AfDB’s ROAD SAFETY MANUALS FOR AFRICA
Practical Guides for Safe Road Infrastructure

Fast Tracking Road Safety Initiatives in Africa: An Inescapable Necessity
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A regional road safety study was undertaken to examine the status and progress of road safety and identify gaps and areas of interventions.

The study targeted the five pillars of the UN Decade of Actions for road safety.

Although the country responses were low, the results of the assessment revealed progresses and challenges and pointed areas of interventions.

Almost all African countries are said to have lead agencies; some have policy and plan of action with targets.

Lead agencies lack legal power; dedicated financing; qualified manpower.

Road safety works are not progressing as expected.

Almost all countries lack reliable road crash database system.

Lead agencies in Africa:
- Coordinating Committee
- National Road Safety Council/Commission within a Ministry
- Self-standing Road Safety Agency headed by a Prime Minister/President
Safer Roads and Mobility

- Mainstreaming RS in roads agencies
  - Encouraging, but many agencies lack RS unit

- System to maintain safer road network
  - Few introduced RSA, but a lot remains to be done - RSI & BST

- Multi-sector RS intervention targeting a high risk corridors
  - Attempts exist towards that, but requires urgent attention

- Provisions for non-motorized / vulnerable road users
  - Encouraging considerations started, but not systematic

Lacks of commitment

Technical & financial capacity
**Progresses and Challenges**

**Vehicle Safety**

- **Safety standards for vehicles**: Most countries have standards, but they are not up-to-date & comprehensive.
- **Inspection & Enforcement**: Most countries have enacted regular inspections.
- **Vehicle insurance**: Most countries have compulsory insurance regulations.
- **Incentive for purchase & use of safer vehicles**: Only few countries have policy & incentive for purchase & use of safer vehicles.

Lack of commitment in **Good Enforcement (Pvt Sector)**.

Weak Enforcement.
# Progresses and Challenges

## Road Users Safety

<table>
<thead>
<tr>
<th>Issues</th>
<th>Progresses</th>
<th>Challenges</th>
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</thead>
<tbody>
<tr>
<td>Awareness campaign</td>
<td>RS campaign in RMCs is encouraging, but it is not targeted</td>
<td>Lacks systematic approach &amp; capacity</td>
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<tr>
<td>RS curriculum for school children</td>
<td>Many countries are offering RS as part of school curriculum, but lacks coverage &amp; effectiveness</td>
<td>Lacks systematic approach &amp; capacity</td>
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<tr>
<td>Driver training, testing &amp; licensing</td>
<td>Most countries have standards for training &amp; testing</td>
<td>Weak enforcement</td>
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<tr>
<td>Trucking &amp; passenger transport</td>
<td>Encouraging that some countries have regulation towards the provision of safer transport</td>
<td>Implementation performance is low</td>
</tr>
<tr>
<td>Laws &amp; enforcement on major risk factors</td>
<td>Most countries have regulation for speed, seatbelt, drink-driving, helmet use &amp; child restraints</td>
<td>Weak enforcement</td>
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</tbody>
</table>
## Progresses and Challenges

### Post Crash response

<table>
<thead>
<tr>
<th>Issues</th>
<th>Progresses</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency care system</td>
<td>Many countries have emergency regulation</td>
<td>Implementation is very poor</td>
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<tr>
<td>Emergency medical services</td>
<td>In place in some countries, but limited coverage &amp; reliability</td>
<td>Lack of capacity</td>
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<tr>
<td>Third party motor vehicle</td>
<td>In place in most countries</td>
<td>Weak enforcement</td>
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<tr>
<td>insurance</td>
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<tr>
<td>Emergency telephone &amp; ambulances</td>
<td>In place in some countries, but limited coverage &amp; reliability</td>
<td>Lack of capacity</td>
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<tr>
<td>Health facilities, trauma care</td>
<td>There is positive development, but requires more attention</td>
<td>Lack of capacity</td>
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<td>rehabilitation</td>
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Multisectoral Issues of Road Safety in Africa

- Safer Roads
- Safety Management
- Safer Road Users
- Safer Vehicles
- Emergency Medical Services

Demands more Commitment & hard work
The Bank acknowledges TRL Limited & BRRC for preparing these manuals.

The road safety manuals are practical guides to practitioners for integrating the safe system approach during design, construction, operation of roads.

The Road Safety Manuals for Africa

Each of the manuals is designed to be ‘standalone’ with minimal cross referencing between manuals.

The manuals have also been configured in a similar manner to ensure consistency.

The have the following similar sections:

- **Embedding the Manuals**
- **Safe System and the Concept of Each Approach:** how each Manual fits into a wider Road Safety Management System
- **Personnel, Equipment and Safety Requirements**
- **Development of Treatment Plan**
- **Monitoring and Evaluation**

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**Design**

- RSA at feasibility, preliminary and detailed design stages

**Construction**

- Pre-opening RSA

**Operation**

- Post-opening RSA
  - Proactive Approaches: Road Safety Inspections and Assessments
  - Reactive Approaches: Data analysis and treatment (blackspot, route/corridor, area analyses)
New Roads and Schemes: Road Safety Audit

The RSA manual recommends five stages of audit to cover the audit process comprehensively across a range of different scheme sizes and complexities.

1. Pre Construction
   - Stage 1: Feasibility Study
   - Stage 2: Preliminary Design
   - Stage 3: Detailed Design

2. Construction
   - Stage 4: Pre-Opening

3. Post Construction
   - Stage 5: Post-Opening

Reducing opportunity for substantial change.
New Roads and Schemes: Road Safety Audit

The RSA manual recommends Audit stages varying with scheme complexities.

<table>
<thead>
<tr>
<th>Scheme Type</th>
<th>Audit Stage</th>
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<tbody>
<tr>
<td></td>
<td>Stage 1</td>
</tr>
<tr>
<td>Major Scheme National Road</td>
<td>x</td>
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<tr>
<td>Major Scheme Regional Road</td>
<td>x</td>
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<tr>
<td>Major Scheme Local Road</td>
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<td>Minor Scheme National Road</td>
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New Roads and Schemes: Road Safety Audit

The manual outlines on how to identify and contract a RSA Team; and provides step-by-step guidance on the RSA process throughout the audit to comply with the safe system.

The Manual provides two sets of prompts for use at each stage of audit to ensure that all items are considered by the RSA Team.
Existing Roads: Proactive Approaches

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Foreword

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Introduction to this Manual

How this Manual Relates to the other Manuals in the Series

How to Use this Manual

Embedding Proactive Approaches

The Proactive Approach Concept

An Overview of Proactive Approaches

Stage 1: RSUs

Stage 2: RS Assessment

How Proactive Approaches Fit into Wider Road Safety Management

Proactive Approaches and the Safe System

Safe System Working

The Importance of Speed

Applying Safe System Principles to Proactive Approaches

Benefits of Proactive Approaches

Personnel, Equipment and Safety Requirements

Team and Personnel Requirements

Team Composition

Qualifications, Experience and Responsibility

Equipment

Stage 1: RSU

Stage 2: RS Assessment

Team Safety

Proactive Process

Preparation

Stage 1: RSU

Process Steps

Stage 2: RS Assessment

Process Steps

Development of a Treatment Plan

Economic Appraisal

Implementing a Treatment Plan

Monitoring and Evaluation

Monitoring

Evaluation

Glossary

Appendix A: Typical Road Safety Solutions

Appendix B: RS1 Inspection Form and Filled Sample

Appendix C: Prompts

Appendix D: RS Assessment Report

Appendix E: Evaluation Example
The Proactive Approaches Manual provides a two-stage procedure of identifying unsafe road spots/sections and develop a safety treatment plan across a road network where road crash data is not sufficient:

- **Stage 1: RSI** to be undertaken as high level road safety inspection, primarily a mechanistic data collection exercise, undertaken across a significant proportion of the road network every 3-5 years.

- **Stage 2: RS Assessment** - a more detailed road safety assessment undertaken on roads that have been identified as ‘high risk’ in Stage 1 by specialist staff experienced in collision investigation or road safety audit to consider the findings and develop the detailed road safety treatment plan.
Existing Roads: Proactive Approaches

The assessment relies on the understanding and appreciation of a road safety expert to assess circumstances and road user behaviour to determine the scale of any problem. The Manual recommends the use of conflict studies as optional means of unsafe road sites. The RS Assessment considers the high level issues as the RSA Manual to comply with the safe system requirements.

Similar to the RSA, two sets of prompts are provided to facilitate the RS Assessment.
Existing Roads: Reactive Approaches

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5.5 Development of a Treatment Plan
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6 Monitoring and Evaluation
6.1 Monitoring
6.2 Evaluation

Glossary

Appendix A: Typical Road Safety Solutions
Appendix B: Sample Crash Data Form
Appendix C: Sample Blackspot Analysis and Management Report
Appendix D: Evaluation Example
Existing Roads: Reactive Approaches

The Reactive Approaches manual is designed to provide guidance on identifying high-risk locations known as **blackspots, routes/corridor or areas**, across the road network using crash data and developing treatment programme.

No crash data
- Improve data including coordinates
- Undertake RSI/Assessment in response to community or police intelligence

Crash data exist but with limited location information
- Improve data including coordinates
- Area analyses

Crash data exist and include the road name/route
- Improve data including coordinates
- Route/corridor analyses
- Area analyses

Crash data exist and include precise crash coordinates
- Blackspot analyses
- Route/corridor analyses
- Area analyses
Existing Roads: Reactive Approaches

The Reactive Approach techniques require a reliable crash data with precise coordinates for the location of crashes.

The availability of crash data in Africa is known to be poor, and the data often lack the detail required in order to support spatial analyses.

Taking note of this, the first of the technical sections therefore aims to provide clear guidance on:

- Importance of data;
- Sources and types of data;
- Data Availability and quality issues; and
- Improving data availability and quality.
Existing Roads: Reactive Approaches

The manual provides a Data Analysis and Investigation under which three applications of the reactive approaches can be done at three distinct levels of detail dependent upon the quality of the crash data available.

- **Blackspot Analysis and Investigation**: provides detailed guidance on how to identify locations with exceptionally high concentration of crashes and undertake Blackspot Analysis and subsequently investigate to identify potential blackspot treatments.

- **Route/Corridor Analysis and Investigation**: provides detailed guidance on how to identify high risk sections and undertake Route/Corridor Analysis and subsequently investigate to identify potential treatment for high risk sections; and

- **Area Analysis and Investigation**: provides detailed guidance on how to identify common crash themes by area and undertake Area Analysis and subsequently investigate an area to identify potential area-wide treatment.
Dissemination of the Manuals

Short training/regional workshop to create awareness and dialogue for embedding and operationalizing the Road Safety Manuals:

- Four road safety training delivered to road safety professionals from 17 Africa countries from 7 to 10 July 2014
- High-level Regional Road Safety Workshop on 27th & 28th October 2016, which brought together more than fifty participants including top managements of road authorities from 30 African countries and representatives of Development Partners working in Africa
Scaling-up road safety multi-sector supports focusing on interventions that generate and transfer knowledge, strengthen capacity, achieve quick and visible results

Embed the road safety manuals into the country systems to ensure that the procedures are used widely across Africa and to bring substantive difference

Create regional centres of excellence for road safety to enhance road safety research and build road safety capacity in the continent

Enhance international and regional collaboration to promote road safety and build managerial and technical capacity in Africa
Road safety demands commitment & hard work

Thank You

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