

HIGH-LEVEL PPP VIABILITY ASSESSMENT FOR THE UPGRADING TO DUAL CARRIAGEWAY OF 45KM OF T4 FROM LUSAKA (JUNCTION TO THE KKIA) TO CHONGWE RIVER BRIDGE, OPERATION AND MAINTENANCE OF THE LUSAKA TO LUANGWA BRIDGE ROAD (T4) UNDER A PUBLIC PRIVATE PARTNERSHIP (PPP) MODEL.

1. Introduction

The Government of the Republic of Zambia (GRZ) through the Road Development Agency (RDA) has identified the need to upgrading to dual carriageway of 45km of T4 from Lusaka (junction to the KKIA) to Chongwe River Bridge in Lusaka Province and operate and maintain the Lusaka to Luangwa Bridge Road.

GRZ has received funding from the World Bank (WB) under the Transport Corridors for Economic Resilience (TRACER) Project and intends to apply part of these funds to undertake the High-Level PPP Viability for the Upgrading to dual carriageway of 45km of T4 from Lusaka (junction to the KKIA) to Chongwe River Bridge, operation and maintenance of the Lusaka to Luangwa Bridge Road (T4) under a Public Private Partnership (PPP) Model.

This assignment is aimed at ensuring that the Lusaka to Chongwe to Luangwa Bridge Road (T4) fulfils its functions as part of a National, Regional and International Road network providing for safe operation of various vehicle configurations, pedestrians and non-motorised transport. Implementation of the project under a PPP Model also aims at encouraging private sector expertise/participation and resource to undertake infrastructure development in partnership with GRZ.

The proposed PPP project is also in line with the Institution's strategic vision of achieving sustainable fit-for-purpose road infrastructure in Zambia. The Project has been formulated to translate Government's economic and social development transformation agenda.

The Road Development Agency (RDA) wishes to explore the technical, financial and commercial viability of this project through a High-Level PPP Viability as a Public-Private Partnership (PPP) Project, in line with the Public Private Partnership Act No. 18 of 2023.

The RDA, therefore, seeks the services of a consulting firm to undertake a High-Level PPP Assessment of the project.

2. Objective

The objectives for this project are to conduct a high-level PPP viability assessment to determine whether the Lusaka-Chongwe River Bridge-Luangwa Bridge road corridor is suitable for PPP implementation and if so, propose appropriate PPP implementation modalities .

3. Scope of the Services

- Review the project's technical concept and preliminary cost estimates;
- Conduct high-level traffic demand and analysis;
- Conduct financial analysis;
- Assess legal and institutional readiness for PPP;
- Conduct an initial risk identification and suggest preliminary risk allocation;
- Perform preliminary value-for-money and affordability assessment;
- Recommend appropriate PPP model (e.g., DBFOM, toll/availability);
- Conduct market sounding;
- Identifying summary of key Project outputs and outcome indicators
- Identify critical information gaps and further studies needed; and
- Present findings in a concise assessment report.

4. High-Level PPP Viability deliverables

4.1 Components of the High-Level PPP Viability

The High-Level PPP Viability report must include but not limited to the following:

4.1.1 Needs Analysis

This shall include but not limited to the following:

- i. Justification for Dualling of the road such as reduction traffic congestions and also ease movement of goods and services within this corridor;
- ii. Justification for using funding from the Private Sector through Public Private Partnership; and
- iii. An analysis of the affordability and bankability as a PPP project.

4.1.2 Options Analysis

This analysis shall include the following sections:

- i. Option Identification;
- ii. Option Evaluation; and
- iii. Recommendation of a preferred option.

4.1.3 Project Due Diligence

The Consultant shall undertake a due diligence exercise on implementing the Project under a PPP Model. This shall include technical, legal social and environmental aspects.

4.1.4 Legal Aspects.

This shall include detailed description of the following:

- i. Assess enforceability of PPP contracts and dispute resolution mechanisms.
- ii. Review the PPP legal and regulatory framework.
- iii. Review the existing tolling structures and relevant legislature
- iv. Assess institutional roles and responsibilities of the contracting authority, PPP unit, regulator, and relevant ministries.
- v. Review the legal framework for land acquisition and right-of-way relevant to the project.
- vi. Review PPP procurement procedures and approval processes required under national legislation.
- vii. Assess the dispute resolution framework, including availability of arbitration and enforceability of contracts.
- viii. Review foreign investment and foreign exchange regulations relevant to private investors.
- ix. Identify key environmental and social regulatory requirements affecting project implementation.
- x. Identify major legal or regulatory risks and areas requiring further detailed legal analysis during the feasibility stage.

4.1.5 Technical Aspects

The Consultant shall undertake a high-level review of the technical feasibility of the proposed project under a PPP model, focusing on confirming the overall technical viability of the project concept and identifying any major technical constraints. The review shall rely primarily on available studies, existing information, and limited site observations, and shall include the following:

- i. Review available technical documentation, concept designs, and preliminary cost estimates related to the project.
- ii. Assess the technical concept and service requirements necessary to deliver the proposed project outputs.
- iii. Identify any major site constraints, including land availability, physical conditions, and accessibility, based on available information.
- iv. Review relevant planning, zoning, and land use considerations that may affect project development.
- v. Identify environmental and climate-related considerations that may influence the technical feasibility of the project.
- vi. Develop indicative capital and operating cost estimates based on available data and benchmarking of comparable projects.
- vii. Identify key technical risks, uncertainties, and information gaps that would need to be addressed during subsequent feasibility studies.

4.1.6 Social and Environmental Aspects

The scope under the Social and environmental aspects shall focus on:

- i. Identifying major environmental and social risks,
- ii. Identifying regulatory requirements, and potential land or resettlement issues, based on available information,
- iii. Characterizing options for mitigating adverse impacts and estimating the cost of mitigations;
- iv. Identification of permits/licenses needed and any further social and environmental impact studies that will need to be conducted; and
- v. Providing information regarding health and safety and other environmental/social standards,
- vi. outlining further studies that would be required during the feasibility stage.

4.1.7 Section 4 - Financial Feasibility

The financial feasibility study shall be focused on a high-level financial assessment, using indicative assumptions and benchmarking. The Consultant shall focus on:

- i. Reviewing indicative capital and operating cost estimates
- ii. Assessing potential revenue streams or payment mechanisms and potential returns to investors,
- iii. Develop a simplified financial framework or indicative financial model:
- iv. Conduct high-level affordability and value-for-money considerations
- v. Identify potential Project structure and sources of financing, defining expected debt and equity financing
- vi. Identify potential government support requirements (e.g., viability gap funding, availability payments, Grants or subsidies)
- vii. Undertake simple sensitivity testing on key variables to test the robustness of the financial model, taking into account various economic factors in which the model is scheduled to operate in,
- viii. Identify major financial risks and uncertainties, assessment of the impact of these risks, the likelihood of such risks arising,
- ix. Evaluate risk sharing between public/private sectors
- x. Evaluate financial viability metrics (NPV, IRR, payback periods etc.) i.e check the profitability/viability of the project through the financial feasibility analysis

4.1.8 Section 5 - Affordability and bankability

This assessment shall include aspects of **budget availability** and **comparison with the PPP financial model** so as to determine the affordability of implementing the project under a PPP Model.

The Consultant shall test the Project for commercial feasibility, affordability and bankability. The Consultant shall provide suggestions on ways to enhance and increase

affordability and bankability of the Project for both the users and the Contracting Party/GRZ and assess its potential to attract investors or financiers.

In particular the Consultant shall:

- (i) Assess government's fiscal capacity to support project (subsidies, guarantees)
- (ii) Evaluate user affordability (tolls, fees) i.e Evaluate if tolls/fees are affordable for all users
- (iii) Value for money: Assess if PPP delivers better value vs traditional procurement
- (iv) Assess project attractiveness to lenders/investors
- (v) Evaluate revenue streams, risk allocation, returns
- (vi) Assess and consider need for guarantees, credit enhancements

4.1.9 Section 6 - Preliminary Value for Money Assessment

Through the VFM analysis, the Consultant shall undertake a qualitative and or indicative value-for-money assessment. In particular, the Consultant shall:

- (i) identifying whether the project has characteristics that could justify PPP procurement,
- (ii) Assess if PPP delivers better value vs traditional procurement i.e Traditional public procurement through the Public Procurement Act, No. 8, of 2020 or PPP procurement through the Public Private Partnership Act No. 18 of 2023
- (iii) allocate identified risk to a Party (Government/Contracting Part or to the private sector) that can deal with them efficiently and effectively,
- (iv) Highlight the additional analysis required during the feasibility stage to conduct a full Public Sector Comparator (PSC) and detailed VfM assessment.

4.1.10 Section 7 - Economic Valuation

Based on the proposed technical solutions and expected traffic forecasts, the Consultant shall make for the design period, concession period and the all -life -cycle of the Project, realistic forecasts of future traffic and carry out an economic analysis accordingly.

The Consultant shall:

- (i) Undertake an economic assessment through a simplified economic screening, using indicative traffic forecasts;
- (ii) Undertake a benchmarking to determine whether the project appears to generate sufficient socio-economic benefits to justify further preparation.
- (iii) Identify main economic benefits,
- (iv) carry out a Preliminary Analysis and Options Selection, and
- (v) Identify further studies required to undertake a full economic evaluation during the feasibility stage, .

4.1.11 Section 8 – Project viability (preferred procurement mode).

The Consultant shall ;

- (i) Synthesize the findings of the preliminary technical, legal, financial and economic reviews,
- (ii) Undertake a final determination whether the project appears suitable for PPP procurement,
- (iii) Identify the final preferred procurement approach at a conceptual level, and
- (iv) Recommend whether the project should proceed to full feasibility and transaction preparation.

The Consultant shall prepare a concise viability assessment report with key conclusions and recommended next steps.

This section shall also include a summary business case. Commercially sensitive information must not appear and thus must be removed to protect the Government's commercial position during stages of the project.

The contents of summary Business Case shall include:

- Section 1: Project Introduction and Background;
- Section 2: Context of the Project;
- Section 3 : Options Analysis for the Project ;
- Section 4: Project Benefits;
- Section 5: Economic Analysis;
- Section 6: Legislative and Policy Framework;
- Section 7: Public Interest Considerations;
- Section 8: Sustainability Assessment of the Project;
- Section 9: Economic and Risks Analysis;
- Section 10: Financial/Commercial Analysis;
- Section 11: Project Implementation Plan; and
- Section 12: Cross Cutting issues.

5. Power Point Presentation of Interventions to remedy identified problems

The results of the proposed solutions shall be presented to RDA and other GRZ officials in form of a detailed Power Point presentation. The Consultant is expected to justify and motivate the selection of each preferred option. The results of the two main following milestone approval gates for the alignment studies shall be presented:

- **The Best Alignment Option** – if there are two or more proposed route alignments; and
- **The Best Implementation Option** - whether the project is to be implemented now, later or never and based on the total project life cycle cost analysis.

In line with the timeline of the Consultant’s deliverables, the proposed date of the Ppt presentation shall be formally communicated to RDA’s Planning and Design Department well in advance, at least two weeks before the due date. The presentation shall be presented to a panel of GRZ/RDA team, with all motivational evidence for the selected option.

6. Presentation of the High-Level PPP Viability

The feasibility study, comprising all the above deliverables, must be compiled in a single report in Word format (with relevant annexures), and delivered as both electronic and hard copy documents.

All financial models must be in Excel format, and must clearly set out all assumptions made, sensitivity analyses carried out, and model outputs. The financial models must be sufficiently adaptable for use by others at later stages. The feasibility study must be presented with a thorough executive summary and must be accompanied by a PowerPoint presentation that encapsulates all the key features of the study. The executive summary and PowerPoint presentation must be compiled in such a manner that they can be used by the Institution's management for decision- making purposes.

7. Submission requirements for the High-Level PPP Viability report

The High-Level PPP Viability must be of a standard that will be accepted by relevant authorities such as the PPP Department for the purposes of the Road Development Agency obtaining approval. The consultant is therefore advised to be fully familiar with the requirements of the relevant authorities.

7.1 Required Deliverables and Timelines

Table 1 shows the details and timelines of the deliverables to be submitted.

Table 1: Deliverables under the High-Level PPP Viability Phase

Deliverable	Duration (week) within which submission is to be made from the Effective Date
Inception Report	3
Draft High Level PPP Viability Assessment Report	8
Presentation to Government Stakeholders	10
Final High-Level PPP Viability Report	12

8. Consultant’s Qualification and Personnel

8.1 Qualification and Experience of the Consulting Firm

The consulting firm shall demonstrate adequate technical, financial, legal and managerial capacity to undertake the assignment. The firm shall have proven experience in undertaking

feasibility studies, PPP assessments, and advisory services for transport infrastructure projects.

The firm shall meet the following minimum requirements:

- a) **General Experience:** The consulting firm shall have been in operation for at least ten (10) years providing consulting services in infrastructure planning, engineering, transport economics, financial analysis, or PPP advisory services.
- b) **Relevant Project Experience:** The consulting firm shall demonstrate experience in carrying out at least three (4) assignments related to feasibility studies, PPP assessments, or transaction advisory services for transport infrastructure projects, of which at least two (2) assignment should relate to PPP project structuring for road infrastructure.
- c) **Experience in Developing Countries:** Experience in undertaking similar assignments in developing countries, particularly in Sub-Saharan Africa, will be considered an advantage.

8.2 Personnel

The Consultant shall provide competent team for the services, which shall be managed by the Team Leader/PPP Specialist, who will represent the Consultant in performing the requested services. The Consultant shall not change the contractual agreed establishment without prior approval by the Client. All the Consultant's personnel shall be fully conversant with the use of English language (i.e. the writing, reading and speaking), which is the contract mode of communication. In addition, all the key staff described herein, shall be fully computer literate regarding word processing and spread sheets, with at least one member of staff fully computer literate in the use of: data bases; total station surveying and other survey software packages. Tables 2, shows details of the personnel required to carry out the High-Level PPP Viability.

Table 2: Personnel for the High-Level PPP Viability

Position	No.	No. of Man-months (months)
Team leader /PPP Specialist	1	3
Financial and Transport Specialist	1	3
Highway Engineer	1	3
Legal Expert/Institutional and Policy Expert	1	3
Total	4	12

- a) Team Leader / PPP Specialist

He/she shall have a minimum of a bachelor's degree in Highway or Civil Engineering and a Master's Degree in an equivalent field. He must have a minimum of Fifteen (15) years of experience in both road design and construction. He/she should have a strong experience with PPP Projects from Inception to Procurement and Management. He/she shall be a registered member of a recognized professional body and registered to practice by an appropriate body.

He/she shall have at least eight (08) years of experience in carrying out feasibility studies and engineering designs of road construction projects.

He/she will also be familiar with FIDIC and/or other internationally recognized forms of Contract procedures and administration.

b) Financial Analyst and Transport Economist

He/she shall have a master's degree in business administration and or finance or economic studies or equivalent and a Master's Degree in Transport Economics or equivalent. He/she shall be a registered member of a recognized professional body and registered to practice by an appropriate body.

The Financial and Economic Analyst shall have ten (10) years of experience in the commercial and structuring aspects of large PPP transactions and experience in building high-level project financial screening models, preferably in the road sector. He/she shall have competency in project finance, economic and financial analysis of at least four (4) PPP Projects of a similar nature and magnitude. He should have been involved in studies pertaining demand analysis and traffic forecasting.

c) Highway Engineer

He/she shall have a minimum of a bachelor's degree in Highway or Civil Engineering with a minimum of ten (10) years' experience in both road design and construction. (Any higher qualifications in a relevant field will be an added advantage). He/she shall be a registered member of a recognized professional body and registered to practice by an appropriate body. He/she shall have at least eight (08) years' experience in carrying out engineering designs of road construction projects.

He/she will also be familiar with FIDIC and/or other internationally recognized forms of Contract procedures and administration. He/she should have at least 5 years' experience in road construction works in developing countries, preferably in sub-Sahara African region, but experience in Zambia will be beneficial.

d) Legal Expert/ Institutional and Policy Expert

He/She shall have a Degree in Law with emphasis on contracting, corporate finance and project finance is a requirement. The Legal Expert shall have seven (7) years of successful

and verifiable experience in a project finance environment. He/She shall have a deep knowledge of PPP frameworks, tolling legislation, and legal responsibility within PPP concessions. He must have at least 4 years of experience in PPP institutional frameworks, with a public policy, or a related field, and prior work with PPP Acts, procurement laws, and road-sector legislation. He/she shall be a registered member of a recognized professional body and registered to practice by an appropriate body.

The Legal expert shall have experience in drafting and negotiating complex PPP/Concession agreements.

9. Location and Duration of the Assignment

The Assignment shall be undertaken in the Republic of Zambia and will entail detailed fieldwork on the project road. The assignment will be completed within three (3) months, which includes the period for the required review and acceptance of the outputs by the Client and the World Bank.

10. Client's Input

RDA will make available to the Consultants all relevant reports and data in its possession, but the Consultants shall be fully responsible for the interpretation and use of the material in question.

The Consultants shall provide own transport, office space and access to communication for undertaking the services. The Consultant is required to make a reasonable estimate of the appropriate type and number of vehicles required to effectively undertake the assignment.

RDA will liaise with other Government offices and other relevant stakeholders as required to facilitate the Consultants' work in accordance with these TOR.

11. Institutional and Organizational Arrangements for the Assignment

The Project will be Managed by the RDA Director Planning and Design.

The institutional arrangements proposed for the successful implementation of the assignment will be as follows:

a. The Role of the Road Development Agency

RDA will be responsible for the procurement of the services, review and acceptance/approval of services deliverables.

12. Payment Schedule

The payment for the deliverables shall be as indicated in Table 3 below.

Table 3: Percent Lump sum Payments

Deliverable	Payment (%)	Cumulative Payment (%)	Condition
Inception Report	15	15	The lump-amount shall be paid upon submission and approval of the Inception Report
Draft High Level PPP Viability Assessment Report	35	50	The lump-sum shall be paid upon and approval of the Draft High Level PPP Viability Assessment Report
Final High Level PPP Viability Assessment Report.	50	100	The lump-sum shall be paid upon and approval of the Final High Level PPP Viability Assessment Report.