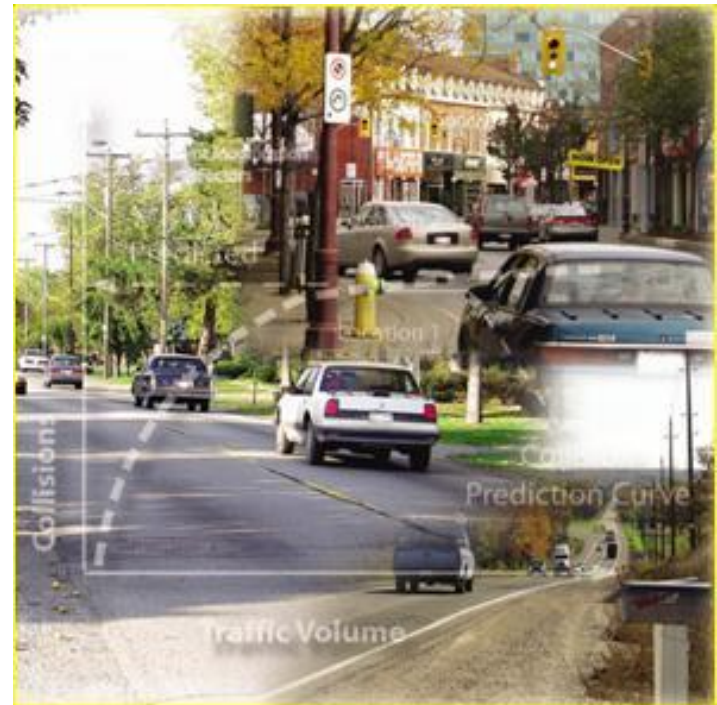


CAREC: Time for Action in Road Safety?

Dr. Oleg Tonkonojenkov
Leader of ADB Road Safety
Advisory Team
Senior Transport Specialist
South Asia Department
Asian Development Bank



Presentation Outline

- Why Road Safety?
- What is Being Done to Address Road Safety Problem
- How ADB can assist
 - Example 1: Road Safety Investment Plans for Infrastructure
 - Example 2: Strengthening Road Safety Management Capacity
 - Example 3: Road Safety Pipelines
 - Example 4: Regional Capacity Development TA: South East Asia

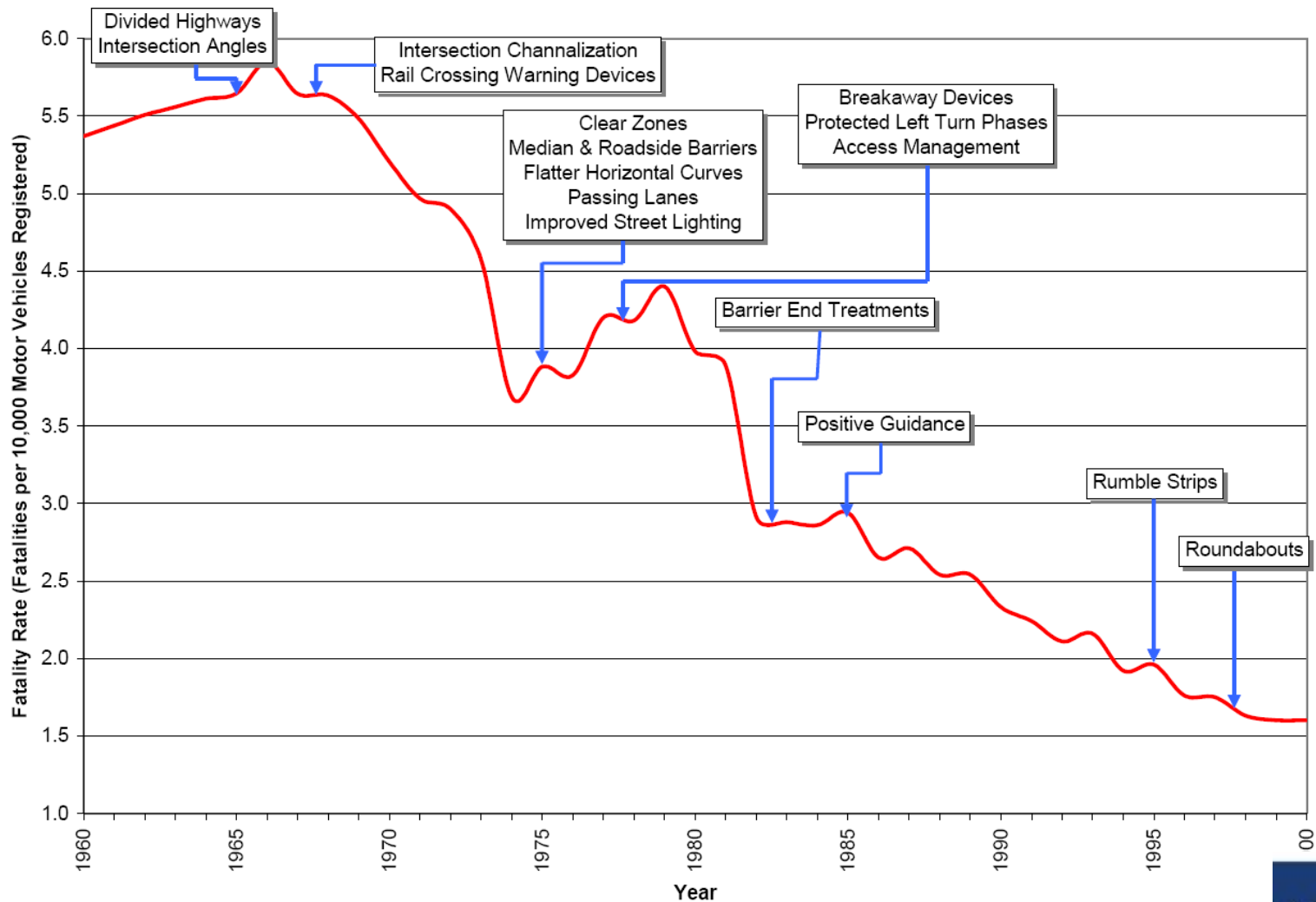


Why Road Safety?

Road Safety Problem

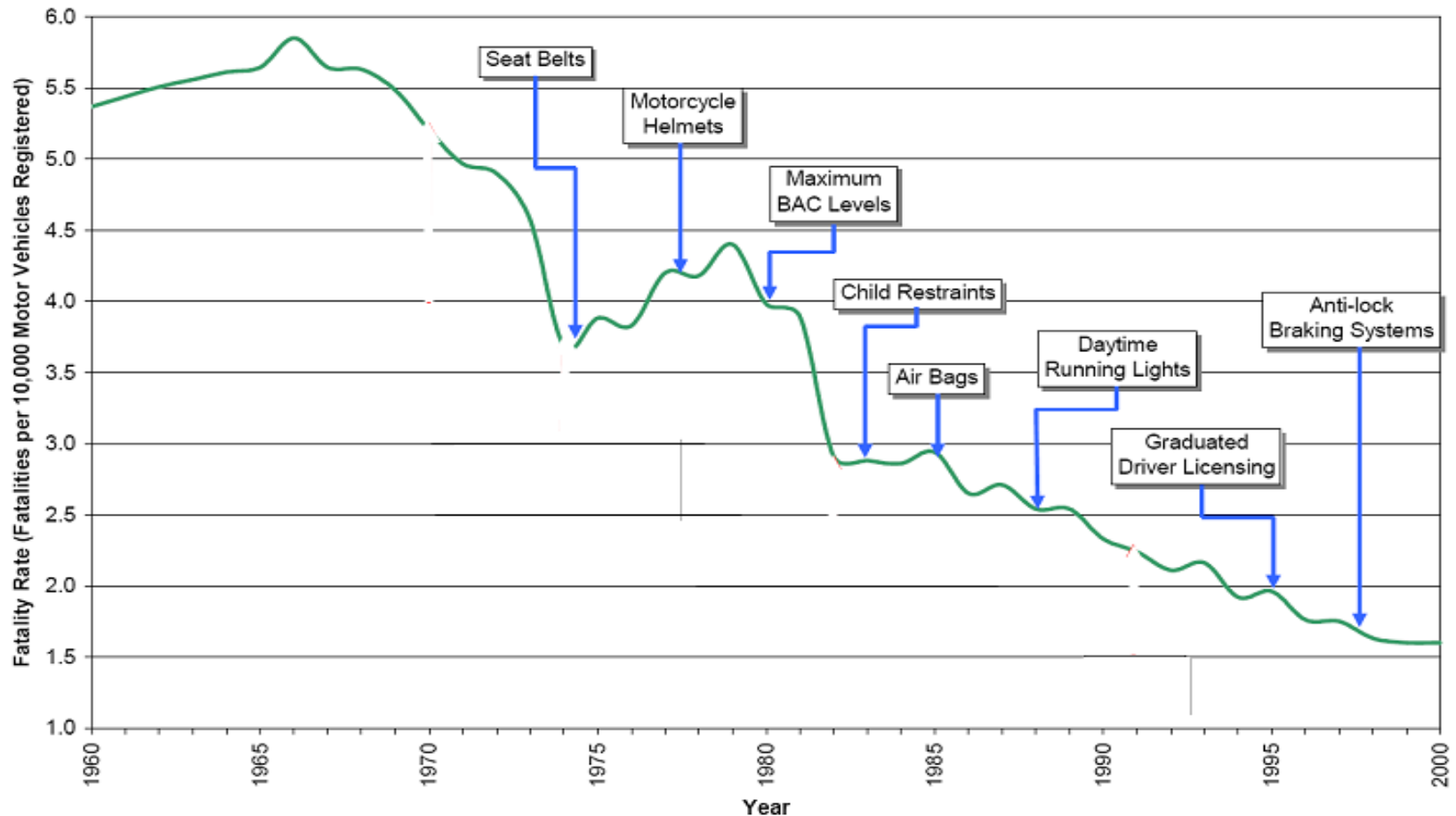
- Road traffic crashes will become the fifth leading cause of death by 2030
 - Over 645,000 deaths and 30 million injuries annually in Asia and Pacific
 - Between 2000 and 2020, road traffic fatalities in Asia will increase by more than 80%.
- Health, Poverty and Economic Problem:
 - Killing more than malaria and by 2030 will kill two times more than HIV/AIDS and four times more than tuberculosis (TB)
 - In India, 70% of families that lost their main earner in road accidents fall below the poverty line
 - ADB's DMCs are losing at least \$96 billion every year
 - Economic losses are greater than the total development aid received annually in the region

Road Fatalities Are Preventable: Engineering Measures (Canada)



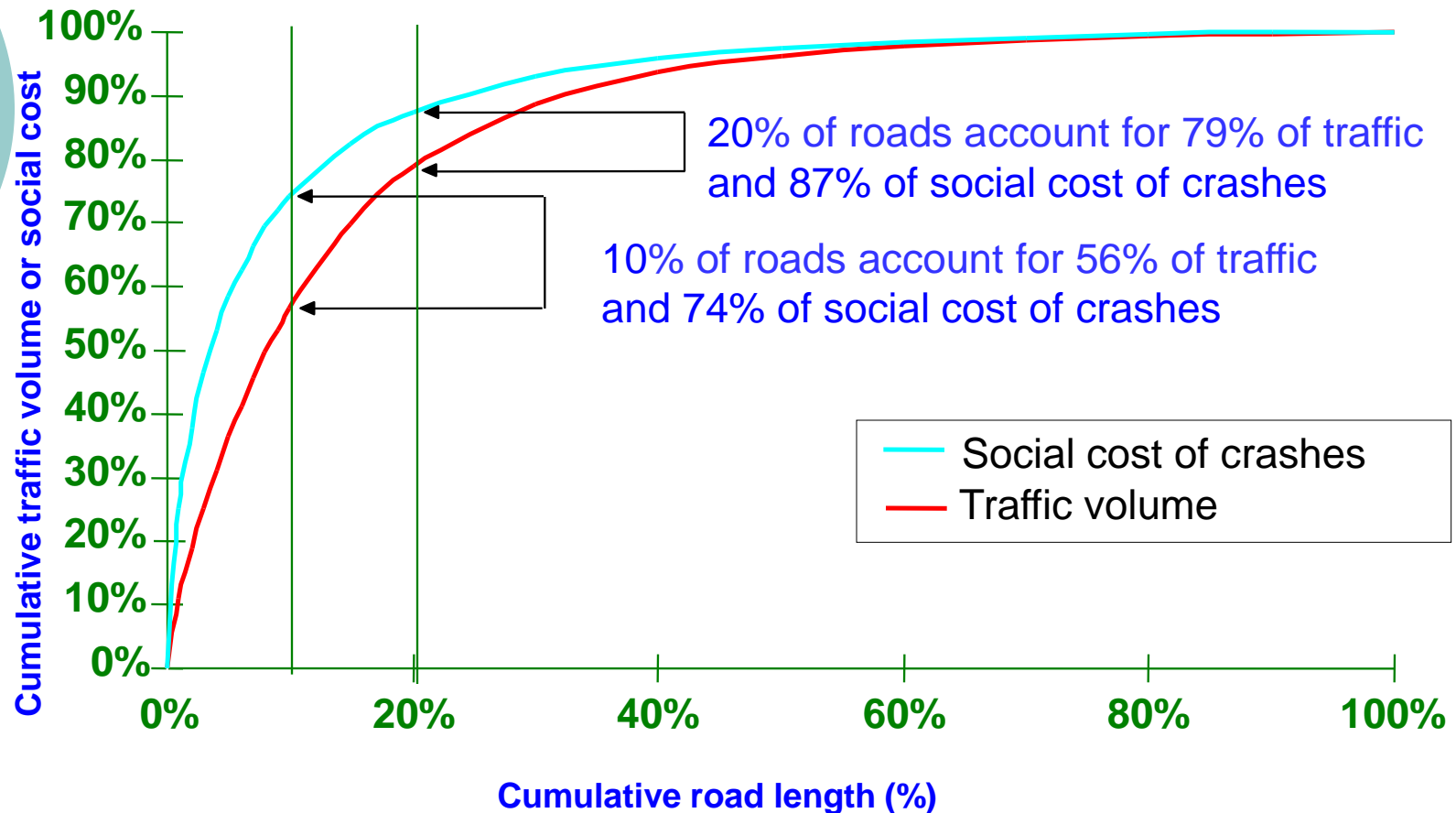
Source: Zein, S. and Montufar, J. Road Safety Benchmarks Over Time, Transport Canada, 2003

Road Fatalities Are Preventable: Non-Engineering Measures (Canada)



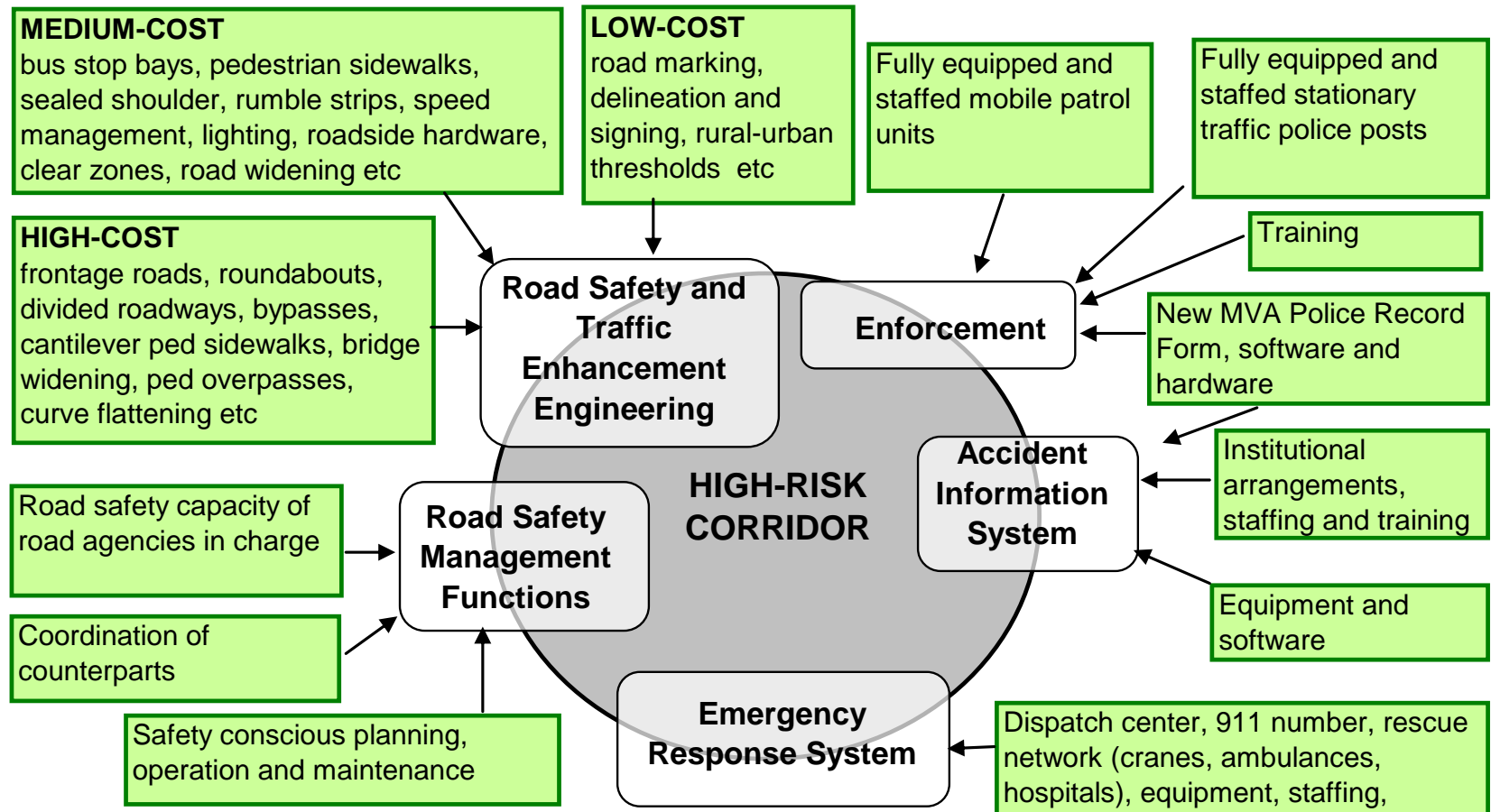
Source: Zein, S. and Montufar, J. Road Safety Benchmarks Over Time, Transport Canada, 2003

Quick and Visible Improvement: Targeted Interventions

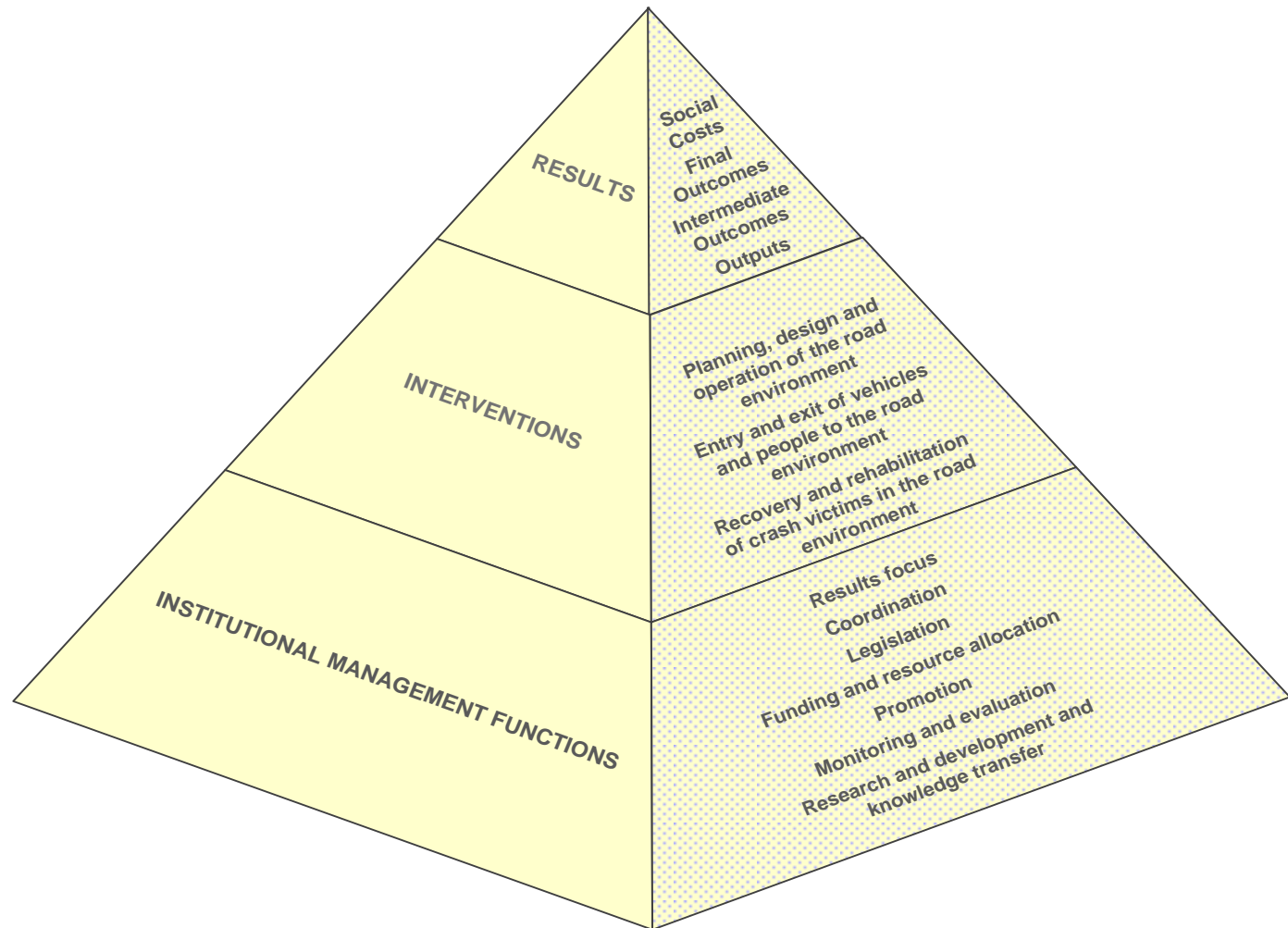


Source: Road Safety Strategy 2010, National Road Safety Committee, Wellington, New Zealand, October 2000 (cited by A. Bliss in presentation "Preparing 2nd Generation of Road Safety Projects", 2008)

Road Safety Programs in Selected Corridors

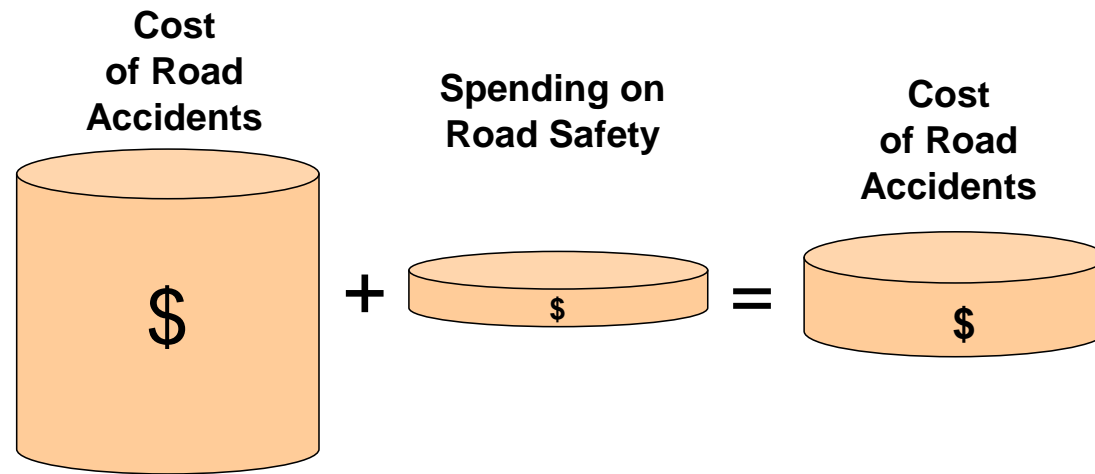


Holistic and Sustainable Change: Road Safety Management System



Effectiveness of Road Safety Investments

- 10% of the costs of road crashes spent on safety can prevent 70% of those costs



Effectiveness of Road Safety Interventions: Some Examples

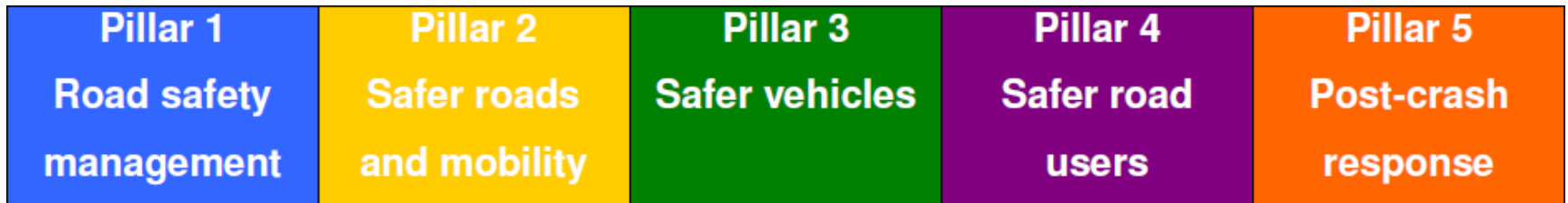
- Road Safety Audits
 - In UK the average reduction in fatal and injury crash frequency at the audited project sites is almost 5 times higher than at comparable non audited sites
- Centreline rumble strips
 - Can reduce the frequency of head-on crashes by 21%
- Energy-absorbing barrier end treatments
 - Reduce probability of fatalities in a crash by up to 78%
- Graduated licensing systems
 - Reduce fatal crashes by 7%-35% across different countries, jurisdictions and target groups
- Seat belts
 - Reduce the risk of being killed in an accident
 - for a driver and front seat passenger by 40-50%
 - for a back seat passengers by 25%
- Highway Rescue
 - Decrease in ambulance waiting time from 11-20 min to 1-10 min leads to 50% decrease in the risk of a fatality



What is Being Done to Address Road Safety Problem

UN Decade of Action

- General Assembly resolution 64/2551 of March 2010
 - proclaimed 2011–2020 the Decade of Action for road safety,
 - global goal of stabilizing and then reducing the forecasted level of global road fatalities
- Global Plan for the Decade of Action:



- Many countries have already adopted National Road Safety Action Plans



ADB's Support to the National Road Safety Action Plans

- ADB's Action Plan to Mainstream Road Safety in ADB operations
 - Target: Improved ADB road safety capacities and portfolio of projects to support road safety improvement in DMCs
 - "Pipeline Concept": dedicated, sustainable, and comprehensive assistance for road safety
 - Larger and higher quality road safety components and TAs



How ADB Can Assist

Example 1: Infrastructure Road Safety Investment Plans

Services and Tools Available

- IRAP
 - Inspections (total road network)
 - Risk assessment (equivalent of total road network screening)
 - Safer roads investment plans
- Road Safety Audits and Engineering:
 - Detailed identification of issues and solutions
 - Preliminary design
 - Final Design

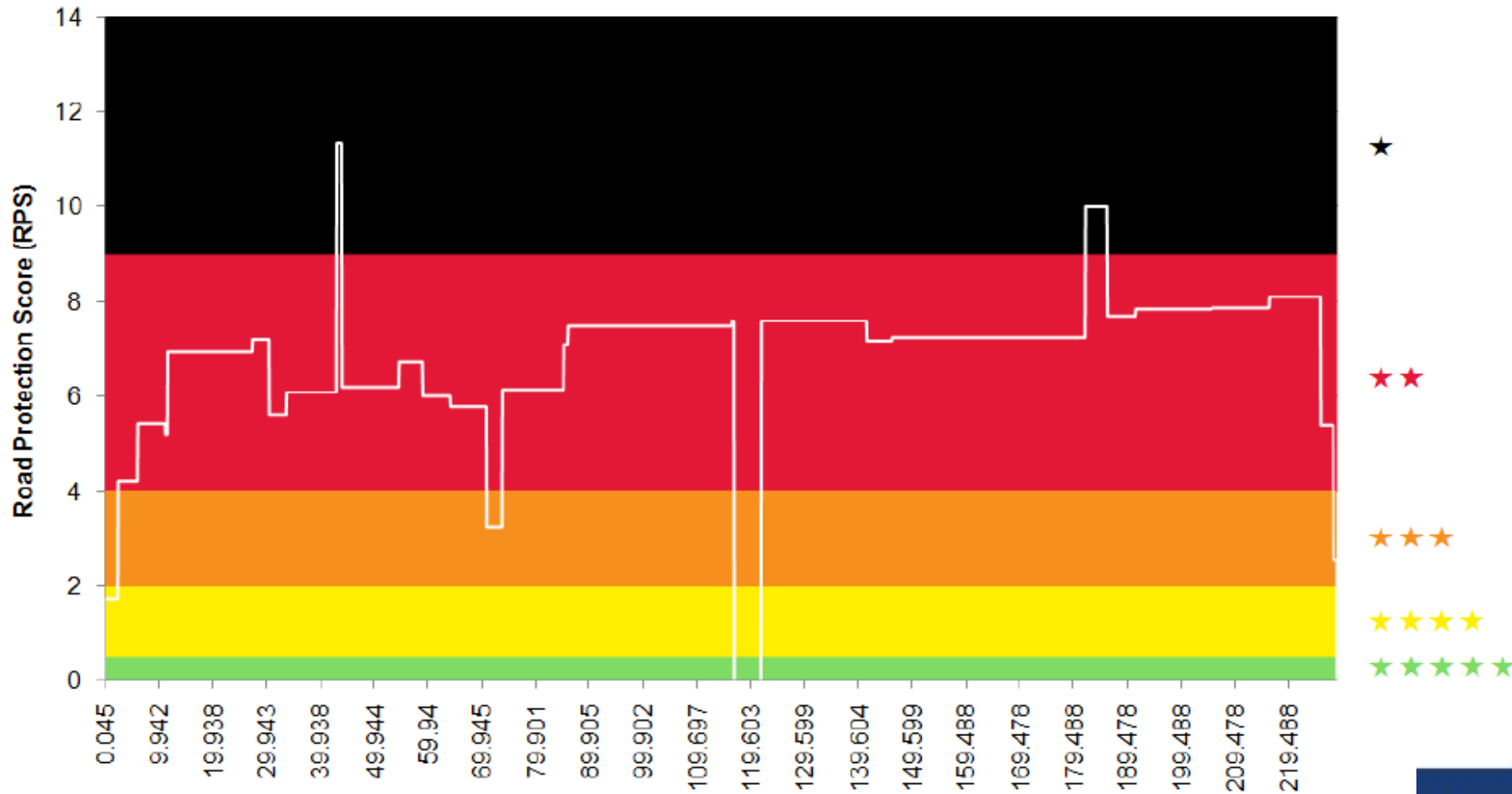
iRAP Inspection Vehicle



Processing of the iRAP Inspection Results



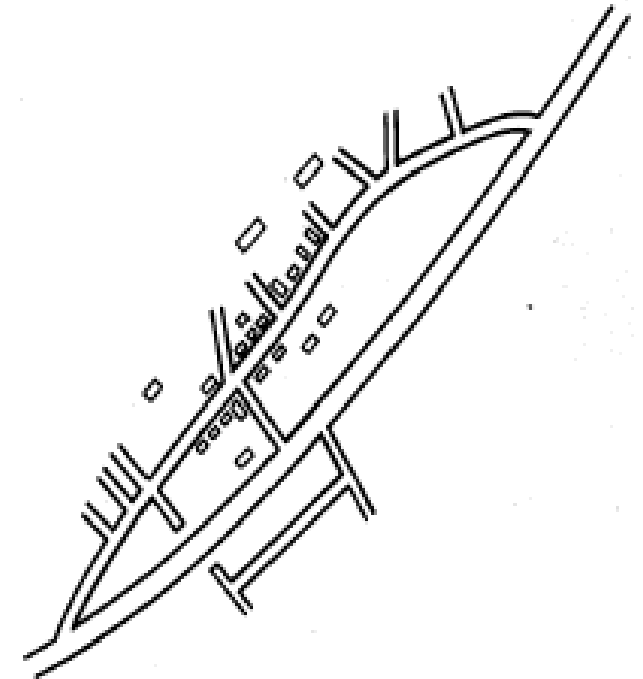
Example: iRAP Road Protection Scores (Bicyclists)



Infrastructure/Engineering Solutions

before

after



Source: Ross, A; Baguley, C; Hills, B; McDonald, M; Silcock, D (1994) Towards Safer Roads in Developing Countries. Transport Research Laboratory, Ross Silcock Partnership; Overseas Development Administration

before

after



before

after



Right photo: courtesy of Ross, A; Baguley, C; Hills, B; McDonald, M; Silcock, D (1994) Towards Safer Roads in Developing Countries. Transport Research Laboratory, Ross Silcock Partnership; Overseas Development Administration

before

after



before

after



before

after



before

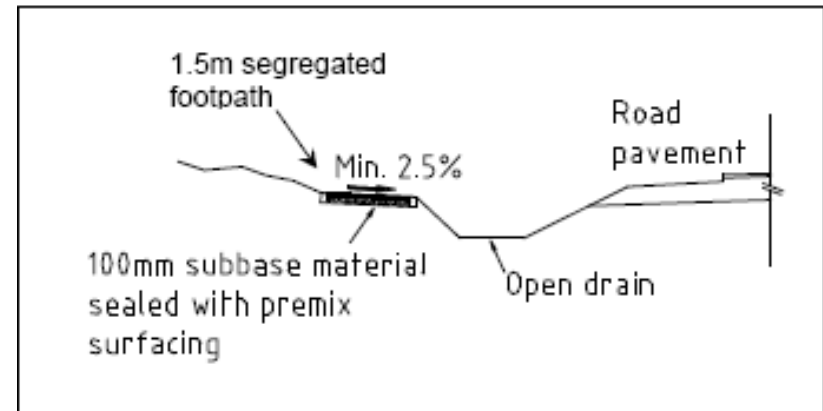


after



before

after



Examples of Positive Guidance

before



after



Examples of Positive Guidance

before



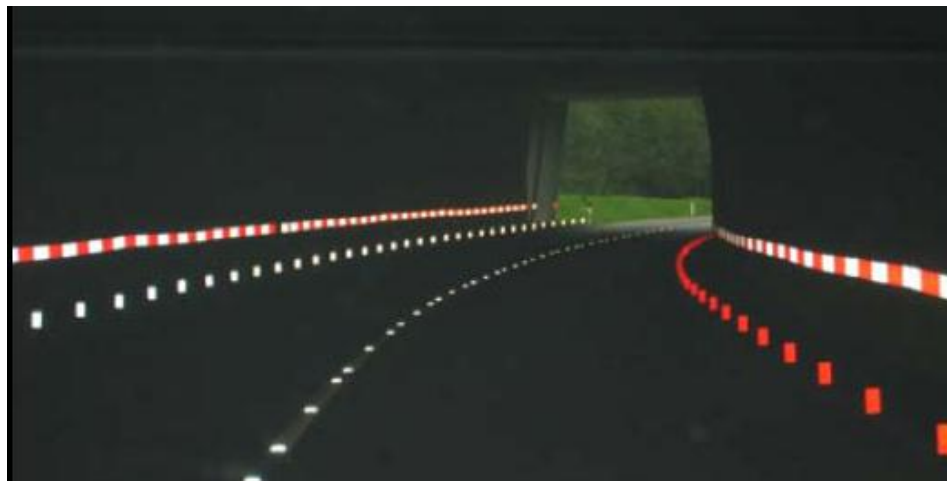
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Examples of Positive Guidance



Night Time Safety

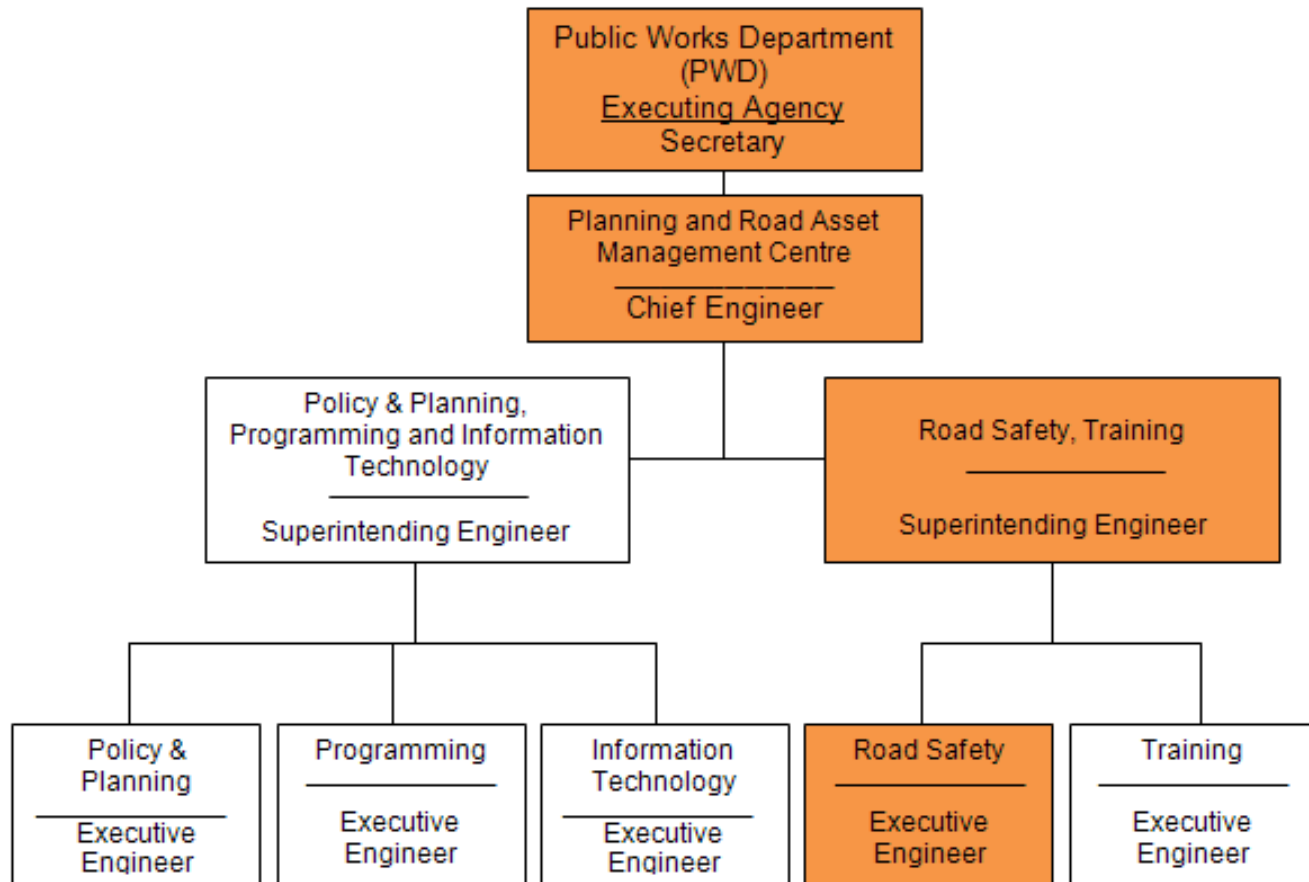




How ADB Can Assist

Example 2: Strengthening Road Safety Management Capacity

KSHIP: Planning and Road Asset Management Center



Road Safety Unit

ROAD SAFETY UNIT	
Head of Unit (Executive Engineer)	
<p>Road Safety Programs Head of Section (Assistant Executive Engineer) Engineer * 1 (Assistant Engineer) Human Behaviour Specialist * 1 Ministry of Transport Representative * 1 Ministry of Education Representative * 1</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Stakeholder Liaison <input type="checkbox"/> Identification of Improvement Projects <input type="checkbox"/> Creation of Road Safety Programs <input type="checkbox"/> Network Screening (IRAP) <input type="checkbox"/> Monitoring of Road Safety Programs
<p>Road Accident Analysis Head of Section (Assistant Executive Engineer) Data Analyst / Statistician* 1 (Assistant Engineer) Data Entry Operators * 2</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Accident Data Entry <input type="checkbox"/> Accident Data Analysis <input type="checkbox"/> Blackspot Program <input type="checkbox"/> Accident Statistics
<p>Road Safety Audit Head of Section (Assistant Executive Engineer) Engineer * 2 (Assistant Engineer)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Road Safety Audits <input type="checkbox"/> Design Review
<p>Traffic Incidence Management Head of Section (Assistant Executive Engineer) Engineer * 1 (Assistant Engineer)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> TIMS Standards & Guidelines <input type="checkbox"/> Identification of TIMS Sites <input type="checkbox"/> TIMS Implementation <input type="checkbox"/> TIMS Monitoring

Rollout Plan: Apprenticeship Mode

Activities	2010	2011				2012				2013				2014	
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Formal Establishment of PRAMC (PWD)	●														
Preparation Activities (PWD)															
Office		■													
Equipment		■													
Identification and Assignment of Key Staff		■													
Preparatory Phase (PRAMC Consultant)															
Development of Processes and Procedures				■											
Dedicated Training of PRAMC staff															
Operational Phase (Consulting Services to Support Operations of PRAMC)															
On-the-Job Training															
Implementation of Processes & Procedures						■									
Consulting Services to Support PRAMC Operations on As Needed Basis															
Stand By Support and Recommendations															■



How ADB Can Assist

Example 3: Road Safety Pipeline

Road Safety Pipeline to Bangladesh (COBP); Bhutan and Nepal

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
R-TA or TA on Road Safety	PPTA Preparing standalone multi-sectoral Road Safety Project		Implementation of multi-sectoral Road Safety Investment Project			
Prefeasibility level	Feasibility level		Implementation			
Task 1: Conduct road safety diagnosis Task 2: Prepare road safety programs on selected high risk corridors Task 3: Strengthen road safety management capacity Task 4: Propose and facilitate establishing regional road safety collaborative mechanisms Task 5: Develop road safety policies and business procedures to incorporate road safety into the lifecycle of roads Task 6: Identify sustainable funding arrangements for road safety Task 7: Identify and prepare for subsequent design and implementation road safety programs Task 8: Prepare draft Design and Monitoring Frameworks (DMFs) for subsequent investment projects	Design of the Road Safety Investment Project and its preparation for ADB financing Capacity building, advisory support in operations, dedicated training, on-the job training, knowledge transfer		Component A (Investment): Selected components of the road safety programs Component B (Institutional Building): Advisory support in operations, training, knowledge transfer			

Possible Investment Programs for ADB financing

- Demonstration “Safe” corridors
- Network-wide road safety measures
- Improvement of police enforcement
- Driver education and training programs
- Awareness programs
- Highway rescue programs
- Establishing accident data collection and analysis systems
- Creating a layer of road safety professionals
- Etc.



How ADB Can Assist

Example 4: Regional Capacity
Development TA: South East Asia



Southeast Asia Regional Department Regional Road Safety Projects

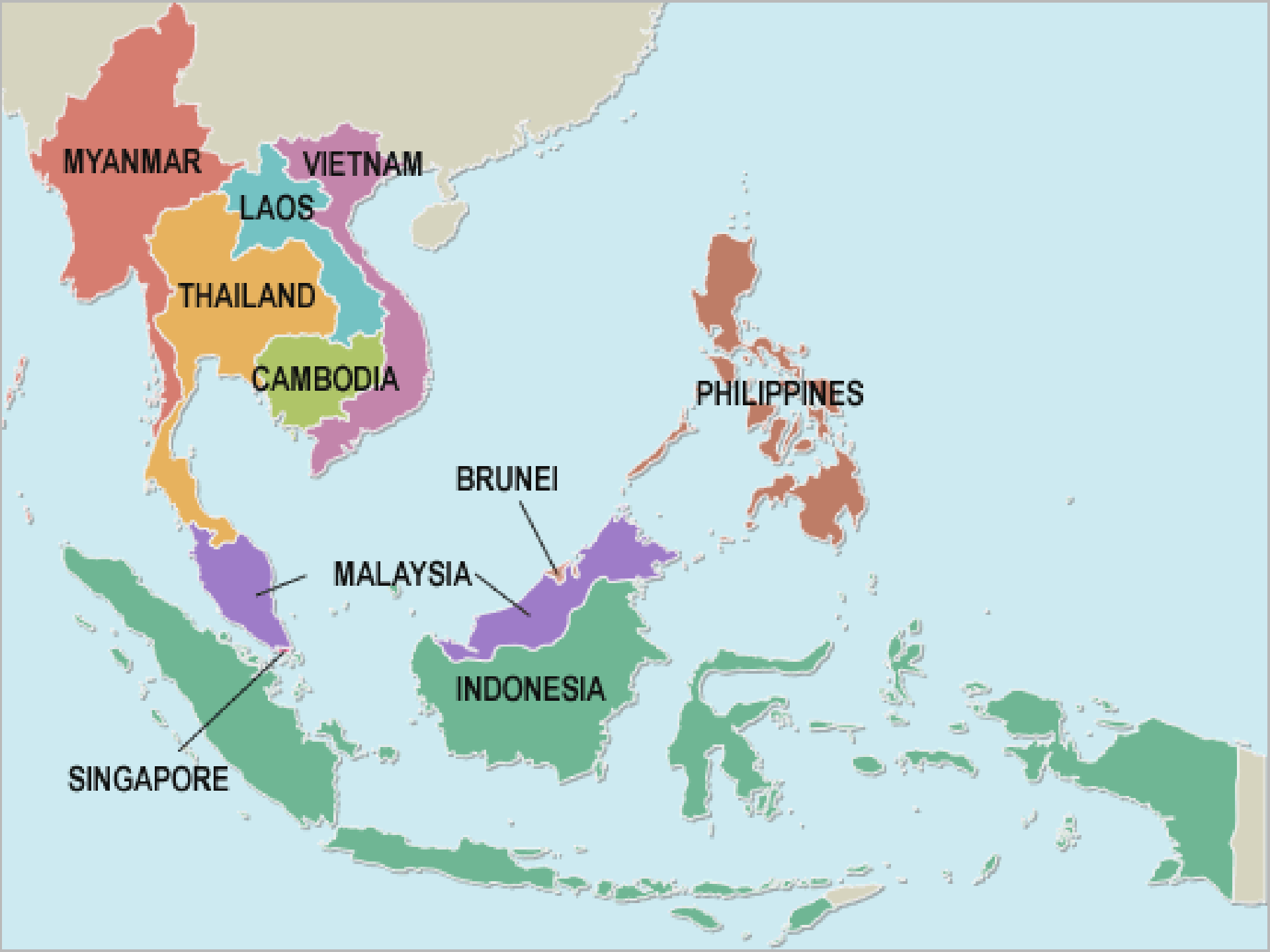
Jeffrey M. Miller
Principal Transport Specialist
Transport and Communications Division
Southeast Asia Department

Association of Southeast Asian Nations (ASEAN)

- 10 countries
- 6 currently active ADB programs*

Brunei Darussalam
Cambodia*
Indonesia*
Lao PDR*
Malaysia

Myanmar
Philippines*
Singapore
Thailand*
Viet Nam*



MYANMAR

VIETNAM

LAOS

THAILAND

CAMBODIA

PHILIPPINES

BRUNEI

MALAYSIA

INDONESIA

SINGAPORE



Why a regional approach?

1. Common issue of road safety:

- Rapid economic growth leading to rapidly increasing motorization
- High proportion of 2- and 3-wheeled vehicles in traffic
- Inadequate capacity to address road safety

2. Maximize efficiency

- Address issues in multiple countries simultaneously
- Existing regional organization

SERD Road Safety TAs

- ❑ Road Safety in ASEAN (2003-2006)

- ❑ Improving Road Safety in ASEAN (2012-2014)
 - requested by ASEAN transport ministers
 - implemented with ASEAN Secretariat

Road Safety in ASEAN (2003-2006)

- ❑ \$0.9 million (ADB, SIDA, private sector grants)
- ❑ covered all 10 ASEAN countries
- ❑ Outputs:
 - i. Country action plans for each of the 10 ASEAN countries
 - ii. regional road safety strategy and priority action plan
 - iii. national road safety workshops in each of the 10 ASEAN countries
 - iv. a regional workshop to develop a regional road safety strategy
 - v. establishment of an internet-based regional networking tool called (ASEAN Safety Network--ASNet)
 - vi. ministerial declaration on road safety
- ❑ Rated Successful

Improving Road Safety in ASEAN (2012-2014)

- ❑ \$1.5 million (ADB grant)
- ❑ Approved 25 April 2012
- ❑ covering all 10 ASEAN countries
- ❑ outputs:
 - i. strengthened capacity to monitor and analyze road accident data,
 - ii. strengthened capacity to address motorcycle safety issues,
 - iii. strengthened capacity to implement road safety strategies,
 - iv. improved enforcement capacity of traffic police,
 - v. a pipeline of road safety projects, and
 - vi. knowledge products disseminated publicly



Thank You.

Jeffrey M. Miller

jmiller@adb.org

Group Breakout Session:

"Can you think of **2 sets** of regional road safety activities (**1 investment** and **1 non-investment**) that CAREC can do?"

"How ADB could help these activities?"

Groupings

A

AFG, PRC, WB (HK), ADB (HY),
JICA (KD)

B

MON, PAK, JICA (TY), WB (AD),
ADB (JM)

C

KGZ, TAJ, UZB, USAID, ADB (OT)

D

AZE, KAZ, TKM, IDB, ADB (SM)