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# ANNUAL REPORT 2022



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## ABBREVIATIONS AND ACRONYMS

**ANSV** Agencia Nacional de Seguridad Vial/National Road Safety Agency (Colombia)

**APSRO** Asia Pacific Road Safety Observatory

**ARSO** African Road Safety Observatory

**AVIS** Assessment of Vehicle Inspection Systems

**BIGRS** Bloomberg Philanthropies Initiative for Global Road Safety

**BMJ** British Medical Journal

**DPWH** Department of Public Works and Highways (Philippines)

**DRIVER** Data for Road Incident Visualization, Evaluation and Reporting

**EaP** Eastern Partnership

**EaPRSO** Eastern Partnership Road Safety Observatory

**FAQs** Frequently Asked Questions

**FIA** Fédération Internationale de l'Automobile

**FY** Fiscal Year

**GBD** Global Burden of Disease

**GHE** Global Health Estimates

**GRSF** Global Road Safety Facility

**GSRRS** Global Status Report on Road Safety

**iRAP** International Road Assessment Programme

**ITF** International Transport Forum

**LMICs** Low- and Middle-Income Countries

**MDB** Multilateral Development Bank

**MoU** Memorandum of Understanding

**OECD** Organisation for Economic Cooperation and Development

**RSO** Road Safety Observatory

**RSSAT** Road Safety Screening and Appraisal Tool

**RSSSP** Road Safety State Support Program (India)

**RSWG** Road Safety Working Group

**SDGs** Sustainable Development Goals (UN)

**SSATP** Sub-Saharan Africa Transport Policy Program

**UN** United Nations

**WHO** World Health Organization



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## LETTER FROM THE GRSF CHAIR



We are now two years into the second UN Decade of Action for Road Safety, which aims to halve road traffic fatalities and injuries by 2030. GRSF continues to play a key role in improving road safety globally through technical assistance, capacity development, policy advice, and catalyzing financing for road safety improvements.

Road traffic crashes kill nearly 1.3 million people every year—more than malaria or HIV/AIDS—and remain the leading cause of death among children and young people between the ages of 5 and 29. Road crashes are also a leading cause of serious injuries and disabilities, with approximately 50 million injured worldwide annually. These are preventable, and the GRSF's work to fight this global crisis is crucial.

With 20 new grants totalling \$2.8 million approved this year, the active GRSF portfolio increased to \$14.1 million spanning 72 activities and covering 34 countries and several global initiatives.

In this fiscal year, GRSF funded the assessment of 1,800 km of roads for safety, trained over 3,000 professionals, and published 31 publications. GRSF continues to make strides to improve road safety in its six thematic areas: road safety data and management; safer roads; safer speeds; safer vehicles; post-crash response; and pilots, research, and innovation.

GRSF played a catalytic role in supporting two World Bank stand-alone road safety projects approved for Bangladesh and India in FY22. The preparation of these transformational projects was heavily supported by GRSF through technical assistance and funding and will have a major impact in reducing road traffic fatalities and injuries in the subcontinent over the coming years. One of our highest aims is for GRSF to catalyze similar road safety investments from other multilateral development banks, thereby magnifying our impact.

The need for increased road safety financing has become a widely acknowledged priority. GRSF will soon be launching a new Business Plan for the 2024-2027 period that will catalyze scaled-up road safety investments financed by the World Bank and other multilateral development banks. I am confident that the GRSF can achieve even more in the next fiscal year, especially through the launch of the GRSF 2.0 umbrella trust fund and its first Business Plan.

Sincerely,

**Kelly Larson**

GRSF Board Chair, Bloomberg Philanthropies



## LETTER FROM THE GRSF HEAD



I am pleased to submit the GRSF Annual Report for Fiscal Year 2022. I would like to gratefully acknowledge the sustained support of the GRSF donors who have funded our activities, as well as our global, regional, and country partners who have worked with us to help achieve our shared vision of safe roads and streets for all.

In FY22, GRSF continued delivering in its core areas of infrastructure safety and speed management and made progress on several long-standing road safety priorities such as improving road safety data management, enhancing post-crash response, and assessing the socio-economic impacts of road safety. In addition, GRSF made headway on some emerging areas of work including motorization management, private financing, and research to address data inconsistency challenges and the disability burden.

GRSF also advanced road safety development financing through its role in informing and catalyzing World Bank investments. This year, GRSF reached new heights by catalyzing \$949 million of new road safety financing approved by the World Bank. A total of US\$5.55 billion of newly approved transport investments by the World Bank—spanning 21 projects and 20 countries—were informed by GRSF with respect to road safety. These investments will save thousands of lives and prevent countless injuries in the years to come.

I encourage you to read this annual report for more details on the many ways GRSF made a positive contribution to improve road safety in FY22.

I look forward to working with all our GRSF partners as we deliver the ambitious objectives of our new Business Plan over the coming years.

Sincerely,

**Said Dahdah**

Head of GRSF and Global Lead for Road Safety, World Bank

# FY22 IMPACT AT A GLANCE





## IMPACT BY THE NUMBERS

Since its establishment in 2006 and up to June 30, 2022, GRSF has received total contributions of \$75 million. In the past fiscal year, GRSF approved \$2.8 million in new grants, bringing the active portfolio to \$14.1 million spanning 72 activities and covering 34 countries and several global initiatives.

In Fiscal Year 2022 (FY22), \$5.55 billion in World Bank transport-related lending were informed by GRSF's work, including \$949 million in lending dedicated specifically to road safety. Among other achievements in FY22, GRSF funded the assessment of approximately 1,800 km of roads, trained over 3,000 professionals, and published 31 articles and reports.

### FY22 ACHIEVEMENTS BY THE NUMBERS

**\$5.55B**

AMOUNT OF WORLD BANK TRANSPORT INVESTMENTS APPROVED IN FY22 AND INFORMED BY GRSF

**\$949M**

AMOUNT OF WORLD BANK DEDICATED ROAD SAFETY FINANCING APPROVED IN FY22  
(15% of road sector financing)



**\$14.1M**

ACTIVE PORTFOLIO AS OF END JUNE 2022



**72**

TOTAL ACTIVITIES

**25** AT GLOBAL LEVEL

**7** AT REGIONAL LEVEL

**40** AT COUNTRY LEVEL



**\$2.8M**

NEW GRANTS APPROVED IN FY22



**1,801 KM**

OF ROADS ASSESSED FOR SAFETY



**3,124**

PROFESSIONALS TRAINED



KNOWLEDGE SHARED WITH  
**1,795 +**  
PROFESSIONALS



**31**

JOURNALS, ARTICLES, AND REPORTS PUBLISHED



**95,459**

VISITS TO THE GRSF WEBSITE





## WHERE FY22 IMPACT TOOK PLACE

In FY22, GRSF approved funding for new activities in 21 countries, bringing the number of countries with active GRSF grant activities to 34.

### Countries where GRSF funded new activities in FY22

#### EAST ASIA & PACIFIC

Fiji  
Mongolia  
Papua New Guinea

#### SOUTH ASIA

Bangladesh  
India  
Lao PDR  
Nepal

#### EUROPE & CENTRAL ASIA

Azerbaijan  
Tajikistan

#### LATIN AMERICA & CARIBBEAN

Argentina  
Brazil  
Colombia  
Mexico

#### SUB-SAHARAN AFRICA

Cameroon  
Ethiopia  
Ghana  
Guinea-Bissau  
Kenya  
Tanzania  
Uganda  
Zambia



**FY22**  
**HIGHLIGHTS**





## HIGHLIGHTS OVERVIEW

GRSF focused on the below six thematic areas in FY22.

The highlights of each theme are presented in the following sections.



### 1. ROAD SAFETY DATA AND MANAGEMENT

Supporting country's capacity to deliver road safety reforms through better data collection and analysis, institutional strengthening, and capacity building.



### 2. SAFER ROADS

Promoting safer road infrastructure through road safety audits, star-rating risk surveys, safety inspections, crash-data analysis, and international good practices for roadway design.



### 3. SAFER SPEEDS

Promoting good practices in speed management and safe road use through disseminating knowledge and expertise and supporting infrastructure-related interventions.



### 4. SAFER VEHICLES

Promoting improved vehicle safety standards, certification processes, and inspection systems for safer and cleaner vehicles.



### 5. POST-CRASH RESPONSE

Promoting good practices and results-focused investments in post-crash response and management measures.



### 6. PILOTS, RESEARCH, AND INNOVATION

Supporting road safety pilots, research, and innovation to scale up efforts in improving road safety outcomes.


More detailed information on GRSF activities in FY22 can be found on the [GRSF website](#), particularly on the [News](#), [Events](#), and [Success Stories](#) pages.

# 1. ROAD SAFETY DATA AND MANAGEMENT

## SUPPORTING REGIONAL ROAD SAFETY OBSERVATORIES

Road Safety Observatories (RSOs) are regional networks of government representatives that share and exchange road safety data and experience to reduce traffic injuries across countries in their region. GRSF has supported the development of RSOs for many years and continued to support their activities in FY22.

### Africa Road Safety Observatory (ARSO)

 ARSO's [Second General Assembly](#) was held virtually on March 22-23, 2022. Hosted by the African Union Commission with support from GRSF and the Sub-Saharan Africa Transport Policy Program (SSATP), the two-day

meeting was geared toward National Data Coordinators. During the meeting, ARSO validated its first data report and shared lessons learned; advocated for the ratification of the African Road Safety Charter; validated ARSO's second three-year work program; and convened National Data Coordinators for capacity building purposes and to organize ARSO's second wave of data collection.

### Asia-Pacific Road Safety Observatory (APRSO)

APRSO was established in 2020. Some of its key activities in FY22 included:


- Hosting the APRSO National Data Coordinators meeting on May 11, 2022.
- Organizing National Data Coordinators to work with the World Health Organization (WHO) on its data collection exercise for the 2023 Global Road Safety Status Report.
- Producing a [report](#) that explores how improving crash data collection can improve road safety in the region.

In addition, the World Bank and the International



Transport Forum (ITF)—within the framework of APRSO and with the support of GRSF and the Cambodian Ministry of Public Works and Transport—initiated a [technical assistance project](#) in 2019 to assess Cambodia's crash data system and develop a roadmap for strengthening it. A [summary note](#) of this work, which included a set of recommendations, was published in FY22.

### Eastern Partnership Road Safety Observatory (EaPRSO)

 Crash fatality rates in the Eastern Partnership (EaP) countries (Armenia, Azerbaijan, Georgia, Moldova, and Ukraine) are still about twice that of the European Union (EU27) area, resulting in economic losses estimated at 2.6 percent of the region's GDP.

This large discrepancy suggests a high level of underreporting at the national level, presumably due to a lack of robust data collection systems.

Policymakers rely on accurate crash data to better understand road safety issues and determine road safety goals and targets. However, crash data reported by EaP countries in the period 2009-2019 has been estimated to be between 14-22 percent lower than those estimated by WHO.

With support from GRSF, EaPRSO was established in 2022 to allow its member countries to share good data collection practices and exchange road traffic data to help build a solid body of evidence-based practice. EaPRSO will also enable the development of standardized methodologies to evaluate the enforcement of selected interventions (e.g. speed control), and will serve as an intermediary platform for country observatories and international organizations that collect road safety data, such as WHO.

## PROMOTING QUALITY DATA: GUIDE FOR ROAD SAFETY DATA REVIEWS

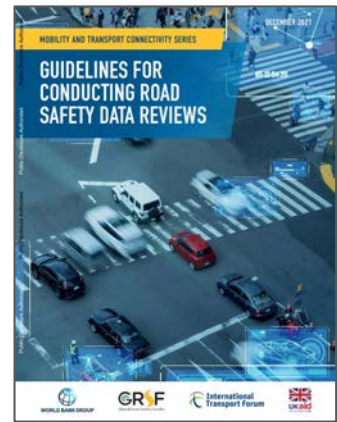
In many countries, insufficient or poor-quality crash data can impair evidence-based road safety policymaking. Further, many countries are often unaware of data gaps in their systems, preventing them from analyzing the extent of their road safety problems accurately. Therefore, it is important that road safety data definitions and collection methods are improved and standardized to allow comparisons across countries and time. This is a major reason for the establishment of regional Road Safety Observatories.

The [Guidelines for Conducting Road Safety Data Reviews](#) were developed by GRSF in partnership with the International Transport Forum (ITF) and [launched](#) in February 2022. This guide aims to support data experts in their assessment of

countries' road safety data collection efforts.

The proposed common methodology and step-by-step assessment process will help data reviewers prepare for their visit, structure their interviews, and report on findings.

The goal of the guidelines is to help harmonize road safety data reviews across countries and regions, and thus support the work of country-level and regional road safety observatories.



## ENABLING CRASH DATA COLLECTION USING OPEN-SOURCE PLATFORMS



The Data for Road Incident Visualization, Evaluation, and Reporting tool (also known as DRIVER) is an open-source system for recording and visualizing geo-referenced crash data. DRIVER offers important opportunities for improved road safety data in many national and subnational jurisdictions, and its code is available for free on the [World Bank GitHub](#) open-source code repository. GRSF supported the DRIVER tool by developing the underlying code and piloting it in different country contexts.

The Philippines government is currently scaling up DRIVER at the national level with World Bank support. A GRSF [paper](#) published in April 2022

presented case studies on the impact of DRIVER in Cebu, Philippines and its rollout in other countries in Asia Pacific via the Asia Pacific Road Safety Observatory. The study found that DRIVER's positive results have bolstered demand for better crash data and emphasizes the need for localization, capacity-building, and developing robust road safety institutional arrangements.

In Laos, GRSF funding supported the implementation and development of a nationwide unified crash database based on the DRIVER system through capacity building and research activities. In addition, the grant supported a road safety capacity gap assessment and enabled practical field research that quantified the prevalence of risky driving. The data, which shows speeding and drunk-driving to be pervasive, is supporting evidence-based policymaking.

This initiative contributed to the establishment of a new national road safety strategy and a five-year road safety action plan. The scale-up of the national crash database was sustained through three World Bank financing projects totaling \$197 million.

## ANALYZING INCONSISTENCIES IN ROAD DEATHS ESTIMATES

Timely, accurate, and detailed information about road traffic injuries and deaths is essential for the effective management of national road safety programs. However, there is considerable under-reporting in many low- and middle-income countries (LMICs), leading to large discrepancies between official statistics and global health measurement studies such as the Global Burden of Disease (GBD) study and WHO's Global Health Estimates (GHE). This discrepancy also makes it harder to track progress towards the United Nations (UN) Sustainable Development Goal (SDG) 3.6 on halving global traffic fatalities by 2030.

Over the course of FY22, a GRSF research program produced several papers that explored the challenge of accurately measuring road traffic injuries and deaths.



As part of this research program, a [November 2021 paper](#) in the British Medical Journal (BMJ) Global Health journal assessed the extent to which national censuses and health surveys can help track deaths and injuries from road traffic crashes in LMICs, thereby filling information gaps.

The paper found that population-level surveys and censuses in LMICs often include questions that can allow a direct estimation of the incidence of road traffic deaths and injuries. However, in many cases survey questions were poorly framed, partly because they were not included for the purpose of measuring road traffic injuries and deaths.

A [February 2022 paper](#) in the BMJ Global Health journal analyzed multiple sources of epidemiological information on traffic deaths and injuries in

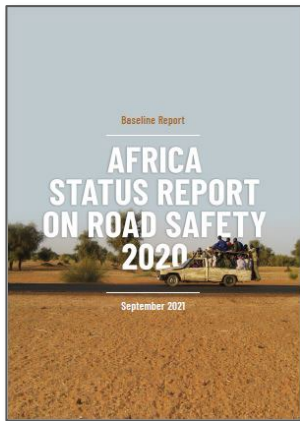
Cambodia that were not included as data sources in GBD and GHE models, in order to provide a comparison against GDB and GHE estimates. The sources and models suggested a fairly consistent estimate of approximately 3,100 deaths annually—about 50 percent higher than official government statistics. However, the health surveys strongly suggested that the vehicle fleet is dominated by motorcycles, which is not consistent with GBD estimates that suggest similar numbers of motorcyclist and vehicle occupant deaths. Estimates of injuries from health surveys were about 7.5x higher than official statistics and 1.5x higher than GBD estimates. The study concluded that including local epidemiological data sources from LMICs can help reduce uncertainty in estimates from global statistical models and thereby build trust in estimates among local stakeholders.

A [third study](#) estimated incidences of traffic fatalities and vehicle ownership in Tanzania. There is considerable uncertainty between estimates of traffic deaths in many sub-Saharan African countries, with the GBD and the WHO Global Status Report on Road Safety (GSRRS) reporting widely differing estimates from governments. This study analyzed nationally representative surveys in Tanzania—namely, the 2012 census and the 2011-2014 sample vital registration with verbal autopsy—to compare findings with GBD and GSRRS estimates.

The study found that estimates derived from the census and sample vital registration with verbal autopsy were consistent with one another—about halfway between GBD and WHO estimates—and more than twice the official government statistics. GBD, which is the only study that models the road-user distribution of traffic deaths in all countries, likely severely underestimates motorcycle deaths in countries where there has been a recent uptake in motorcycles. Reducing discrepancies between GBD and GSRRS estimates and demonstrating consistency with local epidemiological data will increase the legitimacy of such estimates among national stakeholders.

## BOOSTING ROAD SAFETY DATA IN AFRICA

Africa has the highest road traffic fatality rate of all continents, despite having the fewest vehicles per capita and smallest road network. African nations have made strong commitments to improve road safety outcomes through initiatives such as the African Road Safety Action Plan, the African Road Safety Charter, and the targets set out in the UN SDGs. However, a better understanding of road safety standards in the region—based on more and better crash data—is required so that the most appropriate road safety interventions can be selected, and their impact maximized.

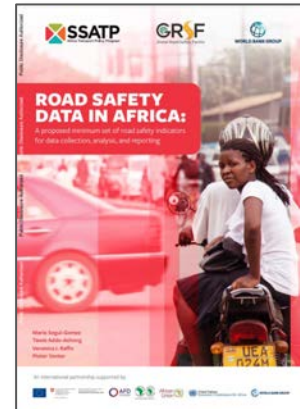


The [Africa Status Report on Road Safety 2020](#) summarizes the findings of the first road safety data collection effort on the African continent, which reported on a harmonized set of road safety indicators for 26 countries. As important as the actual figures reported, the report sets

the baseline against which to measure progress in

coming years. This ARSO initiative was led by SSATP and supported by GRSF, the World Bank, the African Development Bank, Fédération Internationale de l'Automobile (FIA), ITF, and WHO.

Another GRSF-funded report, [Road Safety Data In Africa: A Proposed Minimum Set of Road Safety Indicators for Data Collection, Analysis, and Reporting](#), published in 2021 in partnership with SSATP, outlines the results of a process that began in 2017 to define a common set of indicators to be collected, analyzed, and monitored by African countries to improve road safety.



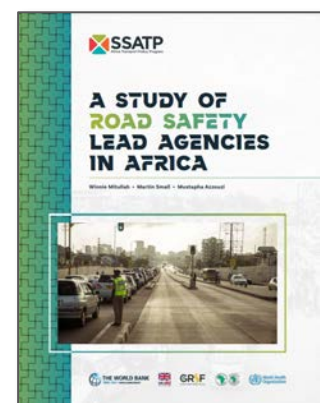
Some of these indicators are to be collected at the country level to inform country-level decision-making, while a smaller subset are to be reported in aggregate to regional road safety observatories to inform broader strategies.

## ADVANCING KNOWLEDGE OF AFRICA'S ROAD SAFETY LEAD AGENCIES

Since 2019, GRSF and SSATP have been working with WHO and AfDB on three studies of road safety lead agencies. The objective of these studies is to examine the evolution, organization, functions, and performance of these agencies over time.

The [first study](#), published in FY21, had a single-country focus on the road safety lead agency in Nigeria; the [second study](#), published in FY22, focused on road safety lead agencies across all of Africa; and the third focused on road safety lead agencies around the world (paper under review).

These studies provide insights into the operations, achievements, and challenges faced by these agencies, as well as the political and planning contexts in which they function.



## 2. SAFER ROADS

### IMPROVING ROAD INFRASTRUCTURE THROUGH SAFETY ASSESSMENTS

In FY22, GRSF continued to work closely with governments to support the adoption of safer road infrastructure designs and improve existing road networks to improve safety for all road users. This support is provided through assessments of high-risk roads, delivering recommendations for safety improvements, providing technical guidance on speed management engineering solutions, and supporting the development or updating of national technical guidelines or norms.

In FY22, GRSF completed 1,801 km of Road Infrastructure Safety Assessments in Argentina,

China, Ethiopia, Ghana, India, Philippines, and Vietnam, informing \$2.27 billion of World Bank transport investment projects as well as government investments. In addition, GRSF delivered a series of capacity building events and engaged in the update or development of new road safety engineering guidelines or standards, such as the Road Safety Auditors guidelines in Ukraine and the Philippines, a two-wheelers infrastructure manual in Vietnam, and the Road Safety Engineering tool guidance in Mexico for urban mobility projects.

### IDENTIFYING SAFETY SOLUTIONS AROUND METRO STATIONS IN QUITO

GRSF provided support to the World Bank-financed Quito metro project, which includes a significant road safety component co-financed under the Korea- World Bank Partnership Facility.

Based on best practices, including those outlined in the updated [Road Safety Transit-Oriented Development Toolkit](#) and the GRSF-financed Good Practice Note on [Integration of Road Safety Considerations in Transit-Oriented Development projects](#), GRSF conducted [road safety audits](#) for the immediate areas around 15 metro stations. This included general recommendations for all 15 stations as well as detailed designs for six stations. The work was performed in close collaboration with city transportation officials, who provided feedback for the detailed designs.

Among other things, the assessments concluded that street design around the metro stations should



be improved by 1) enhancing the safety of vulnerable road users, 2) protecting children through safe school zones, and 3) automating speed enforcement, which can yield significant benefits in a short timeframe. The results of the road safety audits were also used to inform a road safety [handbook](#) for urban areas.



## DELIVERING ROAD SAFETY ADVISORY SERVICES IN THE PHILIPPINES

In the past years, GRSF has been supporting the Philippines Government on different road safety initiatives, especially related to road safety engineering and data. In 2019, the Philippines Department of Public Works and Highways (DPWH) approached GRSF and the World Bank seeking additional support for improving their capacity in managing road infrastructure safety in accordance with international best practices so that DPWH staff can better meet their commitments under the Philippine Road Safety Action Plan 2017-2022.

Under the guidance and leadership of the World Bank East-Asia Pacific transport unit, GRSF was involved in planning and delivering of road safety advisory services over a 3-year period, which was completed in FY22. This engagement was the first of its type in the region and involved assessing DPWH's institutional capacity in managing road infrastructure safety, followed by capacity building in road infrastructure safety management. Specific activities included:

- Conducting a [Road Safety Institutional Capacity Review](#)
- Training DPWH staff and practitioners on topics such as road safety engineering, network safety management, and the management of blackspots (that is, road locations where a high number of traffic crashes occur).
- Updating existing road safety manuals on road works safety and blackspot management and drafting a new speed zoning manual.
- Developing a certification and training process for future road safety audits in the Philippines.
- Providing technical advice in applying road infrastructure safety management tools on a series of pilot roads.

The overarching goal of this engagement was to shift the mindset within DPWH with respect to road safety management and implementation, including raising awareness among top management of their responsibility for safer road infrastructure, and among technical staff of their role in ensuring the safety of the roads they are designing and maintaining.



## INFORMING THE DESIGN OF 500 KM OF BIKE LANES IN THE PHILIPPINES



Cycling has been gaining traction as a mode of transport in the Philippines, and became especially popular after the onset of the Covid-19 pandemic as commuters sought an alternative to public transport.

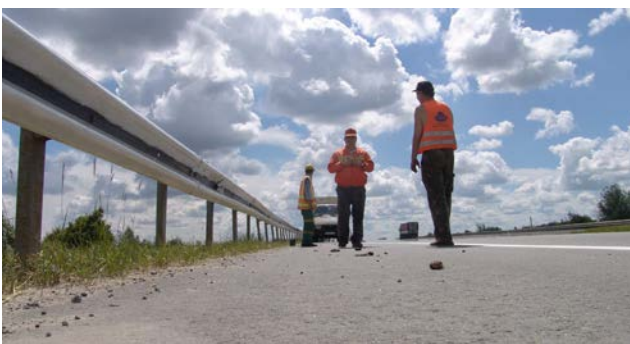
With growing numbers of cyclists converging on main roads, in September 2020 the Philippines government allocated more than \$22 million to improve active mobility infrastructure so that all road users can get around safely. This investment translated into the largest bike lane construction program in the country's history: almost 500 kilometers of new bike lanes were constructed across Metro Manila, Metro Cebu, and Metro Davao in less than a year.

GRSF, the World Bank Philippines Transport Team, and the Australian government partnered to provide technical assistance for this [ambitious program](#), with a focus on ensuring the new cycling infrastructure met the highest safety standards.

As part of this work, the guidelines produced by the Philippines government were reviewed to confirm they followed a Safe System approach. A series of road safety inspections and audits were also conducted to ensure that implementing agencies received appropriate guidance on international best practices through every step of the process. GRSF and its partners also involved the community via surveys and focus groups—including persons with disabilities, women, and the elderly—to ensure that community feedback was considered in reviewing current and future infrastructure designs.

This multi-sectoral effort raised the profile of cycling as a reliable and sustainable mode of transport in the Philippines and has inspired local governments and communities to build and expand their own bike lanes to connect with the growing network.

## STRENGTHENING CAPACITY OF ROAD SAFETY AUDITORS IN UKRAINE

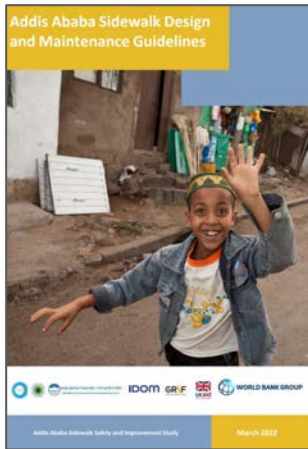


Based on technical expertise and knowledge from international experts, the [Practical Guide for Road Safety Auditors and Inspectors in Ukraine](#)—a special edition of the standard guide for road safety auditors and inspectors adapted for Ukraine's specific road safety conditions and legislation—was published in 2022.

Funded by GRSF, the guide, which was published in both English and Ukrainian, is designed to ensure that “building back better” road investments in Ukraine are implemented in accordance with international road safety best practices.

In addition, from October 7 to November 29, 2021, GRSF delivered a road safety auditors train-the-trainer [course](#) in collaboration with the Reform Support Team at the Ministry of Infrastructure of Ukraine. 24 participants from government, the private sector, academia, and research institutes successfully graduated from the course and are expected to share their new knowledge to other professionals in Ukraine.

## ADDRESSING SIDEWALK SAFETY IN ADDIS ABABA, ETHIOPIA



Walking is by far the most common way of getting around, especially in developing countries. Despite this, infrastructure for walking typically receives the least attention of all the components of urban transport systems. Despite the frequency of walking in Addis

Ababa, Ethiopia, sidewalks across the city are often inaccessible and unsafe, contributing to the loss of roughly 500 lives on the city's roads each year, of which 76 percent are pedestrians.

To help address this situation, GRSF supported an evidence-based pilot study that developed practical

actions and strategies, which in turn influenced sidewalk design standards as well as road safety and urban development policies through a \$300 million World Bank-financed transport project. Applying the Global Walkability Index and adapting global best practices to the local context, the [report](#) diagnosed sidewalk conditions and walkability, proposed 'low-hanging fruit' strategies and actions to redress existing sidewalk deficiencies, and developed a systematic approach for pedestrian and sidewalk safety for the city of Addis Ababa.

In addition, the [Addis Ababa Sidewalk Design and Maintenance Guidelines](#), which was published alongside the study's report, provides the city's planning and transport authorities with design specifications and visual renderings to consider as the city develops its own design and maintenance standards for urban roads, sidewalks, public space, and transit-oriented development.

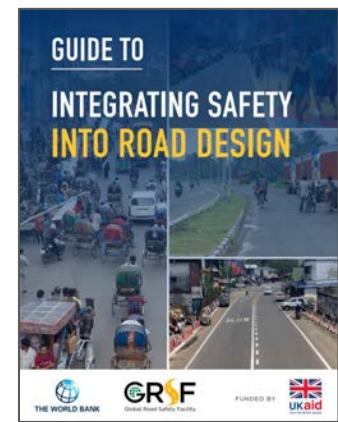
## INTEGRATING SAFETY INTO ROAD DESIGN

With an increasing interest in road safety engineering design solutions globally, GRSF developed a comprehensive [Guide to Integrating Safety into Road Design](#) for engineers, road sector professionals, development practitioners, researchers, and others working in LMICs on safe road design. The document provides detailed guidance on how to incorporate safety considerations into the design and implementation of road projects in LMICs in both urban and rural settings.

The guide, which was also published as an [interactive report](#) with frequently asked questions (FAQs), includes a list of common risk factors as well as a catalog of recommended design solutions to maximize road safety.

The guide is intended to be used in tandem with local road design guidance and draw attention to potential safety issues with specific design proposals or help identify gaps in existing local guidance.

In addition, it is expected that the document will be used by those working to update local or national guidance, or those adapting guidance from other countries to local conditions.



## BUILDING ON PARTNERSHIPS TO SHARE ROAD SAFETY KNOWLEDGE



Building on its partnership with the International Road Assessment Programme (iRAP), GRSF delivered two tailored webinar series in Africa and Asia during FY22 under the title of “Helping Save Lives from Road Crashes”.

From July 6-16, 2021, the [first webinar series](#) with a focus on the African road context reached 672 attendees from 112 countries. The 4-part series was designed to introduce iRAP to those in Africa

who want to use the methodology to help eliminate high-risk roads, unlock the economic benefits of 3-star or better roads, and meet the UN SDG targets related to road safety. The sessions covered practical examples of road safety experiences, lessons learned, and how to use iRAP methodology to conduct safety assessments across the region.

Adding to the existing GRSF-iRAP partnership, the Asian Development Bank and GRSF delivered a [second webinar series](#) from February 8-24, 2022, titled *Helping Save Lives from Road Crashes in Asia-Pacific*. The 5-part series reached over 1,000 participants from 56 countries. The sessions presented safer road infrastructure recommendations from the Global Plan for the Decade of Action for Road Safety 2021-2030 and provided a comprehensive overview of the iRAP methodology. Participants were given practical assignments and received a certificate upon completing the course.

## BUILDING CAPACITY OF ROAD SAFETY ENGINEERS IN ASIA

From September 20 to October 11, 2021, GRSF hosted an interactive 7-part virtual [workshop series](#) on the essentials of road safety engineering in Asia. Featuring real-world blackspots and road safety audits, the series explored the theory of road safety engineering, presented case studies, and offered practical guidance for improving road safety.

The 219 workshop participants were from Bangladesh, India, Malaysia, Philippines, and Vietnam and included government officials, consultants, contractors, development practitioners, and members of the police, academia, and research institutes. More than half of the participants successfully submitted their completed



assignments and received course completion certificates and are expected to spread their newly acquired knowledge among their networks.

## PROMOTING AN EVIDENCE-BASED GUIDE FOR BETTER DECISION-MAKING



While road safety knowledge has improved over recent decades, limited road safety resources are often expended on ineffective or suboptimal interventions. This demonstrates the need to improve decision-making when selecting and implementing road safety interventions.

In response to the need for evidence-based road safety interventions, a [webinar](#) was delivered in September 2021 focusing on a recently developed guide produced by GRSF, titled [Guide for Road Safety Interventions: Evidence of What Works and What Does Not Work](#). Interventions covering each of the Safe System pillars (road safety management, safe roads, safe speeds, safe vehicles, safe road users, and post-crash care) were discussed, with a view to evaluating the evidence of what interventions are the most and least effective.

The relevance of this guide for World Bank and other multilateral development bank (MDB) transport projects, as well as national, sub-national, and local governments and other stakeholders, was also discussed.

## SHARING ROAD SAFETY KNOWLEDGE WITH INFRASTRUCTURE LEADERS

In April 2022, the World Bank and GRSF organized the *Saving Lives with Infrastructure* course for leaders in Latin America involved in the planning, financing, and delivery of road infrastructure. The primary objective of the 3-week course, which was delivered in partnership with Delft Road Safety Courses, was to provide tools for decision-makers, managers, and other infrastructure officials to ensure that road infrastructure is safe.

The audience included participants from national road safety agencies and units, ministries of infrastructure, and national and city public works

and mobility departments in Argentina, Brazil, Colombia, Ecuador, and Mexico.

Some of the topics covered by the course included:

- Common causes of crashes
- Principles of Safe System road design, especially for vulnerable road users
- Traffic calming measures
- Speed management
- Public transport and road safety
- Road life cycle assessments, road safety audits/inspections, and the iRAP methodology.
- Road infrastructure investment decisions



### 3. SAFER SPEEDS

#### SHARING KNOWLEDGE THROUGH THE SPEED MANAGEMENT HUB



Research has shown that speed management is one of the most effective ways to improve road safety and has other potential co-benefits, including reducing vehicle emissions and improving broader health outcomes. GRSF has been a global leader in promoting speed management by providing guidance, technical assistance, and conducting original research.

This information is disseminated through the [Speed Management Hub](#) on the GRSF website, which was developed and launched in FY21 and now houses a comprehensive set of evidence-based documents on effective speed management.

In FY22, GRSF expanded the materials available on the hub in the following ways:

- GRSF mobilized funding from additional donors to produce new speed-related analytical pieces that are available on the hub.
- Just-in-time support on speed management-related issues is being provided on the hub, based on latest best practices and research.
- Almost 90 FAQs have now been published on the platform, and additional FAQs will be published in FY23.
- New speed management resources were uploaded and catalogued.

#### SUPPORTING SPEED MANAGEMENT IN COLOMBIA

GRSF in collaboration with the World Resources Institute worked with the National Road Safety Agency (ANSV) in Colombia to support the development of a national speed management plan. The plan aims to reduce the number of speed-related fatal crashes, which currently account for 40 percent of all road traffic fatalities in Colombia.

A series of virtual workshops with international experts were held, which covered speed management for rural roads, monitoring and evaluating speed management interventions, and setting safe speed limits. In addition, a series of capacity building activities were delivered on the topic of upgrading crash barrier standards.



GRSF is further supporting ANSV to conduct a 22,000 km iRAP evaluation based on their request to the World Bank and the Inter-American Development Bank. The outcome of this work will be a report with star ratings for the primary national road network, recommendations for road safety improvements, and capacity building on iRAP tools.

## STUDYING THE EFFECTS OF LOWERED SPEED LIMITS

Significant research has been conducted on how changes in speed limits—for example, the adoption of 30 km/hour speed limits—impact safety. However, most of this research has been conducted in Western Europe and Australia, with almost no recorded studies from Asia, Africa, the Americas, and Eastern Europe.

To address this evidence gap, GRSF published a paper titled [Economic impact of 30km/h - Benefits and Costs of Speeds in an Urban Environment](#) in the Journal of Road Safety in August 2021. The paper outlines the benefits and costs of low-speed roads in urban environments to a broader audience.

## ADVOCATING SAFER SPEEDS FOR THE WORLD DAY OF REMEMBRANCE



In commemoration of the annual World Day of Remembrance for Road Crash Victims in November 2021, GRSF held an [event](#) that brought

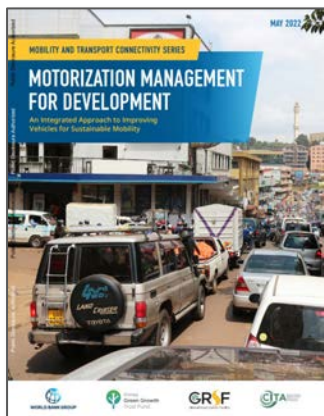
together voices from around the world to share experiences and thoughts on how the “silent pandemic” of road traffic fatalities can be stopped.

An accompanying [blog post and video](#)—which is the second installment in the “speeding hurts us all” multimedia series—outlines the dangers of driving “just” a bit over the speed limit and argues for the adoption of a Safe System approach to road safety that includes traffic calming measures and other speed management strategies. The accompanying [video](#), which is based on a true story, showcases the dangers of speeding and the need for speed management.



## 4. SAFER VEHICLES

### DEVELOPING A FRAMEWORK FOR MOTORIZATION MANAGEMENT



Many developing countries rely heavily on importing low-quality used vehicles to meet growing motorization needs. This, in turn, affects air quality, fuel consumption, and the number of people killed or seriously injured in road crashes. Regulating

the trade of used cars and managing the broader impacts of motorization on climate change, air pollution, and road safety is a critical area that requires global and national action.

In May 2022, the World Bank's Transport Global Practice, with support from GRSF and the Korean Green Growth Trust Fund, published a report titled

*Motorization Management for Development: An Integrated Approach to Improving Vehicles for Sustainable Mobility*. The report includes a Motorization Management Framework to help governments develop strategies to manage their vehicle stocks in a proactive, phased, and systematic manner. The framework outlines strategies for achieving five key policy outcomes:

- **Road safety:** making the vehicle stock safer, both in terms of avoiding crashes and in their safety performance when crashes do occur.
- **Air quality:** making the vehicle stock less polluting.
- **Emissions mitigation:** making the vehicle stock more fuel-efficient and less carbon-intensive.
- **Sustainable transport and lifestyles:** using motor vehicle governance to support other sustainable transport priorities.
- **Fiscal stability:** ensuring continuity of resources by managing the fiscal impacts of motorization.

### ASSESSING VEHICLE INSPECTION SYSTEMS IN ECUADOR

In FY22, GRSF funded an analytical Assessment of Vehicle Inspection Systems (AVIS) for Ecuador. With a rapidly growing vehicle population that currently stands at 2.3 million and an average vehicle age of 16 years, Ecuador's AVIS is essential to ensuring that the existing vehicle stock and new vehicles entering the country are compliant with road safety and environment standards. The AVIS identified key institutional, governance, and operational aspects of Ecuador's inspection regimen that need strengthening to improve the number and quality of clean and safe vehicles.

The AVIS contributed to the government's ongoing discussions on Vehicle Technical Reviews and provided recommendations on how the country's legal provisions on vehicle inspections can be streamlined and adhere to international best practice statutes and conventions.

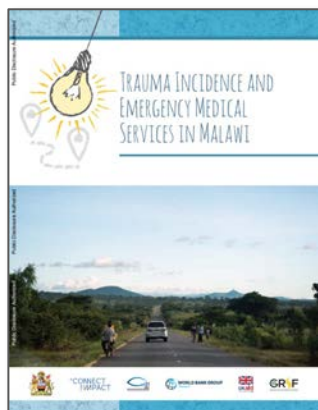


In addition, the AVIS proposed country-wide opportunities to harmonize roadworthiness and emissions standards, testing protocols, and compliance regimes, which can be achieved and regularly updated through sound data management practices and effective monitoring of vehicle inspection systems. The AVIS recommendations should make a large contribution towards Ecuador's ambitions to improve safety, emissions, and fuel efficiency for the road transport sector.



## 5. POST-CRASH RESPONSE

### ANALYZING TRAUMA INCIDENCE AND EMERGENCY SERVICES IN MALAWI



A [policy brief](#) and [technical report](#), supported by GRSF and published in October 2021 and January 2022 respectively, provided insights into the current situation and overall burden of trauma from road traffic crashes in Malawi. The publications also

provided insights into how to run a digital trauma registry effectively in low resource settings, and highlighted lessons learned from the implementation of the government of Malawi's Emergency Medical Services pilot.

GRSF also provided funding for a related study on adult trauma injuries in Malawi. The results of the

study were published in an April 2022 article in the Injury Epidemiology journal, [Epidemiology of Adult Trauma Injuries in Malawi: Results from a Multisite Trauma Registry](#).

The report was prepared by the World Bank's Impact Evaluation Program for Transport (ieConnect) under the Development Impact Evaluation group with financial support from GRSF.

The study found that, while falls were the most common cause of injury in Malawi, road traffic crashes were the most common cause of serious injury and resulted in almost half of all hospital trauma admissions. The authors suggested that greater attention to safety for both motorized and especially non-motorized road users, as well as more timely and higher quality emergency medical services, are important policy priorities for Malawi and other LMICs with high burdens of traumas from road traffic crashes.

### SUPPORTING A POST-CRASH EMERGENCY RESPONSE TOOLKIT

GRSF funded the production of a [Post-crash emergency response toolkit](#) in July 2021. The toolkit was developed by the European Bank for Reconstruction and Development as part of its work on improving post-crash emergency care, and sets out the key elements of an effective post-crash emergency response system. Specifically, the toolkit covers reasons for taking action, the main elements of post-crash response, case studies and examples of best practice, and helpful resources.

The toolkit is intended to serve as a starting point for dialogue and discussion and is designed for all stakeholders with an interest in post-crash response, including government policymakers; emergency service managers and professionals; paramedics and community responders; crash survivors,

families, and organizations representing them; and the general public. Every country has different emergency response structures and challenges, so the toolkit does not promote a "one-size-fits-all" approach. However, certain elements of good post-crash response apply everywhere, such as the need for strategic planning and investment, coordination, communication, equipment, and training.



## 6. PILOTS, RESEARCH, AND INNOVATION

### BOOSTING ROAD SAFETY FOR YOUTH THROUGH A CROWDSOURCING APP



Globally, road traffic crashes are the number one cause of death for children and young people aged 5 to 29. In an effort to reduce traffic-related deaths among youth, the [Safe2School](#) mobile app was developed with funding from

GRSF to improve the safety of children walking to and from school via crowd-sourced data. Specifically, the app requests and provides information about the absence of sidewalks or crosswalks, poor visibility or lighting, inappropriate behavior of others on the streets or in public transport, and other safety factors to inform children, parents, decision-makers and local authorities

about potentially dangerous situations and unsafe locations.

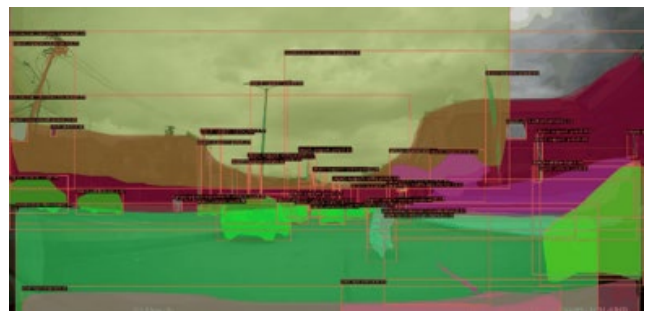
The successful pilot of this mobile app in Serbian schools attracted great interest and government support—the Ministry of Education and Science informed all primary schools in the country about the app and advised them to use it to inform local authorities about unsafe locations, and Serbia’s Road Safety Agency expressed an interest to support a broader rollout of the tool. The World Bank is currently exploring the possibility of using the app to inform the design of operations in Pakistan, Bangladesh, and the West Bank and Gaza. A [blog post](#) and [video](#) were produced to communicate the success of the pilot.

### AUTOMATING ROAD SAFETY PREDICTIONS

The absence of valid and representative data often prohibits a full understanding of road safety risks. For this reason, GRSF supported a pilot study to improve road safety analysis using new technology such as big data and machine learning.

The [integrated framework for road safety](#) can detect road characteristics from street-level imagery and provides road safety predictions for each segment analyzed. The open-source framework, available on [GitHub](#), can automatically identify 106 street characteristics (based on the Mapillary Vistas dataset) such as road signs, streetlights, street markings, bike lanes, sidewalks, and potholes, thereby reducing reliance on the more traditional method of manual image annotation.

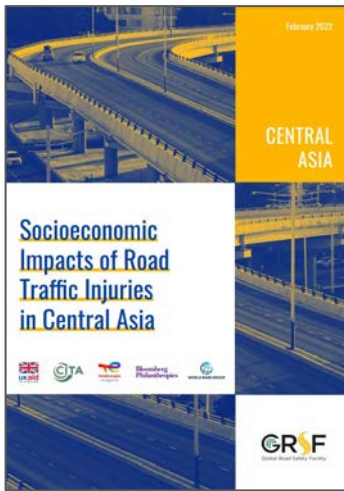
Case studies were conducted in Bogotá, Colombia, and Padang, Indonesia. Road segment risk was predicted with 72.5 percent accuracy in Bogotá. While additional data is needed to confirm



the framework’s performance in Padang, the new methodology is promising, and the workflow is replicable in other locations.

A guidance note, [Detecting Urban Clues for Road Safety: Leveraging Big Data and Machine Learning](#), accompanies the framework, which reviews data requirements for road safety assessments, lists relevant big data sources, and offers a practical introduction for using big data and machine learning in road safety evaluations.

## STUDYING THE ECONOMIC IMPACTS OF ROAD TRAFFIC CRASHES



The costs of road traffic crashes do not end at the roadside; they create ripple effects throughout the wider economy. In fact, the cumulative economic impacts of road traffic crashes can cost LMICs as much as 6 percent of their annual GDP through loss of

income and productivity, property damage, higher insurance premiums, loss of tax revenues, and burdens on the healthcare system. Revealing the far-reaching cost of traffic crashes is critical as it highlights the potential economic benefits of investing in road safety.

Two studies in Central Asia and Azerbaijan, supported by GRSF, provide a powerful illustration

of the economic losses stemming from road traffic injuries. The report [Socioeconomic Impacts of Road Traffic Injuries in Central Asia](#), published in February 2022, assesses various dimensions of the economic impact of road traffic injuries in four Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan)—a part of the world where there is a major need to improve road safety due to high fatality rates. The estimates outlined in the report highlight the significant economic cost savings if road traffic fatalities and injuries were substantially reduced.

At the request of the Government of Azerbaijan, GRSF and the World Bank supported the study [Socio-Economic Costs and Human Impacts of Road Accidents in Azerbaijan](#), which raises awareness of the high socio-economic cost of road crashes and highlights the benefits of road safety improvements. The report was produced under the framework of Azerbaijan's State Road Safety Program for 2019-2023, which aims to substantially improve the road safety situation in the country.

## SHOWCASING THE SAFE SYSTEM APPROACH IN ACTION

A Safe System approach to road safety has proven to be an effective and efficient way to improve road safety. However, introducing a Safe System is not easy, especially in LMICs.

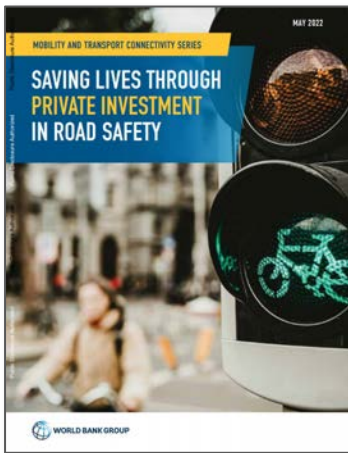
GRSF contributed to a report spearheaded by ITF, [The Safe System Approach in Action](#), which proposes a framework for designing, implementing, and assessing projects with a Safe System focus. The June 2022 report draws on lessons from 17 real-world case studies to offer guidance on implementing effective Safe System interventions. The report follows two earlier reports published in 2008 and 2016 respectively on the Safe System approach.

The case studies examined reveal no single recipe for successful implementation of a Safe System approach, instead recommending a variety of approaches tailored to national and local contexts. The examples also

highlight the crucial role of robust governance and cooperation between road safety partners in any successful intervention that uses a Safe System approach.



## MOBILIZING PRIVATE FINANCING



Road safety interventions have historically been underfunded. The World Bank estimates there to be a US\$260 billion gap in road safety funding for achieving the UN SDGs related to road safety by 2030. Since public funding alone

cannot close this gap, it is critical to mobilize private financing for the improvement of road safety.

A February 2022 report, [Saving Lives Through Private Investment in Road Safety](#), examines the potential for private capital mobilization to close this funding gap. The report, funded by GRSF, the International Finance Corporation, and the Public-Private Investment Advisory Facility, studies the

market failure to appropriately account for the cost of road crashes, which prevents private capital from flowing to road safety investments. The report found that the growth of socially responsible investing and the sustainable finance market offers a new opportunity to address this market failure, and proposes different business models and financing instruments to channel private investment into road safety investments. A [blog post](#) was published to summarize the report findings.

A [report launch](#) held in June 2022 was chaired by World Bank Global Director for Transport Nicolas Peltier-Thiberge, and featured the UN Secretary-General's Special Envoy for Road Safety Jean Todt, the World Bank Vice President for South Asia Region Hartwig Schafer, and a distinguished panel of international road safety experts and advocates. The event explored the enabling environment for structuring investable road safety projects in a variety of countries, considered barriers and opportunities, and proposed risk mitigation strategies.

## UPDATING THE ROAD SAFETY TOOLKIT

[The Road Safety Toolkit](#) is an online resource hosted by iRAP that provides information on the causes and prevention of road crashes resulting in death and injury. Building on decades of road safety research, the toolkit helps engineers, planners, and policymakers develop safety strategies for a variety of road users including car occupants, motorcyclists, pedestrians, bicyclists, heavy vehicle occupants, and users of public transport.

First launched 10 years ago, the toolkit was fully updated in FY22 to incorporate a Safe System approach to road safety and new evidence on effective interventions. The toolkit update was

completed through a collaboration between iRAP and GRSF, and was presented at [GRSF's Knowledge Booth](#) during the 2022 Transforming Transportation Conference.



# CATALYZING ROAD SAFETY FINANCE



GRSF plays a pivotal role catalyzing World Bank-financed road safety investments. The GRSF team contributes to the preparation and implementation of new World Bank projects by providing technical assistance, training, and expert advice to World Bank regional teams and policymakers in client countries.

In FY22, GRSF achieved and contributed to significant results:

### **INFORMING AND APPRAISING WORLD BANK TRANSPORT PROJECTS**

\$5.55 billion of newly approved World Bank-financed investment projects in the Transport Global Practice—spanning 21 projects and 20 countries—were informed by GRSF with respect to road safety.

In the preparation stage these projects used the Road Safety Screening and Appraisal Tool (RSSAT), a tool developed by GRSF to meet the World Bank Transport Global Practice’s requirement that all investments with a road component a) include road safety within the economic analysis of the project, and b) achieve a reduction in road traffic fatalities.

In FY22, RSSAT was used by World Bank project leads to assess road works to be financed along 100 road sections, equivalent to 3,964 km. The expected reduction in fatalities along these road sections varied from 1 to 71 percent, which should yield an economic benefit of over \$1.26 billion over 20 years.

### **CATALYZING WORLD BANK ROAD SAFETY INVESTMENTS**

\$949 million in investment financing for World Bank projects dedicated to road safety was approved. This included two ground-breaking stand-alone road safety projects in Bangladesh and India for \$358 million and \$250 million respectively. The preparation of both projects was supported by GRSF over a multi-year engagement, and GRSF will continue to support the projects during the implementation phase.

### **BUILDING EXPERTISE AMONG WORLD BANK TASK TEAM LEADERS**

GRSF delivered the first Road Safety Academy for World Bank project leads and other staff in May 2022. The 3-day course was designed to impart the knowledge and skills needed to implement road safety programs in LMICs.

The virtual course was attended by 37 participants from 18 countries and across diverse fields including transport, health, environment, impact evaluation, climate change, and knowledge management. GRSF plans to repeat the course annually to meet increasing demands for guidance and knowledge from World Bank staff on how to improve road safety in World Bank-financed projects.

## BANGLADESH ROAD SAFETY PROJECT

### Context:

Crashes on Bangladesh's roads are estimated to claim the lives of about 25,000 people and disable another 200,000 each year. Over the past three decades, the increase in the road traffic fatality rate in Bangladesh has been three times that of the broader South Asia region. Over half the road crash victims are poor and vulnerable, with pedestrians accounting for almost half of all road traffic deaths and injuries.

Through the landmark *Road Transport Act 2018*, the government of Bangladesh recently committed itself to sustainably improving the nation's road safety performance.

### World Bank Involvement:

The World Bank-financed [Bangladesh Road Safety Project](#) (\$358 million), which was approved by the World Bank Board in March 2022, aims to support the establishment of a lead road safety agency in Bangladesh and achieve a 30 percent reduction in fatal crashes along pilot highway corridors and other roads receiving mass-action treatments.

Intended project outcomes include the launch of a national road safety program and road safety fund, improved inter-agency coordination, faster incident response and crash clearance, and reduced traffic safety risks for all road users in Bangladesh.

This is the World Bank's first stand-alone multisectoral road safety project in the South Asia region supporting a client government in developing a long-term national program to improve road safety management and outcomes.

### Project Characteristics:

- A focus on institution building, governance, and public-private partnership opportunities in road safety.
- Multisectoral road safety pilot initiatives on national highways and on urban and district roads.



- Priority investments in road infrastructure, vehicle and driver safety, traffic safety enforcement, crash data management, and post-crash care.
- Technical assistance for participating departments.

### The Role of GRSF:

GRSF played a key role in catalyzing and supporting the project from preparation to implementation through three GRSF technical assistance grants totaling \$0.6 million.

Since 2019, GRSF-funded World Bank analytical and advisory work—with comprehensive support from the World Bank task team—has included carrying out the Bangladesh Safety Management Capacity Review, the development of a Road Safety Action Plan, and the provision of technical assistance. These activities have helped shape the design of project components. Outputs included assessments of high-risk pilot corridors, a review of the crash database system, an assessment of traffic enforcement agencies, and an economic- and gender-gap analysis of the project.

The preparation of this multisectoral project—which spans across three ministries—required in-depth technical feasibility studies, capacity assessments for institutional management, and a market review to facilitate budgeting for the modernization of data management systems and the purchase of equipment required for road safety interventions.

# INDIA STATE SUPPORT PROGRAM FOR ROAD SAFETY

## Context:

Road crash deaths in India claim the lives of about 150,000 people and disable another 750,000 people each year, making it the country with the highest number of deaths and injuries in the world in absolute terms. This large toll cuts into hard-won economic gains and reduces India’s demographic dividend.

Through the *Motor Vehicles Amendment Act*—a major reform enacted in 2019—the government of India aims to enhance the governance and accountability of all stakeholders involved in the road safety system and support the National Road Safety Strategy 2018-2030, which outlines India’s vision to achieve zero road crash deaths.

## World Bank Involvement:

In June 2021, the World Bank Board approved \$250 million in financing to support the government of India’s \$1 billion program to strengthen road safety, which is also co-financed by the Asian Development Bank.

The World Bank’s [India State Support Program for Road Safety](#) provides support to the Indian government’s Road Safety State Support Program (RSSSP), an initiative aiming to strengthen capacity for results-based road safety management and sustainably reduce road crash deaths and serious injuries. The RSSSP has a duration of six years and focuses on 14 priority states in India that account for 85 percent of the country’s road fatalities.

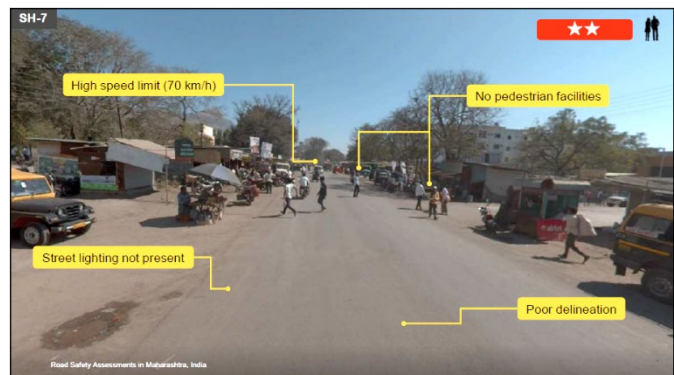
## Project Characteristics:

- Leverages over 12 years of active engagement from the World Bank’s Transport and Health Global Practices in India.
- Brings in global best practices in road safety and public health.
- Focuses on institution building and governance, enhanced participation of women, and private capital mobilization.

## The Role of GRSF:

During the past decade, GRSF has closely partnered with the Indian government on road safety issues. GRSF has provided technical assistance for various initiatives and has to date assessed over 16,000 km of built roads and 1,500 km of road designs from a road safety perspective and informed the upgrade of over 3,100 km of roads. In addition, GRSF-supported studies have informed road engineering safety issues for eight World Bank projects worth \$5.3 billion.

Following this long-term and results-oriented partnership, road safety is now a top priority for the Indian government.





# STRENGTHENING PARTNERSHIPS



## MDB ROAD SAFETY WORKING GROUP

The World Bank is currently chairing the MDB Road Safety Working Group (RSWG) and GRSF is playing the secretariat role.

A workplan for 2022-2025 has been prepared by the Group, which is based on three main objectives:

1. Scaling up MDBs' road safety financing.
2. Harmonizing project preparation and implementation approaches.
3. Adopting a common approach to global and regional engagements.

The workplan will be monitored and evaluated via the following outcomes indicators:

- Scaled-up evidence-based road safety investments (target of \$1 billion per year).
- Common practices developed and adopted for road safety appraisal and implementation support.
- Common rules of engagement adopted at the global and regional levels.

In FY22, the activities of the MDB RSWG included the development of a Road Safety Impact Assessment Terms of Reference that could be adapted by all MDBs; a study on MDBs' financing of road safety during the last five years; and an evaluation of opportunities for scaling up MDB road safety financing through more stand-alone road safety investments.

## COLLABORATION WITH THE UNITED NATIONS



On June 27 and 28, 2022, the UN Secretary General's Special Envoy for Road Safety Jean Todt, joined by a UN road safety delegation, visited the

World Bank Headquarters in Washington, D.C., to discuss road safety collaboration opportunities with World Bank management and technical staff.

Details of World Bank road safety investments in Latin America and Africa regions were presented to the Special Envoy and his team, which included the role of GRSF in supporting and informing these investments.

The Special Envoy and World Bank management agreed to coordinate regional visits to the Latin America and Africa regions to advance joint efforts on improving road safety at the country level.

## PARTNERSHIP TO IMPROVE ROAD SAFETY DATA MANAGEMENT

A new Memorandum of Understanding (MoU) was signed in September 2021 for an initial two-year period between Fédération Internationale de l'Automobile (FIA) as convener of the FIA High Level Panel; the International Bank for Reconstruction and Development and the International Development Association (collectively, the "World Bank"), the

Organisation for Economic Co-Operation and Development for the International Transport Forum ("OECD/ITF") and the World Health Organization. The MoU outlines an agreement to collaborate on improving road safety data collection processes, especially in LMICs.

# FY22 FINANCES

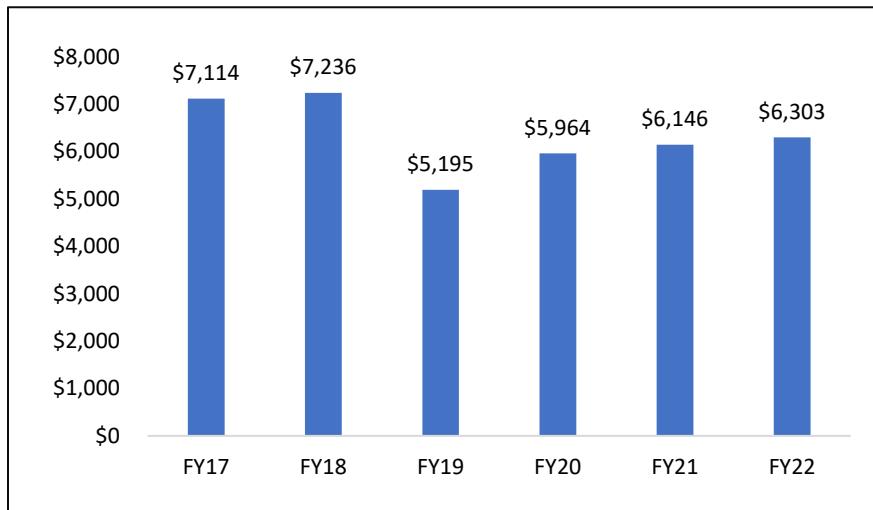




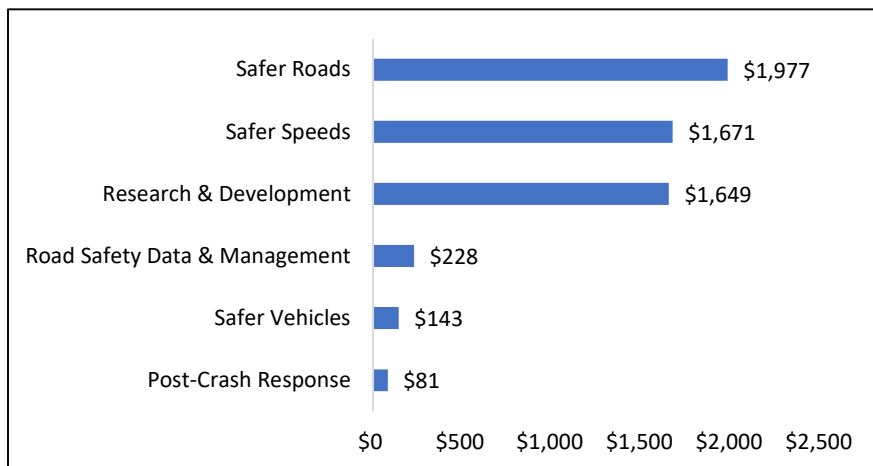
## FINANCIAL REVIEW

In FY22, GRSF disbursed \$6.3 million, an amount similar to FY21 (\$6.1 million). Regional and global program activities accounted for over 91 percent of disbursements. GRSF's program management and administration expenditures accounted for 8.8 percent of the disbursements.

**Figure 1: Disbursements by Fiscal Year**  
(*\$ thousands*)



**Figure 2: Disbursements by Theme in FY22**  
(*\$ thousands*)



# APPENDIXES

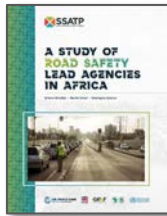


## APPENDIX A: FY22 BOARD MEMBERS

- **Kelly Larson** – GRSF Board Chair and Program Director, Bloomberg Philanthropies
- **Eduard Fernandez** – Executive Director, Comité International de l'Inspection Technique Automobile/International Motor Vehicle Inspection Committee
- **Anne Joselin** – Infrastructure Advisor, Foreign, Commonwealth and Development Office, United Kingdom
- **Dawn Wood** – Deputy Programme Manager, Foreign, Commonwealth and Development Office, United Kingdom
- **Megan Gaffey** – Global Health Research Programme Manager, Department of Health and Social Care, United Kingdom
- **Abdoul Wahab** – Road Safety Senior Advisor, TotalEnergies Foundation
- **Binyam Reja** – Global Practice Manager for Transport, World Bank
- **Nicolas Peltier-Thiberge** – Global Director for Transport, World Bank

# APPENDIX B: LIST OF PUBLICATIONS

## 1. ROAD SAFETY DATA AND MANAGEMENT



A Study of Road Safety Lead Agencies in Africa



Africa Status Report on Road Safety 2020



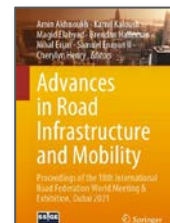
Applying a Safe System Approach Across the Globe



Availability of Population-Level Data Sources for Tracking the Incidence of Deaths and Injuries from Road Traffic Crashes in LMICs



Comparing Estimates of Road Traffic Deaths and Non-Fatal Road Traffic Injuries in Cambodia



DRIVER: Case Studies of Cebu, Philippines and the Asia-Pacific Road Safety Observatory



Estimates of Road Traffic Deaths in Tanzania



Guidelines for Conducting Road Safety Data Reviews



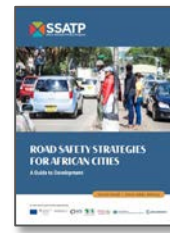
Practical Guide for Road Safety Auditors and Inspectors in Ukraine



Road Safety Data in Africa: A Proposed Minimum Set of Road Safety Indicators for Data Collection, Analysis, and Reporting



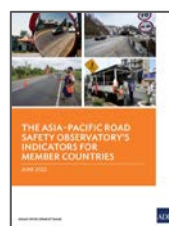
Road Safety Data Review in Cambodia: Summary Note



Road Safety Strategies for African Cities: A Guide to Development



Socio-Economic Costs and Human Impacts of Road Accidents in Azerbaijan



The Asia-Pacific Road Safety Observatory's Indicators for Member Countries



Drink Driving – A Road Safety manual for Decision-Makers and Practitioners

## 2. SAFER ROADS



Addis Ababa Sidewalk Design and Maintenance Guidelines



Addis Ababa Sidewalk Safety and Improvement Study: Project Report

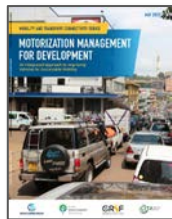


Guide to Integrating Safety into Road Design

## 3. SAFER SPEEDS



Economic Impact of 30km/h: Benefits and Costs of Speeds in an Urban Environment



Motorization Management for Development: An Integrated Approach to Improving Vehicles for Sustainable Mobility



Epidemiology of Adult Trauma Injuries in Malawi: Results from a Multisite Trauma Registry

## 5. POST-CRASH RESPONSE



Policy Brief: Trauma Incidence and Emergency Medical Services in Malawi

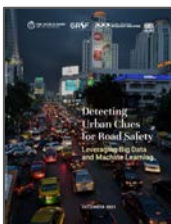


Post-Crash Emergency Response Toolkit

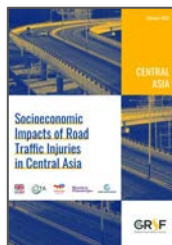


Technical Report: Trauma Incidence and Emergency Medical Services in Malawi

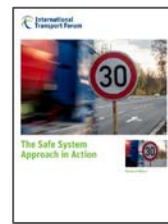
## 6. PILOTS, RESEARCH, AND INNOVATION



Detecting Urban Clues for Road Safety: Leveraging Big Data and Machine Learning



Socioeconomic Impacts of Road Traffic Injuries in Central Asia



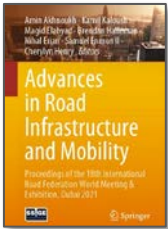
The Safe System Approach in Action



Saving Lives Through Private Investment in Road Safety



## CROSS-CUTTING



How Do Best Performing Countries in Road Safety Save Lives on the Roads? Lessons Learned from Case Studies in Singapore

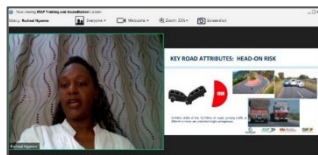


Investigating the Fatal Pedestrian Crash Occurrence in Urban Setup in a Developing Country Using Multiple-Risk Source Model



Motorcycle Safety in Africa

## APPENDIX C: TRAININGS, WORKSHOPS, AND EVENTS



### [World Bank and iRAP helping save lives in Africa](#)

Host/s: GRSF and iRAP

Date: July 6–16, 2021

Using practical examples, this webinar series introduced iRAP to those in Africa who want to use the methodology to perform safety assessments across the region to eliminate high-risk roads, unlock the economic benefits of 3-star or better roads, and meet the UN SDGs related to road safety.



### [Road Safety at Roadworks: High Speed Roads – Traffic Management.](#)

Host/s: GRSF and the Reform Support Team in the Ukraine Ministry of Infrastructure

Date: July 8, 2021

This workshop provided participants with knowledge on how to implement traffic management at roadworks and covered 1) how to create safe system work zones and manage risk, 2) essential design principles, 3) implementation of a traffic management plan, and 4) night works and unattended worksites.



### [Essentials of Road Safety Engineering Workshop in Asia](#)

Host/s: GRSF

Date: September 20–October 11, 2021

This 7-session virtual workshop presented the theory of road safety engineering to 219 participants in Asia. The modules featured real-world black spots and road safety audits, as well as practical case studies. 116 participants who successfully completed the assignments received a Certificate of Satisfactory Completion.



### [Seminar on Road Safety Interventions: Evidence of What Works and What Does Not Work](#)

Host/s: GRSF

Date: September 22, 2021

This webinar focused on the recently published GRSF guide on “what works and what does not work” in road safety. Interventions covering each of the Safe System pillars were discussed, highlighting beneficial and non-beneficial interventions.



### [Data-Driven Innovation to Halve Road Fatalities and Injuries by 2030.](#)

Host/s: iRAP and Regional Road Safety Observatories under the World Bank and GRSF, ADB, and the FIA Foundation

Date: October 7 and 14, 2021

The 2-part online event brought together technologists, policymakers, and road safety leaders to explore how cutting-edge innovation and emerging research can improve road safety programs and data collection.



### [Road Safety Auditors Train-the-Trainer Course in Ukraine](#)

Host/s: GRSF, the World Bank, and the Reform Support Team in the Ukraine Ministry of Infrastructure

Date: October 7–November 29, 2021

This course trained future trainers in the field of road safety audits and road safety inspections, who will transfer their knowledge and skills to other professionals working to improve road safety in Ukraine. 24 trainees from government, the private sector, academia, and research institutes were selected to attend.



### [A Conversation on #RoadSafety](#)

Host/s: GRSF and the World Bank

Date: November 17, 2021 (to coincide with the World Day of Remembrance for Road Traffic Victims)

This virtual event discussed the ambitious target of halving road traffic deaths and injuries by 2030, and how all stakeholders can work together to achieve this vision.



### [World Day of Remembrance for Road Traffic Victims](#)

Host/s: GRSF and the World Bank

Date: November 18, 2021

This webinar commemorated those who suffered from road crashes, and highlighted the World Bank's response to this global crisis.



### [Helping Save Lives from Road Crashes in Asia-Pacific](#)

Host/s: GRSF, the World Bank, ADB, APRSO, iRAP and GRSP and the Road Safety Capacity Building Programme for Asia and the Pacific

Date: February 8–24, 2022

This 5-part webinar series focused on road safety infrastructure recommendations from the *Global Plan for the Decade of Action for Road Safety 2021-2030* and provided an opportunity to share knowledge, tools, and case studies from the Asia-Pacific region. The webinars had over 1,000 participants from 56 countries.



### [Transforming Transportation 2022: Knowledge Booth](#)

Host: GRSF

Date: February 16–17, 2022

GRSF’s booth at the 2022 Transforming Transportation conference, co-hosted by the World Bank and the World Resources Institute, provided attendees with the opportunity to learn more about evidence-based interventions to improve road safety through presentations, discussions, and demonstrations.



### [Report Launch Webinar: Guidelines for conducting Road Safety Data Reviews](#)

Host/s: GRSF, the World Bank, and ITF

Date: February 23, 2022

To launch the *Guidelines for Conducting Road Safety Data Reviews* report, a diverse group of speakers presented various aspects of the road crash data collection process, such as crash investigation, reporting, and registration methods; checking data completeness and consistency, storage, and accessibility; and data analysis and use.



### [World Bank Road Safety Academy](#)

Host/s: GRSF and the World Bank

Date: May 23, 24, and 26, 2022

GRSF held the first World Bank Road Safety Academy in May 2022, which was attended by 38 participating World Bank staff across different regions. The aim of the 3-day course was to improve understanding of road safety issues and opportunities in LMICs, and to scale up financing through World Bank investments.



## [Hybrid Report Launch: Mobilizing Private Financing for Road Safety in LMICs](#)

Host/s: GRSF and the World Bank

Date: June 7, 2022

This report launch covered different business models and financing instruments to channel private investment into road safety projects. The event explored the enabling environment for structuring investable road safety projects, looked at barriers and opportunities, and proposed risks and mitigation strategies.

