Developing Safe Road Transport Corridors

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Africa Transport Policy Forum
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Outline

• The African road safety crisis
• Introducing “Guidelines for Mainstreaming Road Safety in Regional Trade Road Corridors”
• Some brief observations on the Abidjan-Lagos Corridor
• Safe corridors and integration with International Road Assessment Program (iRAP)
• Step by step guidance on safe road transport corridors
• Some ways forward
Globally, road traffic injury is a major health issue

- WHO estimated 1.24 million fatalities occurred on the world’s roads in 2010
- Road traffic injury in 2010 was estimated by the Global Burden of Disease study to be:
  - The no.1 cause of death worldwide for 15-24 year olds
  - The no.2 cause of death worldwide for 25-39 year olds, behind HIV/AIDS
  - The cause of twice as much death as malaria
- WHO projections are for road traffic injury to accelerate, and overtake HIV/AIDS as a cause of death by 2030
In Africa, we are witnessing a road safety crisis

![Graph showing annual deaths in Sub-Saharan Africa from 1990 to 2030, comparing WHO projections and GBD estimates.](image)
The African road safety crisis is set to escalate at the same time as some control is exerted over Millenium Health Goals.

<table>
<thead>
<tr>
<th>Health Indicator</th>
<th>2015</th>
<th>2030</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Road Traffic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>242,530</td>
<td>513,632</td>
<td><strong>+111.8%</strong></td>
</tr>
<tr>
<td>Deaths/100,000 people</td>
<td>25.1</td>
<td>38.0</td>
<td><strong>+51.4%</strong></td>
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<tr>
<td><strong>Malaria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>401,708</td>
<td>426,530</td>
<td><strong>+6.2%</strong></td>
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<tr>
<td>Deaths/100,000 people</td>
<td>41.6</td>
<td>31.6</td>
<td><strong>-24%</strong></td>
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<tr>
<td><strong>HIV/AIDS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>1,147,589</td>
<td>1,317,788</td>
<td><strong>+14.8%</strong></td>
</tr>
<tr>
<td>Deaths/100,000 people</td>
<td>118.9</td>
<td>97.5</td>
<td><strong>-18%</strong></td>
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</tbody>
</table>

WHO 2013 Projections for Sub Saharan Africa
Effectively responding to the escalation in road traffic injury in Africa will require:

- The prevention of road traffic death and disability to be formally recognised as an international Post 2015 development priority, like Malaria and HIV/AIDS.
- Lead road safety agencies to be established if they do not already exist, or strengthened, in order to effectively lead sustained safety improvements in African states.
- Investment in regional trade road corridors which breaks the link between development and death, through systematic mainstreaming of road safety.
- Other key management and investment decisions; a stronger road safety voice for Africa; knowledge transfer, data systems; and driver and vehicle regulation.
Important new investment guidelines ...

A systematic and logical process for directly addressing priority road safety needs on regional corridors in a streamlined and iterative manner – relevant not only within Africa, but also to other developing regions of the world.
Very often the improvements implemented under most trade and transport corridor projects in developing countries are compromised by increases in road traffic crash risks and casualties.

Dr Etienne Krug, World Health Organisation
Abidjan-Lagos Corridor

Ghana’s Building and Road Research Institute estimated that 60-80% of the accidents on the Ghanaian part of the Abidjan-Lagos Corridor are concentrated in settlements along the road.

The victims are first of all crossing pedestrians hit by vehicles passing through the settlements, often children and elderly, frequently from the less privileged parts of the population.
The George W Bush Highway

There has always been, and still is, considerable pedestrian movements across the road, which was increased from 2 to 6 lanes and offers no median protection for pedestrians.

Pedestrian bridges and signalized zebra crossings in some junctions are provided, but are insufficient to cater for the thousands of pedestrians crossing the road every day.
The Problem

Vehicle speeds have significantly increased. The result is numerous fatal collisions between crossing pedestrians and vehicles.

This situation is not unique to Accra, to Ghana or to Africa. Throughout the world, road networks are being designed and built which when used will result in trauma.
Targeting regional trade road corridors (RTRC) for road safety investments

- Road safety investments in RTRCs present the best opportunities for intervention and achieving road safety results. Typically, about 50% of deaths take place on just 10% of the road network.
- These corridors are characterised by high traffic volumes and speeds and often an unmanaged mix of motorised traffic, and non-motorised users.
- By targeting these corridors, national and regional entities have an opportunity to make rapid progress in strengthening road safety management capacity and to quickly improve results.
The road safety management system

Producing road safety

- Institutional management functions produce interventions, which in turn produce results
- The necessary scale of investment requires support at a country, donor and multilateral bank level
- Senior expert advice is needed, particularly at establishment phase
- The Africa Road Safety Plan recommended that 10% of road infrastructure investment and 5% of road maintenance expenditures by member states be allocated to road safety.
Some Starting Principles for Corridor Safety

- A safe road transport corridor accounts for:
  - the highly vulnerable human body
  - the human propensity for error
- Road safety expenditure is an investment

Risk of Pedestrian Fatality at Impact Speed
Integrating iRAP in corridor projects is a significant strategic step

- iRAP recommends target highest volume 10% of roads in each country

- iRAP economic analysis justifies:
  - a minimum 3-star safety rating for all new road projects
  - a minimum 4-star safety rating for 50% of traffic volume

- National government leadership creates “your” RAP

- Build local capacity and supplier networks
Northern Corridor - Kenya & Uganda
Car Occupant Star Ratings

IRAP Star Ratings provide a simple and objective measure of the level of safety 'built in' to the road for car occupants, motorcyclists, bicyclists and pedestrians. Five-star roads are the safest, and one-star roads are the least safe. Star Ratings are based on road inspection data collected through road inspection and analysis.

The full reports can be downloaded from:
IRAP Uganda - www.irap.net/media/34636/rap_uganda_results_2010.pdf
Mexico
On 45,000km of highways assessed, a $250m investment will reduce 1 & 2-star sections by 20%
20,000km more assessments underway

India
iRAP being used in projects worth US$3.5 billion across 7 states

South Africa
4,000km assessed, 36,000km planned.
Star Rating of Schools Pilot
iRAP assessment is a key aspect for applying guidelines

**Step 1**
- Identify priority corridors

**Step 2**
- Train Local Stakeholders
- Conduct iRAP Assessment

**Step 3**
- Develop Star Ratings of Existing Road Network

**Step 4**
- Develop iRAP Safer Roads Investment Plan

**Step 5**
- Design new roads to minimum 3-star standard

**Step 6**
- Construct new 3+ star road
- Celebrate new star rating
CRASH COSTS HALVED FOR EACH STAR RATING IMPROVEMENT

Star ratings match results
Guidelines approach

- These best practice guidelines for mainstreaming road safety in RTRC investment programs in LMICs:
  - Complement the existing World Bank road safety management guidance
  - Identify best practice for road safety management in RTRCs
  - Benchmark road safety management capacity in RTRCs in LMICs and Regions
  - Address critical success factors
  - Specify the generic components of a RTRC road safety project
Critical Success Factors

- The critical success factors addressed in these guidelines are
  - building road safety management capacity through institutional reform
  - accelerating knowledge transfer through “learning by doing” projects
  - sustainably scaling up targeted regional and country investment
  - sustainably increasing international cooperation and development aid support
Step by Step Guidance

Four project phases, broken down into ten steps and a number of tasks

Each phase is supported by templates for Terms of Reference for Technical Assistance
Example
Phase I: Preliminary Project Scoping

STEP 1: Designate corridor lead agency and establish broad scale of project and preparation and delivery budgets.

- Task 1.1 Define the boundaries of the project RTRC and the broader institutional and investment context for the delivery of the proposed road safety project.
- Task 1.2 Designate lead agency responsibility for the proposed road safety project and assess its delivery capacity.
- Task 1.3 Agree on the overall scale of project investment proposed.
- Task 1.4 Secure sufficient project preparation funds.
Example (cont)

Template Terms of Reference for Technical Assistance for Phase I (Project Scoping), and Phase II (Specification of Project Concept)

- Assessment of designated Lead Agency capacity
- Review of corridor road safety priorities
- iRAP survey of corridor
- Specification of project components

The template ToR for Technical Assistance covers every aspect of management functions and interventions needed to support an effective corridor project
Conclusion

- We are witnessing a road safety crisis in Africa
- Many critical actions need to be taken, including establishing road safety as an international development priority, and ensuring we have strong lead agencies to lead country efforts
- A significant scaling up of safety investment is necessary
- SSATP’s new corridor guidelines bring together trade corridor investment with best practice safety interventions and road safety management capacity.
- Countries, banks and donors can achieve strong cost effective results by applying these guidelines in their corridor investments