



The Ten Step Plan for Safer Road Infrastructure



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Produced by the Project Group “Safer Roads and Mobility” of the United Nations Road Safety Collaboration group (UNRSC)*.

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* www.who.int/roadsafety/en/

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An estimated 1.35 million people are killed, and around 50 million injured, every year in road traffic crashes, which makes poor road safety one of the most pressing social, economic, health and development issues of our time. It is the leading cause of death for young people aged 15 to 29, and the eighth leading cause of death globally.¹

The UN Road Safety Fund Terms of Reference (Nov 2018) describe the global burden of road trauma as follows:

“Ninety per cent of all road fatalities occur in developing countries. Beyond human suffering, road traffic deaths and injuries impose significant economic and financial losses to individuals and to societies [...] An estimated 12-70 million people are kept in poverty each year due to road traffic injuries and fatalities, and the economic loss of road crashes ranges from 3-6 per cent of GDP a year².

Road traffic injuries often inflict the highest burden of death and long-term disability on those in their prime working age, between 15 and 64 years old, resulting in a reduced work force and a weaker economy³. Road traffic injuries are estimated to create a \$1.85 trillion burden on the global economy each year⁴.”

The UN Member State Targets for Road Safety

To address the global road safety crisis, UN Member States have agreed on 12 Global Road Safety Performance Targets to guide institutional action. With the support of the UN Road Safety Fund, the “Ten Step Plan for Safer Road Infrastructure” is designed to provide countries with a proven step by step process to build national capacity and achieve Target 3 and Target 4 in relation to Safer Road Infrastructure.

TARGET 3 2030

Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety, or meet a three star rating or better.

TARGET 4 2030

Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users that take into account road safety.

UN Member State Agreed Targets for Road Infrastructure Safety (WHO, 2018)

UN Road Safety Fund Objectives

The objectives of the United Nations Road Safety Fund⁵ include:

1. Strengthening road safety management capacity at the national and local levels, and unlocking sustainable sources of domestic road safety financing in low and middle-income countries by mobilizing global financial and technical resources;
2. Supporting road safety programmes at the national and local levels across the five pillars of the Global Plan for the Decade of Action for Road Safety by providing funding support to participating institutions and organizations throughout the investment cycle;
3. Coordinating complementary channels of road safety and sustainable transport assistance to countries and cities to harmonize initiatives for the Sustainable Development Goals and maximize the effectiveness and efficiency of the goals.

The UN Road Safety Fund Funding Criteria and Priorities⁶ outline 3 key priorities and focus areas for projects with associated funding criteria. These include Priority 1 to identify gaps in the national road safety system; Priority 2 for technical assistance to implement specific actions based on the Global Framework Plan of Action⁷; and Priority 3 for technical assistance to improve overall road safety management.

1 World Health Organization, Global Status Report on Road Safety, 2018.

2 International Road Assessment Programme (iRAP), A World Free of High-Risk Roads, September 2015.

3 The World Bank, The High Toll of Traffic Injuries: Unacceptable and Preventable, January 2018.

4 International Road Assessment Programme (iRAP), A Business Case for Safer Roads.

5 UN Road Safety Fund <http://www.unece.org/unrstf/home.html>

6 UN Road Safety Fund Funding Criteria And Priorities

7 UN Road Safety Fund Global Framework Plan of Action

The Ten Step Plan for Safer Road Infrastructure Introduction

The Ten Step Plan for Safer Road infrastructure has been produced by the United Nations Road Safety Collaboration partners to support countries seeking to implement initiatives in relation to the “Improved safety of road infrastructure and broader transport networks”, the UN Convention on Road Traffic and Road Signs and Signals and the achievement of UN Member States Agreed Global Targets 3 and 4 for safer new and existing roads.

Target 3 states that “by 2030, all new roads achieve technical standards for all road users that take into account road safety or achieve a three-star rating or better”. Target 4 states that “by 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users that take into account road safety.”

The Ten Step Plan for Safer Road Infrastructure will build the institutional capacity and regulatory framework to support these targets and unlock the potential of safer roads and safer cities to save lives. With the support of UN agencies and the UN Road Safety Fund, countries can mobilise international partnerships and collaboration to ensure that no new high-risk, one or two-star roads are constructed, and existing roads and city streets are targeted in a cost-effective manner to maximise the amount of travel on roads that are safe for all pedestrians, cyclists, motorcyclists and vehicle occupants.

The World Health Organisation Global Status Report

The Global Status Report on Road Safety 2018 edition⁸ highlights that road deaths have now increased to an estimated 1.35 million deaths each year as detailed in the summary below.

- **The number of roads deaths on the world's roads remains unacceptably high.**
- **Road traffic injuries are now the leading killer of children and young adults.**

- **More than half of global road traffic deaths are among pedestrians, cyclists and motorcyclists who are still too often neglected in road traffic system design in many countries.**
- **There is progress being made, however, it is far from uniform across countries.**
- **SDG 3.6 target to halve road deaths and injuries by 2020 will not be met without drastic action.**

1.35

Million deaths each year

8th

Leading cause of death for people of all ages

#1

Cause of death for children and young adults 5-29 years of age

WHO Global Status Report – Global Road Safety Performance (WHO 2018)

Country Profiles

In relation to road infrastructure, the World Health Organisation Global Status Report⁸ on Road Safety reports on the high-level progress of countries in the area of Safer Roads and Mobility.

The report captures the status of activity on the following:

- The implementation of road safety audits and minimum star rating standards for new roads,
- Road Design Standards that address road safety for all road users and meet the specific needs of vulnerable road users,
- Road safety inspections and star rating of existing road infrastructure,
- The use of Safer Roads funding and targeted investment to eliminate high risk roads, and
- Policies and investment in safe and sustainable urban public transport.

⁸ World Health Organization, Global Status Report on Road Safety, 2018.

The 10 Step Plan for Safer Road Infrastructure will help countries ensure that their response can be positive to all future World Health Organisation Global Status Report on Road Safety responses.

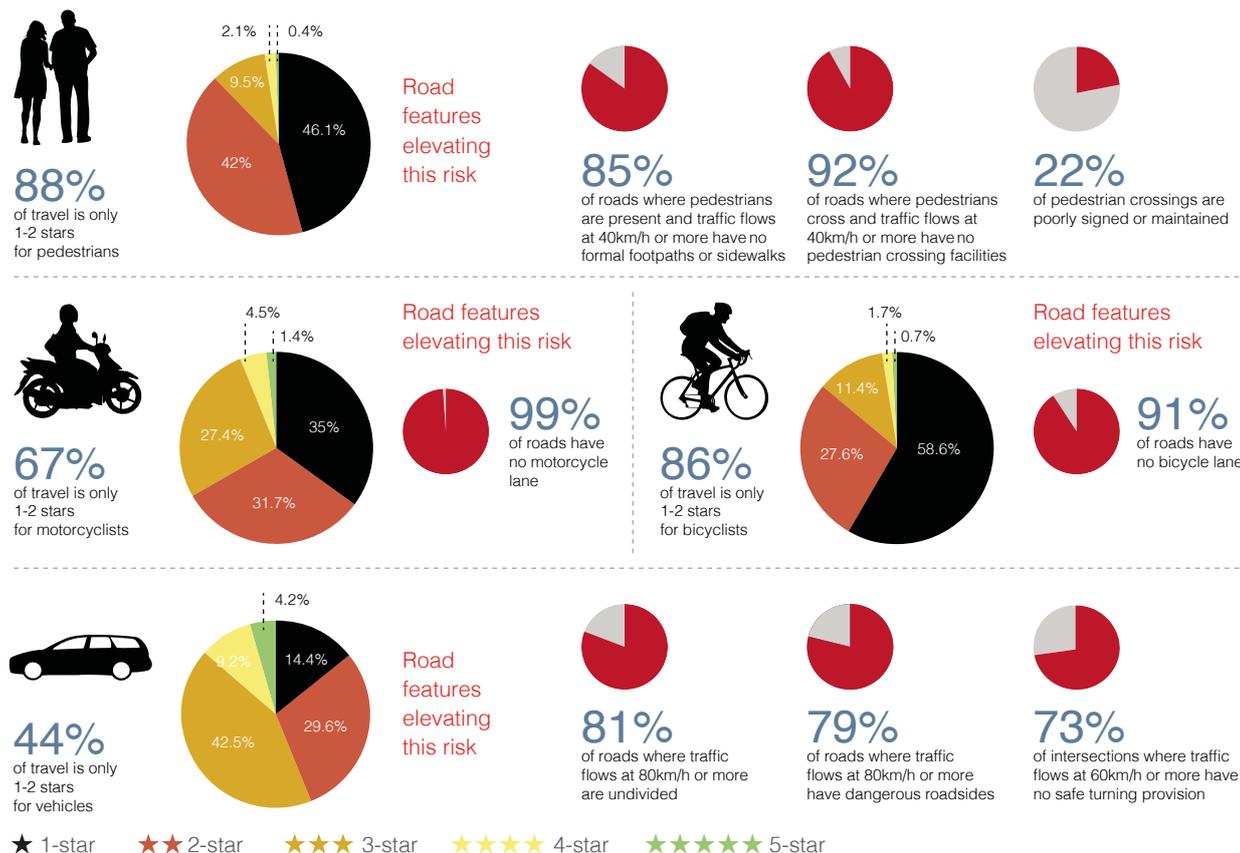
Improved safety of road infrastructure and broader transport networks

Understanding the current condition of the world's roads is an important first step in improving the safety of road infrastructure and broader transport networks. The Vaccines for Roads resource⁹ summarises a sample of road infrastructure assessments on 358,000km of road

from 54 countries worldwide where more than 700 billion kilometers of vehicle travel occurs every year.

The Star Rating of roads is an evidence-based measure of the road features that impact the likelihood and severity of a crash for each individual road-user group. A 1-star rating is the least safe and a 5-star road is the safest. The fatal and serious injury crash rates are typically 30-50% lower for each incremental improvement in star rating¹⁰.

BASED ON 358,000KM OF ROADS ACROSS 54 COUNTRIES:



⁹ Vaccines for Roads, iRAP 2018 <https://www.vaccinesforroads.org/>

¹⁰ Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System, OECD 2016

The business case for safer road infrastructure

Proven interventions including improved road cross-sections, footpaths and sidewalks, safe crossings, cycle lanes, safe roadsides, median separation and improved intersection design are among a range of cost-effective interventions that will save lives. Together with speed management initiatives, iRAP has developed a high-level estimate of the business case for safer roads. The analysis considers the number of lives and serious injuries that can be saved if countries achieve UN Target 4 for more than 75% of travel on the equivalent

of a 3-star or better standard for all road users. The economic benefits are estimated to provide countries with the confidence to invest in the evidence-based road upgrades that will play a key role in reaching the UN SDG targets to halve road deaths and injuries.

The global snapshot is provided below with individual country estimates available at this [site](#)¹¹. iRAP estimates that a total of 100 million deaths and injuries can be avoided over a twenty year period if the UN target for more than 75% of travel for all road users is on 3-star or better roads by 2030. The return on investment will be at least \$8 for every \$1 invested.

UN TARGET 4: > 75% of travel on roads that meet technical standards for all road users by 2030 (equivalent to 3-star or better):

	LOW INCOME	LOWER-MIDDLE INCOME	UPPER-MIDDLE INCOME	HIGH INCOME	ALL
Number of countries	31	45	51	50	177

CURRENT SITUATION

Annual number of fatalities	195,599	423,148	472,563	116,331	1,207,611
Fatalities per 100,000 population	24.2	17.1	19.6	9.2	17.3
Annual number of fatalities and serious injuries	2,151,259	4,654,628	5,198,193	1,279,641	13,283,721
Annual cost of fatalities and serious injuries (% of GDP)	5.8%	4.2%	4.7%	2%	2.9%

WHAT CAN BE ACHIEVED with >75% of travel on 3-star or better roads for all road users

Annual Investment as a % of GDP (2018)	0.14%	0.18%	0.12%	0.14%	0.14%
Reduction in fatalities per year	86,342	169,259	174,106	37,332	467,039
Reduction in fatalities and serious injuries (FSI) over 20-years	18,995,159	37,237,024	38,303,352	8,213,036	102,748,571
Economic Benefit (\$US)	\$273bn	\$1,335bn	\$5,063bn	\$4,507bn	\$11,180bn
Benefit Cost Ratio	18	9	16	5	8

*Full assumptions and national snapshots are available at vaccinesforroads.org

¹¹ <https://www.vaccinesforroads.org/business-case-for-safer-roads/>

UN Road Safety Collaboration Resources

In addition to the UN Convention on Road Traffic and Road Signs and Signals, the UN Road Safety Collaboration partners have developed resources across four key “Focus Areas”¹² to assist countries improve their infrastructure safety performance. The resources provide the support and tools needed to achieve safer roads and unlock the associated safety benefits.

The take-up and application of information provided within each of the four key Focus Areas of Pillar II will assist governments and road safety practitioners to establish institutional policies and capacity for safer road infrastructure outcomes. The Focus Areas and their objectives are as follows:

- **Focus Area 1:** The Successful integration of road safety into existing systems and policies.
Objectives: to outline key motivators/incentives to ensure that road safety is fully and successfully integrated into existing systems and policies within government, development banks, etc., for road planning, design and construction.
- **Focus Area 2:** The identification and application of road safety infrastructure management tools.
Objectives: to identify and provide road safety practitioners with infrastructure management tools to assist them in undertaking road safety tasks, to enable them to evaluate, prioritize and monitor infrastructure and operational safety performance.
- **Focus Area 3:** “How-to” road safety solutions.
Objectives: to provide governments and road safety practitioners with evidence based targeted crash countermeasures in a how-to manner.
- **Focus Area 4:** A model framework for road safety engineering capacity building.
Objectives: to provide countries with a practical framework for improving capacity in road safety engineering.

Tailoring a program for your country

These well-established policy and investment tools, targets, resources and partner networks provide the foundation of knowledge for assisting countries improve capacity in road infrastructure safety performance. The United Nations Road Safety Collaboration partners have established impact across more than 100 countries worldwide with well-founded mechanisms to connect Government, Development Bank and NGO stakeholders with opportunities to unlock the potential of safer road infrastructure to save lives and achieve the UN targets.

The Ten Step Plan for Safer Infrastructure is designed to be tailored to meet the specific needs of a country and build sustainable institutional capacity, impact and partnerships.

Ten Step Plan for Safer Road Infrastructure

Road crashes are the biggest killer of young people worldwide and the injury burden impacts every country on earth. In total, 1.35 million people are killed and 30-50 million people are injured in preventable road crashes every year. Pedestrians, cyclists and motorcyclists account for nearly half of all road deaths and a significant proportion of injuries.

Road infrastructure plays a significant role in influencing the likelihood or severity of a crash. An undivided road with head-on risk built in, a high-speed road with dangerous roadsides or an urban road with no facilities for safe pedestrian or cyclist movements are just some examples of road features that impact crashes. The cost of road trauma is estimated to be 3-6% of national GDP each and every year in low and middle-income countries¹³.

Unlocking the potential of safer roads to save lives, save money and achieve the UN Global Road Safety Performance Targets is the focus of the 10 Step Plan for Safer Road Infrastructure. Integrated with safe system action across all pillars will ensure the global fatality and serious injury reduction targets are met by 2030.

¹² Global Transport Knowledge Practice hosted by IRF (<https://www.gtkp.com/themepage.php?themepgid=370>)

¹³ <https://www.vaccinesforroads.org/business-case-for-safer-roads/>

Key outcomes at completion of the plan: Safer roads for all road users

The UN Global Framework Plan of Action for Road Safety outlines the Safe System approach and aims to help any country in establishing and enhancing its national road safety system. The Ten Step Plan for Safer Road Infrastructure is structured in a way that will support this Framework and deliver institutional outcomes in both the Road Safety Management and Safe Road Pillars as outlined below.

Key Outcomes for Road Safety Management

1. Road infrastructure safety unit / institutional structure in place
2. Locally led national Road Assessment Programme in place
3. Business case for safer roads defined for existing high-risk road network
4. Safer Roads Fund and/or Results-Based Financing partners identified

Key Outcomes for Safe Roads

5. National Safer Road Infrastructure Action Plan developed
6. National Design Standards and Specifications updated to align with the established UN Convention on Road Traffic and Road Signs and Signals and the Member State agreed Global Road Safety Performance Targets
7. National Road Assessment Programme established / enhanced with relevant local Policy Targets for new and existing roads
8. Training, accreditation and certification scheme in place for Road Assessment Programme activity, road safety audits on new roads and road safety inspections on new and existing roads
9. Immediate safety impact on roads currently under construction or due to be built and financing partnership identified for the upgrade of existing roads
10. Road Safety data analysis, performance tracking, monitoring and evaluation in place

The Ten Step Plan for Safer Road Infrastructure will deliver immediate impact and support the UN Global Framework Plan of Action for Road Safety as outlined in the table below.

UN GLOBAL FRAMEWORK PLAN OF ACTION – SAFE ROAD IMPACT

PILLAR	LEGISLATION	ENFORCEMENT	EDUCATION	TECHNOLOGY
Safe Road	Review of national and local road design standards scoped	Compliance with standards incorporated into licensing scheme for engineers	University and Professional accreditation training updated	ITS Standards and Road design software tools
	Specification of 3-star or better standards in new road design briefs	Certification of Star-Rating performance of all major road designs incorporated within audit process	Government and industry professionals trained and mentored	ITS standards and Star Rating of Road Designs
	Review of National Speed Limit Legislation	Appropriate speed limits with speed management and enforcement in place		Mapping of speed limits and sourcing of telematics / speed data
	UN Convention on Road Traffic and Road Signs and Signals	Network-wide safety assessment scheduled every 3-5 years		Sign and lines survey techniques implemented
	Policy targets for >75% of travel at 3-star or better By 2030			iRAP specification assessments with Safer Road Investment Plans

The Ten Step Plan for Safer Road Infrastructure - Overview

TEN STEP PLAN FOR SAFER ROAD INFRASTRUCTURE

UNRSTF PRIORITY 1: GAP ANALYSIS	
STEP 1	National Safer Road Infrastructure Workshop
STEP 2	Road Infrastructure Management Organisational Mapping
STEP 3	Review of Current National and State Operational Policies, Standards, Guidelines and Financing Arrangements
STEP 4	Develop National Safer Road Infrastructure Strategies and supporting Action Plans
UNRSTF PRIORITY 2: NATIONAL STANDARDS & TRAINING	
STEP 5	Development of National Road Design Standards in accordance with the UN Global Road Safety Performance Targets
STEP 6	Development of National Training, Accreditation and Certification Standards and Institutional Capacity
UNRSTF PRIORITY 3: INFRASTRUCTURE SAFETY MANAGEMENT	
STEP 7	Establish and/or enhance a National Road Assessment Programme (e.g. BrazilRAP, ChinaRAP, IndiaRAP, ThaiRAP, SARAP – South Africa)
STEP 8	Immediate Road Design Assessments and Road Safety Audits that elevate the safety for all road users to a 3-star or better standard in support of UN Target 3
STEP 9	Strengthen National Capacity for Infrastructure Road Safety Construction Quality, Data Management, Performance Tracking, Monitoring and evaluation
STEP 10	Establish an effective communications programme that celebrates safer roads

UN Road Safety Fund - APPLICATION TEMPLATE

The following application template is provided to assist countries in implementing the Ten Step Plan for Safer Road Infrastructure.

UNRSTF Priority 1: Gap Analysis

Technical assistance to identify shortcomings and/or gaps in the existing national road safety system and in preparation of national action plan for establishing comprehensive national road safety system based on the Global Framework Plan of Action

Delivery Partners:

National Stakeholders, UN National Representative; iRAP; IRF, ITF, WRI, PIARC; MDB representative; UNRSC Pillar 2 partners and other experts as required.

STEP 1

National Safer Road Infrastructure Workshop

The National Safer Road Infrastructure Workshop will bring together national road agency and road financing stakeholders to review the current systems and capacity within the country to deliver safer road infrastructure at the national, provincial and local levels.

The workshop will cover existing Road Infrastructure Safety Management, Design Standards and Implementation arrangements that address the safety needs of all road users in accordance with the Global Framework Plan of Action, UN Global Road Safety Performance Targets and the associated supporting systems and tools available via the UN Road Safety Collaboration partners.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED.

STEP 2

Road Infrastructure Management Organisational Mapping

Road Infrastructure Safety Management Organisational Mapping and Gap Analysis will be undertaken with assistance of the international teams to assess the roles and capacity of existing national, state, city and rural administrations, research bodies and supplier / industry networks.

The study will define the key responsibilities and accountabilities for Road Infrastructure Management in the country building on existing local provisions and the established UN Road Safety Collaboration resources. An assessment of gaps will be delivered and a framework for institutional strengthening and capacity building developed.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED.

STEP 3

Review of Current National and State Operational Policies, Standards, Guidelines and Financing Arrangements

The review of Current National and State Operational Policies, Standards and Guidelines will also include an assessment of Road and Transport Financing Mechanisms, Dedicated Safety Funding, Road Trauma Funding and eligible external Funding Agencies.

Significant capital and maintenance programmes exist for existing road infrastructure within existing expenditure. A review of how safety performance is built into the existing policies, standards operational guidelines and maintenance practices will be undertaken. Budget allocations, external financing options and the capacity of relevant national and industry delivery teams will identify opportunities for improvement.

Examples of road funding mechanisms from around the world can be adapted to meet local needs and institutional structures. The innovative use of public-private partnerships to deliver safer roads and accessing established Multi-lateral Development Bank, IFI or aid budgets for results-based lending to deliver 3-star or better roads by 2030 provides additional options for long-term impact.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

STEP 4

Develop National Safer Road Infrastructure Strategies and supporting Action Plans

The Development of a National Safer Road Infrastructure Strategy and Action Plans will integrate with the National Road Safety System and establish a locally led National Road Assessment Programme structure with existing national agencies that is appropriate for the country with associated governance and policy targets in place.

The cost of road trauma significantly outweighs the investment in improving road safety. Road budgets are typically between 0.5 and 1% of annual GDP and international financing mechanisms are well-established to support countries investing in infrastructure. Reviewing the current funding levels, source of national funding and allocation of budgets can identify opportunities to save lives.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

UNRSTF Priority 2: Capacity Building

Technical assistance to implement specific actions for improving and completing national road safety system in accordance with national strategy and action plans developed based on the Global Framework Plan of Action, or the existing national action plans under the Global Plan for the Decade of Action for Road Safety, or recommendations from the existing national road safety performance reviews in line with the Global Framework Plan of Action.

Delivery Partners:

National Stakeholders, UN National Representative; iRAP; ITF, WRI, PIARC; MDB representative; IRF; NACTO, Research Institutes, UNRSC Pillar 2 partners and other experts as required

STEP 5

Development of National Road Design Standards in accordance with the UN Global Road Safety Performance Targets

Road design standards exist in most countries, often with a focus on road capacity and speed. A review of the existing standards can identify key areas where the inclusion of road safety outcomes can be improved and the local training needs to help facilitate that review. Importantly, this review must extend to the planning, design, construction quality management and oversight of new road projects.

Building on the National Safer Road Infrastructure Action Plan, national road design standards will be updated in accordance with UN Target 3 for new roads and Target 4 for existing roads that address the needs of all road users. The identification and benchmarking of any National and State-level Road Design Standards will be supported.

Ensuring safety performance criteria and pass-marks are in place for all new road designs provides an immediate and significant impact on existing investment in road and transport infrastructure. This will flow on to all transport investment that typically accounts for 0.8 – 1% of GDP per annum. Alignment with the UN Convention on Road Traffic and Road Signs and Signals, iRAP global standards and UNRSC Pillar Group 2 recommendations (www.gtkp.com) will also ensure more efficient and effective international investment in infrastructure with well-established and evidence-based impact.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

STEP 6

Development of National Training, Accreditation and Certification Standards and Institutional Capacity

The design and implementation of a national **training, accreditation and certification scheme** that supports the new Targets and builds institutional capacity to sustain the National Safer Road Infrastructure Plan and National Road Assessment Programme will be undertaken.

This will build on the review of existing national policies, gap analysis, investment needs and industry capacity to deliver a tailored multi-year training and institutional Safe Roads capacity building programme. This will utilize existing local capability, institutions and training programmes to address identified gaps and extend the

knowledge and number of local stakeholders trained across the country with the global resources available from the **UN Road Safety Collaboration Partners**.

Resources include but are not limited to the following:

PIARC ROAD SAFETY MANUAL

- | | |
|---|---|
| <ul style="list-style-type: none"> • Road Safety Strategic Perspective • Road Safety Management Systems • The Safe System Approach • Effectiveness and use of road safety data • Road safety policies, targets and plans | <ul style="list-style-type: none"> • Roles, responsibilities and management capacity • Road design for all road users • Infrastructure safety management tools • Assessing risks and identifying issues • Intervention selection and prioritization • Monitoring and Evaluation |
|---|---|

IRAP TRAINING AND ACCREDITATION COURSES

- | | |
|--|--|
| <ul style="list-style-type: none"> • Introduction to iRAP • Establishing your own RAP Programme • Planning and procuring an iRAP project • Crash rate risk mapping • Star Rating for Designs • Star Rating for Schools | <ul style="list-style-type: none"> • Introduction to iRAP Methodology • Road survey • Road attribute coding • Accessing and Understanding Star Ratings and Safer Road Investment Plans • Creating your own Star Ratings and Safer Road Investment Plans |
|--|--|

IRF / ITF / FIA / MDB TRAINING

- | | |
|--|--|
| <ul style="list-style-type: none"> • Road Safety Management Capacity • Road Safety Audits • Road Traffic Safety Management and ISO certification • Road Safety Observatories | <ul style="list-style-type: none"> • Road Safety Leadership • Safer Roads by Design • Roadside Safety Management • Vulnerable Road User Safety • ITS Applications for Road Safety • Work Zone Safety |
|--|--|

UNIVERSITY AND RESEARCH AGENCIES (EXAMPLES ONLY)

- | | |
|--|--|
| <ul style="list-style-type: none"> • University of St Joseph (Lebanon) • Carrs-Q and Monash (Australia) • University of Delft (Netherlands) • Highway Safety Research Centre University of North Carolina (USA) • Universities Transport Partnership (UK) • Vision Zero Academy (Sweden) | <ul style="list-style-type: none"> • ARRB (Australia) • TRL (UK) • MIROS (Malaysia) • SWOV (Netherlands) • IMT (Mexico) • RIOH (China) • MRIGlobal (USA) • KOTI (Korea) • LabTrans (Brazil) • VIAS (Belgium) • Chula Engineering (Thailand) |
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! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

UNRSTF Priority 3: Institutionalisation

Technical assistance to help improve overall road safety management in the national road safety system in the context of road safety management pillar detailed in the Global Framework Plan of Action.

STEP 7

Establish and/or enhance a National Road Assessment Programme (e.g. BrazilRAP, ChinaRAP, IndiaRAP, ThaiRAP, SARAP – South Africa)

The establishment / enhancement of a national locally led Road Assessment Programme with associated programme, technical, implementation and communication lead management will be supported. Existing national agencies will undertake the well-defined and locally relevant lead roles that provide the foundation for Safer Road Infrastructure and effective institutionalisation of Safe Roads. The National Programme will benefit from the similar partnerships in place as part of iRAP activity in over 100 countries worldwide. The mutual benefits of sharing challenges and success between neighbouring RAP Programmes, or those with similar needs will be unlocked as part of the global programme connections.

The long-term global partnerships between iRAP and key road infrastructure funding agencies (including World Bank, Regional Development Banks, International Financial Institutions and Aid programmes) will ensure Bank-ready investment plans with suitable safety targets can be implemented. Results based financing for 3-star or better roads that are integrated with the National Road Safety System; National Targets; UN Targets 3 and 4 and the UN Conventions will ensure transparent and high-impact investment in infrastructure across the country.

 **ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED**

STEP 8

Immediate Road Design Assessments and Road Safety Audits that elevate the safety for all road users to a 3-star or better standard in support of UN Target 3

The United Nations Member States have adopted 12 Global Road Safety Performance Targets which includes Target 3 for all new roads to achieve technical standards for all road users that take into account road safety, or meet a three-star rating or better. Based on the review of the national standards in Step 3, local stakeholders will be trained on how to conduct road safety audits and how to specify and design a 3-star or better road and the associated design specifications for the critical road engineering features, signs, signals and speed management devices that deliver safer outcomes and align with the UN Conventions.

Assistance will be provided in the immediate road design assessments that elevate the safety for all road users as part of active road and transport road projects. The Demonstration Corridor impacts will focus on a suitable existing national highway or road project and a similar urban transport project that ensures the needs of vulnerable road users are met and both projects deliver 3-star or better outcomes for all road users. The activity will support a measurable and immediate result that will save lives and further build the local capacity for sustained impact across all existing road and transport expenditure.

Ensuring minimum star rating performance targets for all existing major infrastructure spending and the potential provision of dedicated funding for Safer Road Infrastructure provides a focus for high quality delivery, capacity building and effective implementation of the proven road engineering treatments that save lives. Construction quality control and supervision is also essential to deliver the desired outcomes.

 **ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED**

STEP 9

Strengthen National Capacity for Infrastructure Road Safety Construction Quality, Data Management, Performance Tracking, Monitoring and Evaluation

UN Target 4 aims to achieve more than 75% of travel on existing roads that meet technical standards for all road users (equivalent to a 3-star or better standard) that take into account road safety by 2030¹⁴. Building on the well-established global resources of iRAP, the IRF Data Warehouse and others that support countries undertaking their own Risk Mapping, Fatality Estimations, Speed Management, Star Rating and Safer Road Investment Plans, the locally relevant construction quality control, data management, performance tracking and monitoring frameworks will be established.

National capacities for infrastructure road safety data management, performance tracking, monitoring and evaluation will be strengthened. This will include integration with related National Road Safety System post-crash investigations and crash monitoring to expand the evidence-base on effective infrastructure treatments in the country that reflects local conditions. Integration with national & regional Road Safety Observatories; global Road Assessment Programme performance tracking; IRTAD and Safer Cities monitoring will also be established.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

STEP 10

Establish an effective communications programme that celebrates safer roads

The development of an **effective communications programme that ensures the certified safer roads are celebrated** is key to building national pride and support for safer roads. Ensuring the political, road agency, road design and construction stakeholders are able to measure success and celebrate their achievements is vital to a sustainable programme.

Ribbon cutting brand new 3, 4 and 5-star roads, tracking increases in the % of travel on safer roads and seeing road trauma reduce are all important. Celebrating life-saving success builds momentum and support for the next upgrade.

! ADDITIONAL COUNTRY SPECIFIC NEEDS TO BE ADDED

14 <https://www.vaccinesforroads.org/business-case-for-safer-roads/>

Established Resources and Approaches

- **The UN recognised PIARC Road Safety Manual** provides a comprehensive resource for countries to embrace and use to guide safe system policies, management and infrastructure road safety improvement¹⁵. The Road Safety Manual provides practical structures for road infrastructure safety management that capture the key elements of getting started, making progress and consolidating activity that can help all countries regardless of development level. The PIARC network also provides access to road agencies and other stakeholders in nearby countries who can provide a ready network of peers to support long-term institutional growth.
- **The International Road Assessment Programme** is a registered charity working in partnership with governments, development banks, research agencies and civil society to improve the safety of road infrastructure¹⁶. The charity coordinates partner activity in over 100 countries with Crash Risk Mapping completed to a global standard on a cumulative total of 1.3 million kilometres and Star Rating and Investment Plans generated for more than 1,000,000km of roads worldwide. The resources are all available in the public domain and are supported by the UN, WHO, World Bank, Regional Development Banks and aid agencies in addition to national and provincial level governments direct. Dedicated training and accreditation programmes are in place and all countries are encouraged to establish their own national Road Assessment Programme with local agency leadership and local supplier networks.
- **The International Transport Forum** at the OECD¹⁷ is an intergovernmental organisation with 59 member countries. It acts as a think tank for transport policy and organises the Annual Summit of Transport Ministers. ITF is the only global body that covers all transport modes. The ITF is administratively integrated with the OECD, yet politically autonomous.
- **The International Road Federation (IRF)** is a nongovernmental, not-for-profit organisation with the mission to encourage and promote development and maintenance of better, safer and more sustainable roads and road networks¹⁸. Working together with its members and associates, the IRF promotes social and economic benefits that flow from well-planned and environmentally sound road transport networks. It helps put in place technological solutions and management practices that provide maximum economic and social returns from national road investments. The IRF has a major role to play in all aspects of road policy and development worldwide. For governments and financial institutions, the IRF provides a wide base of expertise for planning road development strategy and policy.

The key partners can also facilitate tailored training with the many national governments who provide specialist training around the world. Examples include Vision Zero Academy, Delft, MUARC, TRB, ARRB, TRL, DFID, SWOV, MIROS, KOTI, LabTrans, MRIGlobal, VIAS, ASECAP and others.

15 PIARC Road Safety Manual <https://roadsafety.piarc.org/en>

16 International Road Assessment Programme <https://www.irap.org/>

17 International Transport Forum <https://www.itf-oecd.org/>

18 International Road Federation <https://www.irfnet.ch/>

