

TERMS OF REFERENCE FOR CONSULTANCY SERVICES FOR FEASIBILITY STUDIES AND PREPARATION OF BUSINESS PLAN FOR THE DEVELOPMENT OF ROADSIDE STATIONS AND A DRY PORTS ALONG ISIOLO – MANDERA AND ISIOLO-MOYALE ROAD CORRIDORS

1. BACKGROUND

The Government of the Republic of Kenya (GoK) has received a credit from the International Development Association (IDA) towards the cost of the Horn of Africa Gateway Development Project (HoAGDP). The GoK intends to use a portion of the proceeds of the credit for the Feasibility Study for the establishment of Roadside Stations (RSS) and a Dry Port along the Isiolo – Mandera and Isiolo - Moyale Road Corridors. The total length of the road sections is approximately 740 km and 503.7 km respectively

The GoK wishes to engage the services of consultant to undertake feasibility study services which include, but are not limited to, identification, appraisal, and operation and maintenance of Roadside Stations (RSS) and Dry Ports, preliminary social and environmental impact studies, preparation of preliminary engineering designs, and a business plan for the development and operation of the recommended RSSs and Dry Ports.

The national guidelines for the development of roadside stations in Kenya¹ states that the functions and facilities which may arise at the RSS include recreational areas, banks, worship areas, vehicle inspection and tyre centers, and shops and market areas. The RSS will have the potential to attract broad and market-oriented functions and facilities to satisfy the needs of the local communities. Components of infrastructure, utilities and services of a fully functional RSS will include access roads from the main highway; electricity; clean potable water; telecommunication, health, and waste disposal facilities; and a drainage system.

Several past studies of traffic problems in Kenya reveal that road safety and roadside environment are deteriorating as the number of vehicles increase, even though construction of road infrastructure has improved levels of service in terms of mobility and cost savings. In general, drivers and other road users in Kenya do not have access to many complementary services due to a lack of both road infrastructure and roadside rest facilities. Illegal parking on the roadsides/shoulders is a common problem. Highways with parked vehicles, mainly transit trucks, have poor visibility, reduced traffic capacity and poor road safety conditions.

The Government of Kenya (GoK), through the State Department for Transport (SDoT), Ministry of Roads and Transport (MoR&T) (the “Client”), now invites proposals to provide the required consultancy services as described further in these Terms of Reference.

¹ The National Guidelines for the Development of Roadside stations in Kenya, Feb. 2018, Ministry of Transport, Infrastructure, Housing and Urban Development, GoK.

2. HORN OF AFRICA GATEWAY DEVELOPMENT PROJECT DETAILS

The Isiolo-Mandera road corridor is a branch line of the LAPSSET corridor. The corridor starts at the Lamu Port (Lamu County) through Isiolo town (Isiolo County) and ends at Mandera (Mandera County) one one section while the other is headed for Ethiopia through Moyale .Isiolo-Moyale connects the towns of Isiolo (Isiolo County), Marsabit and Moyale (Moyale County)

The HoAGD, once completed will provide reliable connectivity from Isiolo to Somalia being the gate way to the Horn of Africa.

The proposed road sections for improvements under the Horn of Africa Gateway Development Project are summarised in Table 1 below.

Table 1: Status of Improvements of the Isiolo – Mandera Road Corridor

No.	Section	Status of Implementation
1	Isiolo – Kulamawe – Modogashe (190 km)	Under construction through IDA financing as part of the HoAGDP
2	Modogashe – Samatar (67 km)	GoK intends to upgrade this section as part of the annuity program. All conditions precedent to Financial Close (FC) have been concluded. FC to be attained and Construction works will commence.
3	Samatar – Wajir (90 km)	GoK intends to upgrade this section with financing from a consortium of Arab banks. Consultancy Services for Design Review and preparation of Tender Documents are being procured.
4	Wajir – Elwak (175 km)	Under construction through IDA financing as part of the HoAGDP.
5	Elwak – Gari - Rhamu (142 km)	Under construction through financing from African Development Bank (AfDB).
6	Rhamu – Mandera (75 km)	GoK financing through the annuity programme. All conditions precedent to Financial Close have been concluded. FC to be attained and construction works to commence.

3. RATIONALE FOR THE PROJECT AND THE STUDY

Poor road access to the North-Eastern part of Kenya and the adjoining roads in Ethiopia and Somalia constrains the social and economic development prospects of the area by inhibiting transport, trade and integration the economies of these three countries. To address this constraint, and improve on and facilitate transport, trade and regional integration, the Government of Kenya intends to: (i) upgrade the Isiolo – Mandera road from its current unpaved state to paved road standard; (ii) construct two bridges across River Dawa on the common border between Kenya and Ethiopia at Rhamu and Suftu; (iii) construct one stop border posts at Rhamu and Mandera (common border Somalia and Kenya) and install customs and border management systems; and

(iv) construct trade facilitation centers for Kenya Revenue Authority at Isiolo; Wajir and Suftu. As part of the complementary investments and preparatory work, the Government intends to undertake a feasibility study to construct Roadside Stations (RSS) and a Dry Ports along the Isiolo-Mandera and Isiolo- Moyale road corridors.

These feasibility studies will cover the whole scope of developing RSS, which involves four phases: identification, preparation, appraisal, and implementation. Identification starts with selection of a construction site, which is appropriate for the target region, taking into account the prerequisites for RSS construction. These prerequisites derive from the following basic questions. What are local demands and available local resources? Has the locational advantage for being a RSS including what potential road user demand been taken into account? What functions and facilities are required for the RSS? Who are the stakeholders that will be involved in the planning process? Who is the most appropriate RSS promoter?

The study should be comprehensive to provide RSS, financial services, and public services and incorporate local community needs into the process of planning, construction, and operation, acting as a bridge between local community and users of the road.

The next phase is preparation, which involves making the concept designs/plans as specific as possible. This is done by listening to opinions of the stakeholders at the planning stage and drawing detailed layouts of the design and specifications. This is followed by the third phase which is appraisal, in which the positive/ negative impacts of the RSS on the social, economic, and transportation aspects are assessed. The final phase is operation, in which concrete points of concern relating to the RSS operation and management are addressed.

Regarding dry ports the feasibility studies will examine specific sites to which imports and exports can be consigned for inspection by customs, and which can be specified as origin or destination of goods in transit accompanied by documentation such as the combined transport bill of lading or multimodal transport document.

4. OBJECTIVES OF THE ASSIGNMENT

The main objective of the assignment is to conduct a comprehensive road survey to determine the number and locations of appropriate RSSs and Dry Ports along the Lamu - Isiolo – Mandera and Isiolo - Moyale road corridors, followed by their feasibility studies (FS) and the development of business plans for their implementation.

5. SCOPE OF SERVICES AND MAIN TASKS OF THE ASSIGNMENT

This is an output-based assignment, and therefore the consultant shall undertake all tasks required to achieve the objective of the assignment. The Consultant's approach and methodology shall clearly state the activities they will undertake to ensure that the objectives of the study are achieved and verifiable, and how those activities will be undertaken.

The main tasks include, but not limited to, the following:

1. Document local experiences from the studies undertaken in Kenya and the guidelines, and international best practices on the planning, development and operation of RSSs and Dry Ports, and recommend what should be adopted along the project road corridor;
2. Identify the number and locations of the RSS's and the location of the Dry Ports based on technical, economic, environmental and social studies, including but not limited to:
 - a. Traffic studies such as current and future traffic types and volumes, needs of the road users, road user behaviour, road safety, origin and destination of journeys, safety and security of road users, opportunities for local vendors and entrepreneurs to sell their products, etc;
 - b. Engineering considerations such as geotechnical and soil conditions, topography, geology, hydrology and drainage, construction materials, rainfall, temperature, climate-resiliency, energy sources, scope for future development or expansion, etc;
 - c. Economic conditions of the local communities including employment and trade opportunities, income levels, economic activities, County development plans, etc;
 - d. Environmental profile including water bodies, flora and fauna, waste management, pollution, etc;
 - e. Social and cultural profiles such as community and key stakeholder needs and expectations, health facilities, population dynamics, gender studies, social amenities, and proposed developments, etc; and,
 - f. Recommendations of relevant Government agencies, like the Kenya Revenue Authority (KRA), the Ministry responsible for internal security and the Client.
3. For the Dry Ports modelling and location analysis, the following additional factors, among others, shall be considered: Traffic flows between the inland centres of production and consumption and the ports, with reference to commodities, directional split between imports and exports, types of cargoes, forecast of future growth in trade flows, relative locations of inland centres, and so on; Modes of transport available; Transport cost analysis; Functions of the port; Transport infrastructure and ancillary transport-related services in the vicinity of the proposed site; and, Scope for future site development or expansion;
4. Prepare concept engineering designs for each RSS and Dry Ports location, including appropriate access layout for traffic from both directions, based on demand analysis,

including type and layout of facilities for the identified road user needs, and community and stakeholder expectations.

Some of the RSS facilities may include the following:

- a. An Administration block for stakeholders' offices (Road Agencies; Revenue Authorities, Police, Traders Association Office and any other as it may be identified by the Consultant);
- b. Parking yard for trucks, autos, and passenger vehicles;
- c. Vehicle charging/ battery swapping facilities (for electric vehicles), repair, and maintenance yards;
- d. Recreation hall where drivers could gather for regular sensitization on HIV/AIDS and Road Safety (Wellness Centre), and access to prayer rooms and toilets;
- e. Business centre or mall (including hotels, restaurants, internet cafe, banks, insurances, shops, garages and fuelling stations);
- f. Segregated motorized and non-motorized lanes including pedestrian lanes that will address traffic flows within the stations;
- g. ICT infrastructure that will facilitate sharing of information and efficient communication between various stakeholders at the centres and with other agencies external to the posts.

At least two or three options will be prepared for each location, and the best option selected based on a multi-criteria analysis that considers smooth and safe access, and economic, social, political and strategic factors.

5. Prepare preliminary engineering designs for the RSSs and Dry Ports using international and regional guidelines, and determine cost estimates for the recommended options;
6. Develop a practical business plan for each RSS and recommend appropriate financing structure for each, considering several options, including fully private sector, PPP, and fully public sector;
7. Prepare scoping and screening environmental and social impact assessments (ESIA) and mitigations measures, gender studies, and high-level Resettlement Action Plans (RAP) of the recommended RSSs and the Dry Ports, and the Terms of Reference for future detailed studies as relevant;
8. Undertake economic feasibility studies for the entire project, for each RSS and Dry Port.

The report shall contain the following:

- a. The Net Present Value (NPV), Economic Internal Rate of Return (EIRR), First Year Rate of Return (FYRR), sensitivity and risk analyses;
- b. Social benefits to the communities and road users;
- c. Distribution of the project benefits to the road users, community, vehicle owners, traders, etc;
- d. Positive and negative effects of the project and recommendations on appropriate actions to minimize any negative effects;

9. Undertake risk-adjusted bankability assessment of each RSS and the Dry Port, and options to attract private and non-commercial financing. The bankability assessment shall include the development of Business Case for the RSSs and the Dry Ports; a risk analysis assessment; development of a financial model and estimation of viability gap; and make recommendations for sustainable financing arrangements for construction and operation of assets;
10. Propose the institutional and organizational structure as well as the necessary regulatory framework for the recommended models for the RSSs and the Dry Ports, including user charges and operation and management of the common facilities (roads, parking, lighting, landscape, water supply, security, etc);
11. Identify potential private developers/investors that may be interested in the development of each RSS;
12. Hold a key stakeholder's workshop to present the Draft Final RSS and Dry Ports reports, and gauge the interest of Regional and International Financial Institutions (mainly Multi-lateral Development Banks and Development Finance Institutions) to contribute to the financing of the Non-Commercial portion, and prepare the final workshop report;
13. Undertake digital market sounding to validate the attractiveness of the proposed financing mechanisms using market information package, in the form of Project Information Memorandum (PIM), to be presented to at least five (5) different private investors and two (2) financial institutions. Suggestions/comments received shall be incorporated/addressed; and
14. Identify those RSSs which are not likely to attract private sector to develop and recommend how they may be integrated within the contracts of contractors already on site for construction of the road.

6. DELIVERABLES SCHEDULE

The proposed duration for the assignment is 12 months from the date of commencement, including time taken by the Client for the review of the deliverables. The main deliverables schedule is listed in Table 2 below:

Table 2: Study deliverables schedule

No.	Deliverable and Time Schedule	Period (Days)	No. of copies	
			RSS	Dry ports
1.	Inception Report (IR) shall contain final and detailed approach and methodology, including any questionnaire, survey forms, analytical tools, software, and strategy for conducting the study. The	30	10	10

No.	Deliverable and Time Schedule	Period (Days)	No. of copies	
			RSS	Dry ports
	inception report shall further summarize the preliminary observations on the determinants of the study and shall give the status of the mobilization of the staff assignment to the study, and a revised programme for execution of the study. The IR to be submitted one (1) month after commencement			
2.	Interim Reports shall constitute a summary of the accomplished work and the actual progress made while undertaking various tasks. The interim report shall contain collected data for the accomplishment of the assignment and proposed RSSs and Dry Port locations and functions to be catered for in each candidate RSS and Dry Port. Based on the objectives of the study, the interim report shall specifically be composed of the following reports: • Demand and Traffic Forecast Report • Site Selection Report • Concept Engineering Design Report • Preliminary Financial and Economic Analysis Report The report shall contain outputs of Tasks 1, 2, 3 and 4 above. The Interim Report shall be submitted four (4) months after commencement.	90	10	10
3.	First Stakeholders' Workshop: the Consultant shall make presentation of the interim report to stakeholders. The stakeholders' workshop will be held within two (2) weeks after submission of the Interim Report.		2	2
4.	RSS Draft Report shall contain draft findings on specific Tasks 1 to 9, and any preliminary recommendations on 10 to 14. It shall also address Client and stakeholder inputs on the Interim Report. The Draft Report shall be submitted seven (7) months after commencement.	90	5	5
5.	Dry Ports Draft Reports shall contain draft final findings/conclusions and recommendations covering	60	5	5

No.	Deliverable and Time Schedule	Period (Days)	No. of copies	
			RSS	Dry ports
	the whole Terms of Reference and based on comments and recommendations made by the Client and key industry stakeholders on the Draft report. The Draft Final Reports shall be submitted nine (9) months after commencement.			
6.	Second Stakeholder's Validation Workshop: the Consultant shall present the Draft Final Report to stakeholders. The stakeholders' workshop will be held within two (2) weeks after submission of the Draft Report.		2	2
7.	Final Report shall contain final findings, conclusions and recommendations of the whole scope of services based on final comments made by the Client and all the stakeholders. The Final Report shall be submitted eleven (11) months after commencement.	60	10	10
8.	Verification Report shall document the full achievement of all the deliverables, including submission of all data collected, analyses undertaken, and software output files. The Client shall reserve the right to request the Consultant to revise and re-submit the Final Report if the findings of the validation report show that the full scope of services is not undertaken. The Verification Report shall be submitted twelve (12) months after commencement.	30	6	6

The Consultant shall provide separate stand-alone reports for the RSSs and the Dry Ports. All reports shall be in three (3) hard copies and two (2) editable soft copies to the Client. All raw data such as excel sheets used for traffic analyses and financial models shall be submitted separately to the Client. Validation process will be undertaken concurrently.

9. QUALIFICATION AND EXPERIENCE OF THE KEY PERSONNEL

The assignment will be output-based, therefore the consultant shall be expected to mobilize all the resource persons required to successfully and timely complete the scope of services in this Terms of Reference. The consultant's team shall, at the minimum, include the skills, experience and competencies specified in Table 3 below. The Consultant may include in their proposal non-key

experts, such as a land valuer, landscape architect, draftsman, electro-mechanical engineer, quantity surveyor, etc, as appropriate.

Table 3: Qualification and experience of key personnel

No.	Position	Qualification	Time Inputs (months)
1	Team Leader/ Transport Economist	The Team Leader/Transport Economist shall have a minimum of a first degree in Civil Engineering, Transport Economics or a relevant area of study and a MSc in transport related field with experience as team leader in at least three (3) similar studies and conversant with transport logistics in a road transport corridor environment. Must have at least 15 years' post-graduate experience and at least 10 years' experience in carrying out economic analysis of infrastructure projects of similar nature. Fluency in written and spoken English is mandatory.	12
2	Traffic Engineer	Must possess a University Degree BSc (Civil or Traffic Engineering), or equivalent, and be a registered engineer with Engineers Registration Board of Kenya, or equivalent. A Master's Degree in Traffic Engineering will be an added advantage. At least 12-years' post-graduate experience and at least 8 years of experience in traffic analysis and be familiar with latest traffic engineering software and Computer Aided Design applications.	6
3	Road Safety Specialist	Must possess a University Degree BSc (Civil or Traffic Engineering), a Master's Degree in Traffic/Road Safety Engineering will be an added advantage. A minimum of 12 years of practical post qualification experience in road design, road safety schemes and studies. Must have broad experience in design of road safety features and development of road safety policies and strategies. Must have at least 8 years working experience in road safety studies. Previous experience	3

No.	Position	Qualification	Time Inputs (months)
		in road projects in East Africa will be an added advantage.	
4	Structural Engineer	Must possess a University Degree BSc (Civil Engineering) or equivalent and be a registered engineer with Engineers Registration Board of Kenya, or equivalent. A Master's Degree will be an added advantage. At least 12 years of experience in structural analysis and design and construction of buildings and minor drainage structures including urban drainage systems. Should be familiar with the latest Computer Aided Design applications.	6
5	Architect	At least a postgraduate degree in Architecture and conversant with transport logistics in a corridor environment with experience in the design of roadside stations. Must have at least 12 years' experience in design and construction of large public buildings. Must be registered with the Architectural Association of Kenya.	6
6	Public Health Specialist	At least a postgraduate degree in Public Health with experience in addressing issues related to HIV/AIDS and other communicable diseases in a corridor environment. Must have at least 10 years' experience in public health.	2
7	Financial Specialist	Must possess a university degree in Finance or other relevant fields and must be registered with a recognized professional Institution. Must have experience as a PPP Financial Expert on at least one (1) similar project in the last 8 years. Must have experience in financial planning, financial analysis, cost accounting, startup operations, profit and loss management, business forecasting and market growth analyses. Must possess experience of not less than 10 years in carrying out PPP related studies, of which at least 5	3

No.	Position	Qualification	Time Inputs (months)
		years working experience should be in East and Sub-Saharan Africa.	
8	PPP Specialist	At least post graduate degree in transport economics, engineering, finance, business administration, economics or related field. Must have at least 15 years post-graduate experience in transport sector studies. Having experience in developing and managing PPP concessions, with sound expertise in packaging and structuring PPP transactions. The expert would have held several positions as lead PPP Advisor in similar deals.	2
9	Topographical Surveyor	Must possess a University Degree of BSc (Survey & Photogrammetry) or equivalent and be Registered with the Institute of Surveyors of Kenya, or equivalent. A Master's degree will be an added advantage. At least 12 years post-graduate experience and 8 years of recent experience in carrying out different surveys and mapping of large road projects using the latest electronic survey equipment including GPS, Total Stations and associated computer applications.	3
10	Gender Specialist	Must possess a Master's degree in gender studies with bias in community development. Must have at least 10 years working experience in east and sub-Saharan Africa. Must possess demonstrated understanding of issues related to gender and sustainable development, at least 4 years of practical working experience in gender mainstreaming, women's empowerment and sustainable development in the EAC region.	2
11	Social Specialist	Must possess a Master's degree in Social Sciences with a minimum of ten years of relevant experience in community mobilization, stakeholder engagement, gender, or social assessment. Have experience of 10 years in managing resettlement / mitigation or social impact assessment related to public infrastructure development projects funded by international	5

No.	Position	Qualification	Time Inputs (months)
		organizations in developing countries. Should have experience in at least three road projects.	
12	Environmental	Must possess a Master's Degree in Environmental Sciences or equivalent and licensed by NEMA or equivalent as a Team Leader in Environmental Impact Assessment and Environmental Audits in Kenya. Must possess professional training in Environmental Impact Assessment. A minimum of 10 years of relevant practical post qualification experience in environmental impact studies of infrastructural projects as a Team Leader is required. Must have broad experience in Team Leadership in environmental and social impact assessment of at least three highway construction projects of comparable magnitude. Experience in the preparations of Environmental and Social Management Plans (ESMP) and conduct of environmental and social audits will be an added advantage. Previous experience on road projects in East Africa will be an added advantage.	5
		Total	55

The experts shall demonstrate excellent information and data collection, analysis and reporting skills. They should be fluent in spoken and written English. Knowledge of Kiswahili among some of the Consultant's team will be an added advantage.

10. COORDINATION AND LOGISTICS

The State Department for Transport (SDoT) will coordinate the study. The consultant will report to the Principal Secretary, SDoT, and coordinated by the Road and Rail Department. All communications including the reports and the workshops will be in English.

11. DATA, SERVICES, PERSONNEL, AND FACILITIES TO BE PROVIDED BY THE CLIENT

The client will:

- i. Facilitate access to reports and available data relevant to the assignment;
- ii. Review the study reports submitted and organize validation workshops within one week of receipt;
- iii. Arrange to provide all relevant documents, especially road alignment and upgraded road designs, past RSS study financed by TMEA (now Trademark Africa);
- iv. Facilitate Consultant's interaction with Ministries, Departments and Agencies, and County Government officials;
- v. Cater for the costs directly associated with the organization of stakeholder workshops. All other logistical costs, including travels, will be borne by the Consultant; and
- vi. The Consultant will also be responsible for providing all the necessary resources to carry out the Services including office, office equipment and other requisite logistics.