



PIARC Global Road Safety Knowledge Exchange Management Strategy/Policies

Summary

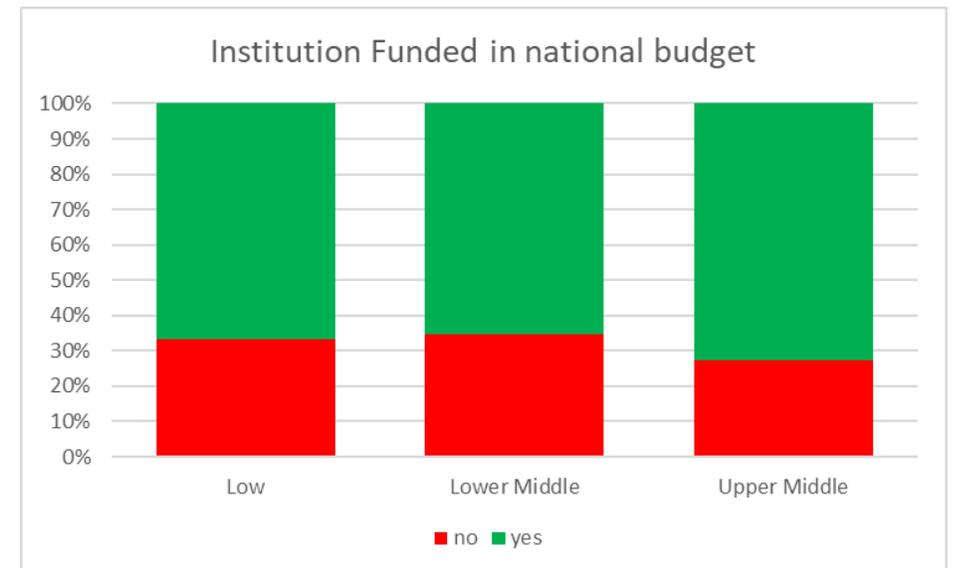
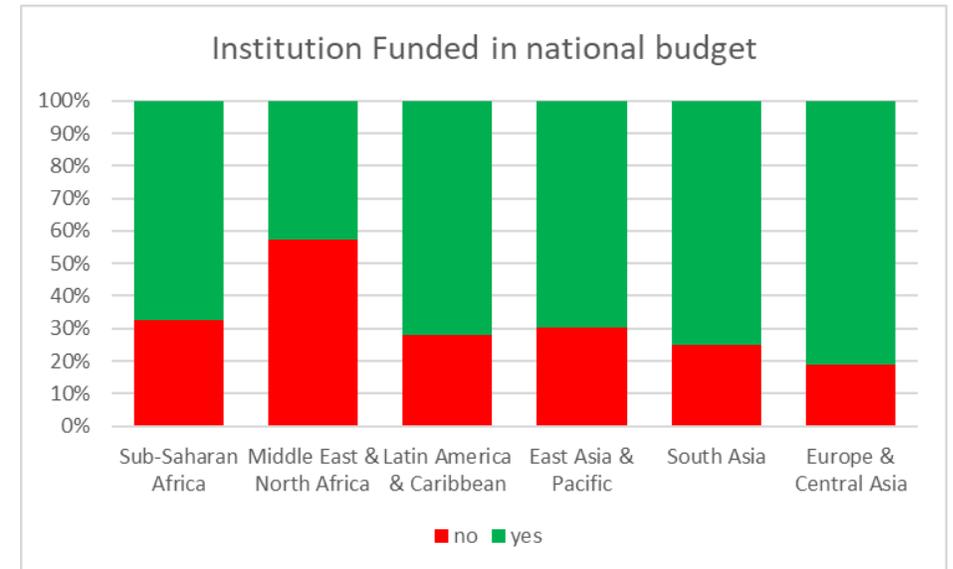
- **LMICs Road Safety Management Fundamentals**
- **Road Safety Management Issues**
- **Road Safety Management Measures**
- **Recommendations**

LMICs Road Safety Management Basic Facts



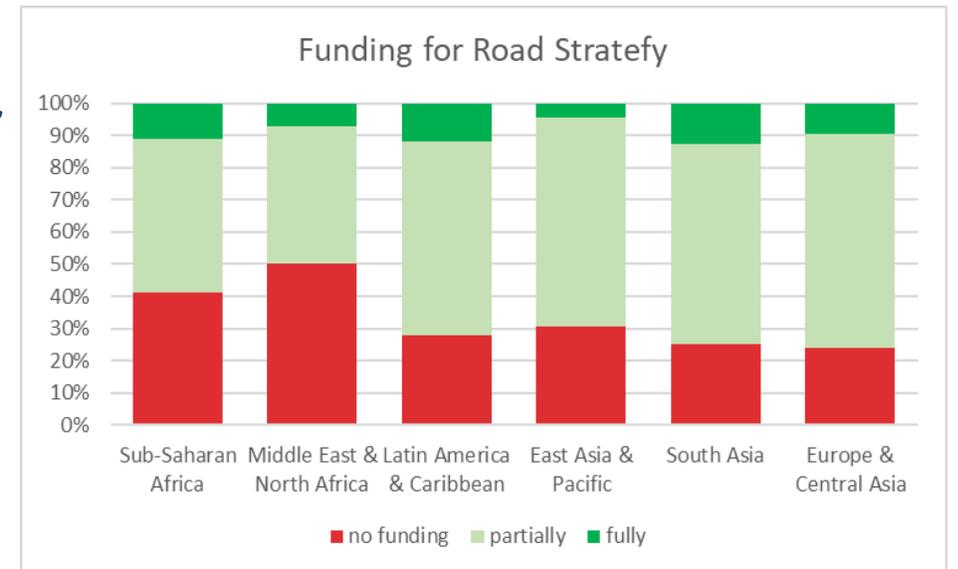
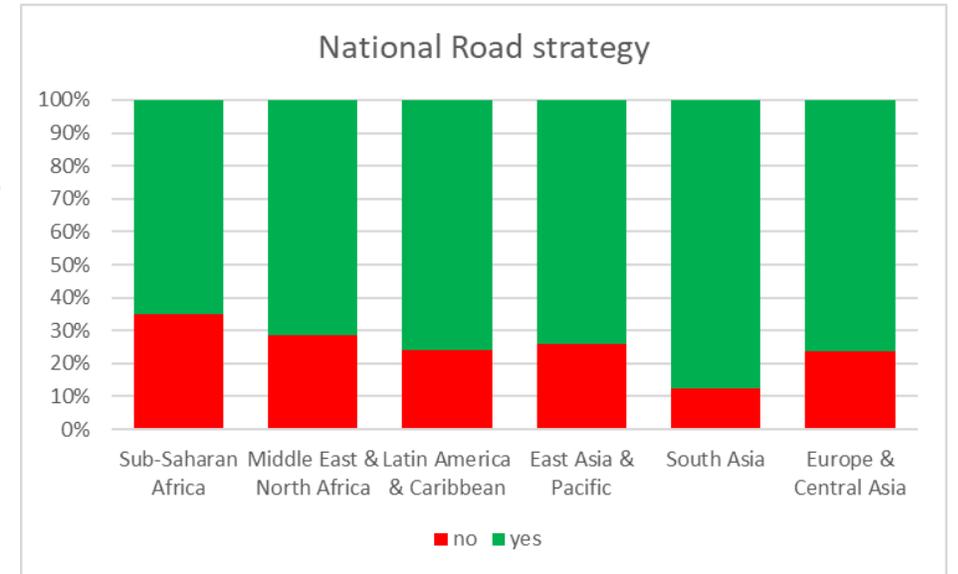
Lead Agency for Road Safety

- **Institutional management** provides the foundation for improving road safety
- **87% of LMICs** have established **lead agency to guide the national road safety efforts.**
- **66% of Low and Lower-Middle and 72% of Upper-Middle Income Countries fund the lead agency in national budget.**
- **81% of Europe & Central Asia LMICs** fund the road safety institutions in national budget
- **Only 43% of Middle East & North Africa LMICs** fund the road safety institutions in national budget



National Road Safety Strategy

- **63% of the Low and 75% of the Middle Income Countries have a national strategy for road safety.**
- **88% of South Asia LMICs have a national road safety strategy that is fully (13%) or partially funded (63%)**
- **Sub-Saharan Africa is the region with the smaller percentage of LMICs (65%) with national road safety strategy**



Road Safety Management Issues



Elements for Road Safety Lead Agencies

The success and effectiveness of road safety lead agencies (RSLAs) in coordinating preventative road safety interventions in **developing countries** is dependent on the following key elements:

- Lead agencies with full-time expert staff, legally endowed powers, permanent funding, political support, and access to relevant data
- Road safety strategies with clear intermediate and final targets and outcomes
- Funding dedicated to road safety
- Road crash and other complementary data
- Understanding of the causes and circumstances at road crashes location

LMICs organizational structure deficiencies

- Achieving **global and national road safety goals** and targets requires **appropriate management capacity**.
- In **many LMICs** the organizational structure of the management system may **suffer from deficiencies**:
 - Lack of **leadership**
 - Lack of **political priority**
 - Lack of **funding**
 - Lack of **expertise**
- These deficiencies are **weakening the institutional functions** across key road safety players.



Causes of dangerous situations for VRUs

- LMICs are usually under **increasing motorization** and thus place vulnerable road users (pedestrians, cyclists and motor cyclists) at particular risk
- Causes of VRUs crashes are:
 - **Poor planning** of road networks
 - Poor **traffic control** and management at intersections
 - **Inadequate pedestrian facilities**
 - Severe **lack of priority** and attention given to the pedestrians



Data in Road Safety Management

- While some road crashes are predictable and thus preventable, efforts to reduce crashes in developing countries are further **hampered by lack of accurate crash and casualty data**.
- **Data collection** helps governments to:
 - more effectively **prioritize funding**
 - **monitor** the impact of investments
 - **strengthen** inter-agency collaboration and efficiency



Road Safety Management Measures



UN Decade of Action for Road Safety



Safe System Approach

- **UN 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
- The development of an effective road safety strategy starts from the notion of the Safe System approach, to **prevent fatal and serious crashes**.
- The system design and operation must become forgiving of routine human error.
- Deal with human behavior in a **proactive and integral way** by creating an environment for safe human behavior.
- An **efficient management system** and **leadership body** are essential for the implementation of an **effective road safety improvement program**.

Safe System Principles



**Death/Serious Injury
is Unacceptable**



**Humans
Make Mistakes**



**Humans Are
Vulnerable**



**Responsibility
is Shared**



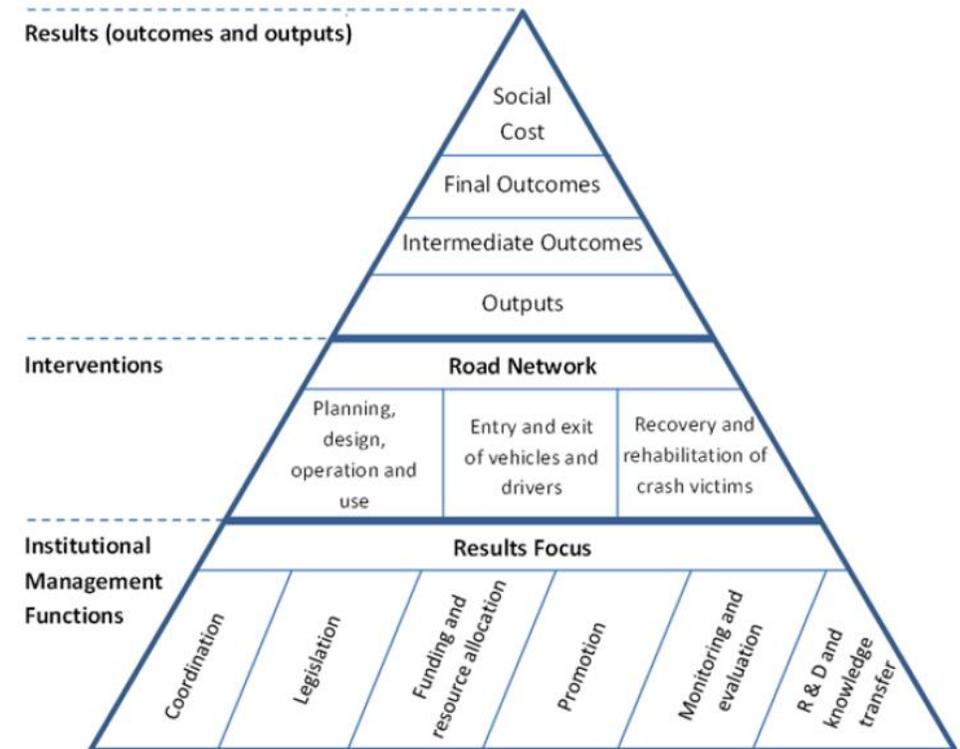
**Safety is
Proactive**



**Redundancy
is Crucial**

Country Management System Framework

- Crucial to improving country/jurisdictional **road safety performance**.
- **Management system with three levels:**
 1. Institutional management functions
 2. Interventions
 3. Desired results



Institutional Management Functions (1/2)

- **Link** all actual and potential **interventions** with **results**
- **Analyse** what can be achieved over time
- Set out a **performance management framework** for the delivery of interventions and their outcomes
- **Delivered:**
 - primarily by the government agencies with core road safety responsibilities
 - In government partnerships with civil society and business
 - With the support of research and professional community
- **LMICs** should exercise **caution** in establishing **complex targeted strategies** and plans until **data** and appropriate **management capacity** are **available**.

Institutional Management Functions (2/2)

- **Coordination** = development and alignment of the interventions
- **Legislation** = appropriate legal instruments to specify legitimate bounds of institutions
- **Funding and resource allocation** = financing of interventions on a sustainable basis
- **Promotion** = countrywide and sustained communication of road safety emphasizing the shared societal responsibility to support the delivery of the interventions.
- **Monitoring, analyzing and evaluation** = systematic and ongoing measurement, analysis and evaluation of interventions
- **Research, development and knowledge transfer** = systematic and ongoing creation, codification, transfer and application of knowledge

Intervention Strategies

- Safety conscious planning and **proactive safety engineering design**
- Encouraging use of **safer modes** and safer routes
- **Safe separation/safe integration of mixed road use**
- **Managing speeds** to crash protection levels
- Providing **crash protective** roadsides and vehicles
- **Deterring dangerous behavior** and ensuring compliance with key safety rules by social marketing and visible police enforcement
- **Managing risk** via vehicle standards/designs and driver standards
- Fast and efficient **emergency medical help**, diagnosis and care

Results

- **Targets** define the **desired safety performance** endorsed by government at all levels, stakeholders and the community.
- **Final outcomes:**
 - Long-term goal for the **future safety** of the road traffic system
 - Short- to medium-term targets expressed in terms of **social costs, fatalities and serious injuries**
- **Intermediate outcomes:** improvements to the final outcomes
- **Outputs:** physical **deliverables** that underpin improvements in intermediate and final outcomes.

Road Safety Audits

- **An independent process for checking the safety of new or rehabilitated roads:**
 - systematically
 - based upon sound safety principles
 - from the road users' point of view
 - Doesn't rely on standards!
- Ensure **highway schemes operate as safely** as practicable
- **Minimise collision** numbers
- Consider **safety for all road users**
- **Improve awareness** of safety design practices by design, construction and maintenance staff



Road Safety Inspections

- Systematic, **on site review** of existing road sections
- Conducted by **road safety experts**
- Identification of **hazardous conditions**, faults and deficiencies that may lead to serious accidents.



Recommendations



Management Strategy Recommendations (1/2)

- Building **awareness of Safe System** possibilities and application is a critical step for LMICs.
- To ensure **road safety management** and leadership and to **build road safety expertise**, **LMICs** should:
 - Develop a **strong lead agency** (expert staff, legally endowed powers, funding, political support)
 - Develop a **robust road safety data system**
 - Develop a robust **set of local guidelines and regulations**
 - Develop **university road safety programs** at bachelor and master level
 - Connect to regional **road safety observatories**, international networks of universities and centers of excellence
 - **Build centers of road safety excellence** to develop road safety management and research capacity through institutional reforms.

Management Strategy Recommendations (2/2)

- **A small percentage of roads account for a large percentage of deaths and serious injuries** – these routes should be **identified** and addressed at **programme-level**. For countries with limited resources or that lack adequate data across the network, these locations are the most important.
- For LMICs, **policy priorities** should include:
 - Providing **pedestrian and motorcycle facilities** which improve safety outcomes
 - **Addressing incompatible speeds** between road users in areas of high risk
 - Installing **traffic management and infrastructure safety measures** to reduce crash risk
 - **Controlling vehicle access** to/from roadsides
 - Controlling **land use** developments abutting arterial roads to reduce adverse safety impacts
 - Improving safety of operation of **heavy vehicles**
 - Improving **compliance with road rules**.

PIARC IS BOOSTING ROAD SAFETY IN LMICs

- **Management** is a **key contributing factor to road safety** and an area where the PIARC Road Safety Technical Committee has produced a plethora of relevant reports.
- PIARC is engaged in **promoting road safety** all over the world and committed to **actively support safety in LMICs**.
- All actions contribute fully to the success of the **UN Decade of Action for Road Safety**.
- The new knowledge-sharing campaign for road safety will provide **monthly updates**, on social media and on PIARC website, for **all essential road safety areas**.
- **Stay tuned for more actions and events!!**



Relevant PIARC reports

- [Road Safety Manual. Strategic Global Perspective. Key Developments in Road Safety](#)
- [Road Safety Manual. Strategic Global Perspective. Scope of the Road Safety Problem](#)
- [Road Safety Manual. Road Safety Management. Safety Management System](#)
- [Road Safety Manual. Road Safety Management. The Safe System Approach](#)
- [Road Safety Manual. Road Safety Management. Safety Data](#)
- [Road Safety Manual. Road Safety Management. Target and Strategic Plans](#)
- [Road Safety Manual. Planning, Design & Operation. Roles, Responsibilities, Policy Development and Programmes](#)
- [Road Safety Manual. Planning, Design & Operation. Infrastructure Management](#)
- [Road Safety Manual. Planning, Design & Operation. Risks and issue identification](#)
- [Road Safety Manual. Planning, Design & Operation. Intervention Selection](#)
- [Road Safety Manual. Planning, Design & Operation. Monitoring and evaluation](#)
- [Proceedings of the PIARC International Seminar on: “Road Safety in Low- and Middle-Income Countries: Issues and Countermeasures”](#)
- [Proceedings of the “International Seminar and Workshop on Safer Roads by Infrastructure Design and Operation”](#)

Relevant PIARC reports

- [Proceedings of the Internal Workshop “Policies and Programs for Road Safety Management”](#)
- [COVID-19: Key Lessons for the Road Community from the first PIARC Webinars](#)
- [1st Webinar on COVID-19 and Road Safety](#)
- [2nd Webinar on COVID-19 and Road Safety](#)
- [COVID-19: Key Lessons for the Road and Transport Community from the latest PIARC Webinars](#)
- [Proceedings of the World Road Congress 2019](#)
- [Automated Vehicles – Challenges and Opportunities for Road Operators and Road Authorities](#)
- [Well-prepared projects. A PIARC collection of case studies](#)
- [Smart Roads Classification](#)
- [Improving Safety in Road Tunnels through Real-Time Communication with Users](#)
- [Utilizing data to optimize road network operations. A PIARC collection of case studies](#)
- [The Role of Road Engineering in Combating Driver Distraction and Fatigue Road Safety Risks](#)
- [Review of Global Road Safety Audit Guidelines with Specific Consideration for Low and Middle Income Countries](#)
- [Land use and Safety: An introduction to understanding how land use decisions impact safety of the transportation](#)

Thank you for your attention!



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