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Strengthening Road Safety Management

System Review Guidelines

Third Edition

GRSF
Global Road Safety Facility

MANAGED BY
WORLD BANK GROUP

Strengthening Road Safety Management:

System Review Guidelines

Third Edition

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Table of Contents

Acknowledgments ii

About GRSF iii

Abbreviations iv

Foreword v

Executive Summary vi

1. Introduction 1

1.1.Use of the guidelines 1

1.2.Limitations of the guidelines 1

1.3.Strengthening system management 2

1.4.The road safety system 2

2. Management review objectives, preparation, and steps 5

2.1.Review objectives 5

2.2.Review preparation 5

2.3.Review steps 6

Review step 1: Assess system safety performance 8

Review step 2: Assess lead agency contribution to the system management process 11

Review step 3: Identify priorities to strengthen system management process 14

3. Specifying system management strengthening initiatives 17

3.1.Alignment with review objectives 17

3.2.Lead agency role 18

3.3.Country road safety strategy 19

3.4.Multisectoral investment project 21

3.5.Finalizing the management review findings 24

References 25

Annex A. Terms of Reference Template for Management Review 27

Annex B. Technical Notes 29

Technical note 1: Measuring and targeting safety performance 29

Technical note 2: Specialist knowledge and skills requirements of senior staff 32

Technical note 3: The role of the lead agency 34

Technical note 4: System leadership and specialist knowledge and skills 40

Technical note 5: Establishing and staffing the lead agency 43

Technical note 6: Lead agency contribution to strategy coordination 45

Technical note 7: Targeting high-risk corridors using the example of Kenya 46

Technical note 8: Financing road safety investment 48

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About GRSF

This report was produced by the Global Road Safety Facility (GRSF), a multi-donor trust fund managed by the World Bank that supports efforts in low- and middle-income countries to halve their road traffic fatalities and serious injuries. GRSF is supported by Bloomberg Philanthropies Initiative for Global Road Safety, the TotalEnergies Foundation, and the United Kingdom of Great Britain and Northern Ireland.

More information can be found at www.globalroadsafetyfacility.org or by contacting the facility, at grsf@worldbank.org.

Abbreviations

GRSF	Global Road Safety Facility
ITF	International Transport Forum
Km	kilometer
LMIC	low- and middle-income country
MDB	multilateral development bank
OECD	Organization for Economic Co-operation and Development
PforR	Program-for-Results
R&D	research and development
WHO	World Health Organization

Foreword

Over the next few years, low- and middle-income countries (LMICs) will face significant challenges in achieving the United Nations' global target of halving road traffic fatalities and injuries by 2030. Road crashes claim an estimated 1.19 million lives annually, with LMICs bearing over 90 percent of the global burden despite having only 60 percent of the world's vehicles. Addressing this health and economic crisis requires concerted efforts to not only build safer roads and vehicles but perhaps more critically to strengthen road safety system management and mobilize sustainable financing to support these efforts.

This third edition of the road safety management strengthening guidelines incorporates experiences and lessons learned since the previous editions were published in 2009 and 2013. The new version provides updated procedures to help countries identify their road safety system management strengthening priorities and specify targeted initiatives. It also includes guidance on adapting management processes to evolving challenges and contexts in road safety. Strengthening road safety management processes and institutional structures at the system level is crucial for achieving scalable and sustainable improvements. A well-functioning road safety lead agency can play an essential role in specifying, directing, and integrating road safety efforts across sectors and government agencies. It can serve as the cornerstone for fostering accountability, ensuring alignment among stakeholders, and driving a unified approach to national road safety objectives.

The importance of financing in road safety cannot be overstated. Multilateral development banks mobilized over $6 billion for road safety initiatives in LMICs between 2018 and 2024, but the funding gap remains vast. Traditional funding mechanisms can be supported by innovative financing solutions—such as social and green bonds—which offer potential pathways to scale up investments and ensure sustainable progress. Robust road safety system management processes are essential for ensuring that such investments can be deployed in ways that deliver measurable and lasting impact.

The World Bank's Global Road Safety Facility (GRSF) plays a pivotal role in supporting countries in their efforts to strengthen road safety management and catalyze financing. As outlined in the GRSF Business Plan for Fiscal Years 2024–27, the facility is committed to working with LMICs, multilateral development banks, donors, and global stakeholders to mobilize resources and accelerate progress toward the 2030 target. Strengthening road safety system management is an essential pillar of this strategy. At the World Bank and GRSF, we remain committed to collaborating with our partners to address the road safety crisis. By applying these guidelines, we can work together to save lives, reduce injuries, and build safer road transport systems for all.

Nicolas Peltier-Thiberge
Director of Strategy and Operations
Infrastructure Vice Presidency, World Bank Group

Executive Summary

Improving road safety in low- and middle-income countries (LMICs) and the associated need to scale up sustained financing of their road safety programs require stronger management of country road safety systems. Inadequate and under-resourced system-level management processes are a major barrier to progress in LMICs. Narrowing these gaps is essential for achieving sustainable improvements in country road safety performance.

For simplicity, these guidelines refer to a country management review, as they are designed primarily for application at the national level. But they can also be applied at the state, city, and local government levels, either separately or in combination. Comprehensive nationwide application can provide a systematic picture of road safety management across all levels of government.

A management review may be conducted for the following objectives:

- Strengthen the role of the lead road safety agency.
- Develop a road safety strategy or update an existing one.
- Prepare a financing operation —most often in the form of a multisectoral investment project—that addresses the first two objectives and aims to sustainably improve road safety.

The findings of a management review inform the achievement of these objectives. The lead agency plays a decisive role in specifying, directing, and integrating effective and efficient management of the road safety system and shaping country strategies. A country road safety strategy sharpens the focus on improving safety performance and harmonizes institutional partnerships to achieve this. Multisectoral investment projects build more sustainable system management processes, accelerate road safety gains, and develop leadership and specialist knowledge and skills.

The management review findings are relevant to all review objectives, but their application depends on the specific objective of each review. The review findings can also collectively address all these objectives. For example, a multisectoral investment project can be prepared to strengthen the engagement between a lead agency and its partner institutions in the delivery of the country's strategy. The management review also seeks information on intervention and system management budgets, as well as associated staff and their skillsets, to yield a clearer picture of the management efforts by the lead agency and its partner institutions to improve road safety. In many LMICs, road safety funding and staffing levels are unclear and insufficient to achieve national, regional, and global goals. Review findings can bring greater transparency to the consideration of these budgetary and staffing issues and set a baseline from which improvements can be made.

Without stronger country management processes it is difficult to mobilize and sustain the increased road safety financing and targeted safety projects needed to make meaningful progress. The guidelines presented here aim to equip senior government officials with the means to evaluate and strengthen the management of their road safety system. The emphasis is on assessing a country's road safety management process across multiple public institutions and related management functions, and understanding the vital role of the lead agency in specifying, directing, and integrating this process. Review findings will support the strategic shaping of country pathways to improved road safety performance.

1. Introduction

1.1. Use of the guidelines

Road safety practice is concerned with managing the safety of the road transport network by a system comprising multiple public institutions focused on improving safety performance. In good-practice countries, a designated lead agency plays a defining role in specifying, directing, and integrating this system management process.

The guidelines presented here outline procedures that policy makers can use to review a country's system management process, identify system management strengthening priorities, and specify initiatives to address them. They build on experience gained from the previous editions of Global Road Safety Facility (GRSF) guidelines (Bliss 2004; Bliss and Breen 2009, 2013), which supported implementation of the recommendations of the World Report on Road Traffic Injury Prevention. Those recommendations addressed road safety at the system level and placed top priority on establishing a lead agency to guide the national road safety effort (Peden et al. 2004). The guidelines presented in this report reinforce this priority and the related recommendations.

The guidelines are designed to support efforts by senior government officials and specialists in LMICs responsible for country road safety to strengthen system management processes and scale up road safety financing. Review findings enable the identification and prioritized specification of system management strengthening initiatives in low- and middle-income countries (LMICs) that address shortfalls in road safety performance. The guidelines take a pragmatic approach to meeting this challenge. They recognize that under-resourced management processes at the system level are a major barrier to progress that must be overcome if sustainable performance gains are to be achieved.

The guidelines refer to a country management review, as they are designed for applications mainly at the national government level. They can also address all levels of government—national, state, city, and local—separately or in some combination. The guidelines allow for flexibility in their application. Country differences must be identified during the review preparation phase to ensure that review procedures are adapted to them. Review findings will differ, depending on country contexts. Irrespective of the level of country capacity, the review procedures remain the same.

1.2. Limitations of the guidelines

It is important to recognize that the management review procedures presented in these guidelines are designed to assess a country's management process at the system level. They should not be used to conduct a formal capacity assessment of any particular Government entity engaged in road safety management, be it the lead agency or one of the partner institutions.

While the review procedures are not designed to formally review the capacity of participating institutions—other tools exist for that purpose—their findings shed light on associated institutional capacity issues. The procedural emphasis on institutional management functions rather than institutional forms—which follow functions and can differ across countries—allows for an in-depth review of a country's road safety management process and related safety performance.

Institutional capacity is determined by four organizational dimensions (personnel, financial resources, information systems, and management practices) and three cross-cutting governance dimensions (independence, accountability, and transparency). Organizational dimensions are aligned with internal structures and processes; governance dimensions are externally facing and aligned with the public interest and broader political economy. Viewing capacity in this way contextualizes road safety institutions and their practices. Rather than highlighting their institutional mandates, it provides a more granular picture of their policy delivery (Kim et al. 2026). This institutional capacity underpins and sustains the road safety system's management process.

1.3. Strengthening system management

Two decades have passed since the publication of the first *World Report on Road Traffic Injury Prevention*. Since then, significant global, regional, and national efforts have been made to implement its recommendations, but improving road safety in LMICs remains a formidable challenge. Millions of fatalities—and at least an order of magnitude more serious injuries—will occur if the global reduction target of 50 percent is not achieved by 2030 (WHO and United Nations Regional Commissions 2021). Compounding this challenge, road safety efforts in LMICs remain underfunded. Scaled-up country financing will be crucial to achieving the ambitious global safety performance target (World Bank Group 2024).

Increased financing of road safety initiatives in LMICs to improve their road safety performance will require strengthened management of their road safety systems, without which it will be difficult to mobilize and sustain the increased safety financing and targeted safety investments necessary for success (WHO 2023). The review tools presented in these guidelines are designed to support this need.

1.4. The road safety system

The road safety system is intertwined with the road transport system, which has multiple objectives in addition to safety. These objectives include addressing accessibility and mobility demands, relieving traffic congestion, ensuring intermodal and last mile connectivity, decarbonizing transport use, reducing local air and noise pollution, and other development priorities that affect the road network's effectiveness and efficiency. The road safety system focuses on managing network safety performance. However, it also cuts across sector policies concerning the operation of the road transport system, especially those addressing vehicle decarbonization, speed management, traffic congestion, active transport, and air and noise pollution.

The road safety system comprises all public institutions with road safety responsibilities and the management process that engages them in the delivery of interventions and determines their contribution to improved safety performance. This system's management process is animated by its institutional management functions, which span the specification, direction, and integration of system safety performance. These management functions are underpinned by the combined capacity of the participating institutions and serve to strengthen it.

Management is typically formalized as a rational process that determines what needs to be done and how it will be achieved; it aims to ensure that the desired actions are effectively and efficiently implemented and accounted for. The management process of the road safety system engages its partner institutions in the production of interventions that improve safety performance. This process requires planning, financing, coordination, monitoring, evaluation, and adjustments where required, to ensure that safety performance targets are met. It is also dependent on high-level leadership and specialist knowledge and skills to sustain the process.

This framing of the road safety system reveals that its institutional management functions—and their underpinning organizational and governance dimensions—form the largely invisible and indispensable nucleus of the system rather than the more visible dimensions of interventions and their safety performance. These visible dimensions—such as speed enforcement and infrastructure safety improvements—can come under intense public, political, and scientific scrutiny, often with very little consideration of the necessary institutional capacity and management process that produce them.

GRSF country case studies have identified seven good-practice institutional management functions that drive the management process of the road safety system. The functions are distinguished by their foremost function— results focus—and six supporting functions (Table 1.1). Each partner institution in the road safety system produces and delivers interventions. At the system level, an institution formally designated as the lead agency takes responsibility across all its partner institutions for specifying, directing, and integrating their delivery (Bliss and Breen 2009).

The system's results focus—which is shaped by the combined capacity of its participating institutions and their system management process—encapsulates the strategic intent of the road safety system. It determines a country's safety strategy, targets, and performance agreements. The management process plays an important role in the evolving recognition and specification of a country's road safety system. It creates impetus and commitment to improve system safety performance.

Table 1.1 Seven good-practice institutional management functions

Function	Description
Results focus	Strategic orientation at the system level of a lead agency and its partner institutions that links actual and planned interventions with desired road safety performance (expressed in terms of final outcomes, intermediate outcomes, and outputs); it determines what can be achieved over time and sets out a performance management framework for its delivery.
Coordination	Orchestration and alignment of safety interventions by the lead agency and its partner institutions to achieve the desired focus on results.
Legislation	Legal instruments necessary to specify the legitimate bounds of the responsibilities, accountabilities, interventions, and related institutional management functions of a lead agency and its partner institutions to achieve the desired focus on results.
Funding and resource allocation	Financing interventions and related institutional management functions of a lead agency and its partner institutions, using a rational resource allocation and programming framework to achieve the desired focus on results.
Promotion	Sustained communication of road safety as a core public health priority for government and society to achieve the desired focus on results.
Monitoring and evaluation	Systematic and ongoing tracking and evaluation of road safety outputs and intermediate and final outcomes of a lead agency and its partner institutions to achieve the desired focus on results.
Research and development and knowledge transfer	Systematic creation, codification, transfer and application of knowledge as well as related support for the design of enhanced initiatives of a lead agency and its partner institutions to achieve the desired focus on results.

Source: Bliss and Breen (2009).

The results focus of the road safety system and related interventions can be viewed in territorial terms aligned with the road network, as defined by its road classifications. These classifications usually reflect a traffic volume and connectivity hierarchy and associated levels of government ownership. They can also be defined by their movement and place functions. This spatial segmentation is important to understanding road user safety risks across the network and related institutional responsibilities and accountabilities. It influences speed management strategies, infrastructure safety measures, and entry and exit conditions for vehicles, drivers, operators, and other road users.

The specification of a country's results focus has evolved over the last 70 years, as the management process has reshaped the understanding of road safety in systemic terms. Management thinking and practice have moved from an emphasis on improving driver behavior to prevent crashes to the prevention of fatalities and serious injuries by integrating infrastructure and vehicle safety and related speed management regimes, highlighting system managers' responsibilities, not just those of road users. This thinking and practice have become known as the Safe System approach (OECD and ITF 2008).

The Safe System approach is a normative concept grounded in behavioral science, biomechanics, and ethics. It recognizes that road users are error-prone, that the human body is fragile, and that user failure in the road network should not result in death or serious injury. This approach is a synthesis of the Sustainable Safety (Wegman, Aarts, and van der Knaap 2023) and Vision Zero (Tingvall 2023) strategies, which envision a road transport system operating with no crash deaths or serious injuries. This desired safety performance constitutes the results focus of the road safety system.

The Safe System approach is an evolutionary construct of the system's management process and reflects a shift from a misguided focus on blaming the road user to a focus on ensuring the provision of a protective system. These guidelines acknowledge the Safe System approach as an ambitious specification of a road safety system's results focus. If a country aspires to a Safe System results focus, the management of its delivery is reviewed accordingly (Breen et al. 2008).

Previous editions of these guidelines promoted a Safe System approach by anchoring country efforts in measurable and accountable investment projects that simultaneously strengthened the road safety system's management process while achieving safety performance gains for all road users. Safe System design principles were recommended in infrastructure provision, the setting of vehicle safety standards, and the strengthening of the lead agency role to improve system integration (Bliss and Breen 2009). These principles still apply.

Over the last decade the Safe System approach has been internationally promoted and adopted as best practice, irrespective of a country's income status and its road safety performance. Implementing a Safe System focus on results has profound implications for managing the road safety system—especially for the protection of its most vulnerable users—with system elements coming under closer scrutiny and revision, to work towards the prevention of all road crash deaths and life-changing injuries. This edition of the guidelines provides the management review tools to assess a country's progress towards achieving this long-term goal.

2. Management review objectives, preparation, and steps

2.1. Review objectives

A management review may be conducted for the following objectives:

- Strengthen the role of the lead road safety agency.
- Develop a road safety strategy or update an existing one.
- Prepare a financing operation—most often in the form of a multisectoral investment project—that addresses the first two objectives and aims to sustainably improve road safety.

These objectives are interrelated and the broad scope of a management review is identical, whatever specific objective(s) it is addressing. A management review seeks to gain a clear picture of how road safety institutions and their designated or de facto lead agency manage their performance at the road safety system level, identifies priorities for strengthening system management, and specifies initiatives to address these priorities. The scope of a management review is largely determined by its specific objective(s), within the time and resources available for its conduct.

Annex A provides a template for preparing the terms of reference for a management review.

2.2. Review preparation

Thorough preparation for the review is necessary to ensure its success. Readily available background information must be summarized to guide informative discussions with review participants. To yield informed, transparent engagement with all participants, the review process must align with the road safety system and related initiatives in the country concerned. It is important to identify the country's distinctive road safety situation and closely calibrate the review procedures with this reality. Most countries will have a road safety strategy or action plan; where this is the case, it will provide the starting point for the review.

Preparatory tasks include the following:

- Request available country strategy and action plan documents, to identify related performance targets, interventions, and management arrangements.
- Identify partner institutions and the designated or de facto lead agency (if one exists).
- Ensure that the partner institutions and the lead agency are available to participate in the review, and provide related background briefings.
- Confirm the review objectives, timetable, and the support required to facilitate it.
- Request available country road safety performance data to identify high-risk road users.
- Identify the availability of road safety performance data to all institutions, advocacy groups, and citizens.
- Collate relevant regional and international road safety performance data for benchmarking purposes.
- Specify and request additional road safety performance data and other safety document requirements.
- Identify road safety services that have been outsourced to private sector agents.
- Identify technological innovations that have been implemented or are under consideration.

- Prepare and confirm the schedule for review consultations.
- Identify priorities for potential road network field visits.
- Confirm potential funding sources for initiatives to strengthen road safety management.

Government officials must agree on the formal rationale for the review and commit to its objectives. All participants must clearly understand and approve the review process and agree to its information requirements, envisaged engagements with the designated lead agency and partner institutions, the timeframe required to conduct the review, and the support government officials will provide to facilitate it.

The lead agency and each partner institution should be allocated up to two working days for formal interviews. Ideally, review participants should provide office space for the review team and coordinate all necessary interviews with senior officials and specialists to address the review's procedural requirements. To facilitate review efficiency, all required information should ideally be made available during the interviews rather than provided later. Appointing a full-time government liaison officer to assist the review team in accessing necessary information throughout the process is highly recommended.

To conclude the preparatory phase, the review team should prepare a short inception report summarizing all identified issues and agreements reached to guide the review process. This report could include questionnaires seeking brief answers to issues to be addressed in review steps 1 and 2. Such an approach could help focus the review efforts by identifying areas requiring further attention and discussion. Where questions were easily answered, it would free up review time to address management issues that are more difficult to assess.

2.3. Review steps

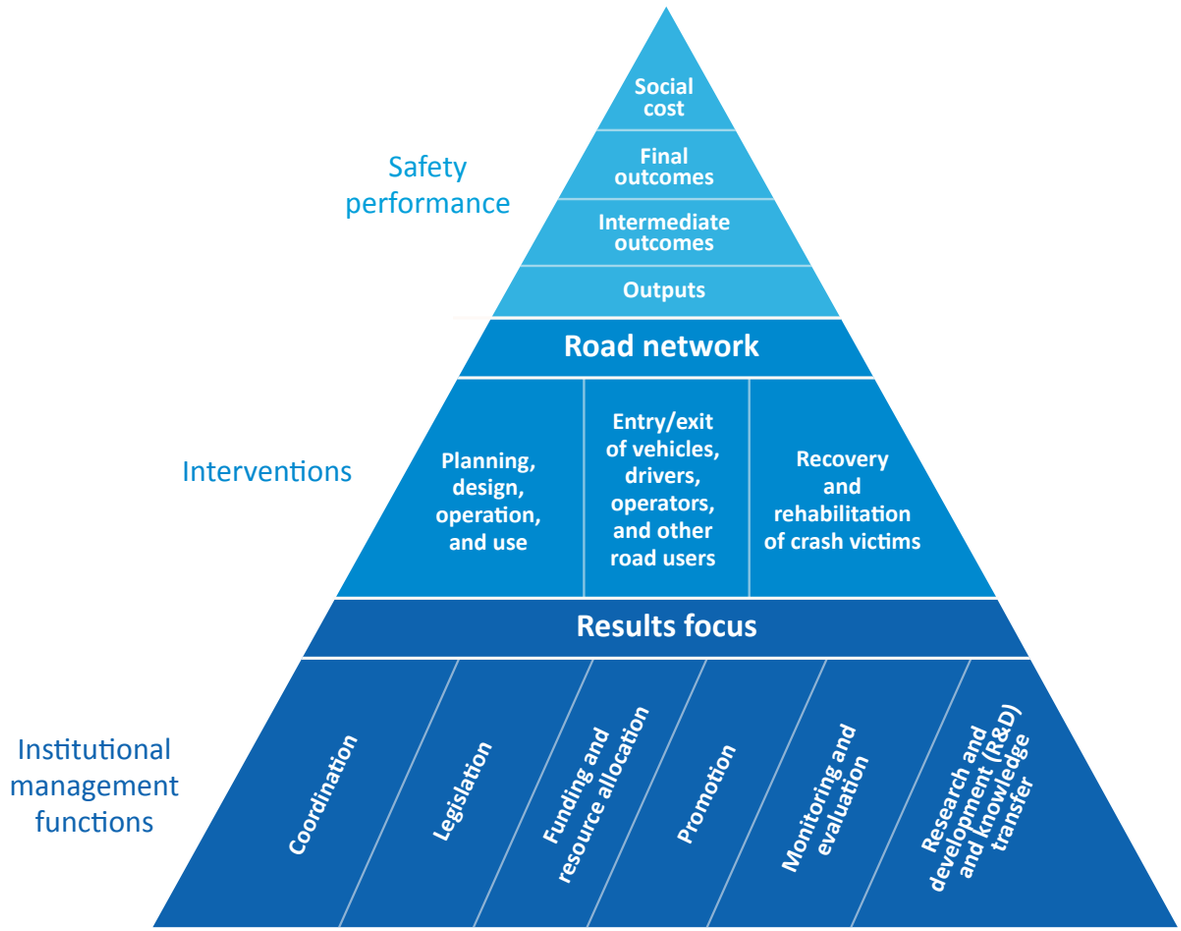
The management review framework presented in these guidelines spans the essential elements of the road safety system's management process which encompasses the institutional management functions that produce interventions designed to improve its road safety performance (figure 2.1). For each road safety institution, the foremost management function—the results focus—determines their desired safety performance and the interventions to achieve it. The other management functions support their delivery. At the system level the lead agency takes responsibility for this process and seeks to integrate the efforts of its partner institutions. The management review procedures presented in these guidelines are designed to assess all these dimensions of the management process. The procedures are straightforward and require thorough application to all institutions engaged in the management of country road safety performance.

To identify system management strengthening priorities the review is conducted through three main steps that build on the preparatory work described above.

First, the review assesses the country's road safety performance and the range of interventions being delivered by partner institutions across the road safety system. Second, it examines the contribution of the designated or de facto lead agency to the system management process, including its role in specifying, directing, and integrating the efforts of partner institutions. Third, the review brings together the findings from these assessments to identify priorities for the strengthening of system management and improvement of road safety performance.

The review is completed by appraising the findings of these three review steps and aligning them with the review objectives and specifying related system management strengthening initiatives.

Figure 2.1 Management review framework



Source: Bliss and Breen (2009).

Interview prompts are provided for the reviewer to seek and extract relevant information at a level of detail that may or may not be available. The possible fragmentation of country management systems should not be seen as undermining the relevance of the review findings, which aim to provide a logical framework for prioritizing the strategic initiatives needed to strengthen the system management process.

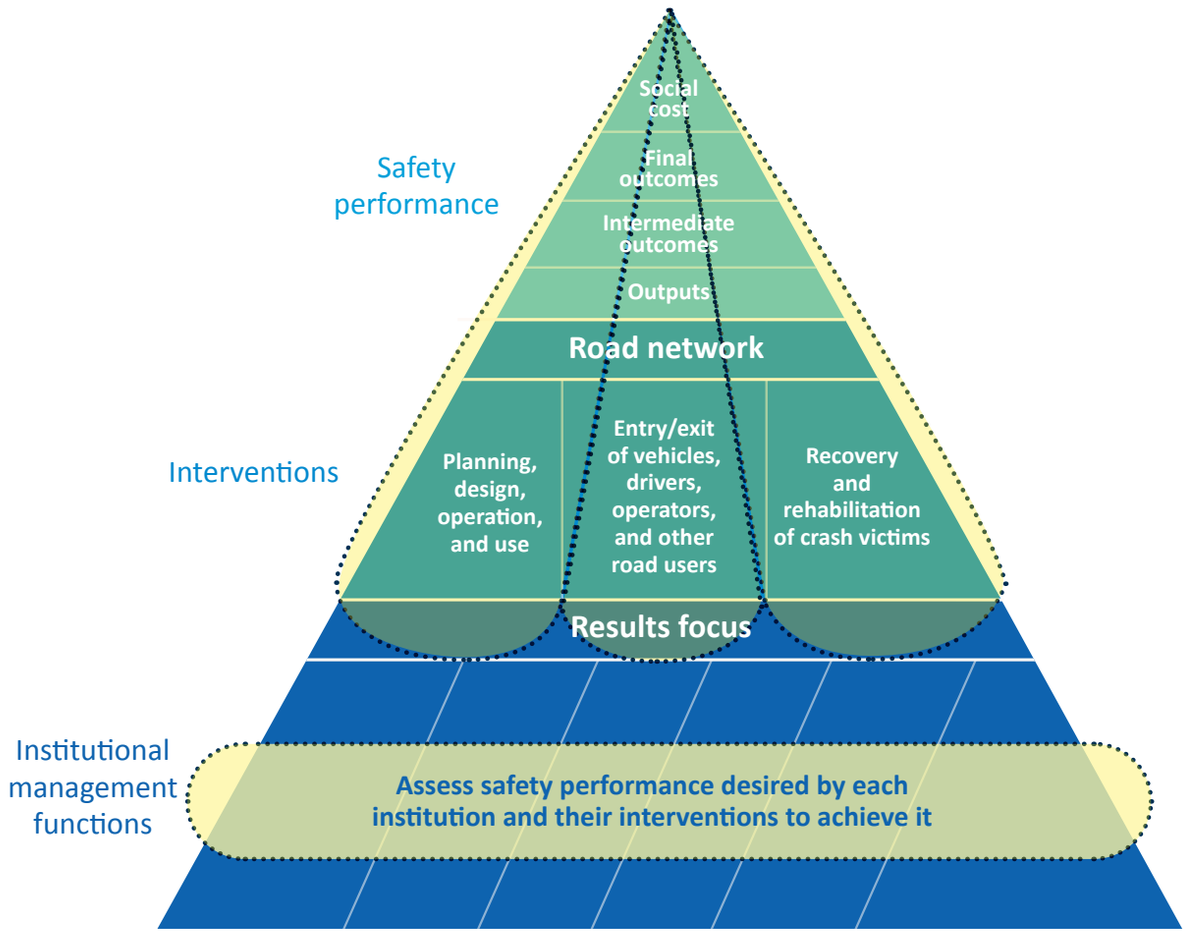
The reviewer must understand the requirements of the review steps well enough to be able to respond to concerns and queries from review participants. Review participants do not need to understand the review procedures, but they must be able to understand what is being asked of them. Although they may be repetitive, the review steps must be followed comprehensively, even in the absence of the information being sought. Where information gaps exist, it is important that review participants acknowledge them.

Review step 1: Assess system safety performance

Review step 1 provides a picture of the overall road safety effort in the country which is crucial to have before assessing how it is managed as a system. This step engages with all partner institutions responsible for safety, including the designated or de facto lead agency if it implements regulatory, infrastructure, or enforcement interventions.

Where the country has a comprehensive road safety strategy, action plan, and performance targets in place this provides the starting point for the review. In the absence of a country strategy or action plan, initial investigations will have to identify each institution's focus on safety risks and related performance expectations and interventions being made to address them (figure 2.2).

Figure 2.2 System safety performance



Source: Bliss and Breen (2009).

It is important to first review the following issues:

- Risks being managed
- Alignment with the current strategy or plan
- Performance targets set
- Performance monitoring and evaluation
- Other opportunities for improvement

The issue of identifying other opportunities for improvement—also raised in review step 2—is an open-ended question that encourages review respondents to think about and share their perspectives on potential improvements that merit consideration. This approach allows for the identification of unforeseen issues that may be of high priority to the country concerned, which can inform other areas for management strengthening and potential initiatives to address them.

These initial questions will raise issues concerning interventions, as safety performance and the interventions that achieve it are inextricably linked. However, it is useful to first explore how safety is envisaged by responding institutions, to better understand what they see as constituting safety and how they measure its achievement. (For details of good-practice safety performance measures and targets see table B.1 in annex B.)

Specific safety interventions being delivered must then be identified and described. The following list of potential interventions presented in table 2.1 serves as a prompt for the reviewer to gather institutional responses. It encompasses the likely safety responsibilities of the partner institutions under review. Any other relevant institutional initiatives should also be identified and considered.

Table 2.1 Potential interventions to consider in review step 1

Area	Interventions
Planning, design, operation, and use of road network	• Infrastructure safety (including safety rating systems) • Speed management strategy • Enforcement of unsafe behaviors • Media campaigns • School-based education • Community development initiatives • Related cross-institutional partnerships • Other opportunities for improvement
Entry/exit of vehicles, drivers, operators, and other road users to the road network	• Vehicle safety standards (including safety rating systems) • Driver licensing standards • Operator licensing standards • Safety belt and child restraint standards • Motorcycle and cycle helmet standards • Related cross-institutional partnerships • Other opportunities for improvement
Recovery and rehabilitation of crash victims from the road network	• Emergency notification services • First responder programs • Ambulance, police, and fire services • Emergency care and trauma services • Longer-term injury rehabilitation services • Injury insurance schemes • Related cross-institutional partnerships • Other opportunities for improvement

Source: Authors.

Review step 1 maps the interventions made by multiple public institutions to improve country road safety performance. It is a necessary step to first gain a clear picture of the overall road safety effort in the country—before assessing how the system is managed as a whole—and it must be carefully and comprehensively conducted.

Budgets and staffing

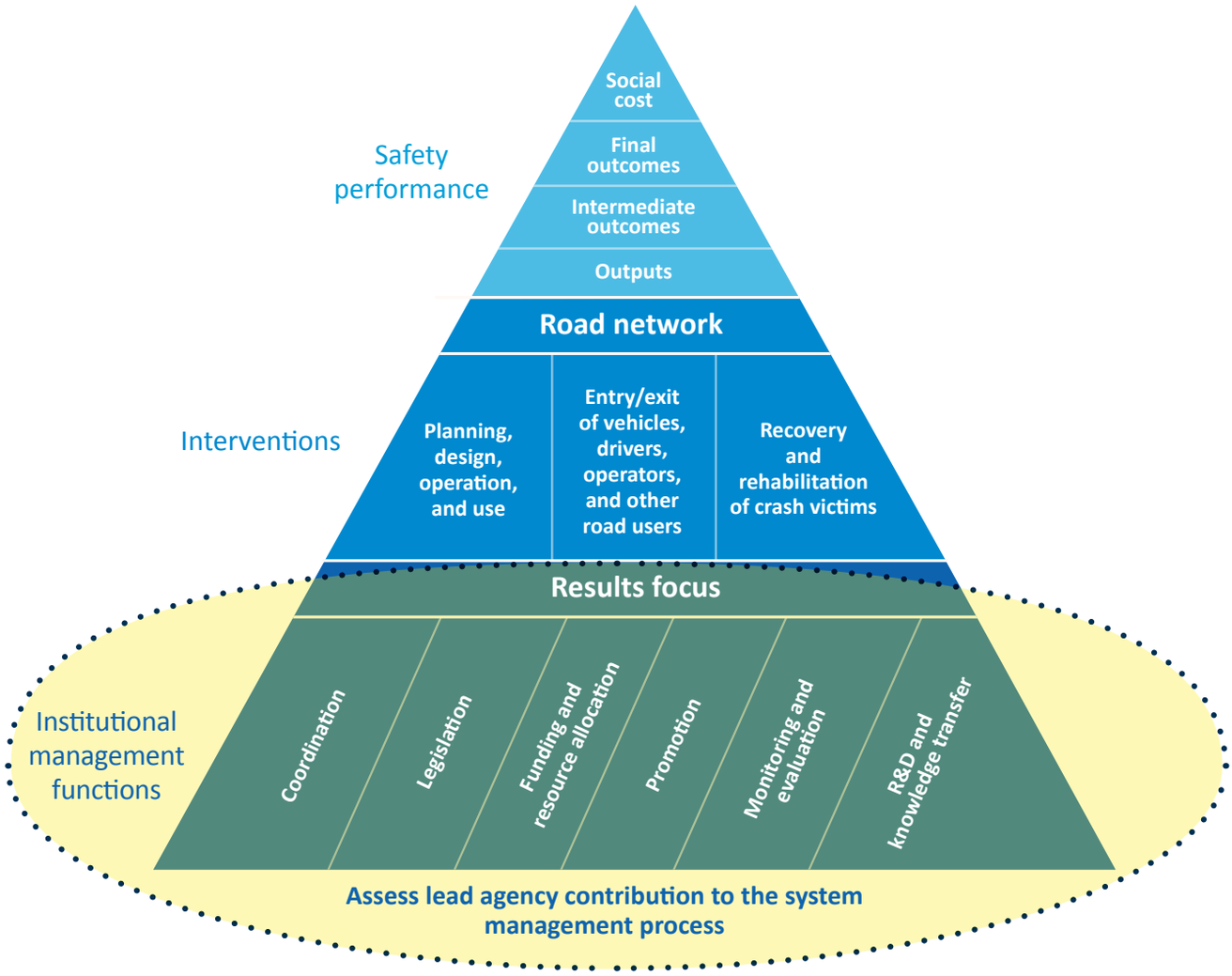
The review must identify the scale of annual road safety investment in the country concerned. Once the interventions of partner institutions—and, where applicable, the lead agency—have been identified, the review must seek details of related intervention budgets. For each intervention, budgets should include operating and capital costs. Where road safety budgets are embedded in broader sectoral budgets, precise data can be difficult to obtain. In this case, the best available estimates will suffice.

The review must also identify the number of staff engaged in delivering interventions and their professional disciplines and skillsets. Contracted staff and, where relevant, consultants providing services to support specific interventions must also be identified. Staff may have responsibilities across a range of interventions, which must be accounted for. (For details on specialist staff knowledge and skills requirements, see table B.2 in annex B.)

Review step 2: Assess lead agency contribution to the system management process

Review step 2 assesses the role of the lead agency at the road safety system level. Where a designated lead agency exists, its contribution to system management must be assessed. Where no lead agency has been designated, system-level contributions made by a specific institution (or institutions) must be identified and assessed (for example, an institution may de facto take responsibility for producing a strategic plan that oversees the road safety system). Where system management functions are absent, potential options for their introduction must be determined (figure 2.3).

Figure 2.3 Lead agency contribution to the system management process



Source: Bliss and Breen (2009).

Good-practice lead agencies make a vital contribution to the institutional management functions, which specify, direct, and integrate system management. These functions are generic and applicable in all country contexts. In contrast, institutional forms follow functions and can differ depending on a country's institutional structures and practices. Good-practice lead agencies can also carry out other activities, such as regulatory responsibilities concerning the entry and exit of vehicles, drivers, and commercial operators to and from the road network, which are separately assessed in review step 1.

The assessment should make use of specified good-practice benchmarks in lead agency contributions to each system-level function, along with related activities and tasks. The absence of a designated lead agency does not necessarily mean that lead agency system management responsibilities are being neglected. Partner institutions may be handling some responsibilities, such as the preparation of strategies and action plans and the development of crash analysis systems. These responsibilities may have been revealed during previous steps or the preparatory phase. If certain system management functions are not being performed, potential options for their introduction should be explored.

The lead agency contribution to system coordination includes delivery partnerships between government, nongovernment, community, and business stakeholders. This dimension, which is external to the lead agency's relationship with partner institutions, can be explored as part of the system-level review. However, the review's primary focus is on the lead agency and partner institutions' relationships.

Table 2.2 describes the good-practice lead agency activities that should be assessed in review step 2. It is essential to determine whether or not the lead agency undertakes these activities.

Table 2.2 Lead agency activities to assess in review step 2

Function	Activities
Results focus	• Appraise current road safety performance through high-level strategic reviews • Adopt a far-reaching road safety vision for the longer term • Analyze safety gains achievable in the medium term, and prepare a national strategy, with interventions and quantitative targets set across the road safety partnerships • Establish mechanisms to ensure partner and stakeholder accountability for results • Identify other opportunities for improvements
Coordination	• Coordinate horizontally across the same levels of government • Coordinate vertically across national, state, and local levels of government • Establish partnerships between government, nongovernmental, community, and business entities • Establish parliamentary relations at the national, state, and local levels • Identify other opportunities for improvements
Legislation	• Review the scope of the legislative framework • Develop and update legislation needed for the road safety strategy • Consolidate legislation • Secure legislative resources for road safety • Identify other opportunities for improvements
Funding and resource allocation	• Ensure sustainable funding sources • Establish procedures to guide the allocation of resources across safety programs • Identify other opportunities for improvements

Function	Activities
Promotion	• Champion road safety at a high level • Carry out proactive communications campaigns • Lead by example with in-house road safety policies • Support safety rating programs, and publish their results • Identify other opportunities for improvement
Monitoring and evaluation	• Establish and support data systems to monitor risk exposure and final outcomes, intermediate outcomes, and output measures • Conduct transparent reviews of the national road safety strategy and its performance • Make necessary intervention and policy adjustments to achieve the desired results • Identify other opportunities for improvement
Research and development and knowledge transfer	• Develop the capacity for multidisciplinary research and knowledge transfer • Publish a national road safety research strategy, and secure sustainable funding sources • Disseminate research and development findings • Design and implement pilot research projects • Identify other opportunities for improvements

Source: Annex B: Technical note 3.

(For details on good-practice tasks associated with each of the above lead agency activities, see table B.3 in annex B.)

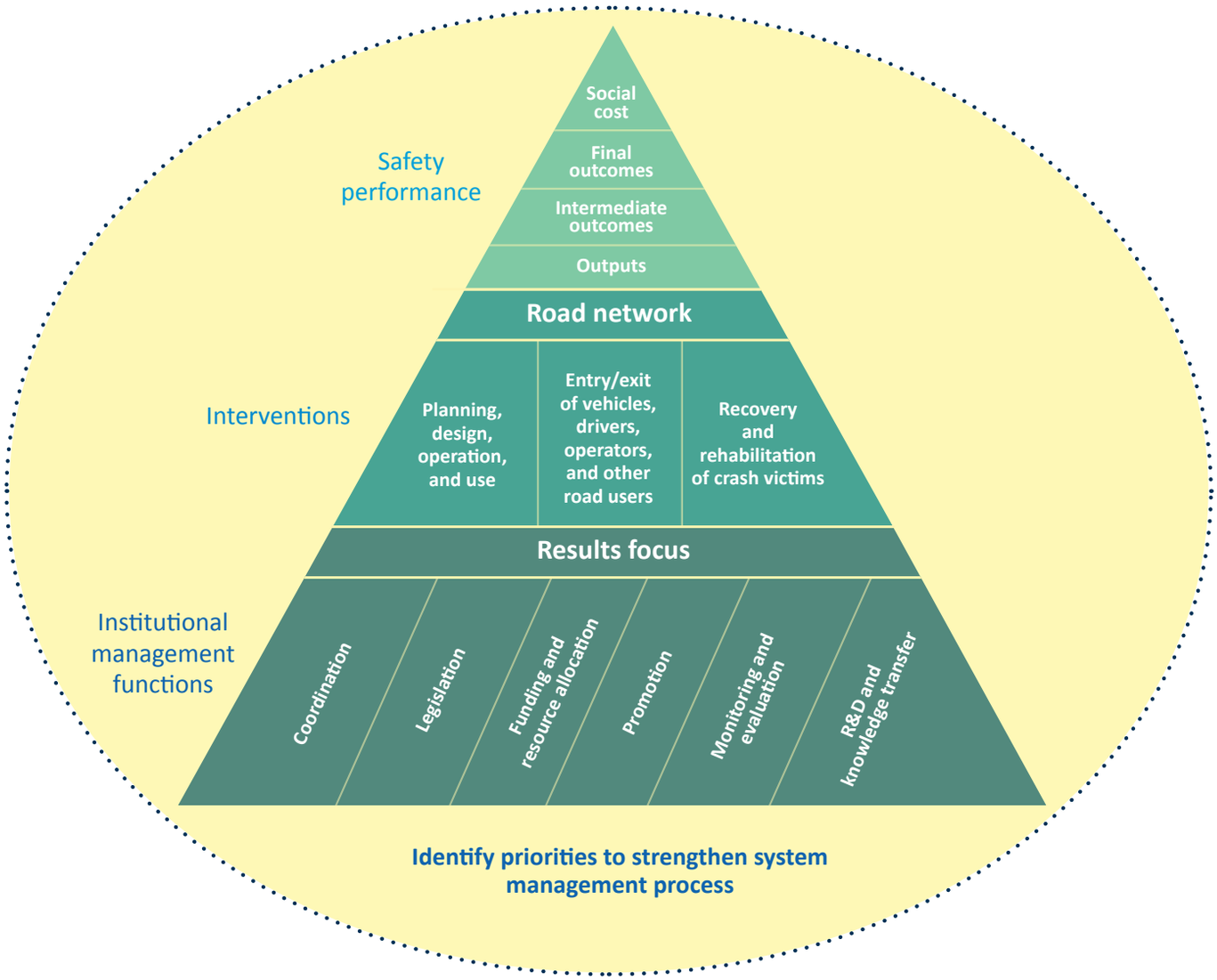
Once details of the lead agency's contribution to the system's management functions have been identified, the review must seek details of the management budgets, to obtain a clearer picture of the scale of the lead agency system management effort. Where possible, the budgets associated with specific management functions should be quantified. This may be quite straightforward—for example, promotion, monitoring and evaluation, and research and development budgets— but in other instances it may be less clear. However, it is most important to get an overall picture of the budgets allocated to perform the lead agency role.

The review must also identify the number of staff engaged in the lead agency's contribution to system management and their professional disciplines and skillsets. Contracted staff—and, where relevant, consultants providing services—must also be identified. Staff may have responsibilities across a range of management functions, which must be accounted for. (For details on leadership and specialist knowledge and skills requirements, see table B4 in annex B.)

Review step 3: Identify priorities to strengthen system management process

Review step 3 evaluates the findings from review steps 1–2. It identifies system management strengthening priorities to improve road safety performance at the country level. Review steps 1–2 provide the necessary evidence and insights required to assess a country's road safety performance and its lead agency contribution to system management. Review step 3 distills these findings to identify priorities at the country level for interventions to improve road safety performance and for lead agency strengthening to ensure their effective and efficient delivery (figure 2.4).

Figure 2.4 Priorities to strengthen system management process



Source: Bliss and Breen (2009).

Review step 3 requires the identification of priorities to improve the safety performance being sought by the participating institutions in the country concerned and the interventions being implemented to achieve it, as revealed in review step 1. It must assess a country's interventions—and potential new interventions—in terms of their gestation periods and potential magnitude of safety benefits.

- Enforcement programs can deliver immediate and large benefits, but their implementation must be sustained and intensified to retain their effectiveness.
- Engineering safety measures take longer to implement, but their benefits continue to accumulate long after implementation.
- Similarly, improved vehicle safety measures take time to diffuse throughout the vehicle fleet before delivering sustained benefits on a significant scale, although new car assessment programs can expedite their uptake by vehicle manufacturers.

Review step 3 must also address the targeting and mix of interventions.

- Attention must be paid to the efforts of partner institutions and the lead agency to improve the safety performance of high-risk corridors and urban areas in the road network where large concentrations of crash deaths and serious injuries are evident.
- Good-practice interventions can include general deterrence-based enforcement of unsafe behaviors and related promotional campaigns, vehicle and infrastructure safety measures, post-crash services, and community development initiatives supporting elements of these interventions.
- Potential interventions can also include innovative ventures with community groups, the private sector, and research and development centers.

Intervention priorities for strengthening system safety performance—including related budgets and staffing—must be identified and ranked in terms of likely safety gains to be achieved over a ten-year strategic timeframe. A sound understanding of good practice outcomes will be necessary to guide this assessment. Review step 1 findings are pivotal, to gain a clear and comprehensive picture of how road safety is being addressed in the country concerned and provide a baseline for determining strengthening priorities.

Review step 3 also requires the identification of priorities to strengthen the contribution of the lead agency or de facto lead agency to the system management process, as revealed in review step 2. All institutional management functions—including related budgets and staffing—must be appraised. Where these functions are absent or limited, their introduction or strengthening will be required.

- The *results focus* of a good-practice lead agency must span all the interventions of partner institutions in the road safety system and play a strategic role in specifying, directing, and integrating their implementation. This system-level focus is a high priority and enhances the performance of a country's road safety.
- Likewise, lead agency *coordination* efforts are a high priority and concern the direction and integration of interventions delivered by the lead agency and its partner institutions to achieve a country's targeted safety performance. This requires a commitment to transparently work together to ensure the sustained delivery of these interventions, accountability for their performance, and periodic reporting of progress made.
- The lead agency must ensure that road safety system *legislation* addresses emerging safety concerns, is aligned with new safety developments, and keeps pace with the safety impacts of technological change. Looking ahead, high priority legislative requirements must be anticipated and their timely

inclusion in the government's parliamentary program scheduled. Legislation that has expanded and fragmented over time must also be periodically consolidated to improve cross-referencing, integration, and accessibility.

- Ensuring effective and efficient road safety system *funding and resource allocation* is a key lead agency responsibility. Addressing this priority may require increased domestic and external financing sources to achieve effective and efficient delivery of the country's road safety strategy. The lead agency is responsible for ensuring that safety investment remains focused on strengthening system performance, even when financing is provided through different channels and over different timeframes.
- The lead agency is responsible for the *promotion* of the country's road safety strategy—its result focus—to create an enabling environment for its achievement. It can also support the promotion of police enforcement programs targeting unsafe behaviors and the dissemination of vehicle and infrastructure safety rating program findings to inform road users of the safety levels being provided.
- Periodic *monitoring and evaluation* of road safety programs and targets is a high-priority lead agency responsibility, to track safety performance and make program adjustments where needed. It requires systems and procedures for the collection, processing, and publication of reliable data. These include transport registries for drivers and vehicles, accessible crash fatality and injury databases with integrated crash analysis tools, infrastructure and vehicle safety rating measures, and periodic surveys to establish traffic volumes, travel patterns, and safety behaviors (for example, speeds, safety belt and helmet-wearing rates).
- The lead agency plays a critical role in *research and development and knowledge transfer.* Strengthening priorities can include enhancing in-house research capacity and initiatives, the establishment or boosting of research programs to support the country strategy, and related partnerships between the lead agency and national university research centers. Partnering with regional and global science networks can also be considered.

The findings of review steps 1 - 3 identify a country's priorities for the strengthening of its road safety interventions and its related lead agency role. To complete the conduct of a management review these findings must be appraised and—in accordance with review objectives and available resources—related system management strengthening initiatives must be specified to address them.

3. Specifying system management strengthening initiatives

3.1. Alignment with review objectives

Management review findings on priorities to strengthen the system management process must be aligned with the review objectives, whether addressing the role of the lead road safety agency, improving the country's road safety strategy and its implementation, or preparing safety financing operations, often in the form of multisectoral investment projects. Related system management strengthening initiatives can then be specified.

Management review findings can collectively address these objectives and related priorities and provide a consistent framework for the specification of system management strengthening initiatives concerning institutional reforms, system safety performance, and safety investment financing. For example, strengthening the lead agency can support more effective strategy development and implementation, while multisectoral investment financing can strengthen the lead agency role and the achievement of country strategy performance targets (table 3.1).

Table 3.1 Specification of system management strengthening initiatives

Review objectives and identified priorities	Country situation	Strengthening initiatives
Lead agency role (Emphasis on identified institutional reform priorities)	Designated lead agency	Specify requirements for strengthening the lead agency contribution to the system management process and the staging of their delivery.
	No lead agency	Specify requirements for the formal establishment of a lead agency.
Country strategy (Emphasis on identified system safety performance priorities)	Existing strategy	Specify requirements for strengthening the existing strategy and its implementation.
	No strategy	Specify requirements for preparing a country strategy and its implementation.
Road safety financing (Emphasis on identified safety investment priorities)	Existing budgets	Specify requirements—and additional financing needed—for a multisectoral investment project that addresses identified system management strengthening priorities.
	Existing staff	Specify requirements for leadership development and specialist training programs.

Source: Authors.

3.2. Lead agency role

The lead agency plays a decisive role in specifying, directing, and integrating the management of the road safety system, and strengthening this role is critical to achieving sustained results. While the institutional forms of lead agencies vary across countries, the review findings of lead agency management functions must be fully addressed regardless of the institutional arrangements adopted. There is no single good practice model for the institutional form of a road safety lead agency (for example, whether it is a stand-alone agency or a division within a transport ministry). Instead, the institutional configuration is shaped by (a) organizational dimensions, which influence factors such as public sector staffing, financing, information systems, and management practices, and (b) country governance dimensions, which relate to institutional independence, accountability, and transparency.

A key function of the lead agency is to coordinate both domestic and external resources to ensure alignment with the country's road safety strategy and its system management strengthening priorities. In countries where development finance plays a significant role, external funding may originate from multiple partners and instruments; without effective coordination, there is a risk of overlap, fragmentation, or gaps in support. By maintaining oversight of externally financed activities and promoting alignment with agreed priorities, the lead agency ensures that resources remain focused on strengthening system performance, even when financing is provided through different channels and over different timeframes.

In practice, the lead agency function may be undertaken by stand-alone road safety entities, ministries of transport, road authorities, or police agencies. In some contexts, it may also be embedded within high-level entities linked to the head of government or head of state to elevate the political priority and cross-sectoral coordination of road safety. Whatever institutional form is selected, effectiveness ultimately depends on the agency's authority, capacity, and ability to coordinate stakeholders across government.

Where there is already a designated lead agency, the findings of review step 2 will determine the priorities for strengthening its role. If there is no designated lead agency, three strengthening options can be considered: (i) a partner institution that is de facto making lead agency contributions could be formally designated as the lead agency; (ii) an existing partner institution that is not currently making lead agency contributions but is well placed to do so could be formally designated; or (iii) a new lead agency could be created.

Where an existing institution is designated as the lead agency, a staged approach to assuming the role is recommended. The identified priorities for strengthening system management can be assessed and ranked in importance for this purpose, with the highest priorities addressed first during the establishment process. For example, key institutional management functions include the lead agency's coordination and monitoring and evaluation roles, which provide strategic platforms for productive engagement with partner institutions.

An existing regulatory institution could be designated as the lead agency, as many good-practice lead agencies perform regulatory functions. Regulation across the road transport system is extensive and provides relevant institutional connections with vehicle manufacturers, vehicle retailers, vehicle owners, private and professional drivers, commercial transport operators, infrastructure providers, and road users and their representative bodies. This breadth of engagement can give regulatory institutions a comparative advantage over other potential institutions.

Where the creation of a new lead agency is considered, a staged approach is also recommended. Recent experience in LMICs indicates that it can take many years to fully establish effective lead agency contributions to the system management process; staging is therefore desirable. (For guidance on lead agency establishment and staffing, see technical note 5 in Annex B).

The lead agency role should not be confused with high-level road safety councils or committees that provide political oversight. Many countries have established such bodies, often comprising senior ministers or cabinet members, to elevate the political profile of road safety and support cross-sectoral accountability. While these arrangements can be valuable, they do not substitute for a lead agency with defined authority, technical capacity, and operational responsibilities for system management. High-level councils typically meet infrequently and are not structured to perform day-to-day coordination, monitoring and evaluation, or program management functions.

Where high-level political councils exist, good practice is for the lead agency to serve as their technical arm or secretariat. In this role, the lead agency can support agenda setting, provide analysis and performance reporting, coordinate inputs from partner institutions, and follow up on decisions. This arrangement can strengthen political ownership while ensuring continuity of technical leadership and implementation oversight within government systems. (For guidance on good-practice model for coordination by the lead agency, see technical note 6 in Annex B.)

3.3. Country road safety strategy

The findings of the review steps 1 - 2 provide the primary foundation for developing or strengthening a country's road safety strategy. Assessment of a country's focus on results provides the starting point for the development of a country road safety strategy spanning a 10-year period. To achieve improved safety performance the review assesses the road safety risks a country face, identifies intervention priorities to address these risks, and highlights institutional strengthening priorities. These priorities inform the strategy's multisectoral road safety interventions and their implementation arrangements.

A country road safety strategy should specify: (i) the results focus of the road safety system, (ii) the related scale and mix of system-wide multisectoral interventions and their associated performance targets, and (iii) the institutional arrangements required to implement the strategy. Together, these elements translate the management review findings into a coherent national strategy that specifies both the desired safety outcomes and the institutional mechanisms required to deliver them. Box 3.1 summarizes the core elements of an effective and efficient road safety strategy.

When revising an existing strategy or preparing a new one, the management review provides a baseline from which options for improving performance can be assessed. Multisectoral interventions can then be specified to achieve the desired safety gains, and related targets set. The identified system management strengthening priorities identified by the review should determine the lead agency role in its delivery: how it will be coordinated, legislated, financed, promoted, monitored and evaluated, and supported by research, development, and knowledge transfer across the road safety system.

When specifying the strategy, governments should translate these priorities into clear implementation arrangements that define institutional responsibilities, coordination mechanisms, and resource requirements across partner institutions. The staging of implementation should be aligned with available and planned resources, ensuring that responsibilities assigned to the lead agency and its partner institutions remain realistic and manageable. A phased implementation approach is often desirable, with early emphasis placed on strengthening core system management functions and delivering targeted interventions with the greatest potential safety benefits

The strategy should also include provisions for periodic performance review. A midterm review should be planned to assess progress toward the strategy's performance targets, evaluate the effectiveness of implemented interventions, and identify any strategic adjustments needed to remain on track to achieve the desired safety outcomes.

Box 3.1 What constitutes an effective road safety strategy?

Good-practice country road safety strategies share critical success factors, including the following:

- An ambitious long-term vision or goal supported by measurable performance targets
- Integrated, evidence-based interventions across the road safety system
- Clear institutional accountability for outcomes
- Lead agency coordination of multi-institutional partnerships
- Effective devolution of interventions to local partners and stakeholders
- Robust legislative and regulatory frameworks
- Sustainable funding sources and rigorous investment screening
- Intensive social marketing to support compliance and enforcement interventions
- Comprehensive monitoring of safety outputs and outcomes
- Ex post evaluation, peer review processes, and ongoing research and development
- Continuous improvement to sustain momentum and build on performance gains

Effective leadership of the system management process underpins the achievement of these critical success factors. Investment in strengthening staff teams, their knowledge and skills, and multi-institutional partnerships is critical to support this leadership role and ensure the sustained application of an evidence-based approach. The management review helps identify these priorities and the initiatives required to address them. To implement the priorities identified by the management review, it is generally preferable to work within a country's existing strategic framework and maintain continuity, unless there are compelling reasons to adopt a different approach. Many country strategies are presented within the framework of the Global Plan for the Decade of Action for Road Safety 2021–2030 (WHO 2021), or the framework used during the previous decade. Management review findings can typically be transposed into these frameworks, with greater emphasis placed on priorities for strengthening system management.

It is important to distinguish between a strategy and the action plan that implements it. A strategy sets out medium- to long-term performance goals and targets, priority areas and related interventions, implementation arrangements, and how performance will be monitored and evaluated and necessary adjustments made. An action plan specifies, in more detail, the interventions to be delivered over a shorter-term period to support strategy implementation. Successive action plans will be prepared over the duration of the strategy.

Following consultation with all interested parties, the lead agency and its partner institutions should present the country road safety strategy in an accessible public document that is endorsed by the government and promoted to stakeholders and the wider community. The document should set out the strategy's longer-term vision, objectives, performance targets, interventions, and related management strengthening priorities, including performance monitoring and reporting requirements. It could also include a short-term action plan for its implementation, although such a plan could alternatively be presented in an accompanying document.

3.4. Multisectoral investment project

Multisectoral investment projects provide an opportunity to build more effective, efficient, and sustainable system management processes, while strengthening road safety leadership and specialist knowledge and skills. They span multiple institutions across sectors—such as transport, police, health, education, justice, and local government—and their respective road safety roles and responsibilities, and they commit road safety funding for an extended period. This funding is typically ring-fenced and protected from the uncertainties of annual country budgeting rounds, where ongoing funding for the project out-years is not necessarily guaranteed. (For guidance on the variety of instruments that can be considered for the financing of multisectoral investment projects, see technical note 8 in Annex B.)

Multisectoral investment projects generally have three objectives:

- Strengthen the management processes of the lead agency and partner institutions.
- Achieve rapid safety gains from targeted interventions, which can provide benchmark performance measures to help inform scaled-up efforts.
- Accelerate the building of road safety leadership and specialist knowledge and skills in the lead agency and partner institutions.

The findings of the review steps 1 - 2 support the specification of multisectoral investment projects, covering all elements of the road safety system management process and priority interventions. Projects should reflect second- or third-generation characteristics (box 3.2). Table 3.2 summarizes potential project activities and presents indicative five-year budgets to demonstrate the likely level of investment required to achieve sustained, measurable road safety gains. Actual project budgets will need to be determined based on country context and project scope.

The activities outlined table 3.2 should be implemented with a focus on targeting high concentrations of road network crash trauma and should involve sustained engagement by the lead agency and partner institutions to strengthen the system management process. Priority should be given to refocusing the mix of interventions being delivered in high-risk corridors and urban areas, in line with good practice, to improve their effectiveness and efficiency and, where necessary, increase their scale.

New interventions can also be considered. Opportunities for the targeted use of automated traffic enforcement systems, such as point-to-point speed cameras, can be assessed. Performance targets for selected network corridors and areas can be set and monitored. Research programs can support the evaluation of targeted activities and, more generally, explore future safety developments that may be appropriate for addressing country risk factors. (For further guidance on performance measures, targets, and the identification of high-risk corridors, see technical notes 1 and 7, in annex B.)

Strengthened arrangements for coordination between the lead agency and partner institutions should be embedded in the project, supported by robust monitoring and evaluation procedures. Other management strengthening priorities can also be addressed. The project should represent a microcosm of the road safety system's management process, with targeted interventions. It should aim to establish a strengthened management platform for the longer-term scaling up of sustainable country road safety financing. (For further guidance on the lead agency contribution to coordination arrangements, see technical note 6, in annex B.)

Developing good-practice leadership and specialist knowledge and skills is integral to strengthening system management and addressing identified priorities. Development and training programs are best tailored and conducted in the context of large-scale, multisectoral investment projects to provide a practical, hands-on learning experience grounded in country realities. (For further guidance on good-practice leadership and specialist development programs, see technical notes 2 and 4, in annex B.)

Box 3.2 How have road safety projects evolved?

The guidelines presented in this report build on experience gained by the World Bank Group over the last 40 years in supporting road safety initiatives in LMICs. Over time, road safety projects have evolved through gradual stages, commonly described as first-, second-, and third-generation approaches. These stages reflect increasing ambition in scale, institutional strengthening, and the integration of multisectoral interventions to achieve measurable and sustainable safety outcomes.

First-generation projects were typically implemented as small activities or components of larger road infrastructure and urban transport projects. They were often fragmented, single-sector initiatives with safety outcomes that were too limited to be reliably measured, and were generally one-off activities without sustained follow-up.

Second-generation projects are stand-alone, multisectoral initiatives targeting high-risk corridors and urban areas, with safety gains large enough to be reliably monitored and evaluated. They aim to anchor country road safety efforts in systematic, measurable, and accountable multisectoral investments that simultaneously strengthen road safety system management processes and rapidly improve network safety for all road users. Such projects model the lead agency role of specifying, directing, and integrating the road safety system management process, thereby enabling the lead agency to strengthen its management contribution. They are complex to prepare and should be viewed as the first step in a longer program designed to scale up successful interventions across the wider road network. They are grounded in good practice, learning by doing, and supported by sufficient targeted investment to overcome barriers associated with weak management processes (Bliss and Breen 2009). Experience gained with second-generation projects has informed the content of these guidelines and their approach to project specification. As a rule, the identification and preparation of multisectoral road safety projects should be undertaken in accordance with second-generation principles.

Third-generation projects are emerging as a means of consolidating country road safety investment and sustaining performance gains through a more programmatic approach and a much larger multi-sectoral investment scale. They are expected to be characterized by substantial government financing contributions that seek matching financing from MDBs and other sources, working together. Their emergence will signal that road safety financing in LMICs is becoming commensurate with the scale of country financing support necessary for sustained success (World Bank Group 2024).

Table 3.2 Potential multisectoral investment program activities and their indicative five-year budgets

System management strengthening priority	Activity	Indicative five-year budget (US$ million)
System leadership		
1. Lead agency role	• If there is a designated lead agency, address system management strengthening priorities 2–10	(See indicative budgets for priorities 2–10)
	• If there is no lead agency, designate an existing partner institution as lead agency or create a new agency and implement a staged approach to its establishment, with emphasis on system management strengthening priorities 2, 3, 4, 7 and 8	(See indicative budgets for priorities 2, 3, 4, 7, and 8)
2. Leadership development and training programs	• Implement leadership development and training programs for senior officials at the lead agency and partner institutions, in the context of system management strengthening priorities 3, 4, 6, and 8	1–3
Results focus		
3. Enhanced targeting of interventions	• Focus on high-risk corridors and urban areas • Set safety targets (final outcomes, intermediate outcomes, outputs) • Prepare a strategy for speed management • Implement infrastructure safety measures • Implement general deterrence enforcement programs • Enhance post-crash services • Implement community engagement programs	150–300
Coordination		
4. Coordination of multisectoral interventions	• Improve coordination structures and related lead agency secretariat and strategic support team, in the context of system management strengthening priorities 2, 3, 7, and 8	1–3
Legislation		
5. Legislative reforms supporting country road safety strategy	• Address lead agency establishment requirements, identified reform priorities, and consolidation of existing legislation	5
Funding and resource allocation		
6. Funding reforms supporting country road safety strategy	• Address identified reform priorities, with emphasis on enhancing budgetary processes and improving resource allocation procedures	1
Promotion		
7. Promotion of multisectoral interventions	• Implement social marketing campaigns to support implementation of system management strengthening priority 3	5–10

System management strengthening priority	Activity	Indicative five-year budget (US$ million)
Monitoring and evaluation		
8. Monitoring and evaluation of multisectoral interventions	• Invest in crash database • Upgrade the crash analysis system • Implement periodic traffic, travel, and safety behavior surveys, especially to support implementation of system management strengthening priority 3	10–20
Research and development and knowledge transfer		
9. Research supporting country road safety strategy	• Establish national research program to support the country road safety strategy, especially system management strengthening priorities 3 and 8 • Establish partnerships between the lead agency and national university research centers • Expand national research partnerships to regional and global research networks	5–10
10. Specialist development and training programs	• Implement specialist development and training programs for senior staff in lead agency and partner institutions, in the context of system management strengthening priorities 3, 5, 6, 7, 8, and 9	1–3

Source: Authors.

Large-scale multisectoral road safety projects should encourage and create opportunities for non-governmental organizations, the private sector, philanthropic institutions, and other road safety providers to engage and invest in initiatives that support project objectives. The strengthened country results focus and project momentum will provide an enabling environment and potential entry points for more effective interventions by these partners and stakeholders.

More modest investment projects addressing particular management strengthening priorities could also be considered, as long as they are broadly aligned with second-generation project principles. Such projects may provide a practical starting point where institutional readiness, financing availability, or stakeholder consensus is not yet sufficient to support a comprehensive multisectoral project. They can help build experience, strengthen key elements of the system management process, and demonstrate early results that may facilitate the development of larger-scale initiatives over time.

3.5. Finalizing the management review findings

A formal workshop should be convened with all review participants to agree on the draft findings, priority recommendations, and specified management strengthening initiatives. The workshop should seek to confirm the recommendations and build broad stakeholder support for their more detailed specification. Subsequent consultations with ministers and the heads of the lead agency and partner institutions should confirm government ownership of the agreed findings, including institutional responsibilities, implementation priorities, and indicative timelines. Financing sources, both external and domestic, for implementation of the agreed initiatives should also be confirmed, together with next steps for mobilizing resources where gaps remain. The management review report can then be finalized, incorporating the agreed actions, responsibilities, and implementation considerations.

References

Bliss, Tony. 2004. *Implementing the Recommendations of the World Report on Road Traffic Injury Prevention.* Transport Note TN-1, World Bank, Washington, DC. https://documentos.bancomundial.org/es/publication/documents-reports/documentdetail/751991468782171868

Bliss, Tony, and Jeanne Breen. 2009. *Implementing the Recommendations of the World Report on Road Traffic Injury Prevention: Country guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies, and Safe System Projects.* World Bank, Global Road Safety Facility, Washington, DC. https://openknowledge.worldbank.org/entities/publication/6b432c7c-da9e-58c5-b770-1c9cdcd66579

Bliss, Tony, and Jeanne Breen. 2013. *Road Safety Management Capacity Reviews and Safe System Projects.* World Bank, Global Road Safety Facility, Washington, DC. https://www.worldbank.org/en/topic/transport/publication/road-safety-management-capacity-review-guidelines

Breen, Jeanne, Eric Howard, and Tony Bliss. 2008. *Independent Review of Road Safety in Sweden.* Jeanne Breen Consulting, Eric Howard and Associates, and World Bank.

Kim, Galileu; Kumar, Tanu; Ramalho, Rita; Russell, Stuart. 2026. *Institutional Capacity for Policy Implementation: An Analytical Framework.* Policy Research Working Paper; 11279. World Bank. http://hdl.handle.net/10986/44143 License: CC BY 3.0 IGO.

OECD (Organization of Economic Co-operation and Development), and ITF (International Transport Forum). 2008. *Towards Zero: Ambitious Road Safety Targets and the Safe System Approach.* Paris, Transport Research Centre. https://www.oecd.org/content/dam/oecd/en/publications/reports/2008/09/towards-zero_g1gh9a55/9789282101964-en.pdf

Peden, Margie, Richard Scurfield, David Sleet, Dinesh Mohan, Adnan Hyder, Eva Jarawan, and Colin Mathers, eds. 2004. *World Report on Road Traffic Injury Prevention.* Geneva: World Health Organization. https://www.paho.org/sites/default/files/World%20Report%20on%20Road%20Traffic%20Injury%20Prevention.pdf

Public Service Commission. 2022. *Guidance: Advising on Organisational Form*. https://www.publicservice.govt.nz/guidance/advising-on-organisational-form/.

Republic of Kenya. 2024. *National Road Safety Action Plan 2024–2028.* Nairobi.

Tingvall, Claes. 2023. *Vision Zero: How It all Started.* In *The Vision Zero Handbook*. Stockholm, Springer Nature. https://doi.org/10.1007/978-3-030-76505-7_8.

Wegman, Fred, Letty Aarts, and Peter van der Knaap. 2023. *Sustainable Safety: A Short History of a Safe System Approach in the Netherlands*. In Edvardsson Björnberg, K., Hansson, S.O., Belin, MÅ., Tingvall, C. (eds) *The Vision Zero Handbook.* Springer Nature. https://doi.org/10.1007/978-3-030-76505-7_12.

World Bank Group. 2024. *Catalysing Road Safety Financing in Low and Middle-Income Countries: Global Road Safety Facility Business Plan FY2024–2027.* Washington, DC. https://www.globalroadsafetyfacility.org/sites/default/files/report/GRSF%20Business%20Plan%20FY2024-2027.pdf

World Bank Treasury and Global Road Safety Facility. 2025. *Financing Road Safety: Catalyzing the Sustainable Finance Market to Bridge the Gap.* Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/financing-road-safety-catalyzing-sustainable-finance-market-bridge-gap

WHO (World Health Organization) 2023. *Global Status Report on Road Safety 2023.* Geneva. https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/global-status-report-on-road-safety-2023

WHO (World Health Organization), and United Nations Regional Commissions. 2021. *Global Plan: Decade of Action for Road Safety 2021–2030.* Geneva. https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030

Annex A. Terms of Reference Template for Management Review

Objective of review

The objective(s) of the review in [country/state/city] is/are to identify priorities for strengthening road safety system management and to specify related initiatives to support the [*strengthening/establishing of the lead agency role; the revision/creation of the country road safety strategy; the specification of a multisectoral investment project that strengthens the lead agency role and delivery of the country strategy*].

The review will be conducted in accordance with Global Road Safety Facility (GRSF) Guidelines *Strengthening Road Safety Management: System Review Guidelines*.

Background

Strengthening road safety management and related road safety performance in [*country/state/city*] is a government priority, as specified in the [co*untry strategy/action plan*]. Specific concerns include [*provide details*].

The management of road safety in [country/state/city] is the responsibility of [*describe institutional arrangements, including the role of a lead agency*]. The country's road safety strategy for [*add years*] sets out the government's performance aspirations.

Current road safety performance in [*country/state/city*] is [provide overview and indicate trends]. Road users most at risk include [*provide details*].

The government of [*country/state/city*] supports the conduct of a road safety management review and will host the review team for its duration [*add time period*]. Specific review arrangements include [*provide details*].

Scope of work

The GRSF guidelines provide detailed requirements, which must be closely followed.

The review will commence with a thorough preparation phase and a related inception report. It will then be conducted through three main review steps that build on this preparatory work.

- The first step will be conducted with participating institutions [*as listed*].
- The second step will be conducted with the lead agency [*if there is one, or a de facto lead agency covering some lead agency system management functions*].
- The third step will identify priorities for strengthening system management.

System management strengthening initiatives will then be specified to address the identified priorities, in accordance with the review objective(s).

Following this a draft review report will be prepared and presented at a formal workshop with all review participants, to reach agreement on the review findings. The draft review report will then be finalized.

Deliverables and timetable

The review will be conducted over the [*add months and year*]. Its deliverables will be prepared in accordance with the timetable set out in table A.1.

Table A.1 Deliverables of the management review

Stage of review	Deliverables	Delivery date
Preparation	Inception report	
Steps 1—3	Draft review report	
Workshop	Presentation of review findings	
Wrap-up	Final review report	

Source: Authors.

Review team expertise and experience

To lead the review, the review team requires an internationally recognized road safety management specialist, with at least 10 years' experience in the development and implementation of national road safety strategies. Additional support may be provided by an internationally recognized safety specialist with at least 10 years' experience in the scientific analysis of road environment, vehicle, and human factors contributing to crash fatalities and injuries. Other road safety specialists may be required for specific purposes (for example, crash database management and network safety monitoring). For all team members, experience in low-and middle-income countries is desirable.

Annex B. Technical Notes

Technical note 1: Measuring and targeting safety performance

Table B.1 provides examples of good-practice safety performance measures and potential target measures. It illustrates the need for system-wide monitoring to obtain reliable performance measures and evaluate their contribution to the achievement of targets. Four categories of performance measures can be distinguished:

- Outputs represent physical deliverables seeking improvements in intermediate and final safety outcomes and gauge the amount of institutional effort expended to manage safety performance. Their evidential linkage with improved safety outcomes is stronger in some cases than others. For example, safety camera operations can demonstrate significant reductions in crash fatalities and injuries and graduated driving licensing schemes can result in significant reductions in novice driver crash fatalities and injuries.
- Intermediate outcomes—sometimes referred to as safety performance indicators—are linked to improvements in final outcomes. They are important performance measures that are commonly tracked and sometimes targeted in good-practice countries (for example, behavioral measures such as network speeds and safety belt wearing rates, and infrastructure and vehicle safety ratings). They provide important measures of performance without having to wait for the establishment of reliable fatality and serious injury reporting and data.
- Final outcomes are expressed in terms of road crash fatalities and injuries; reductions in these outcomes are commonly targeted and tracked.
- The social cost of road crash fatalities and injuries includes tangible economic costs, such as the loss of productivity, property damage, and health care and justice system costs, and intangible costs, such as the loss of quality of life and related pain and suffering. Agencies would likely see the reduction in the social cost of road crashes and injuries as the ultimate result sought.

The measures presented in table B.1 illustrate the importance of monitoring performance across multiple dimensions of the road safety system.

Many intermediate outcomes relate to road user behavior—such as speeds, alcohol impairment, safety belt use, and helmet wearing—reflecting the relative ease with which they can be monitored. However, infrastructure and vehicle safety performance should also be assessed using comprehensive rating measures, which capture multiple safety features (for example, road infrastructure risk and protection scores or vehicle safety ratings). Similarly, indicators of post-crash response can be strengthened by incorporating measures of health system performance, including the quality and timeliness of hospital care and rehabilitation services.

Emphasis should be placed on these intermediate outcome measures. Together, they provide a more complete picture of system safety performance and the achievement of targeted reductions in crash fatalities and serious injuries.

Table B.1 Examples of good-practice outputs, intermediate outcomes, and final outcomes

Area	Outputs	Intermediate outcomes	Final outcomes
Planning, design, operation, and use of the road network	• Number of safety engineering treatments per section of road network (for example, safety barriers, roundabouts, raised pedestrian crossings) • Setting of safe system speed limits • Hours of safety camera operations • Hours of other police enforcement targeting high-risk behaviors • Number of police/regulator heavy-vehicle safety operations • Number of police infringement notices issued for high risk behaviours • Frequency of targeted communications campaigns supporting police enforcement and size of audience reached • Hours of school-based education activities	• Road infrastructure crash safety ratings (risk and protection scores) • Percent of traffic volume on roads with speed limits of more than 70 km/h and protected by median barriers • Skid resistance of road surfaces • Average vehicle speeds by road type, summer and winter • Front- and back-seat safety belt–wearing rates, among drivers and passengers • Child restraints usage rates • Motorcyclist, moped, cyclist, and micro-scooter helmet–wearing rates, driver and pillion • Drug impairment levels of drivers and other road users • Targeted audience groups' recall and assessment of relevance of communications campaign messages • Mobile phone use while driving	• Deaths and injuries recorded by the police • Hospital data on road deaths and injuries recorded by health authorities • Other sources of death and injury registration • Social cost of deaths and injuries
Entry and exit of vehicles, drivers, operators, and other road users to and from the road network	• Number of vehicles and vehicle modifications certified and inspected at the border, during periodic inspections, and local modifications • Number of driver training, testing, and licensing activities • Number of operators licensed	• Vehicle compliance with certification and inspection standards • Vehicle crash safety ratings • Driver and other road users' compliance with licensing requirements • Operator compliance with licensing requirements	
Recovery and rehabilitation of crash victims from the road network	• Number of emergency medical services responses to road network crashes	• Average emergency medical services response times	

Source: Authors.

The following references provide further guidance on good-practice performance measures and safety targets:

Department of Transport. 2025. *Effectiveness of targets for road safety.* Government of United Kingdom. https://www.gov.uk/government/publications/effectiveness-of-targets-for-road-safety

GRSF (Global Road Safety Facility). 2024. *Disability and Road Traffic Accidents: Assessing the Costs and Consequences of Rehabilitation and Living with a Disability Following a Road Traffic Injury. Washington,* DC: World Bank. https://www.globalroadsafetyfacility.org/publications/disability-and-road-traffic-accidents.

GRSF (Global Road Safety Facility). n.d. GRSF Road Safety Calculator. Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/road-safety-calculator.

Martensen, H., G. Duchamp, V. Feypell, V. I. Raffo, F.A. Burlacu, B. Turner, and M. Paala. 2021. *Guidelines for Conducting Road Safety Data Reviews*. Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/guidelines-conducting-road-safety-data-reviews.

Mitra, S., and K. Bhalla. 2023. *Improving Road Traffic Injury Statistics in Low- and Middle-Income Countries: Addressing Discrepancies between Official Statistics and Global Statistical Models.* Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/improving-road-traffic-injury-statistics-low-and-middle-income-countries.

World Bank. 2022. *Socioeconomic Impacts of Road Traffic Injuries in Central Asia.* Washington, DC. https://www.globalroadsafetyfacility.org/publications/socioeconomic-impacts-road-traffic-injuries-central-asia.

Technical note 2: Specialist knowledge and skills requirements of senior staff

Table B.2 summarizes the operational knowledge and skills needed by partner institutions to design and implement safety interventions (knowledge and skills requirements for lead agency specialists are presented in table B.4, in technical note 4).

Table B.2 Skillsets of senior staff at partner institutions needed to implement selected interventions

Intervention	Knowledge and skills requirements
Planning, design, operation and use of the road network	• Infrastructure safety design standards
	• Infrastructure safety audit
	• Infrastructure safety inspection
	• Infrastructure safety impact assessment
	• Infrastructure crash safety rating
	• Infrastructure asset management systems
	• Speed management strategy
	• General deterrence police enforcement
	• Automated traffic control and enforcement
	• Media and marketing
	• School-based education
	• Community engagement
	• Crash data management systems
	• Monitoring and evaluation of network safety performance
Entry/exit of vehicles, drivers, operators, and other road users to and from the road network	• Vehicle safety standards (light, heavy)
	• Vehicle certification and periodic inspection
	• Vehicle crash safety rating
	• New vehicle technologies
	• Driver testing and licensing standards
	• Driver training standards
	• Operator licensing safety standards
	• Safety belt and child restraint standards
	• Motorcycle and cycle helmet standards
Recovery and rehabilitation of crash victims from the road network	• Emergency notification services
	• First responder programs
	• Ambulance, police, and fire services
	• Emergency care and trauma services
	• Longer-term injury rehabilitation services
	• Injury insurance schemes

Source: Authors.

The following references provide further guidance on the skills required for designing and implementing road safety interventions:

Global Road Safety Partnership, and International Federation of Red Cross and Red Crescent Societies. 2023. *Speed Management: A Road Safety Manual for Decision-Makers and Practitioners*, 2nd ed. Geneva. https://www.globalroadsafetyfacility.org/publications/speed-management-road-safety-manual-decision-makers-and-practitioners-2nd-ed.

Gorham, Roger, Dipan Bose, Maria Cordeiro, Georges Darido, John Koupal, Raman Krishnan, Kazuyuki Neki, and Yin Qiu. *Motorization Management for Development: An Integrated Approach to Improving Vehicles for Sustainable Mobility.* Washington, DC: World Bank, 2022. https://www.globalroadsafetyfacility.org/publications/motorization-management-development-integrated-approach-improving-vehicles-sustainable.

Job, S., D. Cliff, J.J. Fleiter, M. Flieger, and B. Harman. 2020. *Guide for Determining Readiness for Speed Cameras and Other Automated Enforcement.* Geneva: Global Road Safety Facility and Global Road Safety Partnership. https://www.globalroadsafetyfacility.org/publications/guide-determining-readiness-speed-cameras-and-other-automated-enforcement.

McClain-Nhlapo, C., D.S. Raja, N. Groce, D. Mont, M. Pinilla-Roncancio, J. Hanass-Hancock, and M. Chatukuta. 2024. *Disability and Road Traffic Accidents: Assessing the Costs and Consequences of Rehabilitation and Living with a Disability Following a Road Traffic Injury.* Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/disability-and-road-traffic-accidents.

Mitra, S., B. Turner, L.W. Mbugua, K. Neki, J. Barrell, W. Wambulwa, and S. Job. 2021. *Guide to Integrating Safety into Road Design*. Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/guide-integrating-safety-road-design.

Turner, B.M., E.M., Eichinger-Vill, S. El-Samra, C. Adriazola-Steil, and F.A. Burlacu. 2024. *Guide for Safe Speeds: Managing Traffic Speeds to Save Lives and Improve Livability*. Washington, DC: World Bank and World Resources Institute. https://www.globalroadsafetyfacility.org/publications/guide-safe-speeds-managing-traffic-speeds-save-lives-and-improve-livability.

Turner, B., S. Job, and S. Mitra. 2021. *Guide for Road Safety Interventions: Evidence of What Works and What Does Not Work.* Washington, DC: World Bank. https://www.globalroadsafetyfacility.org/publications/guide-road-safety-interventions-evidence-what-works-and-what-does-not-work.

World Bank. 2022. *Addis Ababa Sidewalk Design and Maintenance Guidelines.* Washington, DC. https://www.globalroadsafetyfacility.org/publications/addis-ababa-sidewalk-design-and-maintenance-guidelines.

Technical note 3: The role of the lead agency

Table B.3 outlines good-practice lead agency contributions to the institutional management functions of the road safety system, based on country case studies previously conducted by GRSF. Although the organizational structures of the lead agencies examined in these case studies have subsequently undergone reforms—sometimes significant—the underlying functions, activities, and tasks identified have remained largely unchanged, with a growing emphasis on promoting the Safe System approach becoming evident.

The information in table B.3 is intended to guide reviewers; it is not a formal checklist. In many instances, the contributions of the lead agency may be limited. In this case, the table will help reviewers identify priorities for strengthening management, as required in step 3 of the review.

Table B.3 Contribution of lead agency to institutional management functions

Institutional management functions/actions	Contribution to activities and related tasks
Results focus	
Activity 1: Appraise current road safety performance through high-level strategic review	1a: Establish and empower a well-resourced road safety strategy group within the lead agency 1b: Manage the process of governmental reviews of road safety 1c: Engage key governmental partners and stakeholders to reach consensus on problem areas and priorities in the road safety management system 1d: Initiate and chair reviews of road safety 1e: Prepare background papers on current performance
Activity 2: Adopt a far-reaching road safety vision for the longer term	2a: Study and propose an ambitious road safety vision for the longer term 2b: Identify the key partnerships needed within and outside government for promotion of the vision 2c: Consult on the vision with governmental partners, stakeholders, and the wider community 2d: Seek agreement on the partner agency and stakeholder responsibilities for pursuing the vision and ensure that they are clearly defined in the national or state road safety strategy
Activity 3: Analyze safety gains achievable in the medium term, and prepare a national strategy with specified safety interventions and quantitative targets set across the road safety partnership	3a: Review current road safety problems and identify the potential for further improvements, in consultation with governmental partners and stakeholders 3b: Analyze long-term trends that could affect future road safety outcomes, and conduct peer-reviewed scenario planning and computer modelling of interventions to develop road safety strategy options 3c: Consult on strategy options with governmental partners and stakeholders within the formal coordination hierarchy 3d: Engage with the wider community to seek their views on the proposed strategy options 3e: Review the cost-effectiveness and public acceptability of strategy options and reach agreement on the preferred option 3f: Propose and seek formal agreement on targets for final outcomes, intermediate outcomes, and institutional outputs at the national level and subsequently, where relevant and feasible, the regional, state, and local levels

Institutional management functions/actions	Contribution to activities and related tasks
	3g: Finalize and publish the national road safety strategy, including its interventions, targets, and related partnership and stakeholder responsibilities
Activity 4: Establish mechanisms to ensure partner and stakeholder accountability for results	4a: Assume responsibility for the achievement of the road safety strategy targets, as specified in annual performance agreements with government and in the performance-based remuneration package for its agency head and support the adoption of such agreements by road safety partners
	4b: Encourage the outputs and contributions of a wider group of stakeholders that contribute to improved road safety results, as specified in their public declarations of intent to support the national or state strategy and the achievement of its targets
	4c: Provide leadership development and training programs
Coordination	
Activity 1: Coordinate horizontally across the same levels of government	1a: Manage the processes of interagency decision making at the national, state, or local level on the road safety strategy and achievement of its targets through a hierarchy of committees and working groups to support this
	1b: Establish formal committee and working group arrangements at different levels of the coordination hierarchy, from day-to-day interagency engagement to the formal periodic meetings of agency heads at which final decisions are made and prepare memoranda of understanding that set out the roles and responsibilities of partner institutions in these arrangements
	1c: Secure the support of different levels of management from key institutions for key coordination tasks, with emphasis on senior management level responsible for reaching interagency agreements requiring final approval at the agency head level
	1d: Convene and chair the main committees and working groups, and prepare all related agendas, documents, and minutes
	1e: Establish a dedicated secretariat within the lead agency to provide full-time support to the coordinating committees and working groups
Activity 2: Coordinate vertically between national, state, and local levels of government	2a: Manage coordination of the national strategy and achievement of its targets with regional, state, and local government partners and stakeholders
	2b: Ensure that roles and responsibilities at all levels of government for different aspects of the national strategy are clearly recognized and, where necessary, ensure participation by these levels of government in national, regional, state, and local coordination bodies and arrangements
	2c: Propose and seek agreement on requirements for regional, state, provincial, and local governments to establish national strategy coordination arrangements at their respective levels
	2d: Establish partnerships at the local community level to support delivery of the national strategy

Institutional management functions/actions	Contribution to activities and related tasks
Activity 3: Establish partnerships between government, nongovernment, community, and business entities	3a: Engage with business and nongovernmental sectors to support specific elements of the national or state road safety strategy, such as work-related road safety and the targeting of unsafe road user behaviors 3b: Develop tools such as road safety calendars and good-practice guidelines to coordinate participation of all partners and stakeholders in strategic initiatives, often in association with professional and community organizations 3c: Specify safety requirements in government agency transport contracts and practices, to lead by example 3d: Ensure business and nongovernment sector participation in the national road safety coordination hierarchy where appropriate 3e: Establish well-publicized agreements involving companies in key initiatives supporting achievement of the national or state strategy
Activity 4: Establish parliamentary relations at the national, state, and local levels	4a: Where required, engage with legislators at the national, regional, state, provincial, and local levels to ensure support for the national road safety strategy and its targets, and provide support to parliamentary liaison staff 4b: Through partnership ministers encourage the establishment of a dedicated all-party road safety committee to champion road safety within parliamentary processes 4c: Support the production of road safety guidance for legislators, to encourage political leadership of the road safety strategy and achievement of its targets 4d: Report annually to parliament on road safety progress
Legislation	
Activity 1: Review the scope of the legislative framework	1a: Periodically set up reviews to benchmark international good practice, identify any necessary legislative requirements for new or revised road safety strategies and related policies, and adapt and introduce new regulatory rules and standards to keep pace with technical progress 1b: Conduct in-house reviews of the costs and benefits of potential legislative proposals
Activity 2: Develop and update legislation needed to implement the road safety strategy	2a: Establish an internal team of legislative experts and partnership relationships with relevant government institutions 2b: Review legislative options for achieving specific strategic policy objectives 2c: Initiate and sustain transparent consultations with government, business, and community partners on proposed legislative options for developing and updating safety standards and rules and ensuring compliance with them 2d: Use coordination arrangements to ensure that progress is made with legislative initiatives important for the national strategy where primary responsibilities rest with other government departments 2e: Conduct legislative pilots to explore the efficiency and effectiveness of proposed new initiatives
Activity 3: Consolidate legislation	3a: Participate in and initiate periodic reviews to consolidate and streamline road safety legislation to address redundancies and potential inconsistencies and improve ease of use

Institutional management functions/actions	Contribution to activities and related tasks
Activity 4: Secure legislative resources for road safety	4a: Seek and schedule legislative slots to address priority road safety initiatives in government parliamentary programs 4b: Encourage all-party parliamentary legislative support for road safety initiatives through regular parliamentary engagement and briefings, where requested
Funding and resource allocation	
Activity 1: Ensure sustainable funding sources	1a: Ensure sufficient in-house capacity for the preparation of safety budgets 1b: Support the establishment of dedicated and sustainable road safety funding sources and budgetary processes for all partner institutions 1c: Make robust business cases for the funding required to achieve national road safety targets, benchmarked where relevant against global good practice 1d: Earmark funding from central government to key stakeholders at the regional, state, provincial and local levels for specified outputs set out in the national road safety strategy
Activity 2: Establish procedures to guide the allocation of resources across safety programs	2a: Establish good-practice, peer-reviewed evaluation procedures to guide the allocation of funding across safety programs and projects 2b: Review and estimate the value of preventing road traffic deaths and serious injuries 2c: Support governmental partners in the preparation of their road safety budget proposals 2d: Manage hypothecated funds from road traffic fines for safety work
Promotion	
Activity 1: Champion road safety at a high level	1a: Articulate the vision for a safer road network system through all relevant media 1b: Encourage all ministers in the road safety partnership to play active roles in the media to create awareness about road safety challenges and provide leadership for all related policy initiatives 1c: Foster a cadre of senior professionals in the road safety field—academics, trauma surgeons, police chiefs, parliamentarians, community leaders—who advocate and garner support for important policy developments
Activity 2: Conduct proactive communications campaign	2a: Build in-house capacity for the management of targeted road safety advertising and public relations campaigns supporting the national road safety strategy 2b: Establish trusted media relationships and ensure that regular information on key road safety problems and upcoming initiatives to improve safety performance is available and accessible 2c: Encourage and support promotional initiatives at the community level

Institutional management functions/actions	Contribution to activities and related tasks
Activity 3: Lead by example with in-house road safety policies	3a: Implement safe staff vehicle fleet policies, based on good practice, and encourage their wider uptake 3b: Specify mandatory road safety requirements in commercial contracts with organizational service suppliers (e.g., car rental, taxi hire, road haulage companies)
Activity 4: Support safety rating programs and publish their results	4a: Disseminate the findings of vehicle and infrastructure safety rating programs, in partnership with road user and consumer groups and road authorities
Monitoring and evaluation	
Activity 1: Establish and support data systems to monitor risk exposure and final outcomes, intermediate outcomes, and output measures	1a: Establish linkages with central computerized transport and driver licensing registries to access data on the number and types of vehicles and drivers on the road network 1b: Measure road network traffic volumes and road user travel patterns through periodic national traffic and travel surveys 1c: Establish and maintain network crash databases, related analytical tools, and network survey systems to monitor final outcomes, intermediate outcomes, and institutional outputs 1d: Track community attitudes to road safety interventions and communications campaigns 1e: Estimate the socioeconomic cost of road traffic fatalities and injuries. 1f: Match linkages between police crash reports and hospital admissions data to assess levels of underreporting of injuries 1g: Establish or support safety rating programs on new cars and road infrastructure, which provide intermediate outcomes data
Activity 2: Conduct transparent reviews of the national road safety strategy and its performance	2a: Conduct regular reviews of the progress of the national road safety strategy in achieving desired results 2b: Provide public access to crash fatality and injury data 2c: Evaluate the effectiveness of specific road safety measures and carry out in-depth studies to ascertain contributory factors and the causes and consequences of road crash injuries 2d: Develop analytical tools for highway and police authorities to improve their targeting of infrastructure safety measures, safety enforcement operations, and the monitoring and evaluation of their effectiveness
Activity 3: Make necessary interventions and policy adjustments to achieve the desired results	3a: Ensure that the results of monitoring and evaluation are presented and discussed at all levels of the road safety strategy coordination hierarchy, to improve the focus on achieving results, and adjust where necessary to measures being taken

Institutional management functions/actions	Contribution to activities and related tasks
Research and development and knowledge transfer	
Activity 1: Develop the capacity for multidisciplinary research and knowledge transfer	1a: Build in-house capacity for road safety research and development 1b: Support and develop partnerships with road safety research organizations for independent advice and guidance on key road safety interventions and management functions 1c: Use a variety of means to provide specialist development and training programs, including attendance at road safety courses, seminars, and workshops and participation in professional exchange programs
Activity 2: Publish a national road safety research strategy, and secure sustainable funding sources	2a: Establish a national road safety research strategy with partners, stakeholders, and external experts, and secure sustainable funding sources for its implementation 2b: Allocate annual budgets for in-house and external research projects 2c: Advise on the use of research findings
Activity 3: Disseminate research and development findings.	3a: Circulate research and development findings to relevant audiences, conduct related workshops, and publish good-practice guidelines
Activity 4: Design and implement pilot research projects	4a: Develop and fund pilot research projects that offer potential to reduce road casualties and support the wider national application of successful results

Source: Bliss and Breen (2009).

Technical note 4: System leadership and specialist knowledge and skills

Managing the complexity of the road safety system depends on the knowledge and skills of its institutional leaders and safety specialists. There is strong demand in both LMICs and high-income countries for professional development programs that support the efforts of lead agencies and their partner institutions to strengthen road safety management processes. Investing in the knowledge and skills of senior leadership teams and their supporting multidisciplinary specialist teams in LMICs is crucial to achieving national road safety goals.

Leadership development and training programs should provide leaders from the lead agency and partner institutions with opportunities to share and build management knowledge and skills that enable them to specify, direct, and integrate the implementation of measures to improve national road safety performance. Country risk factors and the extent to which institutional management functions are being effectively and efficiently delivered (as assessed in review steps 1 and 2) will shape program curricula.

These programs are best conducted at the system level, with the combined participation of senior officials from the lead agency and its partner institutions. The scope of program content can be determined by the extent to which the lead agency activities and tasks presented in table B.3 of technical note 3 are being addressed. Country leadership knowledge and skill levels can be broadly benchmarked against the good-practice requirements presented in table B.4 to identify key areas for leadership strengthening.

Specialist development and training programs should provide senior specialists from the lead agency and partner institutions with opportunities to share and build scientific knowledge to help determine measures that improve national road safety performance. Program curricula will be shaped by country risk factors as well as the extent to which research and development and knowledge transfer are being effectively and efficiently delivered (as assessed in review steps 1 and 2).

Table B.4 summarizes the system-level knowledge and skills requirements for leaders in the lead agency and its partner institutions, as well as for senior specialists within the lead agency. System leadership knowledge and skills apply to leaders in both the lead agency and its partner institutions. Specialist knowledge and skills required at the lead agency are distinguished from those at partner institutions (see table B.2 in technical note 2), with the latter relating primarily to operational practices.

Table B.4 can usefully be read alongside table B.3 in technical note 3 to provide a clearer understanding of how these knowledge and skills support the lead agency's contribution to managing system safety. It is not expected that the review will assess these requirements in partner institutions directly; rather, the table is intended as a guide to what reviewers should consider when seeking information on lead agency staffing levels and skillsets.

Table B.4 Good-practice knowledge and skills requirements of system leaders and senior specialists

Institutional management function	Leadership of lead agency and partner institutions	Senior specialists at lead agency
Results focus	Leaders know what results are being sought and how they will be achieved to effectively and efficiently manage the road safety system. This requires a general appreciation of road safety science and its application. Effective leaders understand and are committed to achieving the system's focus on results. Without such commitment, system leadership lacks clear purpose and direction.	Senior specialists have in-depth understanding of international best practice and the Safe System approach, road safety interventions, and their applicability and likely effectiveness and efficiency in their countries. They have skills in data analysis, traffic forecasting, scenario development, mathematical modelling, and safety target setting to help determine a country's road safety results focus and specify a performance management framework.
Coordination	Leaders understand coordination in the context of the results focus of the lead agency and its partner institutions, not just as an opportunity to share views on what each entity is seeking to do. Leaders understand and accept that coordination requires institutional accountability for their respective achievements.	Senior specialists have in-depth understanding of the machinery of government and related parliamentary and ministerial processes and protocols. They have the authority and skills to administratively support high-level institutional engagements on a periodic basis for coordination purposes. This includes the management and provision of dedicated secretarial services and specialist advice provided by other senior specialists.
Legislation	Leaders have a sound understanding of the legal instruments governing their management processes and underpinning the road safety interventions for which they are responsible. This understanding extends to knowing when legal boundaries are potentially being breached and when legislation needs to be reformed or new legislation introduced to address changing circumstances.	Senior specialists have expert knowledge of all legislation relevant to ensuring the safety of the road transport system and related developments in associated ongoing legislative programs. They are also experienced in legislative, rule-making, and regulatory processes and related requirements that allow them to weigh the cost-effectiveness, efficiency, practicality, and public acceptability of proposed new initiatives.
Funding and resource allocation	Leaders secure sufficient and sustainable road safety funding for the lead agency and its partner institutions and ensure its effective and efficient allocation to achieve their focus on results. They are proactively engaged in related budgetary processes and develop and present strong business cases for what will always be highly contested funds within available fiscal envelopes.	Senior specialists have expert knowledge of economic evaluation techniques and a sound understanding of road safety science and its good-practice evidence base. They have extensive experience with cost-effectiveness and social cost–benefit analyses, including the application of nonmarket valuations of life and life quality losses arising from road crashes.

Institutional management function	Leadership of lead agency and partner institutions	Senior specialists at lead agency
Promotion	Leaders promote an inspiring and inclusive vision of the road safety outcomes the lead agency and its partner institutions are seeking to achieve. They highlight performance targets that have been set and periodically report on progress made Leaders demonstrate proactive staff communications and external partnership, stakeholder, and media management skills.	Senior specialists have expert media and marketing skills, with a focus on public health promotion, and experience in television, print, and social media. They have strong public relations skills and can maintain respectful media relationships. Senior specialists have robust community surveying and media tracking skills and can translate complex evidence-based content into clear public messaging that resonates with target audiences.
Monitoring and evaluation	Leaders demand robust and transparent monitoring and evaluation of all road safety interventions that the lead agency and its partner institutions are responsible for and commit to periodic reporting on progress made. They ensure that the necessary resources are secured to support this process. Leaders take appropriate action when performance is below expectations, and make necessary adjustments to redress it.	Senior specialists have experience in the establishment, management, maintenance, and use of road crash database systems. They are experienced in the design and conduct of traffic, road environment, and user travel surveys and monitoring key safety behaviors. They have sound knowledge of survey sample design methods and an informed understanding of technological developments in new measurement tools and their application. Senior specialists can apply performance monitoring findings to the scientific evaluation of road, vehicle, and human factors that contribute to road crash fatalities and injuries.
Research and development and knowledge transfer	Leaders understand the key uncertainties affecting road safety performance. They set ambitious research and development priorities and commit sufficient resources to address them, helping to narrow knowledge gaps and accelerate reductions in road crash fatalities and injuries.	Senior specialists identify and act on research priorities to be addressed, in line with targeted safety performance objectives. They have a proven record of publications in peer-reviewed journals and/or have established working relationships with researchers at relevant university faculties and research institutes. They keep abreast of ongoing research findings both nationally and internationally and translate them into knowledge transfer initiatives.

Source: Authors.

Technical note 5: Establishing and staffing the lead agency

When establishing a new lead agency, policy makers need to define the role of the lead agency, including the following parameters:

- The nature of the agency's relationships with other institutions it must work with
- The objectives and functions of the agency
- The powers the agency will have to carry out its functions
- The funding sources for the agency and the amount of funding that will be needed
- The agency governance arrangements

Analysis of these issues should aim to clarify the organizational and governance dimensions supporting the identified agency objectives, functions and powers, and determine the agency form that provides the best fit. Key considerations also include the degree of anticipated ministerial involvement; whether there is to be an agency board; and if so, what its management role will be.

The findings of the review of system management will help address some of these issues, as the identified priorities will shape lead agency objectives and functions. These objectives and functions will strongly align with the lead agency's contribution to the institutional management functions of the system management process and determine the nature of its relationship with its partner institutions.

Once these issues are resolved, two options can be considered: (a) the new lead agency can be established in an existing institution and its objectives, functions, and powers integrated with those of the existing agency or (b) a new agency can be created. Comprehensive evaluation of the two options will require further analysis of the institutional arrangements and opportunities in the country concerned and decision making that goes beyond the scope of the management review.

If an existing institution is proposed for the lead agency role, the following factors must be considered (Public Service Commission 2022):

- The strategic fit of the lead agency's objectives and functions with the outcome framework of the existing institution
- The compatibility of the lead agency's functions and powers with the existing institution's functions and powers
- The trust and credibility of the existing institution and its relationships with lead agency partners and stakeholders
- The ability to integrate with the existing institution's technology systems and processes
- The absorptive capacity of the existing institution's physical assets

If a new agency is proposed, a business case must be made to justify its establishment and demonstrate that key conditions, including the following, are met (Public Service Commission 2022):

- The role and functions of the new agency are incompatible with any existing institution for strategic or operational reasons
- It is not feasible or appropriate to expand the role and functions of an existing institution that could be aligned with those of the new agency.
- The government is willing to commit to providing the necessary funding support to establish the new agency
- The benefits of establishing the new agency can be shown to exceed its costs

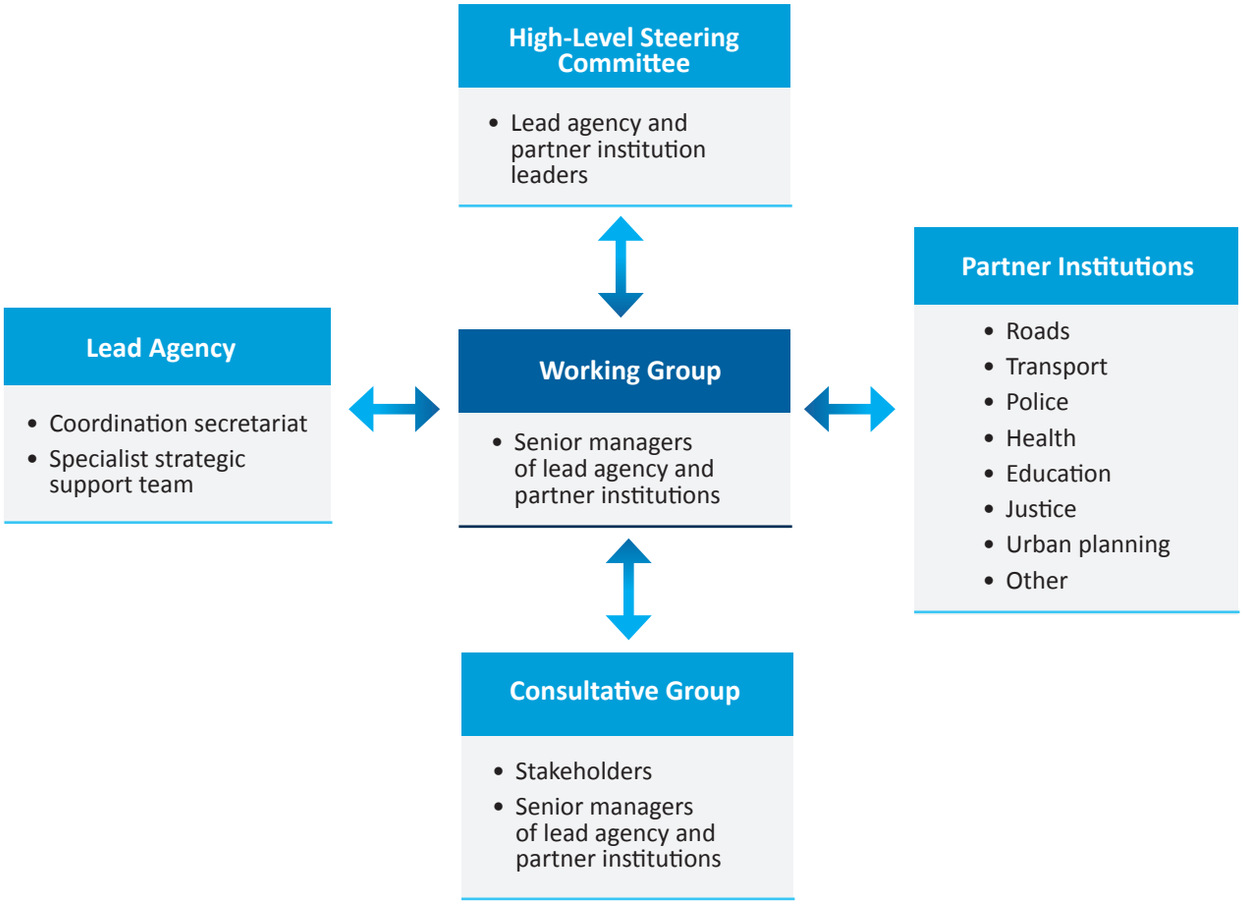
Lead agency staffing requirements also need to be considered. The findings of the GRSF case studies (summarized in tables B.3 and B.4) were derived from four different lead agency models: stand-alone lead agencies; transport ministries; road authorities acting as lead agencies; and a stand-alone lead agency embedded within a head-of-state department. Assessing the organizational structures of these models provides useful insights into lead agency staffing needs. The agencies reviewed took considerable time to build their strategic teams, and a similar phased approach is likely to be required in LMIC contexts.

No clear benchmark for lead agency staffing requirements emerged from the case studies. Staffing levels ranged from approximately 20 to 50 personnel, with an average of about 30 staff. No strong relationship was observed between staffing numbers and country population size, suggesting that, regardless of country size, a core contingent of specialist staff is necessary to perform system management tasks effectively (Bliss and Breen 2009).

Technical note 6: Lead agency contribution to strategy coordination

Figure B.1 presents a good-practice model for coordination of a country road safety strategy by the lead agency. The lead agency manages a coordination secretariat that schedules meetings of the High-Level Steering Committee, the Working Group, and the Consultative Group, and prepares meeting agendas and official minutes. The High-Level Steering Committee and the Working Group also provide regular briefings to ministers. The Working Group, composed of senior managers, is responsible for sustaining the coordination process. A strategic support team within the lead agency prepares briefing and background documents on behalf of the partner institutions.

Figure B.1 Strategy coordination arrangements



Source: Bliss and Breen (2009).

The High-Level Steering Committee meets at least four times a year to review progress in implementing strategic priorities, make related decisions, and provide strategic direction to member institutions as needed. The Working Group meets more frequently to guide the day-to-day delivery of strategy initiatives. The Consultative Group meets as required to address issues that require input from external stakeholders (Bliss and Breen 2009).

Technical note 7: Targeting high-risk corridors using the example of Kenya

LMICs typically have road corridors with disproportionately high concentrations of fatal and serious injury crashes. The following example from Kenya provides a useful illustration of how the approach described in this technical note can be applied to identify and prioritize such high-risk corridors. Although country contexts and data availability vary, the analytical approach is transferable and can be adapted to other settings depending on local conditions and institutional capacity.

Kenya's National Road Safety Action Plan 2024–2028 identifies high-risk corridors in 8 of the country's 47 counties that recorded the highest rates of fatal crashes per kilometer over the period 2021–23 (Republic of Kenya 2024). These eight counties accounted for 46 percent of reported fatal crashes in Kenya. Crash data were manually geolocated to identify 82 high-risk corridor segments for targeted interventions aimed at achieving significant fatality reductions. These segments were located primarily on international trunk roads and averaged approximately 5.5 kilometers in length.

Figure B.2 presents the findings for Nairobi County, and table B.5 provides the corresponding data. The identified corridor segments show pronounced spatial concentrations of reported fatal crashes, indicating that a relatively small proportion of the network accounts for a substantial share of fatalities. This concentration highlights the potential efficiency of a targeted corridor-based intervention approach, whereby resources can be focused on locations with the greatest potential safety gains. Not all reported crashes were geolocated, and data on serious injury crashes were unavailable; the estimates therefore represent a lower bound of the true safety burden. Nevertheless, the results provide a robust basis for prioritization. Targeted safety interventions along these corridor segments—particularly those addressing infrastructure risk factors, speed management, and vulnerable road user exposure—could yield substantial reductions in crash fatalities and serious injuries.

Figure B.2 Average annual number of fatal crashes per kilometer in Nairobi County, 2012–23

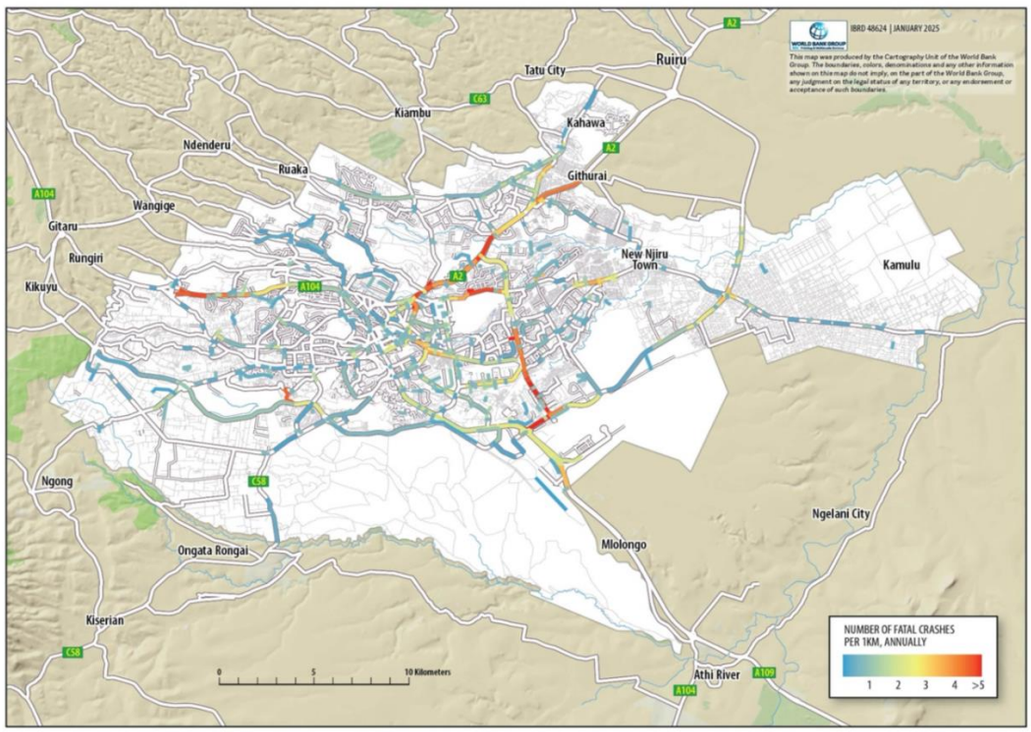


Table B.5 Corridor segments in Nairobi County with largest number of fatal crashes per kilometer

Corridor segment	Length (km)	Annual number of fatal crashes per kilometer
UCA3—Nairobi	5.07	5.29
A2S	8.85	3.71
UCA2—Nairobi	2.05	3.51
UCB3—Nairobi	3.25	3.32
UCA3—Nairobi	3.32	3.01
UCA1—Nairobi	4.70	2.81
UCB19—Nairobi	3.52	2.73
A8	10.17	2.38
UCB20—Nairobi	4.74	2.03
A2S	6.40	1.50
A8	15.14	1.48
UCA2—Nairobi	6.06	1.12

Technical note 8: Financing road safety investment

Governments in LMICs generally underfund their road safety systems, and other sources of financing are limited, making increased domestic funding and resource allocation an urgent priority. Achieving sustainable road safety financing will require country-level budgetary reforms, leadership development programs, training for senior officials and specialists, and increased MDB financing and donor grant support during a transition period until sustainable funding sources are fully incorporated in country budgetary processes.

Implementation of the priorities and initiatives specified through the management review findings requires sustained financing, with domestic public resources representing the primary and most important source of funding for road safety programs. In practice, resources may be mobilized from a combination of domestic budget allocations, external development financing, and mechanisms that leverage private capital and innovative financing instruments. While financing from development partners often provides additional fiscal space and technical support, it typically represents government borrowing or concessional financing that ultimately forms part of public expenditure and should therefore be aligned with national priorities and budget processes.

World Bank Group (WBG) financing instruments are primarily categorized by the nature of the development challenge they address and the type of borrower (sovereign governments versus private sector). Public sector financing instruments to support implementation generally fall into three categories:

- **Investment Project Financing,** which provides long-term financing (5 - 10 years) for physical and social infrastructure projects. It supports specific activities like building roads, schools, or energy plants, and includes technical assistance.
- **Development Policy Financing,** which provides non-earmarked budget support to help governments implement policy and institutional reforms. Funds are typically disbursed after the completion of "prior actions".
- **Program-for-Results,** which links the disbursement of funds directly to the achievement of specific, verifiable program results. It uses a country's own institutions and systems to achieve these outcomes.

These categories of financing instruments are broadly adopted across regional MDBs, although the terminology used often differs. However, most regional MDBs have harmonized their toolkits with the WBG's structure to allow for easier cofinancing and shared standards.

The choice of instrument depends on country context, institutional readiness, and the nature, scale, and duration of the proposed interventions. Development Policy Financing instruments of the WBG and regional MDBs can be suited to implementing the policy and institutional actions recommended by the management review findings. These actions can be related to the lead agency role and regulatory frameworks. On the other hand, Program-for-Results financing instruments help countries to improve the design and implementation of their development programs and achieve lasting results by strengthening institutions and building their capacity. Disbursement is linked to achieving agreed targets, which can be selected from the road safety performance indicators.

Investment Project Financing has commonly been used for road network infrastructure projects with road safety components and follows a standard WBG project cycle of project identification, preparation and appraisal, negotiation and approval, and implementation and evaluation. All projects must comply with the WBG's environmental and social frameworks that include standards for the management of road safety risks. Management review findings substantially inform the specification of these projects.

Development Policy Financing of road safety investments typically focuses on reforms that are under government control and capable of influencing system-level safety outcomes over time. Rather than supporting individual investments, these actions aim to strengthen the enabling environment for safer road use and may be informed by the management review findings and broader operational experience. Reforms commonly fall into several broad areas, including legal and regulatory frameworks, institutional coordination and governance, infrastructure safety policies, enforcement systems, budgeting and financing arrangements, and post-crash care.

Development Policy Financing is most appropriate where there is strong government ownership of the reform agenda, a credible policy and institutional framework, and demonstrated commitment to implementation. It is particularly suitable when the main barriers to improved outcomes are policy, regulatory, or institutional in nature rather than needing large capital investments, and where core system management functions—such as lead agency authority, interagency coordination mechanisms, data systems, and accountability arrangements—are sufficiently developed to enable reforms to translate into results. Clear sequencing of reforms, measurable actions, and adequate institutional capacity to implement and sustain changes are also important preconditions.

If Development Policy Financing is the selected instrument, "prior actions" can be used to support policy and institutional reforms that address key constraints to improved road safety outcomes. Effective prior actions involve discrete and verifiable government decisions, such as the adoption or amendment of legislation, issuance of regulations, approval of national strategies with clearly assigned responsibilities and associated budget allocations, establishment or strengthening of institutional mandates, or operationalization of systems. These reforms are intended to create conditions for sustained implementation. Examples of reform categories and related prior actions are presented in Table B.6.

Program-for-Results and other results-based investment instruments offered by MDBs are particularly well suited to support the implementation and institutional strengthening actions identified through the management review. These instruments enable financing to be aligned with government programs and systems while supporting improvements in governance arrangements, inter-agency coordination, and institutional performance. Program-for-Results operations—where disbursements are linked to the achievement of agreed disbursement-linked performance indicators—can strengthen institutional incentives, improve implementation, and support sustainable results by reinforcing government ownership, accountability, and capacity development.

Series of Projects or Multiphase Programmatic Approaches used by some development partners for programs requiring sustained engagement and staged, scaled-up implementation can also provide suitable instruments for supporting policy and institutional reforms and related interventions over a longer-term horizon, such as a 10-year period aligned with a country road safety strategy. These approaches allow for a sequenced program of investments and reforms, with subsequent phases building on the achievements and lessons of earlier phases, while maintaining continuity of objectives and financing. They can be particularly useful where sustained institutional strengthening and progressive scaling up of interventions are required to achieve measurable and durable road safety outcomes. Emphasis is placed on a learning-by-doing approach.

Table B.6 Example of prior actions in road safety policy lending

Reform category	Examples of prior actions
Legal and regulatory framework	• Adoption or amendment of traffic legislation addressing key risk factors (for example, speed limits, helmet and seatbelt requirements, drink-driving limits, child restraints, or vehicle safety and inspection standards)
Institutional and governance arrangements	• Establishment or strengthening of a lead road safety agency with a formal mandate and coordination authority • Approval of a national road safety strategy with action plan with defined responsibilities across ministries • Creation of an integrated crash data system linking police and health data
Safe infrastructure policies	• Adoption or update of national road design standards incorporating safety principles • Issuance of regulations requiring road safety audits and inspections for road projects • Formalization of network risk assessment/safety rating and prioritization approaches for high-risk corridors
Enforcement and compliance mechanisms	• Adoption of regulations enabling automated enforcement • Introduction of demerit or penalty point systems • Approval of national enforcement plans targeting major behavioral risks such as speeding or impaired driving
Budgetary, financing, and sustainability measures	• Establishment of dedicated budget allocations or funding mechanisms for road safety • Integration of road safety priorities into medium-term expenditure frameworks • Introduction of expenditure tracking or reporting requirements across partner agencies
Post-crash response systems	• Adoption of national emergency medical response protocols • Establishment of trauma care referral standards • Creation of unified emergency communication systems or clarification of institutional responsibilities for post-crash care

Source: Authors.

Mobilizing private sector participation—through instruments such as **public–private partnerships, blended finance arrangements**, and capital market instruments including **green, social, or sustainability-linked bonds**—can help expand available resources, improve efficiency, and accelerate implementation when appropriately structured and aligned with public policy objectives. Recent work led by GRSF and the World Bank Treasury highlights how sustainable finance instruments and capital market solutions, including outcome bonds and credit-enhanced bond issuances, can be used to mobilize private investor capital for road safety programs and help bridge financing gaps (World Bank Treasury and GRSF 2025).

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