TERMS OF REFERENCE FOR CONSULTANCY SERVICES FOR FEASIBILITY STUDY AND PREPARATION OF BUSINESS PLAN FOR THE DEVELOPMENT OF ROADSIDE STATIONS AND A DRY PORT ALONG THE ISIOLO – MANDERA ROAD CORRIDOR

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 Road Corridor. The total length of the road section is approximately 740 km.

In preparation for the planned road corridor improvements between Isiolo and Mandera, 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 a Dry Port, 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 Port.

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.

2. PROJECT DETAILS

The proposed road corridor starts in at the Lamu Port (Lamu County) through Isiolo town (Isiolo County) and ends at Mandera (Mandera County)

The proposed improvements are summarised in Table 1 below.

Table 1: Status of implementation of the Isiolo – Mandera Road Corridor Projects

No.	Section	Status of Implementation
1	Isiolo – Kulamawe – Modogashe (170 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 being procured.
4	Wajir – Elwak (175 km)	Civil works ongoing through IDA financing as part of the HoAGDP.
5	Elwak – Gari - Rhamu (142 km)	Civil works ongoing with finance from African Development Bank (AfDB).

No.	Section	Status of Implementation
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 constrains the social and economic development prospects of the area. In order to address this constraint, the Government of Kenya intends to upgrade the Isiolo – Mandera road from its current unpaved state to paved road standard. As part of the improvements, the Government intends to construct planned Roadside Stations (RSS) and a Dry Port along the road corridor.

Roadside Stations: 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.

In principle, Roadside Stations (RSSs) should be developed to provide drivers and other road users with a place to rest, refresh, and to attend to personal needs and vehicle emergency repairs. In addition, RSSs should link road users and local communities. Several types of "RSSs" can be found in Kenya, although they are not necessarily part of a comprehensive development plan. Examples include shops, stores, malls, and restaurants situated along the major highways or at major intersections and built not specifically as roadside stations. The main problems with the "RSSs" in Kenya include: poor planning and construction; lack of proper and safe connection with the highway; inadequate parking and other facilities for the comfort and convenience of the road users; and non-catering facilities to the local communities. Lack of well-planned RSS results in the mushrooming of several roadside markets along the highways within the road reserves. These local markets expose the traders to road crashes due to conflict with transit traffic, cause traffic congestion, and are unhygienic as they lack basic social amenities.

Dry Port: United Nations Conference on Trade and Development (UNCTAD) defines a dry port as: "A common user facility with public authority status, equipped with fixed installations and offering services for handling and temporary storage of any kind of goods, including containers, carried under customs transit by any applicable mode of transport, placed under customs control and with customs and other agencies competent to clear goods for domestic use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export"

The benefits of a dry port, among others, include contribution to:

1. Economic benefits by: helping to bring economic development from the coastal area to hinterland, which can grow to a Special Economic Zone (SEZ): improving supply chain and logistics that reduce transport costs; shifting clearance and distribution function from seaport terminals, thereby reducing capacity constraints at the seaport; adding value to market players; and, facilitating modal shift to more efficient modes of transport.
2. Environmental and social benefits such as: reducing Greenhouse Gas (GHG) emissions through modal shift from road to rail; reduce road congestion and risk of road crashes; and create employment opportunities.

4. FUNCTIONS OF ROADSIDE STATIONS

Based on the Northern Corridor Transit Traffic Coordination Authority (NCTTCA)[1] and the Tripartite (COMESA – EAC – SADC) guidelines[2], the main functions of Roadside Stations (RSS) can be summarized as follows:

1. Provision of rest space and facility for drivers and other road users, including but not limited to parking areas, public toilets, restaurants and prayer rooms, which can be useful for drivers for their security and convenience, especially long-distance drivers;
2. Health clinics and wellness centres for medical attention and wellness for both drivers, other road users and the local community;
3. Security services such as police and county administration;
4. Vehicle maintenance to attend to emergencies; and,
5. Income generation from stores and markets that offer necessities to the travellers and local communities and allow for local businesses and communities to showcase and sell their wares, services, produce, and other resources to corridor users.

In addition, the national guidelines for the development of roadside stations in Kenya[3] 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.

The project is a comprehensive plan to provide RSS, financial services, and public services. The RSS will also incorporate local community needs into the process of planning, construction, and operation, acting as a bridge between local community and users of the road.

[1] Northern Corridor Roadside Stations Program Regional Guidelines (2016), NTCCA
[2] Study On Development Guidelines on RSS in the Tripartite (COMESA-EAC-SADC), Final Report and Draft Guideline for RSS Presentation, May 2022, KOEI Africa.
[3] The National Guidelines for the Development of Roadside stations in Kenya, Feb. 2018, Ministry of Transport, Infrastructure, Housing and Urban Development, GoK.

This feasibility study will cover the whole scope of developing an RSS, which involves four phases: identification, preparation, appraisal, and operation. 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;

i) What are local demands and available local resources?
ii) Has the locational advantage for being an RSS including potential road user demand been taken into account?
iii) What functions and facilities are required for the RSS?
iv) Who are the stakeholders that will be involved in the planning process?
v) Who is the most appropriate RSS promoter?

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.

5. FUNCTIONS OF A DRY PORT

Simply stated, dry ports are 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.

Facilities provided at a dry port can vary considerably. Minimum facilities would include:

1. Customs control and clearance;
2. Temporary storage during customs inspection;
3. Container handling equipment for 20- and 40-feet containers;
4. Offices of an operator, either the site owner, contractor, or leassor;
5. Offices for administration, clearing and forwarding agents;
6. Complete enclosure, fencing and security system;
7. Reliable communication facilities; and,
8. Container freight station, with packing and unpacking services.

6. 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 a Dry Port along the Lamu - Isiolo – Mandera road corridor, followed by their feasibility study (FS) and the development of a business plan for their implementation.

7. 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 Port, 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 Port based on technical, economic, environmental and social studies, including but not limited to:
    a. Traffic studies such as current and future traffic types & 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 & 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 Port 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 Port 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. lCT 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 Port 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 Port, 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 Port; 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 Port, 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 Port 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.

8. DELIVERABLES AND PAYMENT 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 and payment schedule are listed in Table 2 below:

Table 2: Study deliverables and proposed payment schedule

No.	Deliverable and Time Schedule	Payment Schedule (% of total contract amount)
1.	**Inception Report** shall contain final and detailed approach and methodology, including any questionnaire, survey forms, analytical tools, software, and strategy for conducting the study. The 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	10
2.	**Interim Report** 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 & Economic Analysis Report The report shall contain outputs of Tasks 1, 2, 3 and 4I above. The Interim Report shall be submitted four (4) months after commencement.	20
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.	
4.	**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.	30
5.	**Draft Report** shall contain draft final findings/conclusions and recommendations covering the whole Terms of Reference and based on comments and recommendations made by the Client and key	25

No.	Deliverable and Time Schedule	Payment Schedule (% of total contract amount)
	industry stakeholders on the Draft report.The Draft Final Report 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.	
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.	15
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.	5

The Consultant shall provide separate stand-alone reports for the RSSs and the Dry Port. 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.

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 in road projects in East Africa will be an added advantage.	3
4	Structural Engineer	Must possess a University Degree BSc (Civil Engineering) or equivalent and be a registered engineer with Engineers Registration Board of	6

No.	Position	Qualification	Time Inputs (months)
		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.	
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 years working experience should be in East and Sub Saharan Africa.	3
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.	2

No.	Position	Qualification	Time Inputs (months)
		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.	
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 organizations in developing countries. Should have experience in at least three road projects.	5
12	Environmentalist	Must possess a Master's Degree in Environmental Sciences or equivalent and licensed by NEMA as a Team Leader in Environmental Impact Assessment and Environmental Audits in Kenya. Must possess	5

No.	Position	Qualification	Time Inputs (months)
		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.	
		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 Permanent Secretary, SDoT, and coordinated by the Road and Rail Department. All communications including the reports and the workshops will be in English.

SDoT shall arrange to provide all relevant documents, especially road alignment and upgraded road designs, past RSS study financed by TMEA (now Trademark Africa), and facilitate Consultant's interaction with Ministries, Departments and Agencies, and County Government officials.

SDOT will cater for the costs directly associated with the organization of stakeholder workshops. All other logistical costs, including travels, will be borne by the Consultant.