

**TERMS OF REFERENCE (TOR)**  
**FOR**  
**INTERNATIONAL ROAD ASSESSMENT PROGRAMME (iRAP) ASSESSMENTS OF**  
**STRATEGICALLY IMPORTANT ROADS IN ZAMBIA**

## **1 Introduction**

In Zambia traffic crashes have become one of the most common causes of death and injury and thereby a serious negative economic and social factor that must be addressed. Road crashes continue to be a serious constraint to development with an average of 2,000 lives lost annually on Zambia's roads translating to about 3% of the Gross Domestic Product (GDP).

In line with the Resolution adopted by the United Nation's General Assembly on 31<sup>st</sup> August 2020 proclaiming the period 2021 – 2030 as the Second Decade of Action for Road Safety, with a goal of reducing road traffic deaths and injuries by at least 50 per cent from 2021 to 2030, Zambia wants to make steps to eliminate high risk roads in order to attain this goal.

In this regard, the Road Transport and Safety Agency (RTSA) wishes to improve, in collaboration with implementing agencies, the engineering conditions of our corridors to achieve a minimum of 3 - Star safety rating and to ensure that all road designs for new roads or roads to be rehabilitated are a minimum 3 – Star for all road users.

As part of this effort, the RTSA is commissioning this pilot assessment of the safety of the strategically important roads using the iRAP methodology. This Terms of Reference (ToR) sets out details such as the objectives, scope of work and timing of the project.

## **2 Project Objectives**

The overarching objectives of this iRAP project are:

- i. To use the iRAP methodology to identify high risk road sections of the road network and select and prioritise road safety countermeasures that can be implemented within existing capital works and maintenance programs.
- ii. To build local capacity within the various road development, management and regulatory agencies as well as selected consultants and contractors in Zambia through technical support and training to enable the use of iRAP assessments to enhance safe road access across the highway network in Zambia.

The specific objectives of this iRAP project are:

- i. To undertake iRAP Star Rating assessments of approximately 2,700km of roads as identified by the Zambia Road Transport and Safety Agency in collaboration with the Zambia Road Development Agency (RDA).
- ii. To develop a Safer Roads Investment Plan (SRIP) in accordance with the iRAP methodology in order to assist the Zambia Road Development Agency to prioritise road safety countermeasures and improve the safety of existing road infrastructure.
- iii. Carry out training on the iRAP methodology protocols of Road Survey, Attribute coding, Analysis and reporting prioritizing local champions, stakeholders and agencies likely to take part in the RAP projects in Zambia and the wider region.

### 3 Scope of Work

The Scope of Work for this project is as detailed below. All activities are to be done in accordance with the iRAP specifications available at <http://www.irap.org/specifications/>.

- i. **Road survey:** make an assessment of whether any existing survey data that could be used for iRAP assessments already exists for the existing roads (eg in road maintenance or asset systems) and, if necessary, undertake surveys of the roads defined in the Schedule of Roads in accordance with the *iRAP Survey Manual*. It is noted that this includes collection of speed and flow data in the field.
- ii. **Road attribute coding:** record road attribute data (commonly referred to as coding) as specified in the *iRAP Coding Manual*.
- iii. **Supporting data collection:** collect, collate and utilise supporting data as specified in the *iRAP Star Rating and Investment Plan Manual*.
- iv. **Upload file:** compile the road attribute coding and supporting data into an upload file as specified in the *Upload File Specification*.
- v. **Star Rating and Safer Roads Investment Plans (SRIP):** conduct analyses and prepare reports for as specified in the *iRAP Star Rating and Investment Plan Manual*.
- vi. **Workshops.** Deliver three workshops, as follows:
  - a. Introductions to the project activities including, where possible, hands-on participation in survey, coding and analysis and reporting demonstration activities.
  - b. Delivery of draft results and consultation to shape investment plans that are affordable and achievable and align with all potential investment streams (such capital works programs, maintenance programs, and donor and development bank financed programs).

- c. Delivery of final results and guidance on how to access the iRAP assessment data and results online.
- vii. **Stakeholder engagement:** undertake activities such as:
  - a. participation in meetings with senior stakeholder staff to discuss the project objectives, background and results
  - b. attendance at public events, such as a 'launch' of results
  - c. responding to adhoc queries about the project activities from stakeholders.

Data and results produced in this project will be hosted on the Star Rating and Investment Plan software platform, ViDA (<http://vida.irap.org>). Access to the data and results should be accessible by the client and those authorised by the client to do so.

#### 4 **Quality assurance and training**

The consultant will be required to engage iRAP to provide the following support activities. iRAP will prepare a standard technical and financial proposal that will be made available all potential bidders in the project.

- i. Provide access for up to 20 people in the following online training courses (see <http://www.irap.org/training>):
  - a. Star Rating Essentials.
  - b. Building Your Coding Skills.
  - c. How to achieve a star rating target: advanced investment planning in ViDA.
- ii. Assistance in delivery of the three workshops listed in the Scope of Work.
- iii. Quality assurance reviews of assessment activities performed in the Scope of Works, in accordance with iRAP Manuals and Specifications (see: <http://www.irap.org/specifications>).

#### 5 **Schedule of Roads**

The assessment length is expected to be approximately 2,700km. The schedule of roads to be assessed is provided in the table below and will be confirmed and agreed with the client prior to project start.

**Table 1** Roads to be assessed

S/N	Road ID	Road Name	Start Point	End Point	Length (km)	Carriageway type
1	T1	Kafue - Livingstone	Kafue	Livingstone	415	Single
2	T2	Chirundu - Nakonde	Chirundu	Nakonde	1,150	Single
3	T3	Kapiri Mposhi - Ndola	Kapiri Mposhi	Ndola	115	Single
4	T3	Ndola -Kitwe	Ndola	Kitwe	58	Dual
5	T3	Kitwe - Chingola	Kitwe	Chingola	52	Dual
6	T3	Chingola - Kasumbalesa	Chingola	Kasumbalesa	45	Single
7	T4	Lusaka - Chipata	Lusaka	Chipata	569	Single
8	T4	Chipata – Mchinji Border	Chipata	Mchinji	21	Single
9	T5	Chingola - Solwezi	Chingola	Solwezi	174	Single
10	T6	Katete - Chanida	Katete	Chanida	61	Single
<b>TOTAL</b>					<b>2,660</b>	

## 6 Deliverables

In addition to the standard deliverables required in the specifications cited in the Scope of Work, the following deliverables are required:

- An inception report that sets out: a work plan; key milestones; and a health and safety plan.
- A brief weekly email summarizing activities undertaken during the previous week.

## 7 Consultant Requirements

The consultants will determine the number and nature of experts required to deliver the activities and deliverables. The consultants must include in their proposal all experts required in accordance with the proposing entity's approach and methodology. The consultants must also determine and indicate the number of person-months inputs required for each of the experts and the minimum time each of the experts will deliver their inputs to the output.

The team of experts must, at minimum, include:

- The Team Leader / iRAP Specialist is expected to meet the following minimum qualifications and requirements:
  - Hold iRAP Accreditation for Survey, Coding and Analysis and Reporting (see: [www.irap.org/accreditation](http://www.irap.org/accreditation)).
  - Experience in performing iRAP assessments during the past 3 years.
  - Experience in performing Road Safety Audits.
  - Excellent knowledge on recent trends and concepts in road safety.
  - Experience in implementing safe system approaches in a developing country context.
  - Experience of working with governments to improve road safety.
  - Experience in institutionalizing road safety policies, strategies and activities within governments.
  - Excellent written and verbal communication skills in English.

- International experience working with several countries, particularly in the African region.
- The Data Collection Specialist is expected to meet the following minimum qualifications and requirements:
  - Hold iRAP Accreditation for Survey and Coding (see: [www.irap.org/accreditation](http://www.irap.org/accreditation)).
  - Experience in performing iRAP assessments during the past 3 years.
  - Excellent written and verbal communication skills in English.
- At least one team member must be based in Zambia and is expected to meet the following minimum qualifications and requirements:
  - At least 5 years relevant professional experience in the road safety sector.
  - Excellent knowledge on recent trends and concepts in road safety as they relate to Zambia.
  - Experience of working with government to improve road safety.
  - Experience in institutionalizing road safety policies, strategies and activities within governments.

The consultants must include in their proposal details of the inspection system that will be used for data collection and demonstrate that it fully complies with the requirements set out in the iRAP Survey Manual (see: [www.irap.org/specifications](http://www.irap.org/specifications)).

## 8 Timing

The table below details the key milestones for the project. The exact timing will be confirmed prior to commencement of the project.

**Table 2**                      **Schedule**

Task	Completion date
Inception report	Within two weeks of contract signing
Access to iRAP online training	Within two weeks of contract signing
Introduction workshop	Within 1 month of contract signing
Road survey, coding and supporting data	Within 4 months of contract signing
Draft results and workshop	Within 5 months of contract signing
Final results and final workshop	Within 7 months of contract signing

## 9 Inputs to be Provided by the Client

To facilitate the success of this project, the client will:

- provide leadership, commitment and support for the initiative and the safer roads focus of the programme
- assign several key staff members who will participate in training and project activities to enhance their experience and knowledge
- confirm the road network selected for assessment
- make available local staff to accompany the survey vehicle/s
- provides logistical support during the training workshops
- make available pre-existing background data for the road network including traffic volume and speed data, crash data and countermeasure costs where available
- supply and validate countermeasure costs where available.