## **Terms of Reference**

# CLIMATE RESILIENT ROADS FOR THE NORTH (CRRN - P500488)

"Consultancy Services for Preparation of Engineering Design and Bidding Documents for construction of sub-structures and Installation of Metallic Bridges including Environmental and Social Management Plan (ESMP) in Cabo Delgado Province"

**June 2025** 

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#### 1. INTRODUCTION

Mozambique's economy grew steadily up to 2015, averaging 7.3 percent. From 2016 up to 2020 the economic activity decelerated sharply and in 2020, gross domestic product (GDP) declined by 1.2 percent, the first economic contraction in three decades. The economy has now shown signs of recovery from 2021, with reported growth estimated to have reached 2.2 percent in 2021, 4.1 percent in 2022 and it is expected to grow 6% between 2023 – 2025.

The recovery of the economy still has low impact on the reduction of poverty for the rural people as is driven by capital-intensive and import-dependent sectors, while low-skilled jobs in the agriculture sector continued to dominate employment. As a result, the poorest people, living mainly in rural areas of the central and northern provinces, have benefited less from economic growth than the overall population.

In this environment, agriculture-still the mainstay of Mozambique's economy-is critical for overall poverty reduction. However, agricultural productivity remains low and constrained by many factors, including limited access to transport infrastructure and services in rural areas. Agriculture employs about 80 percent of the total workforce and generates about 30 percent of GDP.

In addition to the poverty and poor accessibility to rural areas, Mozambique is highly exposed to extreme rainfall and flooding that may become even more frequent because of global climate change. Catastrophic flooding occurs almost annually during the rainy season and is largely influenced by La Niña and the Intertropical Convergence Zone. During the past 7 years, the country registered several cyclones namely Kenneth, Chalane, Eloise, Gombe, Ana, Dumako, Idai and Freddy. In 2015 a devastating flood affected 326,000 people, killed 140, and caused damages estimated at US\$371 million in parts of Zambezia, Nampula, and Niassa Province, another northern province. In 2013, a flood affecting the Limpopo lower basin killed 113 people, displaced more than 200,000, and ruined nearly 89,000 ha of cultivated land. Other major floods (in 2000 and 2007) and cyclones (in 2008, 2012, and 2017) caused fatalities and severe damage in different parts of the country.

In the spring of 2019, Mozambique was hit by two cyclones: Idai in March and Kenneth in April. These cyclones affected over 1.7 million people, killed 644 people, and destroyed partially or totally around 275,000 houses. Cyclone Idai with heavy rains (more than 200 mm in 24 hours), winds (180 to 220 km per h), and flooding severely affected the central and northern regions of the country from March 4 to 17, 2019. On March 19, 2019, the Government of Mozambique (GoM) declared a national emergency, triggering major emergency response interventions. On April 25, 2019, Cyclone Kenneth hit the northern region of the country. Cyclone winds and floods destroyed or damaged critical infrastructure such as roads. In February 2023 cyclone Freddy also caused severe damages in the road infrastructure in the central and northern regions of the country and, in December 2024, Cyclone Chido struck the northern province of Cabo Delgado leading to 120 deaths and at least US\$ 6 million in damages.

Due to recurrent climatic impact, the road network has suffered extensive damage over the last 20 years, with substantial sums being diverted from network improvement to the repair of flood-related damage. As the Mozambican road network has a low redundancy, those disruptions

sometimes isolate communities for extended periods of time and thus have a significant detrimental impact on their local economies.

In the North region of Mozambique, the cyclones, heavy rains and floods destroyed various infrastructures including roads and bridges, hitting an already vulnerable population, which was in many areas affected by terrorism violence and poverty.

The World Bank approved a US\$ 125 million project in April 2024, for among other services for preparation of engineering designs, bidding documents and Environment and Social Management Plan (ESMP) for the construction of sub-structures and installation of Metallic bridges along various roads in Cabo Delgado province to enhance connectivity to markets, and other economic and social services in the Northern region.

Table 1: Bridges to be constructed and installed

Nº	Road	River Name	Bridge Length (m)	GPS Coordnates	
1	R762-Mocimboa da	Quinhevo	30	11° 22' 53" S	
	Praia/Marere			40° 22' 11" E	
2		Napala	30	12° 06' 00" S	
				40° 16' 49" E	
3	R766-Macomia/Mucojo	Muaguamula	60	12° 05' 31" S	
				40° 18' 08" E	
4		Afluente do rio	30	12° 05' 32" S	
		Muaguamula		40° 18' 02" E	
5	R771-Namogelia - Hucula	Muatage	60	13° 51' 43.8" S	
				39° 16' 45.1" E E	
6	N/C Crz N1 - Marera	Lacua	60	13° 34' 33" S	
				39° 55' 50" E	
7	R760-Mecufi/Megaruma	Megaruma	70	13° 27' 2.73" S	
				40° 30' 14.71" E	
	N380-Sunate/Oasse	Messalo	90	11° 50' 24" S	
				40° 06' 05" E	
	R698-Montepuez/Namuno	Cororine	35	13° 29' 48.15" S	
	•			38° 51' 27.13" E	
	N/C-Hucula/Semenhe	Rio Semenhe	60	13°51'44.11" S	
	•			39°16'44.59" E	
	R768-Balama/Mavala	Rio Montepuez	20	13°12'08" S	
				38°37'20" E	
		TOTAL (m)	460		

Seeking to increase the efficiency and effectiveness with which the management and maintenance of the road network is carried out, the Government of Mozambique, through *Administração Nacional de Estradas, Instituto Público* (ANE, IP) or (the National Road Administration), intends to engage a consulting firm to perform the Consultancy Services for Preparation of Engineering Design and Bidding Documents for Installation of Metallic Bridges

Including ESMP, in Cabo Delgado Province. The metallic bridge components are being procured in a separate bid issued by ANE.

The main objectives of these consultancy services are to assist ANE in its objective to enhance connectivity to markets, and other economic and social services in Cabo Delgado province. The selected consultant will carry out engineering design, climate vulnerability risk assessment, and road safety assessments, and prepare bidding documents and environmental and social management plan (ESMP) for construction of sub-structures and installation of metallic bridges.

These Terms of Reference (ToR) describe the nature and scope of the services to be provided by the consultant.

#### 2. OBJECTIVES

The project development objective is to improve climate-resilient road connectivity in the Northern provinces of Mozambique.

#### 2.1 Specific Objectives of the Assignment

ANE intends to employ a consultant to assist in preparing the engineering designs, road safety assessment, bidding documents and Environmental and Social Management Plan (ESMP) for construction of sub-structures and installation of 12 metallic bridges. The objectives of these services are:

- a. To undertake an on-site investigation and prepare an engineering design of the bridge sub-structure for installation of a metallic bridge at each site.
- b. Conduct climate vulnerability assessments for bridges and include appropriate climate adaptation measures in the engineering designs, using Intergovernmental Panel on Climate Change climate projections and work with local meteorological agencies to model future flood risks under different emission scenarios.
- Conduct a road safety impact assessment in the vicinity of the bridge locations, focusing
  on pedestrians, bicyclists, motorcyclists, in addition to motorized traffic.
- d. To prepare the bidding document to be used by ANE in procurement of civil works for construction of sub-structures and installation of metallic bridges being purchased separately by ANE.
- e. To prepare the Generic ESMP for the bridge sites to ensure that the works are carried out with necessary mitigation measures for the potential negative impacts, including for risks related to sexual exploitation and abuse and sexual harassment (SEA/SH) in project-affected communities, and maximizes the positive impacts of the project in a manner consistent with all applicable requirements of the World Bank Group Environmental and Social Framework (ESF) and the relevant national laws;
- f. To identify future developments based on lessons learnt during different phases of this assignment.

The engineering design documents for the bridges shall be prepared to ensure compliance with design standards and specifications prepared recently for ANE as referenced below, without limitation.

#### ANE technical Standards and Specifications

1.	Field and Laboratory Testing Manual, 2020
2.	Geometric Design Manual, 2019
3.	Geotechnical Design Manual, 2020
4.	Hydrology and Drainage Design Manual, 2019
5.	Pavement Design Manual, 2019
6.	Performance Specifications – OPBRC Manual, 2019
7.	Rehabilitation Design Manual, 2019
8.	Specifications for Bridge Loads, 2019
9.	Standard Details for Roads and Bridges, 2020
10.	Standard Specifications for Road and Bridge Works, 2020
11.	Site Investigations for Road and Bridge Works, 2019

These standards and specifications are available at ANE – Headquarter in Maputo. These standards will be complemented by the regional Southern African Development Community (SADC) standards in use, as published by the Southern African Transport and Communication Commission (SATCC), September 1998 (Reprinted July 2001). Due consideration shall also be given to the SADC Road Traffic Signs Manuals. In the absence of appropriate standards covered by the documents listed above the consultant should recommend and adopt recognized international standards in agreement with the client.

The engineering designs must also focus on the government aspirations in achieving SDG 3.6 of decreasing the number of road crash fatalities by 50 percent by 2030. In Mozambique, during the period 2011 - 2019, 22,385 road crashes were recorded which resulted in 53,359 victims, of which 13,500 were fatalities  $^1$ .

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<sup>&</sup>lt;sup>1</sup> Resolução No 68/2020 do Conselho de Ministros de 17 de Novembro de 2020: Política e Estratégia de Segurança Rodoviária (*Council of Ministers Resolution No 68/2020 of 17<sup>th</sup> November 2020: Road Safety Policy and Strategy*)

#### SCOPE OF THE SERVICES

#### 3.1 General

ANE wishes to employ a consultant to assist in preparing the engineering designs, bidding documents, and ESMP.

The objectives of these services are:

- To prepare engineering designs for construction of bridge sub-structure and installation of metallic bridges to be supplied by the client.
- To Prepare cost estimates and bidding documents for the construction of sub-structure and installation of the metallic bridges; and.
- To Prepare ESMP for the bridge sites.

The services are as follows:

#### 3.2 Engineering Designs, bidding documents and ESMP

#### Task 1-1: Preparation of engineering designs

The Consultant shall perform the engineering design services in accordance with industry standards and with the degree of skill and care ordinarily exercised by professionals in the same field. In terms of Liability Limitation, the Consultant shall be liable for any errors, omissions, defects, or negligence related to the design provided under this assignment.

During the preparation of the engineering designs, the consultant is expected to perform the on-site investigation and all necessary geometric, geotechnical and topographic surveys to prepare the design of the bridge sub-structure for installation of metallic bridges.

The consultant shall review the adequacy of existing information, plan and implement the collection of all data required for the engineering design.

Climate change impact and adaptation should be considered in the preparation of the engineering designs. Hydraulic discharge capacity of structures should be calculated using historical extreme rainfall analysis (baseline) that corresponds to the chosen design period of the structure. Bridge designs should be future-proofed against extreme climate conditions by incorporating elevated freeboard levels, reinforced piers resistant to high-velocity floodwaters, and corrosion-resistant materials for humid and saline environments. The Consultant shall also evaluate adaptive bridge designs, such as modular bridge components, that allow for incremental height adjustments in response to future climate stressors.

For the engineering design of the bridges sub-structures, analysis of the hydrology of each river shall be carried out for normal and high flow and the recurrent discharges for several years and taking into account the additional expected effects of climate change and the frequency and magnitude of climatic events (e.g, intense floods and cyclonic winds). The proposed opening and the sufficiency of the free board of the flow shall be proved.

After analysis of the discharge for the flow of the rivers, the consultant shall also consider the channel reshaping or treatment requirements to train the river flow. This includes the upper and lower sides of the streams in relation to the bridges' location.

The consultant shall undertake all engineering foundation investigations for construction of the bridge sub-structures and apply the most suitable design in consideration of economic and ecstatic application. The consultant shall ensure that a suitable foundation structure is considered for each specific location.

The consultant shall prepare the engineering designs considering options that minimize the environmental and social impacts of the construction works. The consultant shall include in the team Environmental and Social Specialists to undertake a preliminary survey/screening of the baseline Environmental and Social conditions surrounding Bridge. The screening will identify environmentally sensitive areas (fauna and flora) as well as the location of nearby settlements or land uses that are likely to be impacted by the construction/rehabilitation works, including any potential risks to communities for SEA/SH, assess the risk level and identify the necessary management instruments to be prepared and applied. For each bridge, the consultant shall estimate the costs of the Environmental, occupational health and safety, community safety mitigation measures and resettlements.

The consultant should undertake a road safety impact assessment (RSIA) in the vicinity of the bridges, with a specific focus on pedestrians, bicyclists, motorcyclists, in addition to the motorized traffic. This assessment aims to identify and evaluate potential road safety risks and considerations associated with the proposed project, taking into account the safety needs of vulnerable road users and the anticipated development of economic activities in the area. The assessment will inform the development of comprehensive mitigation strategies and engineering design interventions to enhance road safety and ensure the sustainable development of the project areas. The RSIA should be conducted by certified professionals in accordance with international good practices and shall cover and provide among others the recommendations on the following aspects:

- 1. Bridge elements: structural and functionality of the bridge including the deck, adequate and safe passage for pedestrians and bicyclists, safe passage of opposing traffic at the bridge, bridge rails and potential snag points, drainage on the deck etc.
- 2. Bridge approaches: approach guardrails and the roadway approaching to the bridges, drainage of the aprons and the approaches, footpaths/shoulder at the approaches.
- 3. Operational safety: signs, delineation, pavement markings etc.

The consultant shall estimate the full sub-project cost including (i) the cost of each bridge construction works, (ii) the cost of the Environmental and Social mitigation measures, compensations and resettlements (if any), including those related to SEA/SH, and (iii) the social cost of any needed traffic deviations during construction works. The cost estimate shall be based on a market analysis of similar works in Mozambique over the last 5 years.

The outcome of the engineering design stage should be a set of design documents that allow bidders to compete on equal footing and the selected contractor to construct the bridge with ease.

#### Task 1-2: Preparation of bidding documents

The consultant in collaboration with ANE, IP shall define the optimal allotment of works into groups of Bridges (Lots) for which the works are to be tendered. This allotment shall take into account the location of the bridges and type of works as well as the capacity of the local Mozambican construction industry.

The Consultant shall prepare all necessary Procurement documents including Technical Specifications and Performance Requirements, engineering design drawings, Bills/Schedules of Quantities, engineer's cost estimates, works implementation program contractors' qualification criteria, and other documentation as required.

The consultant shall ensure that bidding documents clearly outline relevant environmental, social, health and safety (ESHS) requirements, including those related to addressing risks for SEA/SH, in the Environmental and Social Management Plans (including relevant SEA/SH risk mitigation measures), Labour Management Procedures, Land Access Processes and/or Resettlement Plans.

The bidding documents shall also take into account E&S guidance provided at CRRN ESMF chapter 8.9 and Annex 4, related to Integration of E&S aspects into the Procurement process

The Consultant shall prepare the bidding documents for civil works, including reports, plans, maps, drawings, sketches, specifications, bills of quantities, location where the metallic bridges are stored, etc. by first submitting the draft report and bidding documents to the Client for review and, after receipt of the Client's comments, finalizing the same for advertisement.

The Consultant shall prepare the bidding documents based on the latest available Standard Bidding Document (SBD). The bidding document shall comply with the requirements of the World Bank and shall include:

- i. The Tender notice, tender documents (Instruction to bidders, data sheet, evaluation criteria's, etc.), including relevant SEA/SH-related requirements applicable to contracts in high-risk projects
- ii. Employer's requirements for mobilization, construction works, Environmental, Social, Health and Safety requirements, including SEA/SH.
- iii. Draft contract documents.

The Consultants shall work with ANE, IP to develop a bidding evaluation procedure that meets the objectives of obtaining the best value for money.

The Consultant's proposal should be developed to ensure maximum local participation through skills transfer, capacity building or any other strategy that will promote the development of the domestic construction industry and employment of labor, including women, from the local community.

#### Task 1-3: Preparation of ESMP

The Consultant should prepare a generic ESMP following the World Bank ESF requirements, submit it to the Implementing Agency/World Bank clearance. For the preparation and

implementation of the ESMP, the Consultant will have to hire a qualified ESHS team with experience in preparing ESMPs in accordance with the WBG requirements. This process entails:

- Detailing the management measures, roles, and responsibilities for implementation, supervision, and cost;
- Indicating parameters to be monitored, their location, frequency of monitoring, roles and responsibilities and cost;
- Assessing the ability of the implementing agency to implement the proposed environmental management and monitoring plan;
- Developing the institutional arrangement and capacity building programs necessary to ensure successful implementation.

The ESMP preparation shall take into consideration the approved CRRN E&S generic instruments, such as the Environmental and Social Management Framework, the Stakeholder Engagement Plan, the Labor Management Procedures and the Social Assessment. Particularly ESMF chapters 5, 6, 7, 8, 9, 10 and Annex 2 (section B) provide guidance on ESMP preparation according to WB CRRN ESF requirements.

As a preliminary stage of the E&S site specific instruments to be prepared for these sub-projects, the E&S Screening Form must be prepared, including the E&S risk classification (to be approved by WB E&S Team).

Also, as per CRRN ESMF chapter 3 and 7, the Scoping exercise will also include the definition of ESMP boundaries and identification of its key E&S issues to be addressed.

A succinct baseline description, is important to feed the impact assessment and the definition of mitigation measures to be included in the bridges concept design.

Engineering and road safety team shall work closely with E&S team, allowing smooth integration of E&S mitigation measures in the Concept design.

During the preparation of the ESMP for installation of metallic bridges, the consultant is expected to visit the site where the activities will be implemented to identify possible risks, and risk mitigation measures, analysis of alternatives, design management, monitoring and recommended measures to facilitate social benefits, a stakeholder engagement plan and grievance mechanisms responsive to vulnerable groups' needs. According to the WB's procurement regulations for high SEA/HS risk projects, the ESMP must include relevant SEA/HS risk mitigation measures.

The proposed ESMP index is presented in Annex 1.

#### 4. DURATION OF THE ASSIGNMENT AND REQUIRED INPUT

#### 4.1 Duration and Input

It is expected that the services shall be carried out within **four (4) months** which include the preparation of engineering design, environmental and social management plan and bidding documents of civil works. The team shall operate from an office preferably established in Northern Mozambique. The proposed total input for the key professionals for the contract is estimated to be 16 man-months.

Activities	Duration
Preparation of Engineering Designs, ESMP and Bidding Documents	4 months

## 5. REPORTS TO BE SUBMITTED

The following reports shall be submitted by the consultant to the Client and shall cover all aspects indicated in the ToRs. The Consultant shall send by email, one (1) soft copy in digital format of each of the listed reports to the Client.

	Report			No. of Copies	
Deliverable			Due Date	Hard	Soft
				Сору	Сору
Phase 1: Preparation of Engineering Design, Bidding Documents and ESM					
D1	1.	Inception Report	3 weeks after	3	1
DI	1.		commencement	7	1
	2.	Draft engineering			
	(	design including road			
	!	safety impact		3	1
	;	assessment	3 months after	3	1
D2	3.	Draft Bidding	commencement		
		Documents	commencement		
	4.	Draft Environmental			
	;	and Social		3	1
		Management Plan			
	5.	Final engineering			
		design report and		3	1
D3		bidding documents	4 months after		
DS	6.	Final Environmental	commencement		
	;	and Social		4	1
		Management Plan			

## 6. PAYMENT SCHEDULE

The contract shall be a lump-sum contract with payment schedule as follows:

- 1. First payment: Advance payment of 20% of Contract amount.
- 2. Second payment: 10% of Contract amount shall be made upon submission and acceptance of the deliverable D1
- 3. Third payment: 40 % of contract amount shall be made upon submission and acceptance of the deliverable D2.
- 4. Fourth payment: 30% of contract amount shall be made upon submission and acceptance of the deliverable D3.

## 7. TEAM COMPOSITION AND QUALIFICATIONS

#### 7.1 Team Composition

It is the Consultant's responsibility to provide the required inputs of Key Professionals for the assignment; provide necessary logistic arrangements to render these services efficiently and diligently. When proposing the team members, the Consultants should make sure that the proposed staff are actually available and aware of the intensity of the required travel. Any change in key personnel shall be permitted only under exceptional circumstances and if evidenced as equal or better than the initially approved candidate.

#### 7.2 Staff Qualifications

The Consultants shall submit names, Curriculum Vitae (CVs) and copies of qualifications for all these key professional staff. The copies of qualifications shall be in English or accompanied by translations in English where the original qualifications are not in English. All the key staff are required to be proficient in English. The estimated man-months of each key staff and for evaluation purpose will be as follows:

Activity	List of Key Positions whose C.V. and Experience would be evaluated	Person-Months input
Preparation of	Team Leader (Bridge Engineer)	4
engineering designs	Geotechnical Engineer	3
and bidding	Hydrology/Hydraulic Engineer	3
documents	Road Safety Specialist	1
	Procurement/Contracts Specialist	1
Preparation of ESMP	Environmental Specialist	2
	Social and GBV/SEA/SH Specialist	2
	TOTAL Person – Month	16

**Team Leader (Bridge Engineer):** The proposed person must be professionally qualified and registered with a recognized engineering institution with at least a BSc degree in Civil or structural Engineering. Must have a minimum of 15 years post-qualification experience in the structural design specifically bridge design with at least five (5) years in developing countries. Experience in the design of a minimum of three (3) reinforced concrete or metallic bridges with deep foundations and with minimum spans of 60 meters and implemented in the last 10 years. Must have been in the position of Project Manager, Resident Engineer or Technical Adviser on at least four (4) projects of a similar scale and complexity. Experience in managing donor supported projects specifically multi-lateral development Bank such as the World Bank, African Development Bank, etc. is an advantage. Fluency in both written and spoken English language.

**Geotechnical Engineer:** The candidate must have at least a BSc degree in Civil engineering, Geology or related field with minimum of 15 years professional experience in geotechnical engineering and materials of which at least 5 years in developing countries. Minimum of 2 similar projects successfully completed in the last 10 years in a similar position and role. Fluency in both written and spoken English language.

**Hydrologist/Hydraulic Engineer:** Minimum BSc degree in Civil Engineering, Hydrology, Water Management, Flood Management. Minimum of 15 years professional experience in the hydrological analysis and hydraulic design of drainage structures of which 5 years in developing countries. Minimum of 2 similar projects successfully completed in the last 10 years in a similar position and role, covering: statistical analysis of historic rainfall, conducting climate vulnerability and risk analysis, determination of uplift factors for extreme rainfall, hydraulic design of road drainage and structures including climate adaptation measures, using Standard Engineering Software Packages (HEC-RAS or similar). Fluency in both written and spoken English language.

**Road Safety Specialist:** The candidate shall have a minimum of BSc degree in civil engineering, Transportation engineering, transportation planning, infrastructure engineering and minimum 10 years of working experience of which minimum 5 years' experience in conducting road safety assessments (including stakeholder consultations, crash data collection) and traffic engineering as part of highway design projects. Comprehensive understanding of road safety principles, practices, and regulations, as well as practical experience in conducting road safety assessments and implementing effective safety measures. Fluency in both written and spoken English language and ability to communicate Portuguese are essential.

**Environmental Specialist:** The candidate must have at least a bachelor's degree in environmental sciences or a directly related field; At least 15 years of experience in impact assessment and management for major infrastructure projects, including road projects (at least three road projects), Experience in preparing ESIA/ESMP following the World Bank ESF requirements, or other equivalent standards of international donors, for complex engineering and construction projects (at least two assignments); Proven experience working with Health and Safety international standards and best practices (international certification in the area will be considered a competitive advantage); Working experience in sub-Saharan Africa (experience in Mozambique and/or Fragility, Conflict and Violence contexts will be considered an advantage); Fluency in English is required.

Social and GBV/SEA/SH specialist: The candidate must have at least a bachelor's degree in social sciences or a directly related field; at least 15 years of experience in social impact assessment and management for major infrastructure projects, including road projects (at least three road projects); experience in preparing ESIA/ESMP following the World Bank ESF requirements, or other equivalent standards of international donors, for complex engineering and construction projects (at least two assignments), with experience identifying and preparing mitigation measures designed to address risks of SEA/SH; professional experience in gender and/or gender-based violence-related prevention and response programming to provide a strong understanding of a survivor-centered approach and principles of survivor care and ethical management of sensitive GBV data in accordance with international best practices. Working experience in sub-Saharan Africa (experience in Mozambique and/or Fragility, Conflict and Violence contexts will be considered a competitive advantage); fluency in Portuguese and English is required.

Procurement/Contract Specialist: Minimum BSc degree in Engineering, Procurement, Supply Chain Management or an equivalent relevant qualification. Minimum of 10 years professional experience in the procurement of works, services and goods. Minimum of 5 years accumulated experience in the last 10 years in a similar position and role, covering: FIDIC conditions of contract, preparation of civil works bid documents using the World Bank Standard Biding Documents, bid evaluation including analysis of unit rates. Fluency in both written and spoken English language.

## 8. DATA, FACILITIES AND RESOURCES TO BE PROVIDED BY THE CLIENT

Available information in respect of the bridge location standard bidding documents to be used for the works

ANE will make available electronic copies of relevant bridge design manuals and specifications.

The consultants shall be required to collect any necessary information, which is not available with ANE and shall be responsible for any translation of documents and for processing of data.

#### CONSULTANT'S OBLIGATIONS

#### General

The Consultant shall perform the services specified in the "Terms of Reference" under "Scope of Services," and shall provide the personnel listed under, "Team Composition and Qualifications" to perform the Services.

The Consultant shall submit to the Client the reports in the form and within agreed time periods specified under "Reports to be submitted"

#### **Transportation Requirements**

During the implementation of these services, the Consultant will be responsible for the costs and provision of adequate transport for their personnel.

#### **Staff Housing**

During the implementation of these services, the Consultant will be responsible for the costs and provision of adequate accommodation or housing for their project staff.

Offices for Consultant's personnel

The consultant shall be responsible for meeting all costs of office provision, operation, supplies, communications, secretarial services, document translation and logistical services.

#### Travel Related Costs and Allowances for Consultant's personnel

The Consultant is responsible for all travel related costs (tickets, visa cost, medical exams, vaccinations, etcetera) and out of duty station allowances for its personnel.

#### Surveys

The Consultant is responsible for all staff requirements and software for undertaking technical surveys, investigations and preparing the engineering designs such as topographical surveys, CAD (and GIS) design software, meteorological data collection, etc.

#### Reimbursable Expenditure

The consultant is required to provide evidence of expenditure incurred for all reimbursable expenditure that is to be paid under this Contract. Reimbursement will be made in the currency in which it is incurred or at the exchange rate on the date of purchase.

## 10. LOGISTICAL SUPPORT

#### **Liaison Officer**

During this assignment the consultant shall liaise with the CRRN PIU in Cabo Delgado through whom all requests for information, guidance and assistance should be addressed. All reasonable assistance will be provided, including liaison with other Government departments and access to any relevant data that is not classified as restricted.

#### ANE, IP shall provide the consultant, without charge, the following:

Assistance in obtaining any required customs clearances, visas and any other official permits, as may reasonably be required and other support facilities that may reasonably be needed for the expeditious performance of the required services.

#### ANNEX 1: PROPOSED ANNOTATED TABLE OF CONTENTS OF ESMP

Based on a succinct baseline description and an impact assessment to be prepared as part of the ESMP, the ESMP should describe the mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social risks and impacts. The ESMP should also include the measures and actions needed to implement these measures.

The ESMP should encompass the following:

1. Objectives of the ESMP

#### 2. Project Description

This summarizes the project and provides maps of sufficient detail, showing the project site and the area that may be affected by the project's direct and indirect impacts.

#### 3. Mitigation Measures

This should identify and summarize all anticipated adverse environmental and social impacts and describe with technical details each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with design drawings and calculations, equipment descriptions, and operating procedures, as appropriate. It should also estimate any potential environmental and social impacts of these measures.

#### 4. Public Consultation and Stakeholder Engagement

This section should provide:

- A summary of consultations undertaken during subproject preparation;
- A description of how the stakeholder engagement will take place during subproject implementation;
- How the GRM is implemented in the local context i.e. how the Project GRM will be promoted.

#### 5. Monitoring Plan

This should identify the monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA and the mitigation measures described. This is meant to provide (a) a specific description, and technical details, of monitoring measures, including the

parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

#### 6. Capacity Development and Trainings

This should provide a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

#### 7. Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP should include (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

#### 8. Integration of ESMP with Project

The individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of these should be integrated into the project's overall planning, design, budget, and implementation.

#### 9. Legal requirements and bidding/contract documents

The ESMP should be incorporated in all legal documents to enforce compliance by all contractors participating in the project. The ESMP should be summarized and incorporated in the bidding and contract documents.

#### Annexes

Any site-specific plan required such as:

Waste management plan
OHS management plan
Biodiversity management plan
Traffic management plan
SEA/SH action plan

## Chance find procedures

The ESMP shall be presented in a tabular format as follows:

## A. Mitigation

Project	Potential	Proposed	Responsibility	Responsibility	Estimated
Activity	Environmental	Mitigation	of mitigation	of direct	Cost
	Impacts	Measures		supervision	
Construction					
Phase					
Operational					
Phase					

## B. Monitoring

Project Activity	Impac t	Monitori ng indicators	Responsibili ty	Frequenc y/ Duration	Locatio n	Metho ds	Estimate d Cost
Constructi on phase							
Operation al Phase							