

# Terms of reference N°3: iRAP survey of corridor

PHASE II: SPECIFICATION OF PROJECT CONCEPT

[STEP 3, TASK 3.2]

## SURVEY, ASSESSMENT, AND DEVELOPMENT OF INVESTMENT PLAN FOR RTRC INFRASTRUCTURE SAFETY

### Background

*Provide description of proposed project.*

### Objectives

The objectives of the required technical assistance services are as follows:

- Survey approximately .... kilometers of RTRC project network and code the video data according to the *International Road Assessment Programme (iRAP) methodology*.<sup>8</sup>
- Collect crash data and traffic flow and speed data for the surveyed RTRC project network following the iRAP methodology.<sup>9</sup>
- Produce an iRAP input file that includes all road attributes and collected data.
- Develop a Star Rating for the surveyed RTRC project network following the iRAP methodology.
- Develop a Safer Roads Investment Plan for the surveyed RTRC project network following the iRAP methodology.

### Schedule of roads to be surveyed

The Table below details the roads to be surveyed (with the exact chainage and length to be finalized before the survey).

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<sup>8</sup> Refer to iRAP's 305 (*Star Rating Coding Manual*) and 309 (*iRAP Star Rating V2.2 Quality Assurance Guide*) documents. All iRAP publications mentioned here included in the list of references at the end of this publication.

<sup>9</sup> Refer to iRAP's 304 document, *Supporting Data* (Microsoft Excel).

### Details on Roads to Be Surveyed

Link name	Link ID	Country	District	Length (km)
A-B	x	x	x	x
C-D	x	x	x	x
Etc.	x	x	x	x

### Outputs

The outputs of the required technical assistance services are as follows:

- *Road survey.* The contractor shall perform an iRAP survey of the roads defined in the schedule using high-resolution, vehicle-mounted cameras and GPS data reference.
- *iRAP survey coding.* The contractor shall convert the survey data into coding as required in iRAP 305 and 309 specifications.
- *Background data collection.* The contractor shall gather background data on road use, road accidents and casualties, traffic flow, speed, and other factors as required in iRAP 304 specifications.

### Reference documents

In preparing a proposal, contractors are advised to refer to materials which can be found at the following links:

1. RAP-SR-2.1 Star Rating and Investment Plan - Road survey and coding specification<sup>10</sup>
2. RAP-SR-2.3 Star Rating Inspection System Accreditation Specification and Record<sup>11</sup>
3. RAP-SR-2.4 Road Inspection Quality Assurance Guide<sup>12</sup>
4. RAP-SR-3.1 supporting data analysis and reporting specification<sup>13</sup>
5. RAP-SR-3.2 Supporting data template<sup>14</sup>
6. RAP-SR-3.3 Upload file specification<sup>15</sup>

### Scheduling of tasks

*To be developed in accordance with project identification and preparation schedule.*

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<sup>10</sup> [http://downloads.irap.org/docs/RAP-SR-2-1\\_Road\\_survey\\_and\\_coding\\_specification.pdf](http://downloads.irap.org/docs/RAP-SR-2-1_Road_survey_and_coding_specification.pdf)

<sup>11</sup> [http://downloads.irap.org/docs/RAP-SR-2-3\\_Inspection\\_System\\_Accreditation\\_Specification\\_and\\_Record.pdf](http://downloads.irap.org/docs/RAP-SR-2-3_Inspection_System_Accreditation_Specification_and_Record.pdf)

<sup>12</sup> [http://downloads.irap.org/docs/RAP-SR-2-4\\_Road\\_Coding\\_QA\\_Guide.pdf](http://downloads.irap.org/docs/RAP-SR-2-4_Road_Coding_QA_Guide.pdf)

<sup>13</sup> [http://downloads.irap.org/docs/RAP-SR-3-1\\_Supporting\\_data\\_analysis\\_and\\_reporting\\_specification.pdf](http://downloads.irap.org/docs/RAP-SR-3-1_Supporting_data_analysis_and_reporting_specification.pdf)

<sup>14</sup> [http://downloads.irap.org/docs/RAP-SR-3-2\\_Supporting\\_Data\\_Template.xlsm](http://downloads.irap.org/docs/RAP-SR-3-2_Supporting_Data_Template.xlsm)

<sup>15</sup> [http://downloads.irap.org/docs/RAP-SR-3-3\\_Upload\\_file\\_specification.pdf](http://downloads.irap.org/docs/RAP-SR-3-3_Upload_file_specification.pdf)

### **Professional skills and experience required**

#### *iRAP service provider*

An internationally recognized, iRAP-accredited provider of iRAP survey services with experience in low and middle-income country road environments<sup>16</sup>.

#### *iRAP support services*

iRAP services are required for the delivery of Star Rating and Safer Road Investment Plan outputs.

Further information: [icanhelp@irap.org](mailto:icanhelp@irap.org)

*Professional skills and experience in service provider and support services teams for data analysis and reported will include:*

#### *Road Safety Engineering Specialist(s)*

One or more internationally recognized specialists with more than 10 years practical experience in the design of innovative infrastructure safety facilities, including extensive experience with iRAP tools, safety audit and safety inspection. Experience with improving infrastructure safety in mixed-traffic/mixed-speed road environments in rapidly motorizing countries is essential.

#### *Road Safety Analysis Specialist*

An internationally recognized specialist with at least 10 years' experience conducting scientific analyses of road environment, vehicle and human factors contributing to road crashes and injuries. Hands-on experience of quantitative evaluations of safety interventions and outcomes is essential. Experience of road safety analyses in developing and transition countries is desirable.

#### *Monitoring and Evaluation Specialist*

An internationally recognized specialist with more than 10 years' experience in the design and implementation of traffic, vehicle and road user monitoring and evaluation systems. Knowledge of sample design methods and related measurement equipment requirements is required. Experience of road safety monitoring and evaluation in developing and transitional countries is desirable.

*For all team members, a demonstrated ability to work with and gain the trust of senior government officials and professional peers is essential.*

### **Contractor responsibilities**

- a. The Contractor shall be responsible for the safe completion of the survey and coding activity and ensuring operation hours, vehicle safety, operator training, vehicle signage, escorts, security and all other required operational activities are conducted in a safe manner.
- b. Incidental costs (such as customs duties, fuel, and insurance, and vehicle operating costs, accommodation, survey staff per diem allowances and permits) shall be covered by the Contractor.

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<sup>16</sup> See <http://www.irap.org/about-irap/accredited-suppliers>.

## Guidelines for mainstreaming road safety in regional trade road corridors

- c. Mobilization and demobilization costs associated with the project shall be covered by the Contractor.
- d. A written project health and safety plan shall be provided by the Contractor to the Purchaser prior to the commencement of the survey.