

PIARC (World Road Association) Strategic Plan - 2024-2027

TECHNICAL COMMITTEE 3.1 – ROAD SAFETY

Overview

Fatal and Serious Crashes continue to be a problem for countries of all sizes. Countries are working to effectively address locations that are experiencing or have risk factors that are likely to lead to crashes. This cycle is intended to provide key resources for safety practitioner. As vulnerable road users are an important part of the transport system, and efforts to address the safety of these individuals is critical to the success of any safety program. WG1 will address this issue. The Safe System Approach is now widely accepted, however, low- and middle-income countries are experiencing greater difficulties in securing funding, developing the knowledge base, and in understanding the first steps towards Safe System Implementation. This gap will be assigned to WG2. Road safety requires the assessment of safety data, such as crash information, roadway geometrics, roadside conditions, and human factors to be able to effectively select strategies to reduce crash potential, a report will be developed by WG3. The Road Safety Manual is a premier PIARC online reference to safety professionals. Updating and providing requested materials is important to those using this reference. In this cycle, the effort will also incorporate parts of the PIARC 1st Edition worksheets and tools by WG4.

3.1.1 Securing the Safety of Vulnerable Road Users

Purpose: The purpose of this work is to address the safety of vulnerable road users (VRU). Vulnerable road users are over represented in fatal and serious crashes in many countries. This is particularly true for LMICs where walking, biking, and motorized two wheels are a primary means of travel. The goal of this work will be to develop a technical report that assess the scope of VRU issues for countries at all income levels. The report will focus on the individual problems, needs, and strategies that can be used to address the safety outcomes of each category of VRU. In doing so, the document will serve a critical need in road safety.

Preliminary research questions: The main purpose of the research is to:

- Understand the scale and scope of safety issues for each category of VRU across countries at all income levels.
- To evaluate how VRU safety is being accounted for by identifying key issues and concerns. Including, for example, VRUs with disabilities and different age groups.
- To provide methods for identifying needs and potential solutions to address VRU safety.
- To provide example of practical solutions used to address the needs of VRU safety.

Importance to roads agencies: This work is important to road agencies/road industry because crashes involving VRUs continue to be a major concern for countries at all income levels. By understanding how to assess and address these needs VRU is enhanced

Audience: The work is intended for countries at all income levels. The document is intended to be used by decision makers and safety practitioners responsible for transportation safety. The technical report should serve a reference of best practices that informs and guides decision making.

Deliverables: Technical report, provide information for Road Safety Manual.

Background to TC's work on this topic:

[• Vulnerable Road Users: Diagnosis of Design and Operational Safety Problems and Potential Countermeasures](#)

[• Addressing Road Safety Worldwide: Vulnerable Road Users, Human Factors & RS in LMIC](#)

[• Proceedings of the PIARC International Seminar on: “Road Safety in Low- and Middle-Income Countries: Issues and Countermeasures”](#)

[• Review of Global Road Safety Audit Guidelines with Specific Consideration for Low and Middle Income Countries](#)

[• Road Safety Catalogue of Case Studies](#)

Low and lower-middle income countries: VRU crashes disproportionately occur in LMIC countries. These crashes result from lack of adequate infrastructure and benefit would occur from increased understanding.

Gender inclusion & diversity: In some countries, the security of women who are walking and biking is problematic which in turn can result in safety related issues. This topic is likely to be addressed as part of this effort. In addition, younger and elderly individuals are also disproportionately injured, and this consideration will also be addressed.

Potential duration: 30 months.

3.1.2 Safe System in Low and Lower-Middle Income Countries

Purpose: The purpose of this work is to provide knowledge regarding the application of the Safe System Approach in LMICs entering or progressing through the early stages of implementation. Implementing the Safe System Approach requires a commitment by countries to consider how to provide for road safety management, safe roads, safe vehicles, safe road user behaviour, and Safe Post Crash Care. LMICs will differ in their ability to implement the safe system and this work intends to provide a framework, guidance, and potential actions as countries evolve through beginning and emerging stages of implementation.

Preliminary research questions: The main purpose of the research is to

- Review existing literature on the Safe System in low and lower-middle income countries
- To develop an approach with provides a foundational understanding of the safe system and considerations at the early stages of implementation.
- To develop a framework and guidance for growth within the safe system with special consideration of LMICs
- Provide examples of early-stage implementation by LMICs

Importance to roads agencies: This work is important to road agencies/road industry because the Safe System Approach has been successful globally in reducing fatalities and serious injuries. This effort intends to provide knowledge and assistance towards Safe System Implementation at the LMIC level.

Audience: The work is intended for LMIC countries at all income levels. It is directed towards road authorities with the responsibly for road infrastructure planning, design, and operations. The technical report should provide a framework and guidance on early-stage implementation.

Deliverables: Technical report, information will be used to update the Road Safety Manual.

Background to TC’s work on this topic:

[PIARC Road Safety Manual](#)

[Road Infrastructure a Key Building Block for a Safe System](#)

Safe System Roads and Roundabouts For Motorcycles

Low and lower-middle income countries: The intent of this effort is to specifically address Safe System Approach issues in LMICs.

Gender inclusion & diversity: The Safe System Approach focus on the need to address all road users. Past practices focused on vehicle safety. By addressing vulnerable road users, you are dealing with people less like to be able travel by car or vehicle. These are often lower income men and women, minority populations, and the youngest and oldest road users.

Potential duration: 24 months.

3.1.3 Diagnosing Road Safety Problems and Opportunities

Purpose: The purpose of this work is to provide knowledge on diagnosing road safety problems through analysis of the factors contributing to crashes. To be effective in preventing and reducing fatalities and serious injuries transportation agency must be able to assess safety data and from that data select appropriate strategies that will lead to fatal and serious crash reduction. This activity is important for all countries regardless of income level. This effort will provide a stepwise process for understanding and addressing contributing factors to crashes and crash outcomes.

Preliminary research questions: The main purpose of the research is to

- Review existing literature on the diagnosing road safety problems including those at at-grade railroad grade crossing.
- How to consider different safety data in assessing potential contributing factors.
- Provide a foundational understanding and method for performing a diagnostic assessment of road safety problems and selecting appropriate interventions.
- Provide examples of diagnosing road safety problems, selecting, and implementing interventions.

Importance to roads agencies: This work is important to road agencies/road industry as the ability to identify, diagnose, and address road safety problems is a fundamental need within the road safety profession. Doing so ensures that selected interventions will return on investment in terms of reducing and preventing road safety problems.

Audience: The work is intended for countries at all income levels. The document is intended to be used by decision makers and safety practitioners responsible for transportation safety. The technical report should serve as a reference for those addressing road safety problems.

Deliverables: Technical report

Background to TC's work on this topic:

- [Vulnerable road users: Diagnosis of design and operational safety problem and potential countermeasures.](#)
- [Road Safety Audit Guidelines for safety checks of new road projects](#)
- [Road Safety Evaluations Based on Human Factors Method](#)
- [Road Safety Manual](#)

Low and lower-middle income countries: A fundamental concern of LMICs is to identify and diagnose road safety problems and how they might be addressed to reduce fatal and serious injury crashes. In doing so, they ensure that there will be a return on investment for the scarce funding available.

Gender inclusion & diversity: Road safety is an issue for all people regardless of race, gender, or income level. Motor vehicle crashes disproportionately also affect those most vulnerable in the population. This effort will be directed in a manner that also considers socioeconomic and demographic factors as potential contributing factors to crashes.

Potential duration: 40 months.

3.1.4 Update of the Road Safety Manual

Purpose: The purpose of this work is to update the Road Safety Manual (RSM) and to incorporate components (e.g. worksheets and tools) of the 2003 1st Edition of the RSM technical content. The report will focus on performing a minor update of the 2023 RSM, bringing new material from the 2024–2027 work groups and incorporating select relevant worksheets and tools.

Preliminary research questions: The main purpose of the research is to

- Evaluate the 2003 1st Edition RSM for materials to include in the next update. Including practices and procedures to supplement the RSM at-grade railroad crossing section.
- Update worksheets or tools as necessary and incorporate into the online document.
- Update the current 2023 online version with new material.
- Publish the new RSM.

Importance to roads agencies: This work is important to road agencies/road industry as transportation agencies benefit from understanding the Safe System Approach in single agency oriented document. The RSM is a well used and relevant document of PIARC. Maintaining and updating the document keeps it relevant and useful be road agencies. Adding new technical materials will assist agencies with simple easy to use tools.

Audience: The work is intended for countries at all income levels. The document is intended to be used by decision makers and safety practitioners responsible for transportation safety. The technical report should serve as a reference of the Safe System Approach that informs and guides decision making.

Deliverables: Manual.

Background to TC's work on this topic:

- PIARC Road Safety Manual 1st Edition 2003
- PIARC Road Safety Manual
- PIARC Exchange Knowledge Sharing Campaign

Low and lower-middle income countries: The Road Safety Manual is a valuable document for LMICs. It is free, online, and relevant. The Manual provides significant information for LMICs.

Gender inclusion & diversity: The RSM recognizes all road users needs, and the future edition will incorporate equity related issues.

Potential duration: 48 months.