

REPUBLIC OF RWANDA

Kigali,
Ref No: 1228/SPIU/024



RWANDA TRANSPORT DEVELOPMENT AGENCY

P.O Box 6674

KG 563 St., Queen's Land House, 1st Floor

Email: info@rtda.gov.rw

KIGALI

**REQUEST FOR EXPRESSIONS OF INTEREST(ROEI)
(CONSULTING SERVICES - FIRMS SELECTION)- READVERTISED**

Title of Assignment: Consultancy Services for Technical Assistance for Review and Update Axle Load Control Enforcement in Rwanda

Reference No: To be generated by e-procurement system.

1. The Government of Rwanda (GOR) has received financing from the World Bank toward the financing of the Lake Victoria transport program-Rwanda Project and intends to apply part of the proceeds toward payments under the contract for **Consultancy Services for Technical Assistance for Review and Update Axle Load Control Enforcement in Rwanda**. The procurement process will be governed by World Bank's guidelines and procedures.

2. The assignments will be composed of three(3)phases and the anticipated service implementation period shall be 12 months distributed over 26months as detailed in terms of references here enclosed. Each phase will have a corresponding duration as detailed in terms of reference.

3. The services include among others:

- *Assessing the worthiness of implementing vehicle load control in Rwanda;*
- *Preparation of vehicle load control related documents such as technical specifications, Terms of reference, weighbridge procedure manuals;*
- *Supervising supply and installation of weighbridge and weigh-in-motion equipment and digitalization of vehicle load control system;*
- *Training of personnel involved in vehicle load control, and*
- *Management of two weighbridge stations for 3 months.*

The detailed scope of services is defined and stated in terms of reference(TOR), here attached and posted in e-procurement system.

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4. The Rwanda Transport Development Agency (RTDA) now invites eligible consulting firms (“Consultants”) to express their interest in carrying and providing the stated Services. Interested Consultants should demonstrate that they are qualified to perform the services by providing information such as:

- i. Brochures;
- ii. Technical and managerial organization of the firm. (Provide only the structure of the organization, general qualifications and number of key staff. Do not provide CV of staff);
- iii. Detailed description of similar assignments performed;
- iv. Availability of appropriate skills among staff, etc).

Consultants may constitute joint-ventures to enhance their chances of qualification.

5. The attention of interested Consultants is drawn to paragraph 3.14 of the World Bank’s procurement regulations for IPF Borrowers, July 2016, setting forth World Bank’s policy on conflict of interest.

6. Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications. The nature of association, whether it is a joint venture or a sub consultancy should clearly be stated in expression of interest. In case of joint venture the leading firm should be mentioned. For skills and technology transfer , international consultants are encouraged to associate with local consultants. However, a consultant who participated in conducting previous axle load studies launched by RTDA will not be eligible to participate to this technical assistance .

7. A Consultant will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the Consultant Guidelines.

8. Interested Consultant may obtain further information at www.umucyo.gov.rw (clarification button) , e-procurement system.

9. Interested consultants are requested to submit their Expressions of interest through e-procurement system not later than **May 31, 2024 at 12:00Am** as indicated in e-procurement system.via www.umucyo.gov.rw .

10. To be able to submit an expression of interest, International and National consulting firms who are not registered in e-procurement system , are advised to register.

Note that the submission of expression of interest via other channels apart from that indicated above shall not be considered.

Sincerely,


Imena MUNYAMPENDA
Director General



TERMS OF REFERENCE

Consultancy Services for Technical Assistance for Review and Update Axle Load Control Enforcement in Rwanda under the Lake Victoria Transport Program - Rwanda project.

I. BACKGROUND

The Government of Rwanda (GOR) has received a credit from the International Development Association (IDA) towards the financing of the Lake Victoria Transport Program: LVTP SOP1, Rwanda (Ngoma-Nyanza Road). A portion of the proceeds of this credit will be used to finance the Technical Assistance for initiation of Vehicle Load control enforcement in Rwanda.

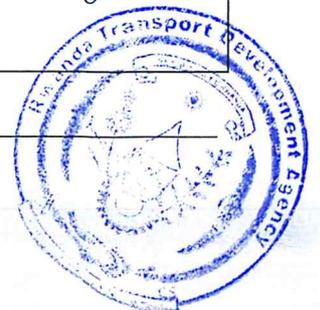
Vehicle overloading contributes to rapid deterioration of road pavements and imposes heavy costs on road maintenance. By overloading, serious consequences are perpetrated on the life of the road, the truck and safety of all other road users. The damage caused by the overloaded vehicles is several times more than that induced by vehicles laden within the legal load limits.

Countrywide, weighbridges were installed at different weighing stations; along Rusumo, Nemba, Gatuna, Rubavu petite barriere, Bugarama (toward Ruhwa and Kamanyora Borders), Kagitumba, Akanyaru, and Rusizi II Border posts. However, none of these facilities has ever been used for weighing vehicles, either for customs related reasons or for axle load control reasons given that there is no active axle load control strategy in place, they were designed to primarily weigh the GVW (Gross Vehicle Weight) rather than the weighing of axle loads and also due to the lack of any support mechanisms such as documentation, spares or consumables or weighbridge calibration equipment at any of the weighbridge sites.

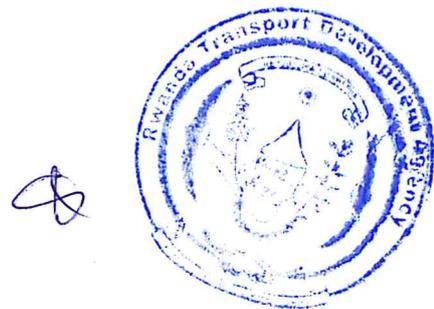
With regard to bringing a sustainable and efficient solution to the above-mentioned matter, a detailed technical study of axle load control and weighbridge in Rwanda has been conducted in 2017 and identified 8 potential locations to serve as the vehicle overload control stations.

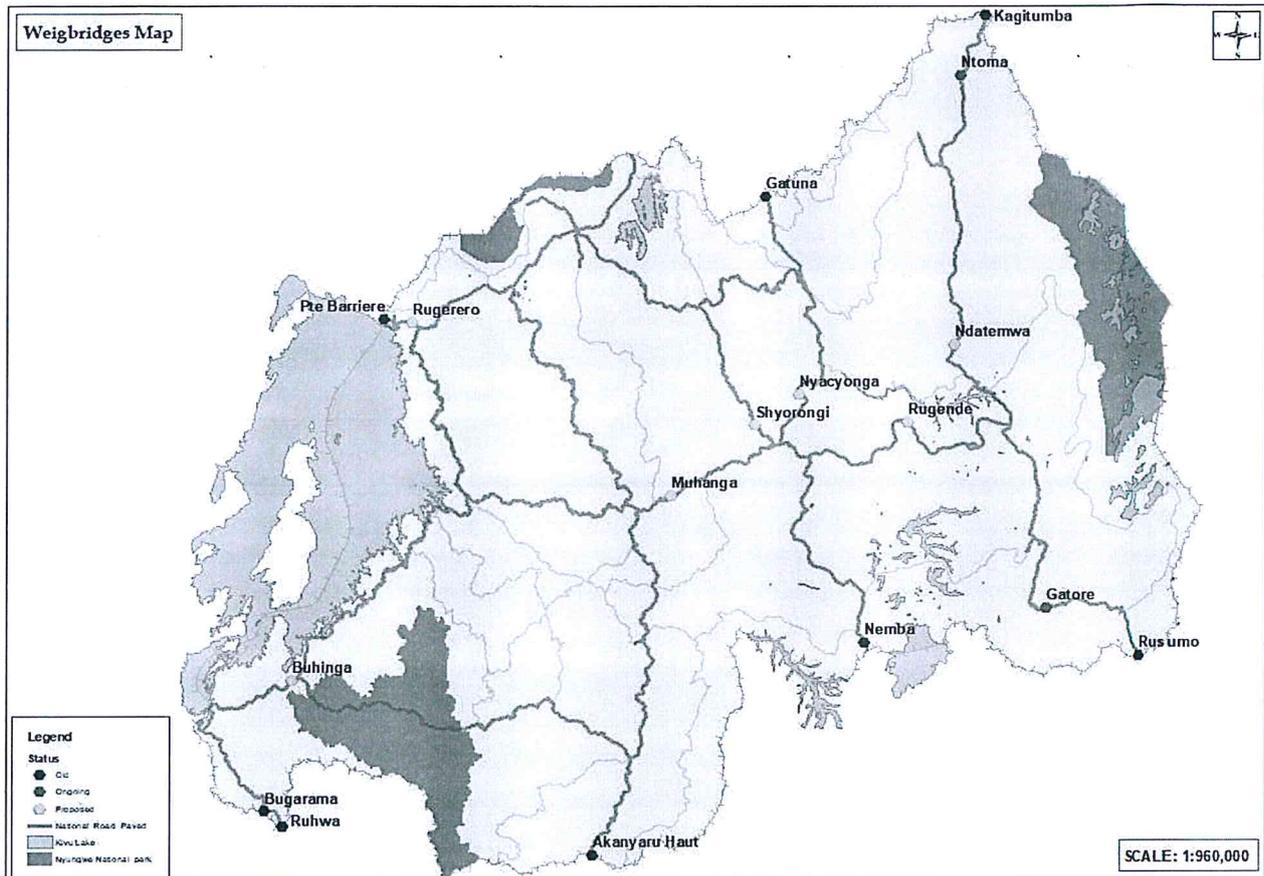
The location of the 8 identified sites are:

No	Location	District/Province	Trunk Road Number
1	Muhanga	Muhanga/South	National road 1 Between Kigali and Muhanga



2	Shyorongi	Nyarugenge/CoK	National road 2 Between Kigali and Musanze
3	Nyacyonga	Gasabo/CoK	National road 3 Between Kigali and Gatuna
4	Rwamagana	Rwamagana/East	National road 4 Between Kigali and Kayonza
5	Rubavu	Rubavu/West	National road 2 on the Western approaches to Rubavu
6	Rusizi	Rusizi/West	National road 11 on the northern approach to Rusizi
7	Ntoma/Kagitumba	Nyagatare/East	National road 24 between Kagitumba and Kayonza,
8	Gatore	Kirehe	National road 4 between Kayonza and Rusumo





The construction works of 2 weighbridges among the 8 proposed weighbridges at Ntoma/Kagitumba and Gatore was completed in 2020; however, these stations lack weighbridge and weigh in motion equipment.

With the aim of attaining efficient and effective operationalization of vehicle load control along the road network and enforcement of related regulations, policies and laws, RTDA plans to acquire consulting services to support the process for initiating vehicle load control enforcement in Rwanda.

II. OBJECTIVES AND EXPECTED RESULTS OF THE CONSULTANCY SERVICES

II.1. Overall objective

The overall objective of the assignment is to assist the Government of Rwanda to put in place a sustainable system for enforcing vehicle load regulations on Rwanda's road network. The enforcement shall be in accordance with both Rwanda's national regulation and policy of Vehicle Load Control (VLC) and the East Africa Community (EAC) VLC Act and Regulation.



II.2. Specific objectives

The specific objectives of the assignment are:

Phase I: To assess the worthiness of implementing VLC in Rwanda

1. To conduct economic and financial analysis of implementing vehicle load control enforcement in Rwanda,
2. To advise RTDA on introducing new technologies for vehicle load control and their integration with the existing systems.

Phase II: To provide technical assistance in procurement process for initiating the operationalization of Ntoma and Gatore static weighbridge stations

3. To develop technical specifications and terms of reference for tenders related to the operationalization of Ntoma and Gatore weighbridge stations and technical specifications for the development of IT system,
4. To develop a tender document for one contract combining supply & install & maintain weighbridge and weigh in motion equipment; development of IT system and its maintenance as well as manage and operate those 2 mentioned weighbridge stations.

Phase III: To provide implementation support

5. To provide support in contract management for the tenders mentioned here above.

II.3. Expected results to be achieved during this assignment:

1. Economic and financial study report for VLC enforcement in Rwanda is available,
2. Tender document for recruitment of an operator of Ntoma and Gatore weighbridge stations is developed
3. High quality static/mobile weighbridge equipment is supplied and installed,
4. Operator for Ntoma and Gatore weighbridge stations is recruited,
5. Ntoma and Gatore weighbridge stations are operational.



III. SCOPE OF THE CONSULTANCY SERVICES

The specific activities to be performed by the Consultant to achieve the expected results of the contracts are as follows:

III.1 Assessment of the worthiness of implementing VLC in Rwanda (Phase I)

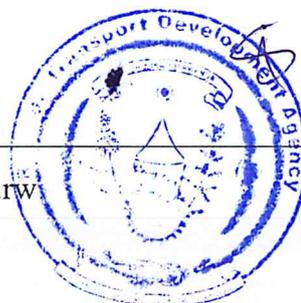
The consultant will evaluate the costs and benefits associated with implementing vehicle load control enforcement in Rwanda taking into account the previous studies on vehicle load control such as the detailed technical study of axle load control and weighbridges in Rwanda which proposed construction of 8 weighbridge stations.

This task will include but not limited to:

- ✓ Conduct axle load and truck activity surveys on suitable locations of the road network and any other type of data that the consultant considers to be necessary for this activity,
- ✓ Analysis of collected data including determination of standard axle load equivalent factor for each type of traffic vehicle,
- ✓ Calculate and analyse the costs and benefits associated with VLC enforcement in Rwanda for a period of 20 years,
- ✓ Conduct sensitivity analysis.

In addition, the Consultant needs to:

- ✓ Propose how the VLC equipment will be: (i) maintained, (ii) kept in calibration; and, (iii) replaced at the end of its service life or when damaged;
- ✓ Propose key performance indicators for monitoring and evaluation of VLC effectiveness.
- ✓ Identify 'success factors' for implementing national VLC programs in neighboring countries (EAC members, SADEC and COMESA), with due consideration for the institutional, technical, regulatory and other potential factors
- ✓ Identify and mitigate the likely challenges to impede the smooth management and operationalization of Heavy vehicle load control along the road network;
- ✓ Advise on the suitable framework in short, medium and long term for VLC implementation.



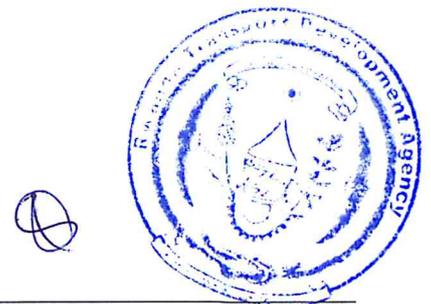
The consultant will also advise RTDA on the technical and economic feasibility of introducing new technologies for vehicle load control and integration with existing systems. This task will include but not limited the following:

- ✓ Assess the technical feasibility of introducing virtual weighbridge system in Rwanda,
- ✓ Develop technical specifications and cost estimates for virtual weighbridges,
- ✓ Assess the possibility of integrating the virtual weighbridge system with existing cameras (e.g: speed cameras, CCTV cameras....)
- ✓ Carry out the cost-benefit analysis for introducing and operating virtual weighbridge system,
- ✓ Advise RTDA on any other technology for vehicle load control (e.g: axle load monitoring sensors...).

III.2: To provide technical assistance in procurement process for initiating the operationalization of Ntoma and Gatore static weighbridge stations (Phase II)

This task will include the:

- ✓ Review and update the technical specifications for weighbridge & weigh-in-motion equipment and accessories which were developed under the detailed technical study of axle load control and weighbridges in Rwanda,
- ✓ Develop technical requirements for designing, commissioning and maintenance of an IT system to manage and monitor the weighbridge stations,
- ✓ Develop terms of reference for recruitment of a contractor who will operate, manage and maintain the static weighbridge stations,
- ✓ Develop terms of reference for conducting the capacity building of RTDA, MININFRA and other Government staff involved in VLC by the Operator,
- ✓ Preparation of cost estimates for each component,
- ✓ Prepare the tender document for one contract combining:
 - supply & install & maintain weighbridge & weigh-in-motion equipment,
 - develop and maintain the IT system,
 - manage and operate 2 static weighbridge stations,
 - develop the procedure manual,
 - conduct capacity building.



III.3: To provide implementation support (Phase III)

Upon completion of the above activities the consultant will provide necessary technical assistance to RTDA for bidding process, supervision and monitoring of implementation of RTDA contract with the weighbridge Operator, in order to have the 2 weighbridges operational.

This will involve but not limited to the following activities:

- ✓ If needed by RTDA, to provide technical support during the procurement process (answering the requests for clarification, evaluation of bids, contract negotiation and preparation of contract for the successful bidder).
- ✓ Check and ensure the quality of supplied weighbridge and weigh in motion equipment and their accessories (including mobile weighbridges),
- ✓ Supervise the installation and testing of the said equipment;
- ✓ Check the adequacy of the developed IT system, its integration with existing IT systems, ensure that it links the 2 weighbridges and that it provides the possibility of linking all other weighbridges which will be constructed in Rwanda for their better management,
- ✓ Review the capacity building program to be prepared by the contractor and ensure that necessary trainings are adequately delivered,
- ✓ Review the weighbridge procedure manual that will be prepared by the contractor/weighbridge operator and ensure that it is appropriate for effective and efficient operationalization of weighbridges,
- ✓ Monitor and supervise the weighbridge operations for a period of 3 months.

In addition, the Consultant needs to:

- ✓ Specify the suitable close monitoring of VLC by RTDA and different stakeholders involved in vehicle load control and weighbridge station management
- ✓ Assist RTDA in organizing and conducting regular meetings with stakeholders such as drivers, transporters, cargo owners and cargo generation points to disseminate information about overloading and Coordination with third parties, e.g. Public Utilities, Traffic Police.
- ✓ Help strengthening the legal framework, update standards and assist RSB (Rwanda Standards Board) in integrating the calibration of VLC equipment in their procedures.

Note: In doing this assignment, the consultant should keep in mind the EAC Vision, which is a regional network of standardized weighing stations with harmonized operational procedures, interconnected and linked to a regional data center on

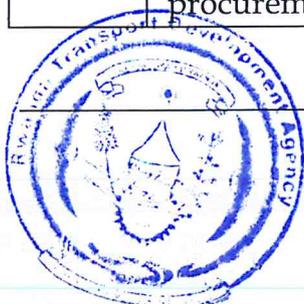
overloading (Monitoring at regional level, the consultant should also be aware of Tripartite Transport and Transit Facilitation Program (TTTFP), which has the aim of harmonizing laws, regulations and systems among partner states.

IV. REPORTING & DELIVERABLES

IV.1 DELIVERABLES

The Consultant is expected to produce and submit the following documents:

Output		Date
	Start of assignment	To
1	<p>Inception Report clarifying especially the methodology and the approach which will be adopted by the Consultant, the planning of different tasks including those related to support and training program and the detailed intervention program of experts.</p> <p>It shall include also:</p> <ul style="list-style-type: none"> - Summary of the preliminary observations on the elements of the services, - Status of mobilization of the staff assigned to the services. 	To + Three weeks
Phase I		
2	Economic and financial analysis report for implementation and management of VLC in Rwanda, including all tasks in phase I	To + 4.5 Months
Phase II		
3	Tender document including all technical specifications and terms of reference for the supply, installation and commissioning of weighbridge and weigh in motion equipment and accessories.	To+7.5 months (not later than 1.5 months after approval of the economic report)
Phase III		
4	Report related to the technical assistance provided on procurement process, supply, installation and	To+ 21.25 Months (not later than 3 weeks after



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	commissioning of weighbridge and weigh in motion equipment and accessories,	installation of equipment)
5	- Report on IT system developed and its integration with existing systems. - Report on review of developed documents such as procedure manual, training program,	To+ 22 Months (not later than 3 weeks after IT system development & procedure manual)
7	Final report including the report on any other assistance provided for VLC implementation.	To+ 26 Months (not later than 1 month after carrying out all required services)

IV. 2 REPORTING

All required reports should be submitted in three (3) original copies and their soft copies in editable versions (MS Word or MS Excel) and PDF versions.

The consultant shall provide monthly progress report during phase I, III and during the supervision period i.e 3 months of weighbridge operations

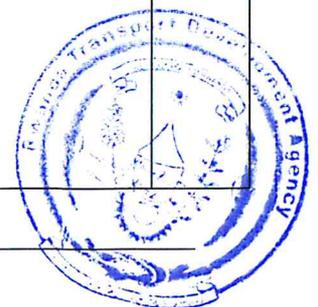
The consultant shall be required to prepare two physical workshops for:

- presentation of the economic and financial report
- awareness campaign before starting weighbridge operations.

V. KEY STAFF PROFILE AND DURATION

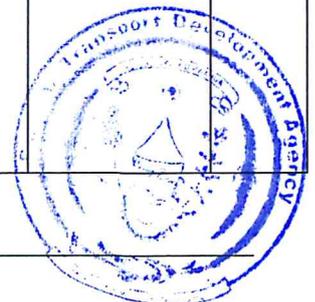
For effective achievement of the above objectives the Consultant will have to provide the following key staff, other staff to be proposed by the consultant will support them.

S N	Position	Requirements	Duration of intervention			During 3 months of operations	TOT
			PHASE I	PHASE II	PHASE III		
1	Road Transport Specialist/Team Leader	Education: The Team leader must have at least Bachelor's Degree, or equivalent, in Civil Engineering,	3	1	1.5	0.5	6



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		<p>Transport Economics and Transport Policies or other related fields. Having a Master's Degree is added advantage</p> <p><u>Experience:</u></p> <ul style="list-style-type: none"> • The Team Leader must have at least 10 years of relevant professional experience in the transport sector in general and • 8 years of experience in preparation and implementation of successful vehicle load control (VLC) projects. • He/She should be a team player with wide experience in Public or Private Sector and administration /management, • In addition, He /She must have a working experience of at 					
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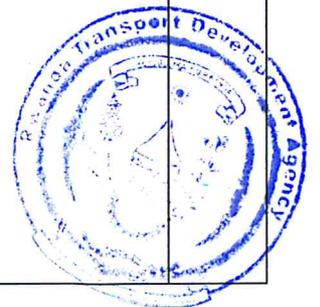


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		<p>least 3 years in Sub-Sahara Africa,</p> <ul style="list-style-type: none"> The team leader will work closely with the client representative in order to review operations and propose new approaches of addressing axle load control challenges. She/he should be computer literate and fluent in written and spoken English 					
2	Transport Economist	<p>Education: Must have at least Master's Degree in Transport Economics, Transportation engineering or transport planning -He/she should have 10 years' experience in transport projects with 7 years' experience in conducting studies related to economic feasibility of transport related projects. -Having participated</p>	1.5	0	0	0	1.5



		<p>in economic studies of 2 transport related projects.</p> <p>-In addition, He /She must have a working experience of at least 3 years in Sub-Sahara Africa,</p> <p>-She/he should be computer literate and fluent in written and spoken English</p>					
3	Electromechanical engineer (VLC Equipment installation and Calibration Expert)	<p>Education:</p> <p>He or She must possess a master degree in Electromechanical engineering or in similar field</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years of experience in electromechanical engineering with 8 years of experience in supply, installation, calibration and maintenance of weighbridge and ancillary equipment • He/She should be able to ensure Weighbridge equipment's integrity. 	0.5	0.5	1	0.5	2.5

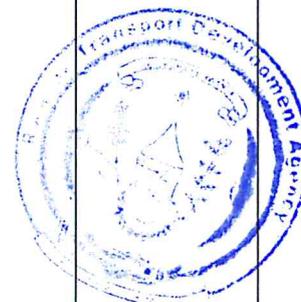


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		<ul style="list-style-type: none"> • He/She should have an understanding of functioning of VLC software system and its integration • She/he should be computer literate and fluent in written and spoken English 					
4	Vehicle Load Control (VLC) Management Software Specialist	<p>Education: He/ She must possess a Bachelor's Degree in Computer Science, Software Engineering or in similar field.</p> <p>Experience:</p> <ul style="list-style-type: none"> • He should have 10 years of experience in supply, installation, calibration and maintenance of weighbridge and ancillary equipment; • He/she should have an experience of developing VLC software (at least 2 projects) 	0	0.5	0.5	0.5	1.5



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		<ul style="list-style-type: none"> • She/he should be computer literate and fluent in written and spoken English. 					
5	Procurement Expert	<p><u>Education:</u> He or She must possess a Master's Degree in Procurement or related field</p> <p><u>Experience:</u></p> <ul style="list-style-type: none"> • 10 years of experience of general experience and at least 8 years of experience in infrastructure related projects; • He/she must have experience in PPP of infrastructure projects; • The candidate should be of high integrity and be well versed with the procurement Laws and Policy of Rwanda; • He/she should be registered professional 	0	1	0.5	0	1.5



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		<ul style="list-style-type: none"> • She/he should be computer literate and fluent in written and spoken English 					
6	Quantity Surveyor	<p>Education: He or She must possess a Bachelor degree in Civil engineering or Quantity Surveying or related field</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years of experience of general experience and at least 8 years of experience in infrastructure projects preferably axle load control projects (weighbridge stations) • He/she should be registered professional; • She/he should be computer literate and fluent in written and spoken English 	0	0.5	0.5	0	1.0
TOTAL TIME INPUTS (STAFF-MONTHS)			5.0	3.5	4.0	1.5	14.0



-The Consultant may propose additional non-key staff as well as different staff-months based on his understanding of the implementation of the assignment and which, in their opinion, are necessary for the performance of the services following their proposed methodology.

-The Consultant shall indicate the same staff-months in the Technical and Financial Proposals and submit the **time schedule** for proposed key and non-Key staff

-All the key staff described herein, shall be fully computer literate regarding word processing and spreadsheets,

NOTE: The consultant must provide original or certified copy of certificate of completion for a given accomplished project for proof of experience and certified documents for required qualification.

VI. LOGISTIC MEANS

The Consultant is responsible to mobilize proper logistics for office, conducting surveys, secretariat, transport etc...

VII. CONTRACT DURATION

The Consultant is expected to start the services in January 2024. The overall service duration is **Twelve (12) months distributed in a period of 26 months and divided in three phases** as detailed here below:

- Phase I: 4.5 months
- Phase II: 1.5 Months
- Phase III: 3 Months for supervision of weighbridge equipment installation + 3 Months for supervision of weighbridge operations.
- 14 months: time between phases for reports review and approval as well as for procurement process related to the recruitment of weighbridge Operator and supply of weighbridge equipment
- *Note: each phase shall commence upon notification of the consultant by RTDA.*

VIII. COMPOSITION OF THE AMOUNT OF SERVICES AND PAYMENT ARRANGEMENT

The payment will be according to the following arrangements:

Output	Date	Payment (% after approval of related report)
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	Start of assignment	To	
1	<p>Inception Report clarifying especially the methodology and the approach which will be adopted by the Consultant, the planning of different tasks including those related to support and training program and the detailed intervention program of experts.</p> <p>It shall include also:</p> <ul style="list-style-type: none"> - Summary of the preliminary observations on the elements of the services, - Status of mobilization of the staff assigned to the services. 	To + Three weeks	10%
Phase I			
2	Economic and financial analysis report for implementation and management of VLC in Rwanda including other tasks in phase I	To + 4.5 Months	20%
Phase II			
3	Tender document including all technical specifications and terms of reference	1.5 months	15%
Phase III			
4	Report related to the provision of technical assistance on procurement process, in supply and installation of weighbridge equipment and weigh in motion,	1 month after installation of equipment	20%
5	<ul style="list-style-type: none"> - Report on IT system developed and its integration with existing systems. - Report of review & recommendations on developed documents 	1 month after IT system development & procedure manual	15%
7	Final report including the report on any	1 month	20%



	other assistance provided for VLC implementation and weighbridge operations.	after 3 months of weighbridge operations	
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