



**HORN OF AFRICA GATEWAY DEVELOPMENT PROJECT (HoAGDP)
PROJECT ID: P161305**

TERMS OF REFERENCE (TOR)

**CONSULTANCY SERVICES FOR THE PREPARATION OF AN
EXPRESSWAY NETWORK MASTERPLAN FOR KENYA.**

TENDER NO. KeNHA/2938/2026

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Terms of Reference (ToR) to Prepare the Expressway Network Master Plan for Kenya

A. Background

1. Kenya's strategic geographic position offers significant potential to become a leading transport hub in the region. The country hosts the Port of Mombasa—the busiest port in Eastern Africa—connected to the hinterland via an extensive railway network, oil pipeline, road corridors, and several international airports. These transport networks facilitate connectivity between key productive centers nationwide. As Kenya and its neighboring countries experience robust economic growth and rapid urbanization, the demand for efficient transportation infrastructure has become increasingly critical.

2. Kenya's Vision 2030 envisions a nation interconnected through a comprehensive network of roads, railways, ports, airports, water and sanitation facilities, and telecommunications. The goal is that “by 2030, it will become impossible to refer to any region of the country as remote.” Complementing this vision, the Integrated National Transport Policy (INTP) aims to establish a unified, efficient, and sustainable transport system to drive national development and economic growth. The policy covers road, rail, air, maritime, and pipeline transport, seeking to enhance connectivity between production centers, markets, and population hubs, facilitating social access to services, and promoting regional integration. Key policy elements include the integration of land use and transport planning, service quality improvement, consumer protection, and leveraging ICT for development.

3. Road transportation is the most dominant mode of transport in Kenya handling 90 percent of movement of freight and passengers in the country. The country's road network comprises approximately 239,121 km, with 44,630 km managed by the National Government and 120,337 km by County Governments. There is a substantial portion of 74,155 km that remains unclassified, yet these roads are crucial for last mile connectivity. National trunk roads fall under the jurisdiction of four institutions: Kenya National Highways Authority (KeNHA) which manages the national highways (22,320 km), Kenya Urban Roads Authority (KURA), urban roads (3,932 km), Kenya Rural Roads Authority (KeRRA), secondary roads (18,377 km), and Kenya Wildlife Services (KWS), which manages roads within national parks and game reserves. These agencies are responsible for the planning, development, and maintenance of roads for motorized, intermediate, and non-motorized transport.

4. Regionally, Kenya is traversed by four principal roads forming the East African Community (EAC) Regional Trunk Road Network (RTRN):

- The Northern Corridor (Mombasa–Nairobi–Malaba, with a branch to Kisumu)
- The Great North Road Corridor (Namanga–Nairobi–Thika–Isiolo–Moyale)
- The Northern Tanzania–Southern Sudan Corridor (Isebania–Kisumu–Kakamega–Kitale–Lodwar–Nandapal/Nakodok)
- Lunga Lungu (Tanzania)–Garissa (via Mombasa, Malindi, and Lamu) corridor.

The GoK has launched a new corridor for development to link the Port of Lamu to South Sudan and Ethiopia – Lamu Port South Sudan Ethiopia Transport Corridor (LAPSSET).

5. Despite ongoing efforts to improve logistics and multimodal linkages, transport planning remains fragmented, resulting in inadequate connectivity and inter-modality. Each mode of transport operates independently, limiting the system's ability to support socio-economic development and efficient access to essential services such as health, education,

governance/administration, and security. Major road corridors, including the Northern Corridor and routes connecting Nairobi to Central and Eastern Kenya, are increasingly congested, impeding efficient movement. The Government recognizes the significant impact that inadequate infrastructure has on economic growth and poverty reduction. It has already begun to observe how infrastructure bottlenecks are hindering both foreign and domestic investment.

6. To address these challenges, the Government of Kenya seeks to develop an Expressway Network Master Plan to alleviate congestion, enhance connectivity, support economic growth, reduce poverty, and promote regional integration. The initiative aims to identify existing and new highways suitable for expressway status and integrate them into a comprehensive master plan, ensuring the development of a sustainable, efficient, and well-connected expressway network.

7. A qualified consultant will be engaged to screen existing highways, assess their suitability for expressway designation, identify new routes for expressway construction, and prepare a detailed master plan, a financing and implementation plan. The consultant will provide technical expertise, conduct feasibility studies, consult relevant stakeholders, consider environmental, social, and climate change impacts, and recommend financing and implementation strategies for expressway network development.

B. Objectives of the Assignment

8. The main objective of this consultancy is to develop a comprehensive Expressway Network Master Plan for Kenya.

C. Scope of Work

9. The consultant will be responsible for the following tasks:
- (i) Collect and review all available relevant studies, reports, materials, documents, and information related to the assignment.
 - (ii) Screen existing highways to identify those suitable for designation as expressways based on technical, economic, and environmental criteria.
 - (iii) Collect and analyze data on existing highways, traffic patterns, and overall transport demand and future needs to identify potential expressway corridors (along existing highways and new routes where justified).
 - (iv) Evaluate highways using established criteria such as technical, financial, economic, social and environmental aspects and determine their suitability for expressway status.
 - (v) Consult relevant stakeholders and local communities (including women, vulnerable groups, civil organization), environmental organizations, and government agencies.
 - (vi) Recommend a long-term Expressway Network Master Plan that will serve not only the transport needs of Kenya but also integrate well with the regional networks to enhance transcontinental and international travel, trade, and provision of services.
 - (vii) Conduct economic and environmental impact evaluation of the proposed Expressway Network and identify a subset of priority network to be implemented in a 5–10-year specific program.
 - (viii) Recommend design standards for the Expressway Network and present (i) conceptual designs, (ii) technical specifications, (iii) materials, safety plans and procedures; and (iv) maintenance regime considering also the climate- and weather-related hazards, such as flash floods, and temperature increases.
 - (ix) Review alternative sources of financing the implementation of the priority network and recommend the most viable way forward. More specifically, identify sections or

specific corridors of the priority Expressway Network suitable for implementation as Public-Private-Partnership (PPP) projects.

- (x) Review the existing policy related to toll roads and recommend a viable tolling strategy.
- (xi) Develop a comprehensive financial model for the sections suitable for PPP based on forecasted project cash flows, clearly indicating the sources of data used and assumptions made, including, cost-benefit ratio, payback period and Project and Equity IRRs, and sensitivity analyses of key parameters and variables, such as a shortfall in forecast traffic volumes, operating costs, delays in financial closing and project construction, etc.
- (xii) Conduct a workshop with relevant GoK parties to ensure all GoK parties understand the mechanics of the financial model(s).
- (xiii) Include clear and detailed assumptions worksheets which may be modified easily to allow for any further sensitivity analysis that may be required.
- (xiv) To the extent possible with available data, indicate the estimated financial return of individual expressways suitable for PPP and present the projected financial statements (Income & Expenditure, Cash Flow, and Balance Sheet) to establish their commercial viability and bankability.
- (xv) Propose strategies for integrating the expressway network with existing transport infrastructure, including roads, railways, and airports to ensure seamless connectivity.
- (xvi) Develop a strategic framework for phased development of the expressway network.
- (xvii) Review the existing capacity of KeNHA and the relevant legal and regulatory environment and recommend the appropriate institutional and policy framework required for the efficient implementation of the Expressway Development program, including the option of establishing an autonomous Expressway Authority in due time.
- (xviii) Ensure alignment of the master plan with Kenya's Vision 2030 and other regional and national development goals including county development plans.
- (xix) Take into account climate- and weather-related hazards, such as flash floods, and temperature increases.
- (xx) Coordinate with the consultant developing the 50-year transport master plan for Kenya.
- (xxi) Map out potential barriers to effective implementation of the masterplan and mitigation strategies
- (xxii) Submit a comprehensive final report detailing the findings, recommendations, and implementation plan for the expressway network.
- (xxiii) Conduct project lessons learned sessions prior to submission of the final report wherein results of the same shall be incorporated in said report
- (xxiv) Share all data analysis conducted to produce recommendations, including the data and calculations for any tables or figures and all assumptions made regarding values and calculations.

D. Deliverables and Reporting Schedule

10. The consultant shall deliver the following outputs:
 - (i) Inception Report outlining the methodology, work plan, and timeline for the assignment.
 - (ii) Interim Report summarizing the findings of the data collection, analysis, and screening process and findings.
 - (iii) Draft Expressway Network Master Plan, including proposed expressway corridors, feasibility study results, traffic surveys and demand forecast report; environment, social and climate resilience assessment; financial models; business and financial analyses; stakeholder consultations report; and implementation strategies.

- (iv) Final Expressway Network Master Plan and recommended implementation strategy incorporating feedback from stakeholders and the client.
- (v) Presentation of the final master plan to key stakeholders and government representatives.
- (vi) The Consultant shall submit the final databases, along with all code and formulas required to replicate the analyses presented in the reports. This submission must include any digitized databases created from paper records, as well as all summary databases or data files developed under these Terms of Reference (ToR) and used in the preparation of final deliverables, such as reports, tables, and visualizations. Comprehensive data documentation should be provided, clearly describing each dataset and including appropriate variable labels. All data values must be accompanied by their respective sources, and any assumptions made regarding these values or their application in the analysis should be explicitly stated. This level of detail is essential to ensure that KeNHA can modify and replicate the analyses for future use, as needed.

E. Timelines

11. The assignment is expected to be completed within nine (9) months from contract signing. Key deliverables deadlines are as follows:

- (i) Inception Report: Within 2 weeks of contract signing.
- (ii) Interim Report: Within 3 months of contract signing.
- (iii) Draft Master Plan including Feasibility Study, GIS database of the proposed expressway network, Survey data reports and map layouts supporting master plan outputs, Economic Analysis Report, Traffic Demand Report, Environmental and Social Assessment, Climate Resilience Assessment, Financial Model, Financing and Implementation Strategy and Lessons Learnt Report within 8 months of contract signing.
- (iv) Final Master Plan: Within 9 months of contract signing.

12. The reports are to be provided in 2No hard copies and soft copies are to be provided in PDF and MS Word document format as appropriate, and any output of financial analysis is provided in excel format.

13. The Consultant shall bear the cost of printing and reproduction of all reports and documents under this assignment as well as all associated costs of submission and obtaining of approvals/Comments as appropriate. In the event that the Consultant's reports or designs and documents are found unacceptable at any stage of the project, the Consultant will resubmit revised reports or documents or designs at no additional cost. Any revisions required by the Client following submissions for approval will be completed by the Consultant within the cost for Consulting services

F. Data, local services, personnel, and facilities to be provided by the Borrower

14. The following will be provided by the Employer.
- Available project information on the selected roads i.e. Design Reports, As built drawings etc.
 - Liaison and assistance to obtain any other information and documents required from the Government of Kenya and which the Client considers essential for the proper conduct of the assignment.
 - Assistance in obtaining work permits for any expatriate staff of the Consultant

G. Qualifications

Requirements for the Firm:

15. For a consultant to be considered for this assignment, the firm should have (I) proven experience in transportation planning, highway engineering, and infrastructure development; (ii) demonstrated expertise in preparing master plans for expressways or similar large-scale transportation projects; (iii) strong knowledge of traffic modeling, feasibility studies, financial modelling and economic analysis; (iv) experience in stakeholder engagement and collaboration with government agencies and development partners; (v) familiarity with Kenya's transportation policies, Vision 2030, and relevant regional and national development frameworks; and (vi) a multidisciplinary team available, including transportation planners, engineers, financial analysts, economists, social specialist, environmental specialists, surveyor/GIS specialist and climate and disaster resilience expert..

16. The required number of key person-months is provided below. The firm should also be prepared to deploy additional personnel as needed to ensure the successful completion of the assignment with high quality and on schedule.

Requirements for the Personnel:

17. The Consultant should propose a multidisciplinary team of experts with excellent skills and experience in the development of the Expressway Master Plan. The required number of key person-months of each key expert is indicated below. However, the Consultant is free to suggest additional key experts or changes to the proposed team of experts shown below to ensure the successful completion of the assignment with high quality and on schedule. However, the Financial Proposal should be based on the estimated person-months indicated below.

18. The inclusion of international experts to bring in advanced global experience, alongside local (national) experts who are familiar with on-the-ground conditions (language, culture, local regulations), is highly recommended. The Consultant may form a consortium or partnership with a local organization and/or may contract with one or more individual experts to ensure effective execution of the assignment.

Qualification Requirements for Recommended Experts

Team Leader (9 person-months)

- A master's degree in engineering, business, law or a related field and at least 10 years of highly relevant experience in the PPP and/or transport sector, or a bachelor's degree in engineering, business, law or a related field with 12 years of highly relevant experience in the PPP and/or transport sector.
- Must demonstrate experience in at least 2 No. Master Plan development assignments.
- Registered in the Engineer's Board of Kenya or equivalent at the time of contract signing.
- Experience of working in the development and implementation of PPP projects in more than one jurisdiction.
- Strong understanding of Kenya's infrastructure sector and policies.

- Experience of working in Kenya or in the region in a team leader position is strongly preferred.
- Proven experience working with government agencies and multilateral development banks is preferred.
- Strong analytical and communication skills, with a track record of delivering high-quality reports and recommendations.

Transport Specialist (Transport or Highway Engineer) (5 person-months):

- A master's degree in engineering, business, law or a related field and at least 10 years of highly relevant experience in the transport sector, or a bachelor's degree in engineering, business, law or a related field with 12 years of highly relevant experience in the transport sector.
- Registered in the Engineer's Board of Kenya, or equivalent at the time of contract signing.
- Experience of working in a technical role in the development and implementation of road projects in Sub-Saharan Africa.
- Experience of highway design and/or planning and preparing Master Plan in 3 projects.
- Experience in provision of engineering cost estimates or developing bill of quantities.

Project Finance Expert 4 person-months):

- A master's degree in economics, business, law or a related field and at least 10 following areas: in financial modeling and project structuring of PPP projects.
- Development of financial models, incorporating an appropriate structuring of PPP modality with detailed capex, opex and revenue (payment mechanism and tariff/toll scheme) assumptions
- Management of financial aspects of the transaction preparation and bidding process; develop an appropriate project finance model with suitable assumptions; resulting in a set of projected financial statements (balance sheet, cash flow, income statement, key ratio analysis) and sensitivity scenarios.
- developing the financial / commercial and risk allocation terms of PPP modality after assessing alternative choices including the commercial, legal, and institutional impacts; identifying appropriate funding sources, including private sector funding, government funding and government support.

Legal Specialist (3 person-months):

- A master's degree in engineering, business, law or a related field and at least 10 years of highly relevant experience in the legal profession, or a bachelor's degree in engineering, business, law or a related field with 12 years of highly relevant experience in the legal profession.
- Registered in the relevant professional body in Kenya, or equivalent.
- Experience of working as a legal specialist in the development of projects, master plans.
- Experience of working in road projects is strongly preferred.
- Proven experience working with government agencies and multilateral development banks is preferred.
- Strong analytical and communication skills, with a track record of delivering high-quality reports and recommendations.

Transport Economist (4 person-months):

- A master's degree in Engineering, Transport Economics, Project Finance or Transport Planning and at least 10 years of highly relevant experience in transport economic analysis, preferably in road or infrastructure projects.
- Experience of working as Transport Economist in the development and implementation of road projects in Sub-Saharan Africa.
- Registered in the proper professional body in Kenya, or equivalent.
- Experience of economic analysis/or planning, and preparing Master Plan in 3 projects.
- Experience in Economic and financial appraisal of road projects (cost-benefit and cost-effectiveness analysis), Traffic demand forecasting, Transport modelling and data analysis,

The Surveyor/GIS specialist (4 person-months):

- A master's degree in GIS, Remote Sensing, Surveying, Geospatial Engineering, Geography (GIS option), or a related field or Transportation Planning is an advantage and at least 10 years of professional experience in surveying and GIS applications for transport or infrastructure projects.
- Registration with the Institution of Surveyors of Kenya or equivalent
- Experience in spatial analysis and mapping for road or expressway planning., collecting, managing, and creating geospatial databases of the transport network, land use, population, terrain, and environmental constraints
- Shall demonstrate proficiency in ArcGIS, QGIS, or similar platforms

Environmental Specialist (3 person-months):

- A master's degree in Environmental Science, Environmental Engineering and at least 10 years of highly relevant experience in preferably in road or infrastructure projects in environmental management or environmental impact assessment.
- Registered Lead Expert under NEMA (Kenya) or equivalent.
- Familiarity with environmental safeguard policies of multi-lateral development Banks
- Experience in Preparing EIA/ESIA and Environmental Management Plans (EMP), Conducting strategic environmental assessments (SEA) for master plans or large-scale programs. Implementing or monitoring environmental safeguards in PPP or multi-lateral development partner funded projects
- Demonstrated familiarity with GIS-based environmental mapping and climate risk assessment.

Social Specialist (3 person-months):

- A master's degree in Sociology, Social Sciences, or Development Studies and at least 5 years of experience in infrastructure or transport sector projects, ideally in road development.
- Registered in the proper professional body in Kenya, or equivalent.
- Experience in Social impact assessments, Stakeholder engagement, Resettlement planning, and Preparation of Environmental and Social Impact Assessments (ESIAs).
- Familiarity with social safeguard policies of multi-lateral development Banks

Climate and Disaster Resilience Expert (3 person-months):

- A master's degree in Climate Change Adaptation, Disaster Risk Reduction (DRR), Sustainable Infrastructure Planning, or Environmental Management with 5 years of professional experience in climate change, disaster risk management, or resilient infrastructure planning in the transport sector, especially roads or expressways.
- Registered in the proper professional body in Kenya, or equivalent.
- Experience in conducting climate risk and vulnerability assessments for infrastructure projects, Integrating climate adaptation and DRR measures into master plans or feasibility studies.
- Experience working with multilateral development banks and applying their climate resilience frameworks.
- Familiarity with GIS-based risk mapping, climate modeling tools, and disaster risk assessment methods

H. Institutional and Organization Arrangements

19. The consultant will report to the Director (PPP) Kenya National Highways Authority. Regular progress meetings will be convened to review the status of the assignment and address any challenges. The consultant will also coordinate with other relevant government agencies and stakeholders to ensure the successful completion of the project. All approvals will be done by KeNHA subject to concurrence from the Financier.

I. Payment Schedule

20. Payments will be made upon successful completion and approval of deliverables as follows:

- (i) 20% upon submission and approval of the Inception Report.
- (ii) 30% upon submission and approval of the Interim Report.
- (iii) 30% upon submission and approval of the Draft Master Plan and accompanying Reports.
- (iv) 20% upon submission and approval of the Final Master Plan and accompanying Reports.