

Improving Global Road Safety: Towards Equitable and Sustainable Development

Guidelines for Country Road Safety Engagement

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Executive Summary

Road safety, health promotion and development

The sheer scale of health losses from road crashes makes road safety a development priority for the health and transport sectors of low and middle-income countries (LMICs). Poorer population groups bear a disproportionate burden of these health losses which are generally influenced by socio-economic factors and other social and environmental determinants, and increasing emphasis is being placed on global health promotion and equity as a core, crosscutting development strategy.

Country development aims to promote higher living standards for all, with an emphasis on improved health, education and people's ability to participate in the economy and society. Improving road safety in LMICs contributes to the achievement of these development goals by addressing the vulnerability of citizens to catastrophic death and injury arising from road crashes – especially the poor and those thrust into poverty as a consequence – and requires large-scale investments in infrastructure, institutions, vehicle fleets and the health and wellbeing of individuals.

Effective road safety strategies can also help address other global development goals by contributing to lower-carbon transport systems and reductions in non-communicable diseases (NCDs) through cleaner air and more physically active populations. Hence health promotion and equity efforts addressing road safety priorities should be strongly linked and integrated with related global initiatives addressing sustainable transport, NCDs and the social and environmental determinants of health.

Country health and transport sectors face complex challenges in this development process. Effective strategies demand considerable resources, as weak road safety management capacity in LMICs remains a formidable barrier to success. LMICs face historically unprecedented rates of motorization and levels of vulnerability on their roads and they can ill-afford to emulate the long and costly pathway taken by high-income countries to bring their road safety performance sustainably under control. Scaled-up, intensive and sustained action is crucial at the country level.

Global initiatives

Since the publication of the *World Report on Road Traffic Injury Prevention* in 2004, successive initiatives have been taken to mobilize global road safety action, culminating in the UN declared Decade of Action for Road Safety 2011 – 2020 and its Global Plan which aims to halve the forecast level of road traffic fatalities in LMICs by 2020, to save around five million lives and avoid 50 million serious injuries. The Global Plan specifies five pillars for action that must be addressed within the overarching *World Report* recommendations that lay the strategic foundation for actions necessary to improve country road safety performance.

The *World Report* examines the key determinants of road traffic injuries and associated risk factors within a comprehensive health promotion framework and presents the scientific evidence supporting preventative measures that have proved to be effective. Its first recommendation highlights the fundamental role of the lead agency in ensuring the successful functioning of a country's road safety management system. In the absence of this leadership efforts to improve road safety performance will often prove illusory and unsustainable. Action plans prepared without a designated and well-funded agency mandated to lead their implementation are likely to remain paper plans and make no lasting impact on results.

Making progress at the country level

Road safety management systems have evolved in high-income countries over the last fifty years and the challenge for LMICs is to benefit from the lessons learned, to avoid the unnecessarily high level of deaths and injuries historically experienced in high-income countries. This requires LMICs to shift rapidly to a *Safe System* approach with a results focus which aims to eliminate road deaths and serious injuries, rather than chart a fatalistic pathway that accepts these impacts as an inevitable price of economic progress.

The design principles guiding the *Safe System* approach adapt the road system to the limits set by human vulnerability to injury and propensity to make errors when using the system. It is considered unacceptable that road users should die or be seriously injured because of errors made in their use of the system and to blame them for system failure. The focus shifts from managing road user behaviors and crash prevention to one of managing system design and injury prevention. Consequently institutional responsibilities and accountabilities for road safety are coming under closer scrutiny. The shift to a *Safe System* approach requires higher levels of road network operator accountability for safe performance and this in turn sharpens the focus on the safety performance of the vehicles and users who access the network.

World Bank guidelines

Over the last three decades World Bank road safety projects have usually been components of larger road infrastructure and urban transport investment operations, and implemented as fragmented, single-sector initiatives. However, it became evident that a focus on measurable results and longer-term sustainability was critical to success. Hence the World Bank is now promoting *Safe System* road safety projects that aim to simultaneously strengthen institutional capacity and accountability while seeking rapid improvements in safety performance for all road users. Country guidelines have been prepared to support this new approach.

The guidelines pragmatically address institutional capacity barriers to implementing the *World Report* recommendations. They emphasize managing for results and the pivotal role of the lead agency in ensuring effective and efficient program delivery. Key concepts highlight the importance of addressing all elements of the road safety management system, taking a staged approach to investment aligned with a country's implementation capacity, and targeting the highest concentrations of deaths and injuries across the road network. Generic project components address institutional capacity strengthening priorities, high-risk corridors and areas targeted with good practice interventions, high-priority policy reforms, monitoring and evaluation, and project management arrangements.

Effective application of the guidelines requires all relevant sectors to be engaged in road safety project identification, preparation and implementation: especially the transport, health, justice, law enforcement and education sectors.

Creating an enabling environment for effective country investment

Over the *Decade of Action for Road Safety* the World Bank aims to mainstream road safety in country investment operations, in accordance with its guidelines. In a vital new venture – the Multilateral Development Bank (MDB) Road Safety Initiative – the World Bank is also partnering with seven regional development banks to leverage scaled-up road safety activities as an integral part of MDB transport sector investments planned for delivery over the coming decade.

The MDB Road Safety Initiative aims to catalyze a response commensurate to the scale of the challenges facing the *Decade of Action for Road Safety* by accelerating knowledge transfer and scaling up investment to build sustainable road safety management capacity at the country level. If successful it will create an enabling environment for NGO and private sector road safety partners and stakeholders to make more effective country investment contributions, which cannot be assured or sustained with their current fragmented, small-scale efforts.

Argentina Road Safety Project

A case study in the application of the World Bank guidelines is provided by the Argentina Road Safety Project (ARSP) which exemplifies their recommended approach to country road safety investment. The project's innovative features and lessons learned can usefully guide MDBs and their country clients in the design and implementation of transformative road safety projects aimed at achieving sustainable improvements in results.

Mounting disquiet about escalating road carnage in Argentina and growing demand for improved governance and systematic action led to the establishment of the National Road Safety Agency (Agencia Nacional de Seguridad Vial [ANSV]) within the Ministry of Interior as a decentralized entity with economic independence and legal authority to act in the public and private spheres. ANSV's mission is to reduce the rate of road deaths across the nation through the promotion, coordination, control and monitoring of national and international road safety policies.

The ARSP was prepared in collaboration with the health and transport sectors to finance institutional capacity strengthening priorities, national policy reforms and targeted interventions in high-risk corridors. Its primary emphasis is on reinforcing the central role of the ANSV to enable it to successfully deliver its institutional management functions and build and strengthen its leadership and partnership capacity in the process.

Project financing and components

Project financing complements existing ANSV budgets and is structured as a two-phase loan. The first phase covers the period 2010-2015. The second phase will commence following the achievement of defined first phase 'triggers' and is set for completion by 2019. The first phase of the project comprises three components covering institutional capacity building, targeted road safety interventions in designated demonstration corridors, and the development of road safety monitoring and evaluation systems within the National Road Safety Observatory.

Performance indicators

Performance indicators are specified for the first phase to track progress against project objectives. Output-based measures are used, with the exception of final outcome measures for designated demonstration corridors component. 'Triggers' set to start the second phase are primarily contingent on making progress in strengthening the institutional management framework for road safety in Argentina.

Progress to date

The ARSP is in its third year of implementation and making good progress. The proposed 'triggers' to move to the second phase of the project are likely to be met well ahead of the planned schedule and it is anticipated that preparation for the second phase will commence in the second quarter of 2013. Encouraging signs of road safety performance gains in Argentina are already emerging with significant reductions in crash fatalities from their highpoint in 2008 becoming evident.

Country guidelines

Every country faces unique circumstances, yet there are common management capacity barriers that must be overcome if progress is to be made on improving road safety performance nationwide. The ARSP is tailored to the country's institutional arrangements and it illustrates a creative application of the World Bank guidelines. Innovative features and lessons being learned from its implementation have been highlighted and prepared as general guidelines (see summary in Table 1).

The guidelines build on and complement the current World Bank guidelines and should be used in conjunction with them. They have been designed to assist MDBs and their country clients with the identification, preparation and implementation of road safety projects and to encourage better linkages between the health and transport sectors supporting these initiatives.



TABLE 1: Summary of Country Guidelines

<p>GUIDELINE 1: LEAD AGENCY EMPOWERMENT</p> <p>The ultimate goal of road safety projects prepared in accordance with the World Bank guidelines should be to empower and resource the lead agency to take responsibility for a country's road safety performance and the direction of strategic partnerships targeted to improve it.</p>
<p>GUIDELINE 2: HEALTH SECTOR COLLABORATION AND PARTNERSHIP</p> <p>The health and transport sectors should collaborate and partner to promote road safety investments, improve road crash injury data management, enhance post-crash emergency services, and strengthen the preparation of business cases for road safety project financing and performance evaluation requirements.</p>
<p>GUIDELINE 3: SEQUENCING OF <i>WORLD REPORT</i> RECOMMENDATIONS AND PROJECTS</p> <p>The implementation of the <i>World Report</i> recommendations and preparation of related road safety projects should be properly sequenced to ensure that the necessary country management capacity is well matched to the envisaged activities.</p>
<p>GUIDELINE 4: STRENGTHENING MONITORING AND EVALUATION</p> <p>The vital role of monitoring and evaluation of road safety performance should be given a high priority as a core road safety project component and funded and supported on a scale that ensures its effectiveness and longer-term sustainability.</p>
<p>GUIDELINE 5: INTEGRATING PROJECT MANAGEMENT ARRANGEMENTS</p> <p>Project management arrangements should model the vital lead agency contribution to directing, coordinating and sustaining the production of improved road safety results and be designed to maximize the potential for the lead agency to rapidly assert itself in this role and build its capacity accordingly.</p>
<p>GUIDELINE 6: TARGETING ROAD POLICING AND COMMUNICATIONS SUPPORT</p> <p>The lead agency for road safety should play a key role in targeting and scaling up traffic safety enforcement programs and linked communications campaigns as core road safety project components, and evaluating their effectiveness.</p>
<p>GUIDELINE 7: ENGAGING ALL TIERS OF GOVERNMENT, NGOS AND THE PRIVATE SECTOR</p> <p>The core components of road safety projects should include sufficient resources to ensure the effective participation of national, provincial and local government agencies and NGO and private sector partners.</p>
<p>GUIDELINE 8: ENSURING ACCESS TO PROJECT PERFORMANCE DATA</p> <p>The management of road safety projects should include open access for all partners and stakeholders to related performance data.</p>
<p>GUIDELINE 9: PARTNERING WITH GLOBAL AND REGIONAL SERVICE NETWORKS</p> <p>The opportunities to engage with global and regional road safety service networks should be identified when preparing road safety project components and sufficient funding allocated to support effective and sustained partnerships.</p>
<p>GUIDELINE 10: STIMULATING SOUTH-SOUTH DIALOGUE AND ACTION</p> <p>The potential for road safety projects to stimulate knowledge transfer and shared practices between regional country partners should be maximized by adopting good practice measures and giving them high visibility.</p>
<p>GUIDELINE 11: ACCELERATING PROJECT IMPLEMENTATION</p> <p>The institutional roles, accountabilities and financial incentives for the effective and efficient delivery of road safety projects should be clearly specified and systematically managed.</p>
<p>GUIDELINE 12: ADAPTING TO UNIQUE COUNTRY CIRCUMSTANCES</p> <p>The World Bank guidelines for implementing the recommendations of the <i>World Report</i> and preparation of related road safety projects should be flexibly applied and adapted to the circumstances encountered in the country concerned.</p>

1. Introduction

1.1 Road safety, health promotion and development

The sheer scale of health losses from road crashes makes road safety a development priority for the health and transport sectors of low and middle-income countries (LMICs). Annually around 1.3 million people die and many millions more are seriously injured on the world's roads. These disastrous outcomes are projected to get worse as the rate of motorization escalates in LMICs which already suffer 90% of the world's road trauma with less than half of its registered vehicles, at an estimated total cost equivalent to 1% - 3% of their GNP.¹ Children and young people are particularly vulnerable. Globally, road crashes ranked 8th overall in the top ten leading causes of death in 2010, with children aged 1 – 4 ranked 9th, aged 5 – 9 years ranked 4th and aged 10 – 14 years ranked 2nd. For the 15 – 24 years age group road crashes ranked 1st, dropping to 2nd for the 25 – 29 years age group, then gradually dropping to 10th through to the 55 – 59 age group.² Globally, poorer population groups bear a disproportionate burden of avoidable morbidity and mortality from road traffic injuries which are generally influenced by socio-economic factors and other social and environmental determinants of health.^{3,4} In addressing these factors and determinants increasing emphasis is being placed on global health promotion and equity as a core, crosscutting development strategy.⁵

Country development seeks to foster an investment climate conducive to increased growth, productivity, and employment, and to empower and invest in people so that they are included in the process.⁶ It aims to promote higher living standards for all, with an emphasis on improved health, education and people's ability to participate in the economy and society. Improving road safety in LMICs contributes to the achievement of these development goals by addressing the vulnerability of citizens to catastrophic death and injury arising from road crashes – especially the poor and those thrust into poverty as a consequence – and requires large-scale investments in infrastructure, institutions, vehicle fleets and the health and wellbeing of individuals.



¹ Eds. Peden M, Scurfield R, Sleet D, Mohan D, Hyder A, Jarawan E, Mathers C (2004). *World Report on Road Traffic Injury Prevention*, World Health Organization, Geneva.

² IHME (2012). *Global Burden of Disease 2010 leading causes and risks by region heat map*, Institute of Health Metrics, Seattle. <http://www.healthmetricsandevaluation.org/gbd/visualizations/gbd-2010-leading-causes-and-risks-region-heat-map?metric=YLL> [accessed on 22 January 2013].

³ *Road traffic injuries and health equity conference*, Cambridge, Massachusetts, USA, April 10-12, 2002. <http://www.bmj.com/rapid-response/2011/10/29/road-traffic-safety-and-health-equity-call-action> [Accessed on 16 January 2013].

⁴ Nantulya VM, Reich MR (2003). *Equity dimensions of road traffic injuries in low and middle-income countries*, Injury Control and Safety Promotion, Vol.10, No. 1-2, pp. 13-20.

⁵ IUHPE (2012). *Key Messages from the International Union for Health Promotion and Education on the Social Determinants of Health*, Paris, http://www.iuhpe.org/uploaded/Activities/GWG/SDH/20120718_IUHPE%20Key%20Messages_SDH_FINAL.pdf

⁶ Stern N, Dethier J-J, Halsey Rogers F (2005). *Growth and Empowerment: Making Development Happen*, The MIT Press, Cambridge Massachusetts and London England.

Improving global road safety can also support the achievement of other sustainable development goals and creates opportunities to capture the *co-benefits* of integrated initiatives.^{7 8} For example, safer infrastructure facilities promoting increased walking and cycling and lower vehicle speeds can also result in reduced greenhouse gas emissions and local air pollution, and improved physical and mental wellbeing. In this way effective road safety strategies can help address other global priorities by contributing to lower-carbon transport systems and reductions in non-communicable diseases (NCDs) through cleaner air and more physically active populations. Hence health promotion and equity efforts addressing road safety priorities should be strongly linked and integrated with related global initiatives addressing sustainable transport, NCDs and the social and environmental determinants of health.

9 10 11 12

Country health and transport sectors face complex challenges in this development process, as effective and efficient road safety management requires transparent engagement and delivery of programs across multiple sectors, partners and stakeholders. Effective strategies demand considerable resources commensurate with the scale of the public health crisis being addressed, as weak road safety management capacity in LMICs remains a formidable barrier to success.

It is well recognized that the best performing high-income countries took many decades to build sufficient capacity to bring their road safety performance sustainably under control. This reality sends an ominous signal to LMICs facing historically unprecedented rates of motorization and levels of vulnerability on their roads, as they can ill-afford to emulate the costly pathway taken by high-income countries. Scaled-up, intensive and sustained action is crucial at the country level.

1.2 Global initiatives

Since the publication of the *World Report on Road Traffic Injury Prevention* in 2004, successive initiatives have been taken to mobilize global road safety action, culminating in the UN declared Decade of Action for Road Safety 2011 – 2020 and its Global Plan which sets an ambitious goal to stabilize and then halve the forecast level of road traffic fatalities in LMICs by 2020, to save around five million lives and avoid 50 million serious injuries. The Global Plan specifies five pillars for action covering road safety management, safer roads and mobility, safer vehicles, safer road users, and post crash responses.^{13 14} These five pillars in turn must be addressed within the six overarching *World Report* recommendations that lay the strategic foundation for actions necessary to improve country road safety performance (see Box 1).

⁷ Commission for Global Road Safety (2006). *Make Roads Safe. A New Priority for Sustainable Development*, London.

⁸ World Bank (2008). *Safe, Clean and Affordable Transport for Development: The World Bank Group's Transport Business Strategy for 2008 – 2012*, Transport Sector Board, Washington DC.

⁹ Czuczman, K (2008). *A Means to an End: Transport and the Millennium Development Goals*. Commonwealth Ministers Reference Book.

¹⁰ IUHPE (2011). *A call to action on health promotion approaches to non-communicable diseases prevention. Key messages from the International Union for Health Promotion and Education*, Paris.
http://www.iuhpe.org/uploaded/Activities/Advocacy/IUHPE_KeyMessagesNCDs_WEB.pdf

¹¹ World Conference on Social Determinants of Health, World Health Organization (2011). *Rio Political Declaration on Social Determinants of Health*. Brazil. http://www.who.int/entity/sdhconference/declaration/Rio_political_declaration.pdf

¹² United Nations General Assembly (2011). *Political declaration of the High-level Meeting of the General Assembly of the United Nations on the Prevention and Control of Non-communicable Diseases*, draft resolution, United Nations, New York.
http://www.un.org/ga/search/view_doc.asp?symbol=A%2F66%2FL.1&Lang=E

¹³ United Nations General Assembly, Resolution 64/255, *Improving Global Road Safety*, United Nations, New York, 2010.

¹⁴ United Nations Road Safety Collaboration, *Global Plan for the Decade of Action for Road Safety 2011–2020*, World Health Organization, Geneva, 2011.

BOX 1: Recommendations of the World Report on Road Traffic Injury Prevention

1	Identify a lead agency in government to guide the national road safety effort.
2	Assess the problem, policies and institutional settings relating to road traffic injury and the capacity for road traffic injury prevention in each country
3	Prepare a national road safety strategy and plan of action.
4	Allocate financial and human resources to address the problem.
5	Implement specific actions to prevent road traffic crashes, minimize injuries and their consequences and evaluate the impact of these actions.
6	Support the development of national capacity and international cooperation.

The *World Report* is a landmark document that describes the burden, intensity, pattern and impacts of road traffic injuries at global, regional and national levels. It examines the key determinants of road traffic injuries and associated risk factors within a comprehensive health promotion framework and presents the scientific evidence supporting preventative measures that have proved to be effective. Emphasis is placed on injury surveillance and research to understand the disproportionate impacts of road traffic injuries on poor and vulnerable groups in society and the central importance of improved road safety as a social equity and sustainable development issue.

While promoting the transfer of best practices from high-income countries the *World Report* emphasizes the need to adapt them to the transport realities and requirements of the poor and vulnerable in LMICs and the crucial importance of improving road safety for pedestrians, cyclists, motorcyclist and users of informal public transport systems. The urgent and related need to strengthen institutional road safety management capacity at the country level is recognized as being central to achieving this.

The first recommendation of the *World Report* highlights the fundamental role of the lead agency in ensuring the successful functioning of a country's road safety management system. Lead agencies take different structural forms, but their vital institutional management functions are generic and relate to all countries irrespective of their development status, safety performance and road safety priorities. Ensuring effective and efficient agency delivery of these management functions is the most pressing road safety leadership priority for LMICs over the coming Decade.

Accountable road safety leadership at all levels of government within a country is critical to success. In the absence of this leadership, with a sustained focus on results, efforts to improve the coordination, devolution and promotion of road safety programs will often prove illusory and unsustainable. Action plans prepared without a designated and well-funded agency mandated to lead their implementation are likely to remain paper plans and make no lasting impact on results.

1.3 Making progress at the country level

Road safety management systems have evolved in high-income countries over the last fifty years and the challenge for LMICs is to benefit from the lessons learned, to avoid the unnecessarily high level of deaths and injuries historically experienced in high-income countries. This requires LMICs to shift rapidly to a *Safe System* approach with a results focus which aims to eliminate road deaths and serious injuries, rather than chart a fatalistic pathway that accepts these impacts as an inevitable price of economic progress (see Box 2).

BOX 2: The Safe System approach¹⁵

The <i>Safe System</i> approach:
<ul style="list-style-type: none">• Addresses all elements of the road traffic system in an integrated way;
<ul style="list-style-type: none">• Emphasizes the reduction of death and long-term injury rather than the prevention of crashes;
<ul style="list-style-type: none">• Accepts that road users will remain fallible and crashes will occur;
<ul style="list-style-type: none">• Manages the transfer of crash energy to ensure that road users are not exposed to crash forces likely to result in death or serious injury;
<ul style="list-style-type: none">• Accentuates the shared and accountable responsibility of designers and users of the road network for achieving road safety results;
<ul style="list-style-type: none">• Demands equity in addressing the safety needs of both motorized and non-motorized users;
<ul style="list-style-type: none">• Aligns well with other sustainable development goals and seeks co-benefits such as improved local air quality, greenhouse gas reduction, energy security, poverty reduction, social inclusiveness and occupational health and safety; and
<ul style="list-style-type: none">• Necessitates the strengthening of all elements of the road safety management system, especially institutional management functions, to achieve sustainable success.

The design principles underpinning the *Safe System* approach adapt the road system to the limits set by human vulnerability to injury and propensity to make errors when using the system.^{16 17} It is considered unacceptable that road users should die or be seriously injured because of errors made in their use of the system and to blame them for system failure. The management focus shifts from managing road user behaviors and crash prevention to one of managing system design and injury prevention.

In moving forward the *Safe System* approach raises critical issues about the wider adoption of measures that have proven to be effective in eliminating deaths and serious injuries. This is particularly the case with road infrastructure. For example, the protective qualities of median and roadside barriers in busy corridors, and roundabouts at junctions, are well understood, and the issue becomes one of how to more rapidly implement these interventions on a network wide basis within available budgets. This is also the case with vehicle safety standards where existing improvements in vehicle crashworthiness offer substantial reductions in deaths and serious injuries, although it may take decades for a national vehicle fleet to achieve full compliance with these safety standards. Likewise improvements in post-crash victim recovery and trauma services offer substantial gains. Again the question becomes one of how to more comprehensively and rapidly introduce these safety measures, and indeed this question applies to all elements of the road safety management system with potential for improvement.

Institutional responsibilities and accountabilities for road safety are coming under closer scrutiny as a consequence of progressively more ambitious road safety results being targeted. In particular the shift to a *Safe System* approach requires higher levels of road network operator accountability for safe performance and this in turn sharpens the focus on the safety performance of the vehicles and users who access the network. With increased accountability a key concern for governments and institutions becomes the achievability of the desired performance. The limits to improved road safety performance are shaped by the road safety management system that determines the results being sought and produces the interventions to achieve them.

¹⁵ Bliss T, Breen J (2012). *Meeting the management challenges of the Decade of Action for Road Safety*, Journal of International Association of Traffic and Safety Sciences, Volume 35, No. 2, Elsevier Ltd.

¹⁶ Tingvall C (1995). *The Zero Vision*. In: van Holst H, Nygren A, Thord R, eds. *Transportation, traffic safety and health: the new mobility. Proceedings of the 1st International Conference*, Gothenburg, Sweden Berlin, Springer-Verlag.

¹⁷ Wegman F, Aarts L (2006). *Advancing Sustainable Safety*, Leischendam, SWOV, Dutch Institute for Road Safety Research, Leidschendam.

World Bank guidelines

Over the last three decades World Bank road safety projects have usually been components of larger road infrastructure and urban transport investment operations, and implemented as fragmented, single-sector initiatives with outcomes too small to be measured in any statistically significant way. While being relatively simple to prepare, they were often implemented as one-off projects with no follow-up activities and their positive impacts, if any, were confined to the life of the project.

In rethinking how to best address road safety it became evident that a focus on measurable results and longer-term sustainability was critical to success. Hence the World Bank is now promoting *Safe System* road safety projects that aim to simultaneously strengthen institutional capacity and accountability while seeking rapid improvements in safety performance for all road users. Country guidelines have been prepared to support this new approach.^{18 19 20}

The guidelines pragmatically address institutional capacity barriers to implementing the *World Report* recommendations. They emphasize managing for results and the pivotal role of the lead agency in ensuring effective and efficient program delivery.

Key concepts and project components

Key concepts underpinning the guidelines highlight the importance of addressing all elements of the road safety management system, taking a staged approach to road safety investment aligned with a country's implementation capacity, and targeting the highest concentrations of deaths and injuries across the road network.

The guidelines focus on the identification and preparation of road safety projects that implement the 'establishment phase' of a country's long-term investment strategy and build the institutional capacity and evidence base to roll-out a larger program of initiatives in the investment strategy's 'growth phase'.

Generic project components address institutional capacity strengthening priorities, high-risk corridors and areas targeted with good practice interventions, high-priority policy reforms, monitoring and evaluation, and project management arrangements.

Effective application of the guidelines requires all relevant sectors to be engaged in the identification, preparation and implementation of road safety projects: especially the transport, health, justice, law enforcement and education sectors.

Creating an enabling environment for effective country investment

Over the coming *Decade of Action for Road Safety* the World Bank aims to mainstream road safety in country investment operations, in accordance with its guidelines. In a vital new venture – the Multilateral Development Bank (MDB) Road Safety Initiative – the World Bank is also partnering with seven regional development banks²¹ to leverage scaled-up road safety activities as an integral part of MDB transport sector investments planned for delivery over the coming decade.²²

The MDB Road Safety Initiative aims to catalyze a response commensurate to the scale of the challenges facing the *Decade of Action for Road Safety* by accelerating knowledge transfer and scaling up investment to build sustainable road safety management capacity at the country level. If successful it will create an enabling environment for NGO

¹⁸ Bliss T (2004). *Implementing the Recommendations of the World Report on Road Traffic Injury Prevention*, Transport Note No. TN-1, World Bank, Washington DC.

¹⁹ Bliss T & Breen J (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.

²⁰ Bliss T & Breen J (2012). *Capacity Reviews and Safe System Projects. Guidelines Supplement*, Global Road Safety Facility, World Bank, Washington DC (in press).

²¹ African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, CAF – Development Bank of Latin America, European Investment Bank, Inter-American Development Bank and the Islamic Development Bank.

²² Global Road Safety Facility (2011). *MDB Road Safety Initiative: A Development Priority*, World Bank, Washington DC.

and private sector road safety partners and stakeholders to make more effective country investment contributions, which cannot be assured or sustained with their current fragmented, small-scale efforts.

1.4 Country case study

The World Bank guidelines have now been widely applied and evaluated as good practice tools suitable for application in any country context.²³ A case study in their application is provided by the Argentina Road Safety Project (ARSP) which exemplifies their recommended approach to country road safety investment.²⁴ The project's innovative features and lessons learned can usefully guide MDBs and their country clients in the design and implementation of transformative road safety projects aimed at achieving sustainable improvements in results.

The ARSP was prepared in collaboration with the health and transport sectors using a two-stage, output-based investment process to finance institutional capacity strengthening priorities, national policy reforms and targeted interventions in high-risk corridors. Its primary emphasis is on reinforcing the central role of a newly created lead agency in Argentina to enable it to successfully deliver its institutional management functions and build and strengthen its leadership and partnership capacity in the process.

1.5 Country guidelines

Drawing on the World Bank's experience with the ARSP, this guideline document has been prepared to assist the identification, preparation and implementation of MDB investment projects designed to improve country road safety performance and build stronger linkages between the health and transport sectors to support these initiatives.

The following sections summarize essential elements of the ARSP and then present related country guidelines deriving from the project's innovative features and lessons learned so far during its implementation.



²³ OECD, International Transport Forum (2008). *Towards Zero. Ambitious Road Safety Targets and the Safe System Approach*, Annexes C & D, Joint Transport Research Centre, OECD/ITF, Paris.

²⁴ Raffo V & Bliss T (2012). *Case Study: The Argentina Road Safety Project: Lessons for the Decade of Action for Road Safety 2011 – 2020*, The World Bank, Washington DC.

2. Argentina Road Safety Project

2.1 Country road safety performance

A World Bank analysis in 2003 projected the road crash fatality rate in the Latin American and Caribbean region would increase by about 50% between 2000 and 2020 to the highest regional fatality rate in the world at 31 deaths per 100,000 people, unless road safety efforts were intensified and new measures introduced.²⁵

Subsequently road safety trends in Argentina confirmed this concern, as a consequence of the country making an impressive recovery from its deep economic crisis of 2001/2002. Sparked by increasing exports and consumption, Argentina's GDP in 2008 surpassed its pre-crisis level, having grown at an average annual rate of around 9% between 2003 and 2007, and sustaining 7% growth through 2008 despite the global financial crisis. This steady increase was accompanied by a rise in the rate of motorization that in turn escalated the risk of road crash fatalities and injuries. In 2008 an estimated 5,760 people died from road crashes in Argentina and over 95,000 were injured, compared with an estimated 3,200 fatalities in 2002.

2.2 Institutional initiatives

Argentina prepared a 2006 – 2009 National Plan for Road Safety that was unanimously approved by all federal, provincial and city jurisdictions represented on the Federal Council of Road Safety. However, under its National Constitution Argentina's federal system allows provinces autonomy over matters not explicitly assigned to the central government. This applied to traffic legislation administered by local governments and impeded the implementation of a strategy to reduce road crashes as a national priority. The inability to establish common traffic rules and a unified data registry, and the lack of an inter-jurisdictional policing strategy, made it difficult to coordinate planning efforts. The complexity of the federal system resulted in diverse traffic legislation across the country, dispersed agencies, variable provincial management capacity, and a dilution of the central government's role in ensuring road safety.²⁶

Mounting social and political disquiet about escalating road carnage and growing demand for improved governance and systematic action led in April 2008 to the establishment of the National Road Safety Agency (Agencia Nacional de Seguridad Vial [ANSV]) within the Ministry of Interior as a decentralized entity with economic independence and legal authority to act in the public and private spheres.

ANSV's mission is to reduce the rate of road deaths across the nation through the promotion, coordination, control and monitoring of national and international road safety policies. It has adopted an organizational structure, regulated by national decree, with six main directorates: Driver Licenses and Traffic Records; Interjurisdictional Coordination; National Road Observatory; General Administration; Road Safety Training and Campaigns; and Legal and Judicial Affairs (see Annex 1).

The creation of the agency was first envisioned in the Federal Agreement on Traffic and Road Safety signed in August 2007 by the Federal government, provinces and Autonomous City of Buenos Aires, and later enacted by Congress through *Law 26,363* (with unanimous vote both in the Senate and Representatives chambers). This law also transferred the National Registry of Traffic Records from the jurisdiction of the Ministry of Justice, Security and Human Rights to the ANSV.²⁷

²⁵ Cropper M, Kopits E (2003). *Traffic Fatalities and Economic Growth*, Elizabeth Kopits and Maureen Cropper, World Bank Policy Research Working Paper 3035, World Bank, Washington DC.

²⁶ (2005). *Informe Especial sobre Seguridad Vial en Argentina*. Defensor del pueblo de la Nación.

²⁷ By the end of 2012 *Law 26,363* had been ratified by 20 provinces (including the Autonomous City of Buenos Aires), while the remaining four provinces were still in the process of ratification. Santa Fe has partially ratified it, while Cordoba, Mendoza and San Luis are yet to do so.

2.3 World Bank technical assistance and project preparation

Soon after establishing the ANSV the Government of Argentina approached the World Bank for technical assistance in the design of a program to strengthen ANSV's strategic delivery capacity, in accordance with the agreed Country Partnership Strategy for the 2010- 2020 period which seeks to reduce the extent and severity of poverty in Argentina by focusing on three pillars: (i) the promotion of equitable and sustainable economic growth (ii) social inclusion and (iii) improved governance by strengthening institutions and increasing accountability and transparency.²⁸

A series of World Bank initiatives followed and culminated in a planning workshop with the newly appointed ANSV Executive Director and senior staff, designed to reach a shared understanding of road safety management priorities in Argentina, the role of the lead agency in their delivery and the design and preparation of a road safety project to support and strengthen this role. Detailed project preparation then commenced and subsequently the World Bank Board approved a loan to finance its first phase.

The development objective of the project is to contribute to the reduction of road traffic injuries and fatalities in Argentina through the strengthening of its institutional framework and management capacity for road safety and the reduction of road deaths and injuries in selected pilot corridors.

2.4 Project financing

Project financing complements existing ANSV budgets and is structured as a two-phase 'Adaptable Program Loan'. Phase I covers the period 2010-2015, with Phase II set for completion by 2019, and commencement following the achievement of defined 'triggers' in Phase I. Phase I investment totaled US \$38.5 million, with a further US \$30 million being proposed for Phase II.

2.5 Project components

Phase I of the project is aligned with the institutional reform agenda being led by the ANSV and the National Plan for Road Safety. It comprises three components and related sub-components covering institutional capacity building, targeted road safety interventions in designated demonstration corridors, and the development of road safety monitoring and evaluation systems within the National Road Safety Observatory.²⁹

Details of project components are provided in Annex 2.

2.6 Performance indicators

Phase I performance indicators are specified to track progress against project objectives. Output-based measures are used, with the exception of final outcome measures for the designated demonstration corridors in component 2 (see Annex 3, Table 4)

'Triggers' have also been set to start Phase II, and are primarily contingent on making progress in strengthening the institutional management framework for road safety in Argentina (see Annex 3, Table 5).

Despite its modest funding, the project is designed to lead major road safety reforms and ensure their sustainability by creating a framework for institutional cooperation across sectors; strengthening national, provincial and local capacity to formulate road safety policies and manage interjurisdictional initiatives; developing targets and programs for the achievement of national plan objectives; and providing, analyzing and interpreting reliable data.

²⁸ [2009]. *The World Bank Group's Country Partnership Strategy 2010-2012 (Report # 48476-AR)*, World Bank, Washington DC.

²⁹ Note that the project's designated demonstration corridors are high-risk sections of national roads as assessed an International Road Assessment Programme (iRAP) survey and are being improved under another World Bank funded project in Argentina (the National Highway Asset Management-Phase II), managed by the Direccion Nacional de Vialidad (DNV). It has been agreed that DNV will address infrastructure safety interventions in the demonstration corridors, with the ANSV project addressing all other safety interventions and institutional requirements.

2.7 Progress to date

The ARSP is in its third year of implementation and is making good progress. The proposed 'triggers' to move to Phase II of the project are likely to be met well ahead of the planned schedule and it is anticipated that Phase II project preparation will commence in the second quarter of 2013.³⁰

In accordance with the World Bank guidelines, successful delivery of Phases I and II of the project will complete the 'establishment phase' of implementing a long-term road safety investment strategy for the country and set the scene to move to the investment strategy's 'growth phase' when sufficient capacity has been built to manage a scaled-up program of investment across the nation.³¹ By then Argentina should reasonably be expected to achieve and sustain road safety results approaching those currently experienced by the better performing high-income countries. The likely benefits of this strategy will far outweigh its implementation costs and if they are achieved the seeds for success will be found in the current project.

Encouraging signs of road safety performance gains in Argentina are already emerging with significant reductions in crash fatalities from their highpoint in 2008 becoming evident (see Table 2).

TABLE 2: Reported road fatalities, injury crashes and rates 2005 – 2011

	2005	2006	2007	2008	2009	2010	2011	2011	
								% change over	
								2010	2005
Road Fatalities	4391	4995	5428	5759	5219	5094	5040	-6.89%	+8.02%
Deaths /100,000 population	11.4	12.8	13.8	14.5	13.0	12.6	11.6	-7.94%	+1.75%
Deaths /10,000 vehicles	3.43	3.75	3.76	3.72	3.18	2.88	2.48	-13.89%	-27.70%
Motorization (motorized vehicles/1000 population)	332	342	367	390	411	437	467	6.87%	40.66%

Source: ANSV/IRTAD, provisional data for 2011

The ARSP is tailored to the country's institutional arrangements and it illustrates a creative application of the World Bank guidelines. The following section provides additional guidelines deriving from the experience gained so far in Argentina. They are designed to help multilateral development banks identify, prepare and implement road safety projects in their client countries and to encourage better linkages between the health and transport sectors supporting these initiatives.

These country guidelines build on and complement the current World Bank guidelines and should be used in conjunction with them.

³⁰ By the end of 2012 the National Driver License Registry System was active in 19 provinces, the National Traffic Records and Infractions Registry System was active in nine provinces, 35% of the Incentive Fund loan proceeds had been allocated, the National Road Safety Observatory was operational, and 34% of the Phase I loan proceeds had been disbursed (cf. target 'triggers' in Annex 3, Table 4).

³¹ See sections 3.3.1 and 4.2.7, Bliss T & Breen J (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.

3. Country guidelines

Innovative features and lessons being learned from the ARSP can usefully be summarized as general guidelines for MDBs and their country clients to assist the identification, preparation and implementation of country road safety projects:

GUIDELINE 1: LEAD AGENCY EMPOWERMENT

The ultimate goal of road safety projects prepared in accordance with the World Bank guidelines should be to empower and resource the lead agency to take responsibility for a country's road safety performance and the direction of strategic partnerships targeted to improve it.

Argentina Road Safety Project

The project exemplifies the intention of the World Bank guidelines to design road safety projects that reinforce the central role of the lead agency in managing for improved road safety performance across the nation and strengthen its leadership and partnership capacity in the process. Depending on the circumstances encountered in countries this may have to be a staged process (see Guideline 12), but in Argentina lead agency strengthening is the core focus of the project.

Unlike many LMICs with comparable road safety problems, the government of Argentina took the decisive step to create a lead agency and empower and resource it to act, in accordance with the recommendations of the *World Report*. Hence the World Bank project guidelines could be more comprehensively applied than in countries where road safety projects are designed to commence the process of creating and strengthening lead agency functions, in the absence of a legally empowered entity to do so, with the objective of ultimately bringing a fully resourced lead agency into existence, building on results achieved through successive projects. In Argentina the ANSV was rapidly established and immediately commenced operations, albeit in a context where the federal framework promoted significant provincial and local government autonomy. Hence the challenge for the ANSV has been to exercise its powers in such a way as to achieve its mission within a cooperative framework, where under its leadership the shared responsibility for improving road safety results is accepted by all levels of government.

The project addresses this challenge with the creation of a national driver license registry system and a national traffic records and infractions registry system (see Annex 2, sub-component 1.1). This has required the ANSV to take the lead and partner with provincial and local governments to bring together the multiplicity of existing systems and coordinate their integration into a unified national system under federal direction and management. In this way the federal role and reach throughout the country at all levels of government in road safety matters is being institutionalized and ANSV ownership of related issues cemented in positive partnerships with all relevant parties. Crucially, the implementation and ongoing intergovernmental management process is helping the ANSV legitimate its lead agency role and consolidate the federal presence vital to managing road safety as a national priority requiring targeted and sustained attention.

Securing a stable funding source has proved critical to the success of the ANSV, to facilitate its establishment and sustain its development. The ANSV has legally been granted financial autonomy and receives 1% of all collected vehicle insurance fees as core funding. This allowed it to rapidly build a professional staff and a well-branded institutional presence throughout the country. It is also sufficient to support key partners and stakeholders making up the road safety community in Argentina, who in turn have welcomed the ANSV's leadership and inclusive approach that gives a voice to all concerned and empowers them to act together to address their shared responsibility for improved road safety outcomes. Secure, stable funding buffers any oscillating political commitment to road safety and underwrites a platform of activities that can continue to improve road safety performance in accordance with longer-term strategic goals.

Sustained political will to bring national road safety performance under control is crucial, but it must be given tangible form through empowered and adequately funded institutional arrangements to ensure success. In Argentina there was mounting political concern about the social and economic costs of road deaths and injuries, but little effective action was taken until the government decided to create, resource and empower a lead agency that could be held accountable for improved road safety results.

GUIDELINE 2: HEALTH SECTOR COLLABORATION AND PARTNERSHIP

The health and transport sectors should collaborate and partner to promote road safety investments, improve road crash injury data management, enhance post-crash emergency services, and strengthen the preparation of business cases for road safety project financing and performance evaluation requirements.

Argentina Road Safety Project

From the outset the project has been a collaborative effort and partnership between the transport and health sector teams in the Argentina World Bank Country Office and their counterparts in relevant government agencies. This has helped broaden and deepen the understanding of road deaths and injuries as a growing public health priority in Argentina and led to more effective and efficient data management initiatives and improved emergency response services.

Collaboration between the transport and health sectors resulted in the use of innovative evaluation tools to build the business case for the project, with benefits from measures to be implemented being estimated in terms of health gains (expressed in terms of monetized healthy life years saved) and willingness to pay for 'statistical' lives saved (expressed in GDP terms). Police crash data is being cross-matched and integrated with health sector data, and a data collection structure is being developed to improve health centers and hospitals reporting road deaths and injuries that occur within the agreed 30-day period to the National Road Safety Observatory (see Annex 2, component 3); and emergency response capacity is being strengthened by establishing a regional emergency network with a unique emergency call number and training in improved incident response, initial assessment of trauma patients and ongoing emergency care (see Annex 2, sub-component 1.3).

GUIDELINE 3: SEQUENCING OF *WORLD REPORT* RECOMMENDATIONS AND PROJECTS

The implementation of the *World Report* recommendations and preparation of related road safety projects should be properly sequenced to ensure that the necessary country management capacity is well matched to the envisaged activities.

Argentina Road Safety Project

The project builds on and reinforces Argentina's correct sequential implementation of the World Report recommendations. This situation is noteworthy and rare as many LMICs seek to simply manage their road safety priorities with interventions addressing key risk factors, without identifying and building the necessary institutional capacity to implement them on a sustainable basis.

The timely creation of the ANSV ultimately enabled the first 2006 – 2009 National Plan for Road Safety to be directed and delivered, and the second 2010 – 2013 National Plan for Road Safety to be more firmly grounded in a well-resourced set of partnerships and robust performance management framework. The project is designed to contribute to this planning process by strengthening institutional capacity, targeting road safety interventions in high-risk corridors, and enhancing monitoring and evaluation systems across the country (see Annex 2).

GUIDELINE 4: STRENGTHENING MONITORING AND EVALUATION

The vital role of monitoring and evaluation of road safety performance should be given a high priority as a core road safety project component and funded and supported on a scale that ensures its effectiveness and longer-term sustainability.

Argentina Road Safety Project

The project is investing in road safety monitoring systems and analysis tools, both at the central level to support the crucial role of the National Road Safety Observatory (see Annex 2, component 3) and in terms of related interventions in demonstration corridors (see Annex 2, sub-component 2.1), to build the results management platform crucial to the long-term mission of the ANSV.

Monitoring and evaluation of road safety performance underpins the delivery of sustainable interventions. Importantly it helps shape the results focus of the lead agency and its ability to provide clear, informed and authoritative direction to all partners and stakeholders. Credible, accessible performance data and related crash analyses are crucial to carrying out this role and ANSV has already demonstrated the effectiveness of its partnerships with the health sector, police agencies and the International Road Traffic Accident Database Group (IRTAD), to ensure that this capacity is built.

The National Road Safety Observatory established a new data collection system for road crashes using what is known as the 'Orange Form', with standard procedures and protocols to ensure consistency across the nation, and specific crash management system software is being developed to support its application. A national traffic ticketing administration system is being implemented with associated collation of unsafe road behaviors and surveys focusing on seat belt usage, lights, helmet usage, and distractive factors, to provide baseline data and monitor progress in reducing road traffic injuries and fatalities. Aligned with this ANSV is building a partnership with IRTAD through a twinning program with its Spanish road agency counterpart, the DGT (*Dirección General de Trafico*), and IRTAD is now reporting and providing global access to provisional road safety performance data from Argentina (see Guideline 9).

GUIDELINE 5: INTEGRATING PROJECT MANAGEMENT ARRANGEMENTS

Project management arrangements should model the vital lead agency contribution to directing, coordinating and sustaining the production of improved road safety results and be designed to maximize the potential for the lead agency to rapidly assert itself in this role and build its capacity accordingly.

Argentina Road Safety Project

The project is managed through a small project coordination unit, with implementation tasks being handled by specific ANSV structures and related staff. Financial management expertise has been contracted by ANSV to strengthen its capacity in multilateral financing, given its lack of experience in managing World Bank-financed projects. Institutional arrangements between the ANSV and participating provinces and municipalities, and other government and international agencies are clearly defined in formal participation and cooperation agreements.

These integrated project management arrangements reflect the exemplary lead agency arrangements in Argentina (see Guideline 1) and ensure the effective and efficient coordination and delivery of multisectoral project components with a shared focus on results. In countries where there is no formal lead agency it is important to design project management arrangements to empower a designated agency and adequately resourced secretariat to direct, coordinate and sustain project implementation, with the intention being to strengthen this leadership capacity and related management functions over the duration of the project and beyond. Integrating project management arrangements with the functions of participating agencies is vital and the delegation of implementation responsibilities to units external to the agencies concerned should be avoided.

GUIDELINE 6: TARGETING ROAD POLICING AND COMMUNICATIONS SUPPORT

The lead agency for road safety should play a key role in targeting and scaling up traffic safety enforcement programs and linked communications campaigns as core road safety project components, and evaluating their effectiveness.

Argentina Road Safety Project

The project is designed to implement the new institutional arrangements which empower the ANSV to take a leadership role and set the scene for a comprehensive delivery of road safety enforcement services throughout the nation (see Annex 2, sub-component 1.4). ANSV's control and surveillance unit is distinctively branded for high visibility and in partnership with designated law enforcement agencies is creating a unique general deterrence capability with a targeted approach to road safety enforcement that is transparently managed and funded, and able to build a good reputation and trust with civil society. Valuable insights can be drawn from this experience.

Traffic police can be mobilized and engaged in effective enforcement when institutional roles, processes and resources are created to achieve this. The capacity to specify the nature and targeting of road safety enforcement programs and form partnerships to facilitate their delivery provides a powerful way of improving delivery effectiveness, efficiency and community acceptance. This is especially the case where there are police agencies at different levels of government and public distrust of them arising from past political circumstances, as is the case in Argentina.

A crucial aspect of setting out the authority of the ANSV concerns the issue of traffic safety law enforcement across 25 provinces and over 2000 municipalities. *Law 26363* has delegated certain functions to the ANSV to promote and coordinate traffic control and supervision undertaken by federal, provincial and Buenos Aires city police and security forces throughout the nation. It also empowers the ANSV to authorize the placement and use of automatic and semiautomatic traffic safety enforcement systems. All partner jurisdictions are required to enact legislation stating their adherence to this national law.

ANSV enforcement operations are carried out with the relevant authorities in conjunction with the Ministry of Justice, Security and Human Rights, through its Secretariat of Homeland Security. On national highways and roads, agencies with jurisdiction for traffic safety enforcement include the National Gendarmerie, ANSV's traffic control unit and provincial police or road safety personnel. On provincial roads they include the provincial police, ANSV's traffic control unit, and the National Gendarmerie where there are cooperation agreements with the relevant jurisdiction. In urban areas they include municipal traffic agents, provincial police and agents of the ANSV under set collaboration arrangements. In all cases, security forces and police throughout the nation have committed to communicate details of all reported road crashes to the ANSV.

ANSV has developed and implemented supporting communications campaigns with its police partners targeting speeding, drink driving, the use of safety belts and helmets, and driver distraction (see Annex 2, sub-components 1.2 and 2.1). Surveys have commenced to collect baseline performance data that is being tracked annually to allow for the rigorous evaluation of campaign performance. Campaigns have been launched at high-profile media events and include advertising promoting safe behavior, using everyday stories to raise road user awareness of the dangers they confront and related prevention measures. Print and audiovisual media are mainly used, supported by an associated YouTube channel.

Related education campaigns include the Road Safety Education Strengthening Program website, hosted by the ANSV, which is primarily targeted to the educational community, where trainers (including primary and secondary school teachers) can exchange their road safety education experiences. This program is jointly developed with the Interior and Education Ministries, to incorporate road safety education in all school curricula throughout the country.

By late 2011 educational materials had been distributed to more than 55,000 public and private schools (initial and elementary levels), to reach more than 500,000 teachers and almost 9 million students. The program is implemented as a part of ANSV's Center for Education in Policy and Administration of Road Safety set up during 2010 and includes a proposal for strengthening provincial government actions designed to foster the inclusion of road safety in curricula at every educational level.

GUIDELINE 7: ENGAGING ALL TIERS OF GOVERNMENT, NGOS AND THE PRIVATE SECTOR

The core components of road safety projects should include sufficient resources to ensure the effective participation of national, provincial and local government agencies and NGO and private sector partners.

Argentina Road Safety Project

The project is designed to encourage an inclusive approach to delivering road safety interventions in its demonstration corridors and across the road network. Well-focused national leadership and resources can catalyze effective partnership engagement with provincial and local governments, NGOs and the private sector to achieve consensus on desired results and the implementation of measures to achieve them.

Funding and other support is provided to encourage NGO and private sector participation (see Annex 2, sub-component 1.2). An Incentive Fund has been created to catalyze provincial and municipal engagement in the delivery of the national road safety strategy (see Annex 2, sub-component 2.2). These initiatives have proved to be effective in developing a unified approach and sense of shared responsibility for the achievement of the ANSV's mission and a strong commitment to ensuring its success as a lead agency.

Road safety advocacy efforts have been strengthened and victims groups are becoming more engaged in working with government partners to contribute to the achievement of improved safety outcomes. Examples of innovative, inclusive initiatives include the creation of an ANSV Consultative Committee representing nearly 100 NGOs, to give advice and contribute to the improvement of ANSV's work program and proposed public policies. Several victim groups have been constituted as NGOs to participate in the remembrance of the victims and to increase civil society's engagement in road safety matters. The commitment of the victims groups to improved road safety outcomes is reflected through the organization of events throughout Argentina, such as concerts, radio and TV awareness campaigns, and educational seminars and workshops. Some events are targeted to specific groups such as youth, pedestrians and cyclists, using innovative approaches to promote the prevention of road violence, gender specific interventions, and so on.

GUIDELINE 8: ENSURING ACCESS TO PROJECT PERFORMANCE & NETWORK SAFETY DATA

The management of road safety projects should include open access for all partners and stakeholders to related performance data.

Argentina Road Safety Project

The project (supplemented by the World Bank project supervision budget) funded the development and implementation of a web-based project-monitoring tool provided by an independent NGO with specialist skills in this area (see Annex 2, component 3). This has considerably enhanced the transparency of project delivery and accountability for outcomes and further enhanced its inclusiveness.

The tool is hosted on the ANSV website and provides open access to project performance data which is presented in attractive, easy to comprehend formats. The website hosts National Road Safety Observatory data which includes IT tools and interactive maps with geo-referencing of crash sites, crash injuries data and black-spots on the national and provincial road networks, as well as information from road safety audit reports and black-spot treatment prioritisation guidelines. Spaces are also provided for inter-jurisdictional cooperation (e.g. blogs for local governments to share information and materials), dissemination of good practices and innovative projects led by NGOs and private sector companies, and periodic newsletters reporting on actions and interventions, monitoring of indicators and targets, and strategies under implementation.

GUIDELINE 9: PARTNERING WITH GLOBAL AND REGIONAL SERVICE NETWORKS

The opportunities to engage with global and regional road safety service networks should be identified when preparing road safety project components and sufficient funding allocated to support effective and sustained partnerships.

Argentina Road Safety Project

The project is designed to take advantage of relevant global and regional knowledge networks with potential to support the preparation and delivery of key project components. In particular, IRTAD in partnership with the World Bank Global Road Safety Facility supports a twinning opportunity between its Spanish member agencies and agency partners in Argentina to provide data management services to assist the development of the National Road Safety Observatory (see Guideline 4 and Annex 2, sub-component 3).

Similar initiatives with the International Road Policing Organization (RoadPOL) and the International Road Assessment Programme (iRAP) have also been implemented to support participating law enforcement agencies (see Annex 2, sub-components 1.4) and enhance road infrastructure safety measures in the project's demonstration corridors (see Annex 2, sub-component 2.1).

GUIDELINE 10: STIMULATING SOUTH-SOUTH DIALOGUE AND ACTION

The potential for road safety projects to stimulate knowledge transfer and shared practices between regional country partners should be maximized by adopting good practice measures and giving them high visibility.

Argentina Road Safety Project

The project is generating strong interest in other Latin American countries facing the challenges of creating lead agencies to manage their national road safety efforts. It has also stimulated action to create a Regional Road Safety Observatory and the project's development process for the National Road Safety Observatory in partnership with IRTAD and its Spanish counterparts is serving as a model for the related development of regional data management protocols (see Annex 2, component 3).

GUIDELINE 11: ACCELERATING PROJECT IMPLEMENTATION

The institutional roles, accountabilities and financial incentives for the effective and efficient delivery of road safety projects should be clearly specified and systematically managed.

Argentina Road Safety Project

The speed of project implementation in Argentina is impressive. Early results achieved compare favorably with previous World Bank projects of similar ambition but lacking lead agency ownership, where much of the inaction and inertia experienced stemmed from a lack of clarity about institutional roles and accountability for improved results. A strong lead agency presence underscores the fact that where there is such agency ownership there is purposeful action.

Project financing arrangements are also influential in ensuring smooth implementation. The choice of a two-phase 'Adaptable Program Loan investment instrument (see section 2.4) recognized that bringing country road safety outcomes under control is a long-term process requiring the building of institutional capacity and sustained changes in safety behavior before tangible and enduring results can be achieved. While great progress was made in Argentina with the creation of the ANSV, road safety behaviors and capacity still varied significantly at provincial and municipal levels. It was therefore crucial to phase the project to build stronger institutions and collaborative practices and test different road safety initiatives, while controlling the pace of reforms and taking into account the lessons learned from ongoing activities.

Output-based funding has been adopted by the project's Incentive Fund (see Annex 2, sub-component 2.2), to ensure a demand-responsive disbursement of funds to provincial and local government in a complex political and institutional environment that can be slow to act. This funding has created appropriate incentives for all jurisdictions to buy-in and engage quickly to support a countrywide rolling out of ANSV's road safety strategy.

The overarching aim of the Incentive Fund is to bring the issue of road safety to the forefront of government agendas at the provincial and municipal levels. Consequently road safety interventions that support ANSV strategies are reimbursed in accordance with an approved list of eligible outputs. Already many hundreds of local interventions have been financed including local strategic plans, mass media campaigns and other initiatives such as low-cost infrastructure improvements and road safety workshops.

GUIDELINE 12: ADAPTING TO UNIQUE COUNTRY CIRCUMSTANCES

The World Bank guidelines for implementing the recommendations of the *World Report* and preparation of related road safety projects should be flexibly applied and adapted to the circumstances encountered in the country concerned.

Argentina Road Safety Project

Experience so far with the project highlights the importance of adapting the World Bank guidelines to the unique circumstances encountered at the country level. Every country is different and presents specific entry points and opportunities for engagement, depending on the capacity of its road safety management system.

In Argentina the prior creation of the ANSV in a Federal context has allowed the project to be tailored to support the agency's establishment needs and demonstrates that complexity in project design and delivery can be managed. The existence of a lead agency with professional staff makes it possible to develop and implement a rich suite of road safety interventions and funding arrangements, and communicate this effectively to all participating and affected parties across government agencies, communities and the business sector. It is difficult to overstate the importance of this experience. Many of the problems previously encountered with the implementation of multisectoral, results-focused initiatives in other World Bank client countries have simply dissolved in the presence of an empowered agency to engage with.

In countries without an empowered lead agency – or where lead agency capacity is nascent and weak – use of the road safety management capacity review tools provided in the World Bank guidelines is crucial to the project identification process. Conducting a road safety management capacity review is a vital first step in the process of countries tailoring the *World Report* recommendations to their unique circumstances and determining their readiness to commit to the productive and sustainable steps required to bring their road safety performance under control. Capacity review findings identify institutional responsibilities and accountabilities for improved performance and provide the necessary diagnosis required to reach an official consensus on country capacity weaknesses and how best to overcome them. In the case of Argentina this consensus had already been reached and decisive government action taken to create the ANSV. Hence project identification, preparation and delivery could commence immediately.

The circumstances in Argentina were opportune and provide a benchmark for other LMICs to aspire to. While successive road safety projects in these countries may be required to create an empowered lead agency, this should be an urgent goal, in accordance with the first overarching and most important recommendation of the *World Report*. The World Bank guidelines and these related guidelines deriving from the innovative features of the ARSP and lessons being learned from its implementation provide useful tools to assist the achievement of this goal.

4. Conclusions

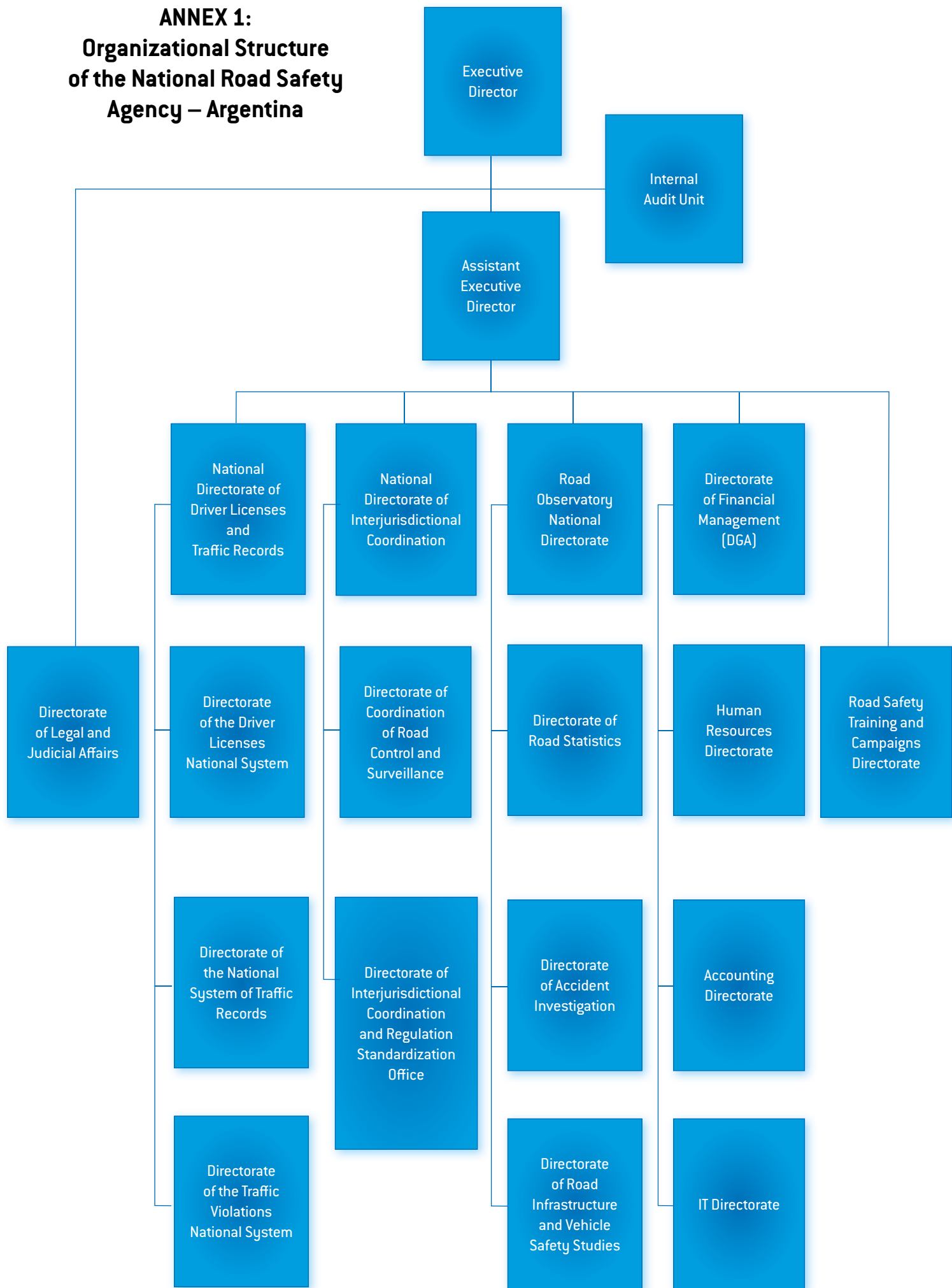
The Decade of Action for Road Safety 2011 - 2020 faces daunting challenges if it is to achieve its ambitious goal for fatality and serious injury reductions on the roads of LMICs. However, the World Report recommendations highlight the strategic foundation conducive to country success. They address the continuum of actions required to bring country road safety performance under control and must be treated as a totality. Creating country action plans and fragmented, one-off road safety projects in the absence of institutional delivery capacity and ongoing funding commensurate with the scale of the country health losses from road crashes will not suffice. In the face of rapid motorization rising road deaths and injuries in LMICs will be inevitable, unless institutional reforms, scaled-up road safety investment and sustained delivery of road safety programs necessary for country success are implemented.

The World Bank guidelines for the conduct of road safety management capacity reviews and specification of lead agency reforms, investment strategies and related implementation projects provide tools for countries seeking to sustainably improve their road safety performance. The ARSP provides a useful case study in their application and additional country guidelines have been derived from the project's innovative features and lessons learned so far from its implementation.

The ARSP illustrates the power of committed health and transport sector collaboration and how institutional forces can combine to successfully address the growing public health crisis on the roads of LMICs. It also provides a benchmark for MDB action in these countries, in that anything less than Argentina's systematic approach prolongs the day that sustainable progress can commence. If countries persist with small, fragmented, incremental measures in the absence of substantive institutional reforms they must anticipate many more decades of poor road safety performance.

Guidelines 1 – 12 presented in the previous section distill the experience gained in Argentina and complement the existing World Bank capacity review and project guidelines for the design and implementation of transformative road safety investments. They illustrate the rich complexity of the ARSP and highlight its contingency upon the government of Argentina taking the necessary steps to ensure sustainable success. Every country faces unique circumstances, yet there are common management capacity barriers that must be overcome if progress is to be made on improving road safety performance nationwide. These guidelines underscore the totality and scale of the actions that LMICs must commit to if they wish to emulate the successful pathway taken by Argentina and the good practice pathways of high-income countries that went before it.

ANNEX 1: Organizational Structure of the National Road Safety Agency – Argentina



ANNEX 2: Argentina Road Safety Project Components – Phase I

Component 1: Institutional capacity building

This component was designed to finance consultancy services, technical assistance, non-consultancy services and goods, through the following sub-components:

Sub-component 1.1: Support to strengthen ANSV institutional capacity including the (i) the creation of a national driver license registry system (ii) the creation of a national traffic records and infractions registry system and (iii) the preparation of ANSV's Strategic Plan for the years 2010 to 2015.

Sub-component 1.2: Communication, awareness and education campaigns including (i) the development and implementation of a plan for national communications and education campaigns (ii) development of road safety education kits for teachers, students and the general population (iii) provision of assistance for the design, evaluation and implementation of communication and educational campaigns through different mass media (iv) provision of communication, awareness and education grants to eligible NGOs for related subprojects (v) non-pecuniary support to related corporate social responsibility initiatives and (vi) provision of training and carrying out of road safety workshops and educational seminars.

Sub-component 1.3: Improve emergency response capacity including (i) diagnosis of current capabilities and protocols of emergency crash services on national roads (ii) design of action plans, improved protocols and guidelines for emergency response (iii) design and implementation of improved emergency coordination systems across partner agencies (e.g. police, ambulance services, hospitals, insurance companies) (iv) training for emergency response personnel and (v) acquisition of equipment to facilitate the work of road crash emergency personnel, including communications equipment, to enhance response capability.

Sub-component 1.4: Strengthen capacity of the traffic control and enforcement agencies including (i) delivery of training modules (ii) acquisition of alcoholmeters, speed control radar guns, and other fixed or mobile radar technology and (iii) development of a national plan for speed control, including the implementation of speed controls, radar and photo recording systems for exclusive traffic safety purposes, as directed by the ANSV traffic control force.

Sub-component 1.5: Project management including support for ANSV operational staff, supervision activities, and other operational expenditures to support project management for the duration of the project, including concurrent audits for specific sub-components (1.2 and 2.2) during project implementation.



Component 2: Demonstration corridors and Incentive Fund program

This component was designed to catalyze and encourage national and provincial governments to extend successfully demonstrated approaches to other high-risk sections of the country's road network, through the following sub-components:

Sub-component 2.1: 'Safe Corridors' demonstration program including (i) support for the implementation of pilot interventions aimed at improving the safety of road infrastructure and operations (ii) improvement of road safety awareness through education and communication campaigns (iii) acquisition of technological equipment to support improved safety behaviors (e.g. speed limit compliance, seat belt usage, helmet usage, reduced drunk driving) and (iv) support to improve emergency and post-crash response activities.

Sub-component 2.2: Incentive Fund for the implementation of road safety policies and practices to finance innovative provincial and municipal road safety initiatives that would otherwise not be funded due to competing demands for limited financial resources.

Component 3: Road safety monitoring and evaluation system within the National Road Safety Observatory

This component was designed to finance data management and research services including (i) road safety information systems in the National Registry of Road Safety Statistics (ii) road network monitoring systems (including the design and development of a crash management system) (iii) road crash data collection and reporting systems (iv) coordination between the National Road Safety Observatory and the International Road Traffic Accident Database Group (IRTAD) (v) monitoring and evaluation capabilities of ANSV (vi) quality control audits of national road crash data and (vii) road crash research studies relevant to the National Road Safety Observatory.



ANNEX 3: Argentina Road Safety Project Performance Indicators

TABLE 4: Performance indicators – Phase I

PROJECT INDICATORS
<ul style="list-style-type: none"> • A reduction in the death rate (number per 1 million vehicle kilometers traveled) on the selected corridor sections. • A reduction in reported non-fatal road traffic injuries on the selected corridor sections. • Number of formal periodic project coordination meetings of the Federal Council for Road Safety managed by the ANSV during the life-cycle of the project.
INDICATORS FOR EACH COMPONENT
<p>COMPONENT 1:</p> <ul style="list-style-type: none"> • Creation of a national driver license registry system. • Creation of a national traffic records and infractions registry system. • Number of successfully delivered road safety education campaigns and workshops. • Number of hospitals that implement protocols and guidelines for emergency response. • Number of inter-jurisdictional joint operations by traffic enforcement forces with ANSV. • Number of road safety training workshops delivered to traffic enforcement units.
<p>COMPONENT 2:</p> <ul style="list-style-type: none"> • Increased compliance with seat belt usage rate in the ‘Safe Corridors’. • Increased compliance with speed limits in the ‘Safe Corridors’. • Number of provinces and municipalities that have developed Strategic Road Safety Plans.
<p>COMPONENT 3:</p> <ul style="list-style-type: none"> • National Road Safety Observatory public website functioning with updated official yearly information on traffic crashes, fatalities and injuries, and related contributing factors (human, vehicle and road), and infrastructure safety features.

TABLE 5: Triggers for moving to Phase II

TRIGGERS	INDICATORS
<ul style="list-style-type: none"> • Establishment of National Driver License Registry System 	<ul style="list-style-type: none"> • A national driver license registry system is in place and is being implemented in at least seven provinces.
<ul style="list-style-type: none"> • Establishment of National Traffic Records and Infractions Registry System 	<ul style="list-style-type: none"> • A national registry of traffic records and infractions is in place and receives updated data from at least seven provinces.
<ul style="list-style-type: none"> • Disbursement of at least 50% of loan proceeds allocated for the Incentive Fund in Component 2.2 	<ul style="list-style-type: none"> • The incentive fund to finance road safety initiatives is in place and at least 50 percent of funds have been transferred to reimburse road safety investment at the provincial and municipal levels.
<ul style="list-style-type: none"> • National Road Safety Observatory is in operation 	<ul style="list-style-type: none"> • A functional National Road Accident Database System is in place with data on fatalities, serious injuries and hazardous road locations. • National Road Safety Observatory is a member of IRTAD.
<ul style="list-style-type: none"> • Adequate overall progress 	<ul style="list-style-type: none"> • At least 40 % of Phase I loan proceeds have been disbursed.

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