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**PIARC Special Project**

**Rapid Impact Assessment**

**CALL FOR PROPOSALS**

***Deadline for submission of proposals: 15 March 2024***

# 1 PURPOSE AND STRATEGIC SIGNIFICANCE

## 1.1 Introduction

As our climate continues to change our road networks are being increasingly impacted by severe weather, floods, and landslides, with risks related to other hazards (e.g., earthquakes) and threats (e.g., terrorism) also increasing.

Road networks provide lifeline communication and transportation connections for our communities; they host, carry, or connect all our critical services (as it was clearly demonstrated during the COVID-19 pandemic). Yet, whilst risk assessment processes are relatively well understood across the global road sector, a consistent Rapid Impact Assessment (RIA) of road assets following major incidents and disasters must be improved and its importance highlighted to road owners, managers and operators.

## 1.2 Definition of Rapid Impact Assessment (RIA)

**Rapid Impact Assessment (RIA):** in the road sector context, a RIA is a systematic methodology defined before the natural or human-made hazard occurs, which is activated immediately after the disaster to offer, in a very limited time, a first assessment of the conditions of the road network, the services that it can offer to road transport, the works that would be needed for the repairs and the funding that would be needed for the reparation works. This methodology must be consistent for the whole road network and systematic for all its services and infrastructure elements. The RIA can use different technology to produce the assessment, which must be pre-defined in the RIA. The assessment product must also be predefined, stating clearly what information can be expected from the RIA, which must be comprehensive for all services and equipment.

## 1.3 Context

When a major disaster (earthquakes, cyclones, flooding, human-made disasters...) hits a road network, immediate and urgent assessments need to be done to determine:

- Is the road network able to bear the moving vehicles again, to provide emergency support to affected areas and to reestablish normal transport?
- What needs to be rebuilt or repaired and how much funding and time do we need for that?

To provide answers to these critical questions, some data is needed:

- a) Common operating picture: what is currently functional or restricted.
- b) Impact duration determination: short term vs long term impacts, restrictions or closures.
- c) Resource allocation: prioritize resource allocation by identifying areas of high impact or potential vulnerability.
- d) Decision support: prioritize use of available roads for emergency responders in, evacuees out, or to maintain supply chain.

- e) Repair project planning: determine if repairing to previous condition or to increase asset resilience.
- f) Funding requirements: emergency repair costs to reopen roads quickly, permanent repair costs for recovery.
- g) Etc.

Most of the national road authorities, road operators and other stakeholders have developed some procedure to be implemented after major disasters that supports somehow to answer one or both of these questions, but very often these procedures are not integrated on a comprehensive Rapid Impact Assessment. At the same time, each country has its own approach and limited international exchanges have been conducted about RIA.

Within this context, there is a need to develop a consistent approach to RIA.

## **1.4 Purpose of the project**

This project will develop a framework and guidelines for the deployment of consistent RIA, to provide the state-of-the-art benchmark expectation of the information needed to inform effective impact-based infrastructure stabilisation and recovery activity from local to national levels following major impacts.

The results of this project must:

1. Raise awareness about the importance and benefits of establishing a RIA,
2. Enhance PIARC members' capacity to quickly gather and manage disaster information,
3. Improve members' ability to visualize and understand immediate disaster disruptions and losses,
4. Increase awareness of methods to identify road network impacts and trends over time and multiple events to support investments in asset resilience,
5. Increase members' ability to create frameworks for coordination and cooperation that ensure the most impacted areas, regions, and nations can receive assistance as effectively as possible.

The project must capture:

- a. Processes that may be used, and are currently in use, for RIA.
- b. Products that may be produced by RIA and utilized to assist with response and recovery from disasters.
- c. Potential technologies involved in RIA taking into account Low and Middle Income Countries (LMIC) and High Income Countries (HIC).

The outcome of this project will also allow TC 1.5 to update the PIARC Disaster Management Manual. More information: <https://disaster-management.piarc.org>

## 1.5 Out of scope

Detailed RIA suitable to all PIARC member countries is out of scope. Since the diversity of PIARC membership in terms of geography, risks, economic and social realities, would make it unfeasible in the given time and budget frames.

## 2 METHODOLOGY AND APPROACH

### 2.1 Key areas and approach

The answer should include a description of the approach to be taken to collecting and compiling the information being requested. Please take into account that the first two points are the two key areas for consideration in the project and a more thorough description is expected in the answer to the call.

The proposal should answer the following questions about the tenderer's approach:

1. How will you collate information from different road administration authorities, transport regulators and operators, other public administrations, academia, research and relevant industry from international road sector, including successful and unsuccessful case studies, and national strategies that deal with RIA?
2. LMIC represent an important share of PIARC membership and it is crucial that their needs, opportunities and challenges are addressed within PIARC activities.
  - a. How will the study consider the reality of lower to middle-income countries?
  - b. How will case studies from LMIC be collated?
  - c. How will their needs be taken into account?
  - d. How will some of the findings of the project be identified as particularly suitable for LMIC?
  - e. How will you ensure any recommendations/next steps can be implemented by LMIC?
3. How will the study identify challenges and benefits for national road administrations to develop a consistent RIA?
4. What will be the study milestones in terms of deliverables? What will be the approach for monitoring the progress and to include the inputs from the Project Oversight Team (POT)? It is recommended to organize monthly videoconferences, and to share with the POT regularly intermediate deliverables asking for feedback.
5. How will the management of the project be organized, including quality assurance and quality control without taking significant resources from the project?
6. How will you mobilize the diverse range of skills needed to complete this work? We consider that the range of skills needed includes risk management, disaster management, understanding innovative technologies, collecting case studies, analyzing policies and strategies, and having an holistic view of the road sector
7. How will the study make recommendations to National Road Administrations to effectively produce their own RIA?
8. How will the study propose recommendations to PIARC for taking further into account the RIA and how this project would be exportable to PIARC Disaster Management Manual

online? More info: <https://disaster-management.piarc.org/en>

## 2.2 Options

The proposal can be structured as a core proposal plus additional options.

The bid would then include a core proposal within the proposed budget, and then some options which would be described in detail as well as priced.

If the bid is selected, PIARC would place the order for the core proposal and maybe as well for some of the options. This would be done at PIARC's discretion.

**In any case, the core proposal must answer all the expectations which are presented in this call for proposals document.**

## 3 FINAL DELIVERABLES

The final deliverables will include:

### 3.1 Technical Report

The final Technical Report must include:

- A literature review.
- A collection of case studies<sup>1</sup>.
- An international survey results<sup>1</sup>.
- An analysis of the literature review, the collection of case studies and the survey to produce a description of current RIAs, their challenges and their benefits, as well as some recommendations for PIARC members to consider.
- A guidance document, to be integrated in the technical report, describing a consistent process for post-disaster road asset Rapid Impact Assessment, which would allow to each road administration to develop their own RIA.

A possible structure of the final report could be as follows:

#### Executive Summary

1. Introduction: project background, objectives and scope.
2. Methodology and approach.
3. Outcomes of the literature review.
4. Outcomes of the international survey.
5. Case studies analysis from around the world.
6. Description of current RIAs around the world.
7. Description of challenges and benefits of establishing consistent RIAs.
8. Guidelines for road administration to develop a RIA.
8. Conclusions of the study.
9. Recommendations for road administrations, LMIC and PIARC.
10. References
11. Appendices (such as complete inputs from survey, additional results of the literature

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<sup>1</sup> PIARC POT will support the dissemination of surveys and call for case studies among Technical Committees and member countries, but the responsibility to ensure appropriate answers to the surveys and call for case studies remains within the bidder of this call for proposals.

review, full case studies, etc.)

Each chapter of the report should make reference to LMIC, when relevant. A chapter inside the report's conclusions, with possible **specific recommendations for LMIC** should also be considered.

The specific recommendations for public administration bodies and transport regulators are a key element of the report. They should be relevant for policy advisors, decision makers, practitioners and operators.

The specific recommendations for PIARC could include recommendations to liaise with specific industries, take part in existing conferences and/or create a new technical committee / task force on the subject or include RIA aspects in the current 2024-2027 Terms of Reference of some Technical Committees.

### **3.2 Dissemination material**

Presentation material to present the results of the Special Project at PIARC Council meeting in 4-8 November 2024 in Andorra.

The selected tenderer will also be invited to join the meeting physically or via videoconference. The retained option should be specified in the proposal.

### **3.3 Voluntary contribution to the next PIARC Congress**

Voluntary contribution to the Session on the Special Projects inside the World Winter Service and Road Resilience Congress in Chambéry, France, 9-13 March 2026. Retained consultant will be invited to join the session (participation is optional) and to provide inputs to the Session program. This contribution will be requested after finalizing the project and out of the project budget. So, this point is provided as information.

### **3.4 Intellectual property and formats**

The final products will be submitted in electronic form in English, using the PIARC template for Technical Report and PIARC template for PowerPoint presentations.

The report will be owned by PIARC and it will acknowledge the contribution of the external consultant.

PIARC will ensure translation into French and Spanish. In addition, they will make it available free of charge in the World Road Association's Virtual Library to ensure a large world outreach for the report.

## **4 KEY DATES**

The proposal should also include a proposed draft of a work schedule. The schedule should identify dates or timeframes for accomplishing major milestones in the project. The work schedule will include monthly videoconference meetings and dates or timeframe for an interim product or products that allows adequate time for review and feedback prior to the final deliverable. The schedule must be completed, and final report should be delivered by 14 October 2024, so PIARC can proceed to translation and dissemination of document in advance to participants to PIARC

Council meeting foreseen in Andorra 4-8 November 2024.

These are some of the milestones to be included in the offer:

- End of March 2024: Kick-off videoconference meeting.
- Intermediate milestones to be proposed by the tenderer.
- 20 September 2024: Final draft report for POT to comment on until 4 October 2024.
- 14 October 2024: Finalization of the report in English including all final comments from POT.
- 21 October 2024: Finalization of Council presentation.
- 4-8 October 2024: Presentation at PIARC Council meeting, in presence in Andorra or by virtual participation.
- 9-13 March 2026, Voluntary presentation at the World Winter Service and Road Resilience Congress in Chambéry, France.

## **5 PROPOSED BUDGET**

Please provide a general budget for the project. The funding requested from PIARC should not exceed 36,800 Euros all taxes included. The budget should include a general itemization of the costs of the major work elements of the project and provisional schedule of invoicing.

Invoices will be processed only for completed and approved items, with 10% of each invoice payment to be held back until final deliverables have been accepted by the Project Oversight Team and approved by PIARC.

In line with EU regulations, the payment will take place 60 days after the acceptance of the invoice by the POT.

Since a timing delivery of the outputs is at the essence of the Special Projects mechanism, late penalties could be applied if the external consultant fails to deliver the outputs in the proposed milestones. In line with French regulations, if the delay is the contractor's responsibility, the penalties will be 1% of the budget per week of delay, with a grace period of 15 days, and up to a maximum of 5% of the budget.

## **6 PROPOSED EXPERTS AND INTERNATIONAL NETWORK**

The proposal should also include a description of the relevant expertise that qualifies the contractor to undertake the project. Specifically:

- Please describe any past or current work projects that relate to the subject of this proposal.
- Please also identify the person or persons who will be working on this project, describing their roles and estimated contribution to the project in expertise and time, and providing

information on their backgrounds, experience and expertise.

- Please provide information about any other international network, other than the World Road Association, from which tenderer could receive inputs.

## **7 PROJECT OVERSIGHT AND PROPOSALS EVALUATION**

The project will be overseen by a project evaluation and steering committee called “Project Oversight Team” (POT) to select the preferred tenderer and assist in the development of the project. These experts will be drawn from PIARC membership and will include representatives from several technical committees. Some experts will be nominated by member countries and PIARC General Secretariat staff.

The POT will assess proposals and select the preferred tenderer on the basis of its assessment of:

- a) Technical approach and methodology (up to 35 points): how the tenderer addresses the project objectives and deliverables, how effective and resilient the proposed approach and methodology are, including proposed international case studies and addressing the needs of different PIARC member countries, in particular the LMIC.
- b) Proposed work plan including intermediate milestones (up to 15 points).
- c) Value for money offered by the tenderer (up to 20 points): including the time offered by different contributors of the tenderer’s team.
- d) Experience of the proposed team on the holistic vision of the road sector (up to 10 points).
- e) Experience of the proposed team on the risk and disaster management in the road sector (up to 10 points).
- f) International experience and network of the proposed team (up to 10 points).

The POT will oversee progress of the Project, including participating in periodic calls, reviewing interim and final products. The POT will also provide any relevant information from the PIARC work to the selected tenderer (e.g., information obtained from surveys) for use in the project. In addition to review and oversight by the POT, input may also be sought from the other members of Technical Committees and the PIARC Executive Committee and Strategic Planning Commission.

## **8 PROPOSAL SUBMISSION**

Proposals should include the elements identified in this Call for Proposals.

Answers must include the following content and characteristics, otherwise they could not be taken into consideration:

1. Executive Summary (maximum 1 page long).
2. Introduction to the tenderer organization/company (maximum 2 pages; appendixes can be added).
3. Understanding Rapid Impact Assessment and Special Project requirements: project background, scope and objectives (maximum 1 page).
4. Proposed methodology and approach (answering to section 2 of current call for proposals).
5. Potential options and deliverables:



- Additional options if relevant.
  - Technical report.
  - Council presentation.
  - Congress contribution.
6. Work schedule (please provide a definition of tasks and deliverables in a time frame).
  7. Budget:
    - Proposed budget for PIARC.
    - Working time included in the budget for different contributors of the proposed team.
    - Proposed schedule of invoices (to be linked to deliverables).
  8. Proposed experts, organization of the team and international network  
(Maximum a half page by individual, including their experience in the road sector, in the mobility needs, in public policy, their international experience and their experience in LMICs; longer CVs and additional information can be added as appendices to the proposal.)
  9. Appendices

Page limitations:

The 8 first points should be developed in a maximum of 20 pages.

The whole document should have a maximum of 50 pages including the appendices.

Proposals should be submitted electronically in English to the World Road Association General Secretariat at:

[gen-sec-piarc@piarc.org](mailto:gen-sec-piarc@piarc.org)

no later than:

**15 March 2024**

For any questions, please send E-mail to [gen-sec-piarc@piarc.org](mailto:gen-sec-piarc@piarc.org)