estimate including (but not limited to) the total required inputs for construction supervision in terms of man months for senior engineering and technical staff, costs of construction and post construction services, direct operating costs, reimbursable expenses, and miscellaneous costs.

iii. The foreign currency component of the cost shall include such items as depreciation of imported plant and equipment, imported material and supplies, locally procured goods of foreign manufacture, wages of foreign personnel, profits of foreign firms and also the principal foreign cost elements of locally produced goods and materials to be incorporated into the works. The local cost component shall identify all local costs, and the tax and duty elements shall be identified separately. The costs will therefore indicate local/foreign/tax elements.

5.0 Bidding Documents

Bidding documents shall be prepared fully in accordance with the ODPP format and requirements.

5.1 Engineering Drawings

The Consultant shall prepare at least the following detailed engineering drawings in A1 and A3 sizes for each section for which a detailed design is prepared: -

Location plans as part of or whole of Malawi at a scale of 1: 1,000,000

a) For the port structure, detailed engineering design plans will be produced at appropriate scales, including contoured site plans, substructures and foundation details, protection or ancillary works and bar bending schedules.

b) Ancillary Works: showing plans of all other ancillary works including related works.

5.2 Work Programme and Cash Flow Forecast

In order to assist in preparing the required construction period and forward budget needs, the Consultant shall prepare a work programme and cash flow requirements showing: -

a) A bar chart showing the proposed sequencing and duration of the major activities for the entire construction period.

b) Anticipated monthly value of work executed presented in the form of an S-curve.

In preparing this programme, the Consultant shall take into account the climatic conditions prevailing in the area concerned.

6.0 Key Professional Staff

The key professional staff input is expected to be approximately 17 man-months of the consultancy services as listed below:

Item	DESCRIPTION	Man Month
1	TEAM LEADER/ PORT/MARINE EXPERT	5
2	STRUCTURAL/MATERIALS ENGINEER	3
3	ENVIRONMENTAL AND SOCIAL EXPERT	2
4	NAVIGATION EXPERT	3
5	HYDROLOGIST	3
6	CONTRACT DOCUMENTATION SPECIALIST	1
7	SURVEYOR	3
	TOTAL	20

6.1 Team leader: Port/Marine Expert

The Consultant's key professional staff proposed for this project, shall be suitably qualified and experienced. As a guide, the following is an indication of the minimum level of training and experience expected of the key professional staff:

(a) Qualifications and skills

- Bachelor's degree in Maritime Affairs/Engineering or other discipline relevant to the assignment
- Professional registration with a relevant professional body.
- Fluency in oral and written English essentials.

(b) Professional Experience

- Ideally at least 10 years of professional experience gained largely on transport infrastructure sector of which no less than 5 years shall be in the port industry.
- Team member in at least 3 projects in the marine industry: port infrastructure (feasibility and design).
- Previous exposure to port infrastructure construction work and/or rehabilitation work is essential.
- Knowledge of contract documentation is very essential.
- Significant experience with various forms of contracts.

6.2 Structural/Material Engineer

a) Qualifications and Skills

- At least a Bachelor's degree in Civil/Structural Engineering or equivalent
- Registration with a recognized engineering professional body
- Fluency in oral and written English

b) Professional Experience

- Ideally at least 10 years of post-graduate professional experience, for which at least 5 years shall be in bridges or port infrastructures.
- Unequivocal knowledge in Materials engineering.
- Senior team member in at least three projects in the field of bridges, jetties/quays structures feasibility and design.

6.3 Environmental and Social Expert

a) Qualifications and Skills

- At least a Bachelor's degree or equivalent in environmental management or other relevant discipline;
- Fluency in oral and written English.

b) **Professional experience**

- Ideally at least 10 years of post-graduate professional experience, of which at least 5 years shall be in the infrastructure sector.
- Demonstrated proficiency in conducting climate risk assessment and mainstreaming climate change mitigation and adaptation measures in at least two (2) infrastructure development projects.
- Demonstrable ability of delivering ESIAs that comply with national legislation.
- Experience in undertaking formal environmental authorization processes in Malawi is essential.

6.4 Hydrologist

a) **Qualifications and Skills**

- At least a Bachelor's degree in Civil or equivalent
- Registration with a relevant professional body
- Fluency in oral and written English

b) **Professional Experience**

Ideally at least 10 years of post-graduate professional experience, and should have undertaken at least 5 feasibility study and detailed design projects as a Hydrologist

6.5 Surveyor

a) **Qualifications and Skills**

- At least a Bachelor's degree in Land Surveying or equivalent
- Registration with a relevant professional body
- Fluency in oral and written English

b) **Professional Experience**

- Ideally at least 10 years of post-graduate professional experience and should have undertaken at least 5 similar projects as a surveyor.

6.6 Contract Documentation Specialist

a) Qualifications and Skills

- At least a Bachelor's degree in Civil Engineering/Quantity Surveying or its equivalent
- Fluency in oral and written English

b) Professional Experience

- Ideally at least 10 years of post-graduate professional experience and should have undertaken at least 5 similar projects as a contract documentation specialist.

6.7 Navigation Specialist

- The Navigation Specialist shall have at least 15 years' experience in the field relevant to the assignment. The specialist shall have a minimum of University Degree in Maritime Studies, or Hydrography and Oceanography, and experience in Sector specific data; in particular data on types of ships and their navigational requirements; Review of existing data and identification of additional data requirements; Collection of additional data and subsequent analysis of the bathymetric characteristics of the harbour navigation; and assessment of possibilities for alleviating navigational constraints, and their associated costs

7.0 Timing

The Consultant shall commence the study within fifteen calendar days of the effective date of Contract.

The feasibility study and the detailed engineering design phases are expected to be completed not later than 7 months, including time reviews and approvals by the Marine Department and Environmental Affairs Department and the Client.

8.0 Reporting Requirements

The consultant shall prepare and submit the following reports and documents, in English, in an approved format to the client. The comments of the client shall be incorporated in the final version of the reports and documentation.

Ten (10) hard copies and one (1) electronic copy of each of the final documents listed below shall be sent to the Client.

In addition, thirteen (13) sets of the final bidding documents in hard copy and two (2) sets in electronic copy shall also be provided. For the hard copies four (4) sets shall be provided with A1 size drawings and six (6) sets with A3 size drawings.

8.1 Phase I: Preliminary Designs

8.1.1 Inception Report:

The consultant shall submit an inception report, including a quality assurance plan, within 21 days of the starting date. This report shall outline the consultant's mobilization, work plan, strategy, methodology and timetable of the entire assignment. The report shall recommend the design philosophy to be adopted.

8.1.2 Draft Preliminary Design Report

A draft Preliminary Design Report covering all the elements included under Section 4.1.1.1 shall be submitted at the end of Three (3) months from the date of commencement of the study. The report shall include details of the services carried out and the outcomes of the preliminary design and cost estimates. This report shall be submitted in at least three separate volumes of **Main Report** and **Drawings**. The Main Report should attempt to comment and discuss all the elements of the entire Preliminary Design study over and above the preliminary design issues and processes. It shall also include an executive summary, summarizing all the findings and recommendations thereof. Under the Drawings Volume, this report shall include maps, plans, and diagrams in A1 size.

8.1.3 Draft Environmental and Social Impact Assessment Report

A draft Environmental and Social Impact Assessment Report shall be prepared in accordance with the generic contents as outlined under Appendix 1 of these Terms of Reference. The report shall also include cost estimates and STI & HIV/AIDs components. Twelve (12) copies of the report shall be submitted forwarded by the client for scrutiny to the Technical Council for the Environment under the Department of Environmental Affairs and for approval by the National Council on the Environment (NCE) of Malawi Government. This report shall be submitted together with the draft Preliminary Design Report at the end of Three (3) months from the commencement of the services.

8.1.5 Final Feasibility Report

After taking into account the client's comments on the draft Preliminary Design Report, the Environmental and Social Impact Assessment Statement and the Environmental and Social Management Plan, the consultant shall prepare and submit the final and complete set of documentation as outline in Section 8.1.2 above. This report shall be submitted within one (1) month of receipt of the client's comments.

8.2 Phase II: Detailed Engineering Designs

Under Phase II of the assignment, the consultant shall submit the following reports:

8.2.1 Draft Detailed Design Reports

The consultant shall submit a draft detailed engineering design report complete with cost estimates and accompanied by a set of the draft bidding documents and all drawings, maps, plans and diagrams in A1 size. For the major structure, the consultant will submit all the calculations for the design as an appendix to the report. The submission shall include reviewed Environmental and Social Impact Assessment reports in line with the detailed designs. This report will be submitted after six (6) months of the date of commencement of the study.

8.2.2 Final Detailed Engineering Design Report

After approval of the draft detailed design reports, the consultant shall submit the final report in the same format as above with a set of bidding documents, acceptable to the client. The drawings that will form part of the bidding documents shall be in A1 size as well as reduced to A3 size. This report shall be submitted within one month after receipt of the client's comments. The consultant will also be required to submit an electronic copy of the Final Detailed Design Report and bidding documents.

The reports produced shall be submitted to the following address.

The Chief Executive Officer,
Roads Authority,
Private Bag B346,
Lilongwe 3

9.0 Data, Services and Facilities to be provided by the Client.

a) The Client shall provide the consultant all the available requested data.

b) The client will also assist in the facilitation of the co-operation of other government ministries and agencies, departments and other agencies as required for carrying out the works and in liaison as necessary for the same purpose. The client will give the consultant assistance to gain access to all information required for the proper conduct and completion of the studies.

c) Appoint a senior member of its staff to act as the primary liaison with the Consultant.

10.0 Obligations

10.1 Consultant

The consultant's obligations shall include, but not limited to the following: -

a) The consultant shall make his own arrangements for all necessary office and living accommodations, and other supplies etc. in connection with the services to be provided.

b) Prior to commencement of the actual services, the consultant shall formulate a quality management system and procedures for implementation of these services in accordance with these Terms of Reference and accepted professional practice.