

Developing a Locally Owned and Led National or State iRAP Programme



Creating a world free of high-risk roads

Because every life counts.

www.irap.org

ABOUT iRAP

The International Road Assessment Programme (iRAP) is an award-winning registered charity dedicated to creating a world free of high-risk roads. iRAP's Star Rating Methodology provides a simple and objective measure of the level of safety which is 'built-in' to the road for vehicle occupants, motorcyclists, bicyclists and pedestrians. A 1-star road is the least safe and a 5-star road is the safest. We work on a global scale and are moving urgently to save lives through 3-star or better road infrastructure for all road users.

At the heart of iRAP is a spirit of cooperation. iRAP provides free tools and systems to help governments, funding agencies, mobility clubs, research institutes and other non-government organisations across the world make roads safe. Our activities include:

- the assessment of high-risk roads and development of Star Ratings, Safer Roads Investment Plans and Risk Maps;
- the provision of training, technology and support that will build and sustain national, regional and local capability; and
- the tracking of road safety performance so that funding agencies can assess the benefits of their investments.

Road Assessment Programmes are now active in more than 100 countries throughout Europe, Middle East and Africa, the Americas, and Asia. iRAP's influence extends across more than 1.3 million kms of assessments and over USD\$68 billion of road investment. Over 19,000 people have benefited from safer road infrastructure training.

iRAP's programme is supported by the FIA Foundation. Projects receive support from National and State Governments, mobility clubs, the World Bank Global Road Safety Facility, regional development banks, institutions like the European Commission and donors. Technical partners and individuals donate their expertise.

iRAP encourages local leadership and governance of each regional and national programme. Partnerships of key local stakeholders to lead the programme, build technical capacity, ensure roads are upgraded and communicate success is essential to save lives. Established regional and national programmes (e.g. EuroRAP, AusRAP, usRAP, KiwiRAP and ChinaRAP) build partnerships between road agencies, treasury officials, mobility clubs, road and motor industry bodies and local NGO partners to identify and eliminate high-risk roads. All programme partners work in a spirit of cooperation and are encouraged to share their success and innovation with iRAP partners globally.

INTRODUCTION

Every day, more than 3,500 people die in road crashes worldwide; 100,000 or more are injured or disabled. Road trauma is a serious and ongoing public health crisis. Crash costs are typically 2-5% of national GDP each year, impacting every country on earth. In particular, this crisis affects developing countries, where 9 out of 10 road deaths occur.

The United Nations has included road safety as a Sustainable Development Goal (3.6) setting the challenge of halving the number of global deaths and injuries from road traffic crashes by 2020. In addition, the UN Global Road Safety Performance Targets include objective and achievable targets for all new roads to be built to a 3-star or better standard for all road users (Target 3), and more than 75% of travel is on the equivalent of 3-star or better roads for all road users by 2030 (Target 4). iRAP believes that road death and injury is preventable and that the solutions exist. Improving the world's roads to a 3-star or better standard for all road users is a key way to meet the UN targets in combination with action across all the established road safety pillars. Achieving >75% of travel on 3-star or better roads by 2030 will save an estimated 467,000 lives every year.

iRAP's systematic approach can help save thousands of lives. It involves simple, affordable improvements to road infrastructure and speed management that can dramatically reduce both the risk of crashes occurring and their severity.

iRAP programmes can be easily integrated into existing or new road safety initiatives in a country:

- Risk Maps provide a global standard to measure and benchmark historical crash performance and target action;
- Star Ratings provide an objective, evidence-based global measure of the safety of infrastructure for pedestrians, cyclists, motorcyclists and vehicle occupants;
- Safer Road Investment Plans can help shape an upgrade programme and Safer Roads Fund that will maximise lives saved per unit of investment; and
- Policy and performance tracking tools provide agencies with the ability to measure and manage success.

This brochure is designed to help countries develop their own locally owned and led national or state programmes and develop and deliver projects that save lives.

iRAP is a member of the United Nations Road Safety Collaboration and Global Alliance of NGOs for Road Safety and works closely with the World Health Organisation, FIA Foundation, World Bank, International Transport Forum, PIARC, OECD and other road safety stakeholders to support and coordinate global action across all pillars of action on road safety.



ESTABLISHING A PROGRAMME IN YOUR COUNTRY OR STATE

Local ownership and leadership of iRAP Programmes are encouraged and supported around the world. Existing organisations with accountability and influence on road infrastructure safety outcomes are ideally placed to lead a local programme.

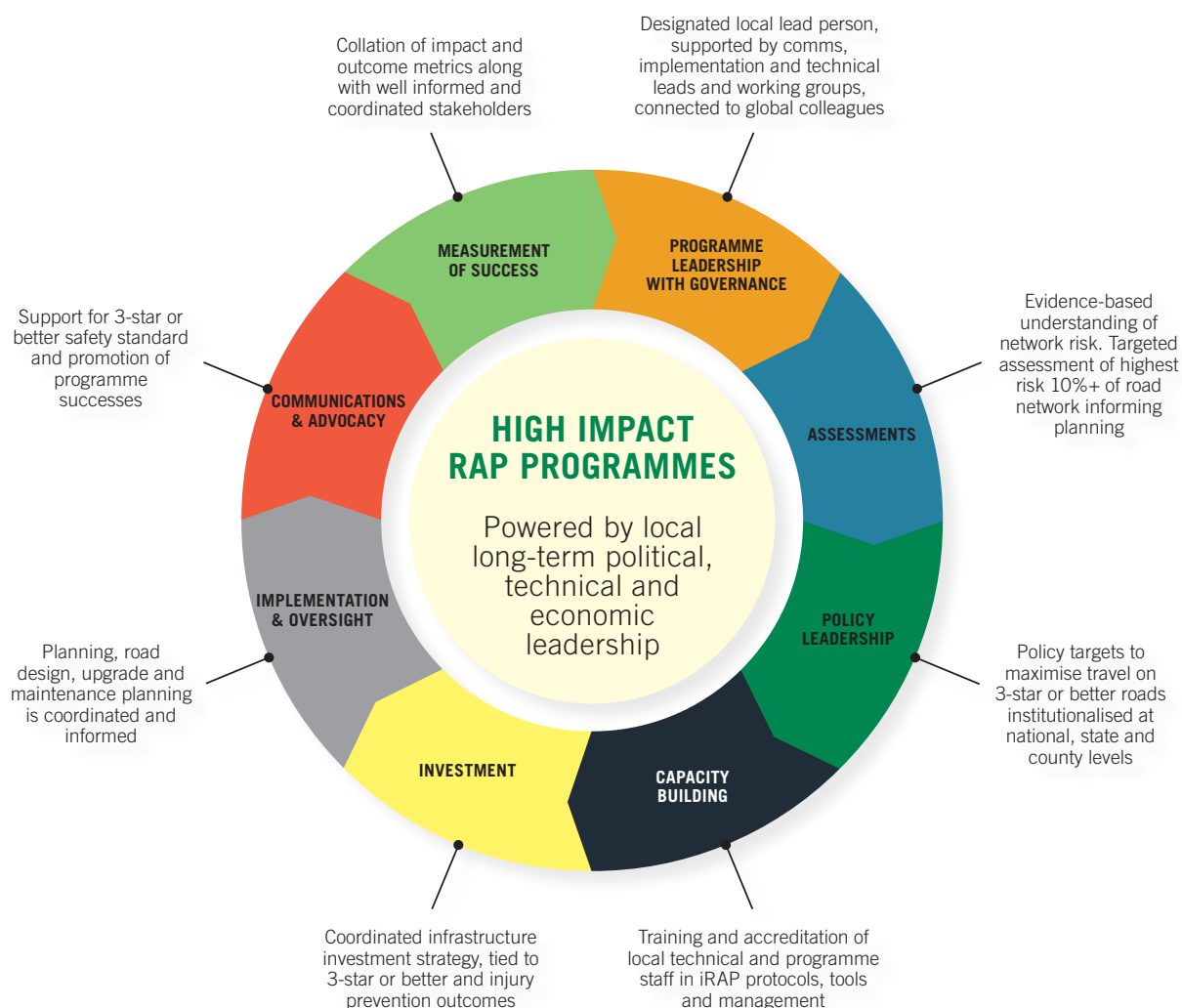
Some regional programmes exist and are well established. Where local technical oversight and governance is sufficiently mature an 'X'RAP can be formed. Examples include EuroRAP (where it all began), AusRAP, usRAP, KiwiRAP and ChinaRAP. New national

programmes with full technical governance at the local level are also being shaped in Brazil, India and Thailand.

All countries can establish their own locally relevant programme building on the established protocols and support of the iRAP network of partners that extends across more than 90 countries. For example, iRAP Malaysia, iRAP Mexico, EuroRAP Spain, usRAP Utah, iRAP Tanzania, iRAP Belize and iRAP Lebanon all involve local road agencies, research experts or mobility clubs leading the programme.

ELEMENTS FOR PROGRAMME SUCCESS

High impact RAP programmes consist of:



ESTABLISHING A PROGRAMME IN YOUR COUNTRY OR STATE

KEY ROLES

Programme Lead: The Programme Lead may be a National Road Safety Agency or Road Authority, Automobile Association or NGO that is able to provide the leadership and governance for the programme. The programme leader will commit to promoting the vision of iRAP for a world free of high-risk roads and ensuring national activity is undertaken to iRAP standard. They will convene Steering Committees or equivalent to ensure all key policy, funding, technical, implementation and communication activities are well coordinated nationally and benefit from the experience of other countries around the world. Issues related to partner engagement, policy setting, outcome measurement and global coordination are typically managed by the programme lead.

WHERE ARE YOU?

Getting started



Local steering committee and MOU in place involving all key stakeholders



Policies in place for 3-star or better roads



Performance tracking in place to measure and manage progress and celebrate success

Technical Governance Lead: The Technical Governance Lead may be a national not-for-profit research agency with expertise in infrastructure road safety. The organization will build the in-depth knowledge and expertise on the iRAP protocols, research, evidence-base, models and software. They will convene Technical Working Groups to ensure that knowledge is shared across all stakeholders, and local research and expertise can contribute to the global network of technical experts. Issues related to before and after monitoring, model improvements, training and quality assurance are typically managed by the Technical Governance Lead.

WHERE ARE YOU?

Getting started



Technical working groups in place involving all key stakeholders



Local capacity building, training and quality assurance in place



RAP metrics integrated into local design standards, guidelines, research, and before and after monitoring

Road Upgrade Management Lead: A life is not saved until a road is upgraded and the star rating is improved. The Road Upgrade Management Lead may be the National Road Agency, Roads Funding Body or similar authority responsible for road investment. The organization will secure and manage the investment needed to implement the infrastructure upgrades and speed management initiatives that will maximize lives saved across the network. They will ensure the right level of funding is allocated to road projects that improve safety, that existing projects meet relevant star rating targets, that project designs meet expectations, and construction quality is monitored. They will convene and or integrate iRAP inputs into Financing and Project Level Working Groups to facilitate safer road upgrades. Issues related to design standards, industry training and quality assurance are typically managed by the Road Upgrade Management Lead.

WHERE ARE YOU?

Getting started



Local investment steering committee in place involving all key stakeholders



Policies and guidelines in place for 3-star or better roads at the project level



Performance tracking to measure and manage the return on investment of all upgrades

Stakeholder Communications Lead: Celebrating success is a key element of every iRAP programme. The risk maps and star ratings provide readily accessible, transparent and globally recognized standards that can support a positive communications plan. This may involve identifying the need for investment at the political and public level and sharing the results of that investment. Communication may occur at the national level linked to policy targets and network performance all the way through to an individual project where a Minister, Road Authority, design team and automobile club representative may 'ribbon-cut' a new 3, 4 or 5-star road. They will convene a Communications Working Group as needed to ensure all stakeholders are well informed of planned activity and the needs of all partners are met. Issues related to brand management (in accordance with iRAP guidelines), media and community relations, and partner communications are typically managed by the Stakeholder Communications Lead.

WHERE ARE YOU?

Getting started



Communications working group in place involving all key stakeholders



Local communications strategy in place outlining key roles, brand, website and communications channels for the local programme



Routine publishing of results and reporting of progress that celebrates success (e.g. ribbon cutting 3, 4 and 5-star roads)

ESTABLISHING POLICY AND INVESTMENT LEADERSHIP

RISK MAPPING TARGETS FOR EXISTING ROADS

The risk mapping protocols highlight the high risk and medium-high risk sections of road across a country or designated road network. As part of a policy commitment to eliminate high-risk roads it is recommended that partners set a target to eliminate all high and medium-high risk roads, and increase the percentage of the network or travel that is in the low-risk categories.

The Policy is typically expressed as:

Eliminate all high and medium-high collective risk (crashes per kilometre) road sections by “year”

“X”% of travel on low and low-medium individual risk (crashes per kilometre travelled) road sections by “year”
(e.g. 80% of travel with low and low-medium crashes per kilometre travelled by 2025)



Road safety campaigner Zolecka Mandela and Rob McInerney, iRAP CEO



Rob McInerney; Hemant Pimplikar, Managing Director Sales, FedEx Express India; and Shane O'Connor, Communications Advisor, FedEx at IndiaRAP Launch, November 2017. IndiaRAP's target to improve 10% of the country's highest risk roads over 20 years will save 7.6 million lives and serious injuries.



On target: Australia's 4-5 star Bruce Highway Traveston upgrade

STAR RATING POLICY TARGETS FOR EXISTING ROADS

Leading road agencies have experience in setting star rating targets and the common approach now is to set a target for existing roads in terms of the percentage of travel at 3-star or better. This encourages a sensible focus initially on the higher volume roads for each road user group where the return on investment is likely to be greater.

The Policy is typically expressed as:

“X”% of travel on 3-star or better roads by “year” for existing road networks
(e.g. 100% of pedestrian travel on 3-star or better roads by 2030)

Examples of existing country-level policy targets include:



New Zealand: 4-star roads of national significance, toll-road minimum 4-star standards, and a Safety Alliance to upgrade existing roads to 3-star or better standards (NZTA)



United Kingdom: 90% of travel on English Strategic Road Network to be 3-star or better by 2020, and related targets for 4 and 5-star motorways (Highways England)



USA: FHWA supported roll-out of usRAP, statewide assessments in Utah, county investments prioritised, integrated data management (UPLAN)



Malaysia: 75% of travel on 3-star or better high volume roads by 2020 (Malaysia MoT)



Sweden: 75% of network at 3-star or better by 2020 and near 100% by 2025 (Trafikverket)



Chile: Autopista Centrale toll roads assessed and immediately upgraded to minimum 3-star standard



Netherlands: No 1 or 2-star roads by 2020



Australia: 80% of travel on 3-star or better for state roads and 90% for national highways by 2020



China: Five year Road Safety Plan requires national implementation of road assessments and rapid treatment of high-risk road sections

ESTABLISHING POLICY AND INVESTMENT LEADERSHIP

STAR RATING POLICY TARGETS FOR NEW ROADS OR UPGRADES

For all new roads, no one can afford for a new 1 or 2-star road to be built. Minimum 3-star targets are the starting point, and standards are raised to 4 and 5-star where there are large volumes of particular road user groups or local ambitions are high.

The Policy is typically expressed as:

4-star or better standard for each road user when volumes are greater than 'X' and

3-star or better standard for all road users on all new road projects (e.g. 4-star for pedestrians and cyclists on all roads in commercial districts, around schools or within 1km of a public transport stop, and 4-star for vehicles and motorcyclists when volumes are greater than 50,000 vehicles a day)

Examples of existing new road and upgrade policy targets include:



By 2030, all new global roads achieve technical standards for all road users that take into account road safety, or meet a 3-star or better rating (**United Nations**)



On the Asian Highway network in member countries, all new roads to be 3-star or better for all road users (**UNESCAP**)



4-star roads for pedestrians and cyclists in linear settlements and 4-star for all road users carrying 50,000 vehicles and more, and 3-star or better for all other road projects (**ADB**)



Minimum 3-star roads for projects in India and Kazakhstan, amongst others (**World Bank**)



Wellington Gateway Toll Road – 4-star minimum specified

ESTABLISHING A SAFER ROADS FUND

Road crashes are the biggest killer of young people worldwide and typically cost every country 2-5% of GDP each year. Investing to save lives, reduce injuries and reduce the cost of road trauma is a win-win-win investment for all communities. The 2018-launched UN Road Safety Trust Fund has the potential to mobilise vitally needed financial and technical resources to make global roads safer. In addition, leading countries are mobilizing targeted investment in safer road infrastructure. Improvements are typically low-cost and easy to plan, build and maintain. They are spread across a road network and generate jobs and economic activity in every corner of the country. Examples include:

- The Chinese Government multi-billion investment in the Highway Safety to Cherish Life Programme
- The New Zealand Government investment in 4-star roads of national significance and Safer Roads Alliance to upgrade roads to a 3-star or better standard
- The Victorian Government AUD\$1 billion investment in the Safer System Roads Infrastructure Programme
- The UK Department for Transport £175 million Safer Roads Fund

The iRAP Risk Maps, Star Ratings and Safer Roads Investment Plans provide the foundation for discussions with Treasury and Finance Ministries about the appropriate level of investment in road infrastructure that maximizes lives saved and serious injury reductions in a country. With the business case for safer roads, government can invest with confidence and unlock the win-win-win benefits of safer roads that are 3-star or better for all road users.



Left: Survey vehicle in Andhra Pradesh, India; Top: Star Rating for Schools training in Bogota; Above: ChinaRAP's Han Hu conducting surveys by bicycle.

THE TYPICAL STEPS IN ESTABLISHING A NATIONAL OR STATE PROGRAMME

Is there an existing National or Regional Programme (e.g. EuroRAP, usRAP)?

YES

Contact the Programme Lead

Integrate your ideas with the local lead

NO

Contact iRAP

Complete a questionnaire looking at existing local agencies, data, systems and activities

Identify how a national or state based programme can be established with local stakeholders and nominate lead roles

Participate in an upcoming iRAP event and/or talk with an existing programme lead from another country

Undertake a risk mapping, star rating and investment plan or road design project assessment to build a practical knowledge of the programme

Agree on the structure that is right for your country and/or state and finalise lead roles

Engage with iRAP or the regional / national RAP programme lead to sign a Memorandum of Understanding for your location

Build your RAP programme, engage local partners, develop local capacity, target assessments, set policy targets, upgrade roads, measure and celebrate success

Share your knowledge, experience and ideas with your iRAP colleagues and partners around the world



ChinaRAP team in New Zealand



RAP celebrations in Vietnam



Training road engineers in Mexico



Launch: ThaiRAP & Chulalongkorn University as iRAP Centre of Excellence



EuroRAP's Olivera Djordjevic speaking to the press

FOR MORE INFORMATION

To learn more about IRAP and its global programmes and activities, visit www.irap.org:

- If you are interested in establishing an IRAP programme in your country or state, please contact your local representative by visiting the 'About Us – Where We Work' website tab.
- For details on iRAP's protocols and how to apply them to your infrastructure projects, visit the 'How We Can Help' tab.
- To obtain key resources such as 'Vaccines for Roads' and the '3-star or Better brochure' in a range of languages, see the 'Media Centre - Key Documents' tab.
- The 'Business Case for Safer Roads' illustrates the benefits – in terms of deaths and serious injuries prevented and economic savings – that could be achieved by maximising the percentage of travel on 3-star or better roads by 2030. Check out how your country fares by exploring iRAP's Big Data Tool at www.vaccinesforroads.org

For general enquiries:

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Stay in regular touch with the global work of iRAP and its partners. Subscribe to 'WrapUp', the iRAP e-newsletter, by entering your details on our website newsletter subscription form.

For further information on global road safety:
www.who.int/roadsafety
www.worldbank.org/en/programs/global-road-safety-facility
www.fiafoundation.org



Additional image captions -

Left: Luke Rogers, iRAP Global Operations Manager
Cover top: iRAP Malaysia Launch 2016
Cover bottom: Preparing to undertake surveys in Latin America
Page 2: EuroRAP team ready to undertake survey assessments
Page 3 left: Julio Urzua Regional Director The Americas with students at Justin Kabwe School, Zambia celebrating their safer journey to school (Source: Amend)
Page 3 right: Asian Development Bank staff receiving training in safer road infrastructure investment

iRAP is the umbrella organisation for regional RAP programmes including:



iRAP is supported by:



FOUNDATION

