Regional Road Safety Capacity Building Workshop
BW Hotel M (Belgrade), October 15-16, 2014

World Bank Country Guidelines:
Road Safety Management Capacity Reviews, Lead Agency Reforms, Investment Strategies and Safe System Projects - AN OVERVIEW

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Road Safety Management

Presentation Overview

- Context/ Why it matters
- Need for ambitious vision

- The Road Safety Management System
- Reviewing Capacity
- Priority areas for strengthening
- Investment Plans

- Safe System & Demonstration Projects

- Case Study: Serbia RSMCR findings 2007
Effective Road Safety Management?

High risk travel on major highways/urban areas - in many middle income countries
Context:

**Business as Usual Will Not Bring Success**

- Growth in motorisation
- Increase in travel speeds
- Respect for rule of law
- Recognise why road use is unsafe
- Many separate agencies and levels of government involved
- Leadership essential
- Accept that a changed approach, applied over time, is required

“We cannot solve our problems with the same thinking we used when we created them”

EINSTEIN
Context:

Viewing Road Safety as Manageable Product

- Road safety is *produced*, like any other goods and services.
- This production process can be viewed as a *management system*
- Use of the road network and its elements has grown *without* planning or positive management intervention in many countries.
UN Decade of Action 5 Pillars adoption

- Pillar 1: Road safety management
- Pillar 2: Safe roads and mobility
- Pillar 3: Safe Vehicles
- Pillar 4: Safer Road Users
- Pillar 5: Post-crash Response
Establishing an Ambitious Vision and Strategic Agenda for Road Safety Performance

**Challenges**

- Lack of awareness in community
- Agency and political leaders fear of change
- Failure to realise it can readily be changed
- Failure to inform and advocate change to leaders
What Level of Ambition?

- Progression to a specified ‘next’ milestone of reductions in fatalities & serious injuries?

**OR**

- Ultimate *elimination* of fatalities & serious injuries (with steady progress - through strategies and targets proposed in the interim)?
Context:
Substantial guidance and tools available

- **Key References:**

   
   [http://www.internationaltransportforum.org/jtrc/safety/targets/targets.html](http://www.internationaltransportforum.org/jtrc/safety/targets/targets.html)

   
The Road Safety Management System (RSM)

- Comprehensive road safety management approach necessary to deliver good performance
- Changed institutional management arrangements to strengthen capacity need to be identified and put in place
The Road Safety Management System (RSM): ‘Focusing on Results’

Road safety performance limited by implementation capacity and - to a lesser extent – by intervention production and financing.

Improving road safety capacity and performance requires clear understanding of road safety management system:

• institutional management functions
• interventions
• results sought

Road safety discussion in most communities usually (unhelpfully) focuses on interventions alone.
Road Safety Management System

Vision and Targets

“What” we implement

Management functions that determine implementation capacity

Pillars 2 to 5: Interventions

RSM: Institutional Management Functions

Seven institutional management functions can be identified:

- Results focus
- Coordination
- Legislation and supporting systems
- Funding and resource allocation
- Promotion and advocacy
- Monitoring and evaluation
- Research and knowledge transfer
Results Focus: the Key Institutional Management Function

• **Results focus** is overarching institutional management function.

• Effective RSM requires leadership, accountability and ‘ownership’.
  ➢ What are you trying to achieve?
  ➢ How are you going to get there?
  ➢ Who is accountable for this?
  ➢ Identifying and strengthening lead agency to build institutional management functions and guide road safety effort

• The other **six** functions contribute to achievement of desired results.
  ➢ How do you coordinate for this?
  ➢ Legislate for this?
  ➢ Fund this?
  ➢ Monitor progress?
Interventions

Interventions address:

– planning, design, operation and use of road network (Pillars 2 and 4 - part)

– entry and exit of vehicles and road users to and from road network (Pillars 3 and 4 – part)

– recovery and rehabilitation of road crash victims from road network (Pillar 5)

Standards and rules are to be set for these activities, and compliance with them is required - using enforcement, public education and incentives - and within agencies, peer review.
Results

Results can be expressed in terms of (1) final outcomes, (2) intermediate outcomes, or (3) outputs.

• **Final outcomes** include fatalities, injuries and social costs
• **Intermediate outcomes** include reduced speeds, higher seat belt and helmet wearing rates, improved road and vehicle safety ratings, etc.
• **Outputs** consist of deliverables including: hours of police patrol, volume of infringement notices, length of road treated, etc.

• **Intermediate outcomes as Safety Performance Indicators**
Reviewing Capacity to Manage Road Safety

Two stage process

Stage 1 – conduct country RSM capacity review:
GRSF Capacity Review Guidelines - contain 12 Checklists. Use as guide to:
- Identify government ownership of performance
- Assess lead agency role
- Assess current management system strengths and weaknesses and all elements of RSM system
- In what areas is capacity improvement most critical?
- Investment plan - Identify safe system demonstration projects to commence long term investment program

Reviewing Capacity to Manage Road Safety

Institutional framework and governance

(In what areas is capacity improvement most critical?)
Reviewing Capacity to Manage Road Safety

Priority areas for strengthening

**Government Ownership**
- What political and senior bureaucratic commitment exists?

**Lead agency role**
- Crucial importance of the lead agency role - in directing the strategic effort across management functions
- Lead agency forms follow these necessary functions. No single structural model for a successful lead agency.
Reviewing Capacity to Manage Road Safety

Priority areas for strengthening

Ownership, authority and accountability

Good practice countries:
• Coherent, active machinery of government evident
• Agencies have clearly mandated safety roles and responsibilities
• Agencies work together under the direction of an accountable lead agency to achieve agreed results.

Without this well-defined institutional ‘ownership, authority and accountability’ the problem of bringing road safety performance under control cannot be solved.
Reviewing Capacity to Manage Road Safety

Priority areas for strengthening

**Coordination**

The horizontal and vertical orchestration and alignment of interventions and associated institutional management functions delivered - by government partners and related community and business partnerships - to achieve agreed performance targets.

A *top-tier coordination committee* (or executive group) will only be effective when there is an accountable lead agency that ‘owns’ and uses it to mobilize resources and align multi-agency partnerships.
Coordinator (cont’d)

A high-level working group necessary to support strategic decision-making and directing role of the top-tier coordination committee.

This working group must comprise empowered senior managers from participating agencies and is usually resourced and sustained by a road safety secretariat in the lead agency.

Technical working groups to support the senior managers working group
Potential Road Safety Management Arrangements at National Level

**EXECUTIVE GROUP**
Chief Executives from Transport, Roads, Health, Education, and Chief of Traffic Police

**MANAGERS WORKING GROUP**
Senior Managers: Transport, Police, Roads, Justice, Health, Education and Home Affairs Ministries & Govt. Injury Insurer

**CO-ORDINATION SECRETARIAT**
Lead agency for road safety

**TECHNICAL WORKING GROUPS**
P1 P2 P3 P4 P5 P6

**SUPPORT**

**DECISION MAKING**

**LOCAL GOVERNMENT LIAISON AND CONSULTATION**

**ADVISORY GROUP**
Experts and organisations

**LIAISON & ADVICE**
Case Study: Multi-sectoral Coordination in Victoria, Australia
Reviewing Capacity to Manage Road Safety

Two stage process: Stage 1

Stage 1 to also include identifying safe system demonstration projects for establishment investment phase
Investment: A Staged Approach to a Long Term Strategy

Source: Adapted from Mulder and Wegman, 1999.
Investment: Planning Demonstration Projects – based on Safe System Principles

Responsibility for crashes and injuries is *shared* between the providers and users of the road transport system.

Human life and health are paramount and *should not be traded off against mobility goals*.

Humans make *errors*
Investment: Planning Demonstration projects – based on Safe System Principles (cont’d)

Inherent safety of road system: determined by its users not being exposed to forces that go beyond human tolerance to injury.

Shifting to the Safe System approach requires sustained innovation to proactively reshape the road system to achieve the desired goal, rather than reactively making incremental improvements when evidence suggests system failures could be economically addressed.
Safe system:
Sweden’s Vision Zero: Focus on Injury Prevention
## Safe System:
### Dutch Sustainable Safety: Design Principles

<table>
<thead>
<tr>
<th>Sustainable Safety principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functionality</strong> of roads</td>
<td>Monofunctionality of roads as either through roads, distributor roads, or access roads, in a hierarchically structured road network</td>
</tr>
<tr>
<td><strong>Homogeneity</strong> of mass and/or speed and direction</td>
<td>Equality in speed, direction, and mass at medium and high speeds</td>
</tr>
<tr>
<td><strong>Predictability</strong> of road course and road user behaviour by a recognizable road design</td>
<td>Road environment and road user behaviour that support road user expectations through consistency and continuity in road design</td>
</tr>
<tr>
<td><strong>Forgivingness</strong> of the environment and of road users</td>
<td>Injury limitation through a forgiving road environment and anticipation of road user behaviour</td>
</tr>
<tr>
<td><strong>State awareness</strong> by the road user</td>
<td>Ability to assess one’s task capability to handle the driving task</td>
</tr>
</tbody>
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SAFE SYSTEM

SAFER TRAVEL

Safeguard

Alert and compliant road users

Safer speeds
(lower speeds more forgiving of human errors)

Human tolerance to physical force

Safer vehicles

Safer roads / roadsides
(more forgiving of human errors)

Education and information supporting road users

Admittance to the system

Emergency medical treatment

Legislation & Enforcement of road rules

Understand crashes and risk
Safe System Elements

- Roads and roadsides
- Travel speeds
- Vehicle safety characteristics (and vehicle types)
- Emergency medical care
- Road user compliance with the law
- Legislation
- Driver and rider entry and exit to/from the system
- Understanding crashes
- Education and information supporting road users
Safe System Approach

• considers safety as an ethical imperative
• seeks to align safety decisions with broader community values – economic, human & environmental health, consumer goals
• long term goal of a safe system will take time to achieve
  (substantial retrofitting task for roads, vehicles, enforcement, emergency management)
## Safe travel speeds

<table>
<thead>
<tr>
<th>Types of road infrastructure and traffic</th>
<th>Safe travel speed (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locations with possible conflicts between cars and pedestrians/cyclists</td>
<td>30</td>
</tr>
<tr>
<td>Intersections with possible side impacts between cars</td>
<td>50</td>
</tr>
<tr>
<td>Roads with possible frontal impacts between cars</td>
<td>70</td>
</tr>
<tr>
<td>Roads with no possibility of side impact or frontal impact (only impact with the infrastructure)</td>
<td>&gt;100</td>
</tr>
</tbody>
</table>
Reviewing Capacity to Manage Road Safety Demonstration Projects

Stage 1: Investment (Interventions) planning for demonstration projects

- Set project objectives and scale of project investment
- Identify project partnerships
- Identify safe system demonstration projects: (safe corridor or urban areas) plus policy reviews.
- Specify project components - Base on good practice solutions that address priorities
- Continue to strengthen capacity (and conduct existing activities/interventions)
Reviewing Capacity to Manage Road Safety Demonstration Projects

**Two stage process: Stage 2 - Implement safe system demonstration projects**

- Establish project management arrangements
- Specify monitoring and evaluation procedures
- Prepare detailed project design
- Highlight project implementation priorities
- Monitor performance
- Learn from demonstration project activity and feed into larger scale application
- Set targets (results) for growth investment phase (medium term stage)
Reviewing Capacity to Manage Road Safety Demonstration Projects

**Rural Corridor project components**

- Systematic infrastructure safety improvements (head-on, run-off road, intersections, vulnerable road users)
- Dedicated highway patrol programs (enforcing speed, alcohol & drugs, safety belts & helmets, commercial vehicles)
- Publicity and awareness campaigns supporting highway patrol enforcement programs
- State-wide publicity and awareness campaigns promoting government strategy and context for project
- School-based education programs
- Community-based programs
- Corporate social responsibility programs
- Post-crash services
- Project management support
- Monitoring and evaluation systems
SUMMARY: Reviewing Capacity to Manage Road Safety

TWO STAGE PROCESS OF REVIEW AND INVESTMENT PLANNING

STAGE 1:
Identify capacity needs and address
Identify demonstration projects for establishment investment phase

STAGE 2:
Implement demonstration projects

SUPPORTS:
- PIARC (World Road Association) Road Safety Manual (to be web based) nearing finalisation. May be launched in 2015.
- WB and ADB have offered Road Safety Management Training Courses - for two to four days duration
Case Study: RSMCR: Serbia 2007
Findings: institutional management

- Road safety management across government has yet to be established
- Leadership role and coordination not yet in place
- Little focus on achieving results in last decade
- Serious lack of human and financial resources in road safety across government
- Unsurprisingly, interventions are fragmented and outcomes are challenging
WB RSMCR Serbia: 2007
Findings: interventions

**Roads:** Safety quality of network is not high

- designed to old standards
- poor speed management and urban safety management
- inadequate pedestrian facilities
- lack of good practice safety audit
- unrestricted roadside development
Users: Rules being established but not yet deterring unsafe behaviours through combined publicity and enforcement, e.g.

- excess speed
- excess alcohol
- non use of seat belts
- non use of crash helmets
Serbia has to re-start its long road safety journey

With political will to ensure

- national leadership capacity
- focus on achieving results-led strategy
- effective multi-sectoral coordination
- improved funding mechanisms and source
- high-level promotion of strategy
- appropriate knowledge transfer and research

Many lives could be saved and injuries prevented
How will interventions be coordinated?

- A new coordination decision-making hierarchy at national level
- Involve key Ministries – Infrastructure, Interior, Justice Health, Education, Public Enterprise
- Organise at various levels – Executive, senior managers, (and technical groups) and stakeholder consultation
- Provide a funded secretariat from lead department for strategy development
- Without adequate funding, technical resource and a lead department in support, multi-sectoral coordination has little chance of success
Reviewing Capacity to Manage Road Safety

Planning to Bring Road Safety Outcomes Under Control in Ways which Fully Reflect Country Capacity

• Assessing and strengthening country road safety management capacity - critical to governing production of improved road safety results which can be sustained in long term.

• In pursuing this goal, must take account of management capacity in country concerned - to ensure that institutional initiatives are properly sequenced and adjusted to its learning capacity.

GRSF Capacity Review Highlights Document
Reviewing Capacity to Manage Road Safety

Strengthening support – from the community and the political level

• Lead agency establishment
• Agency coordination and decision making arrangements in place and working
• Well targeted Strategy and Action plan drafted
• Involve political level broadly - in briefings and information sessions
• Gain funding to commence
• Implement actions
• Evaluate and Learn
• Tell the good news widely
• Build capacity and foster evidence based research
Observations from workshop

- Information exchange: We all have had opportunity to learn from each other
- Importance of these international forums
- More of this exchange and support is essential
- Very interesting to observe road safety changes in Region since 2007/8
- Road safety in Region has moved forward in last 6 years – variable but positive
‘Donosioci odluka mogu da učine sistem saobraćaja u Evropi bezbednim onoliko koliko to žele – problem saobraćajnih nezgoda uzrokuje čovek i on se može rešiti’

P.A.M. Cornelissen MEP
Izvestilac za bezbednost u saobraćaju
Evropski parlament, 1999.

‘Policymakers can make the traffic system in Europe as safe as they want to - the road crash problem is man-made and can be remedied’

THANK YOU

Eric Howard, Whiting Moyne Consulting
MODULE 1: WHY IT IS CRITICAL TO EFFECTIVE ROAD SAFETY OUTCOMES

Presentation by Eric Howard

27 June 2014