

Implementing Safe Systems in Low and Middle Income Countries

Tawia Addo-Ashong
Coordinator, Global Road Safety Facility

Transport, Water and Information
& Communication Technologies
Department
Sustainable Development Network
The World Bank



Safe, Clean, Affordable
TRANSPORT

GRSF
Global Road Safety Facility

Global Road Safety Facility

- Established in 2006

Mission: Address the growing crisis of road deaths and injuries in LMICs

Activities: 20+ countries, \$500 million leveraged in road safety investments

program donors:

Bloomberg Philanthropies

 Department for International Development

 **FIA Foundation**
for the Automobile and Society

Australian AID

 **Sida**



Government of the Netherlands



GRSF Strategic Plan and the Global Agenda



Decade

1

Strengthened global, regional and country capacity to support sustainable reductions in road deaths and injuries in LMICs

Projected Fatalities 2020 | Fatalities 2010 | UN Decade

East Asia & Pacific

646,000

3

323,000

Europe & Central Asia

2

Scaled up global road safety funding, coordination, & advocacy mechanisms.

Latin America & Caribbean

Middle East & North Africa

152,000

100,655

South Asia

590,000

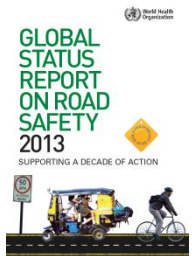
3

Mainstream road safety components in all WB-funded road infrastructure projects.

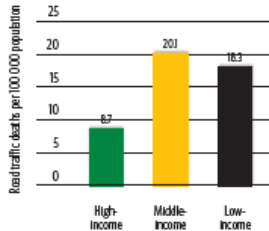
Sub-Saharan Africa

365,000

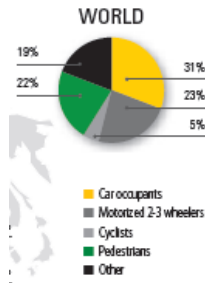
Priorities for Decade of Action (2015+)



Road traffic death rates per 100 000 population, by country income status



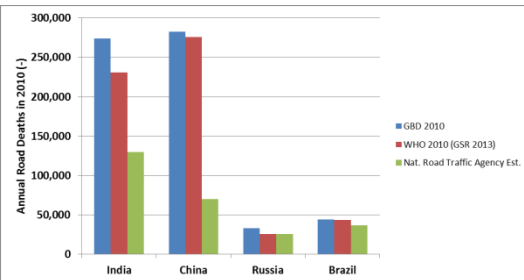
Low & Middle-Income Countries are hardest hit - fueled by rapid motorization and expansion of highway network



Half of all deaths are pedestrians (1/3rd), cyclists, and motorcyclists (VRUs)

Only 28 countries (7% of the world's population), have adequate laws that address all five risk factors

Massive underreporting in LMICs



GRSF Strategic Goals 2013-2020

- Develop capacity to target high risk roads and apply engineering measures in mixed-traffic, mixed-speed road environments
- Support implementation partnerships with the civil society, philanthropies and the private sector (e.g., RoadPol, NGOs)
- Include infrastructure and mobility needs (shift focus from vehicles to mobility)
- Priority for urban transport planning
- Strengthen road safety institutions and focus on developing national level RS strategy
- Bolster multi-sectorial coordination
- Improvement of data, integration and sharing between police, transport and health

Achieving the Goals of the Decade and Improving Road Safety Outcomes



Alarmed at a 122% increase in road traffic fatalities due to increased motorization from 1945-1970, Australia implemented various interventions on an experimental basis from 1970-2010.



In a period of 40 years, Australia **reduced its road traffic fatalities by 80%**.



In 2008, Argentina began putting effective measures for road safety in place, and began implementing a "systems approach" to its road safety management and interventions. From **2008 to 2010**, Argentina experienced a rapid decline in road traffic fatalities from **15.4 to 12.6 deaths per 100,000 inhabitants**.



Argentina has started to rely on a road safety approach that has been highly effective in developed countries, such as Australia, after decades of experimentation. Argentina also stands to produce results similar to those of Australia in a shorter period of time given the establishment of the science of road safety management, called "The Safe System Approach."

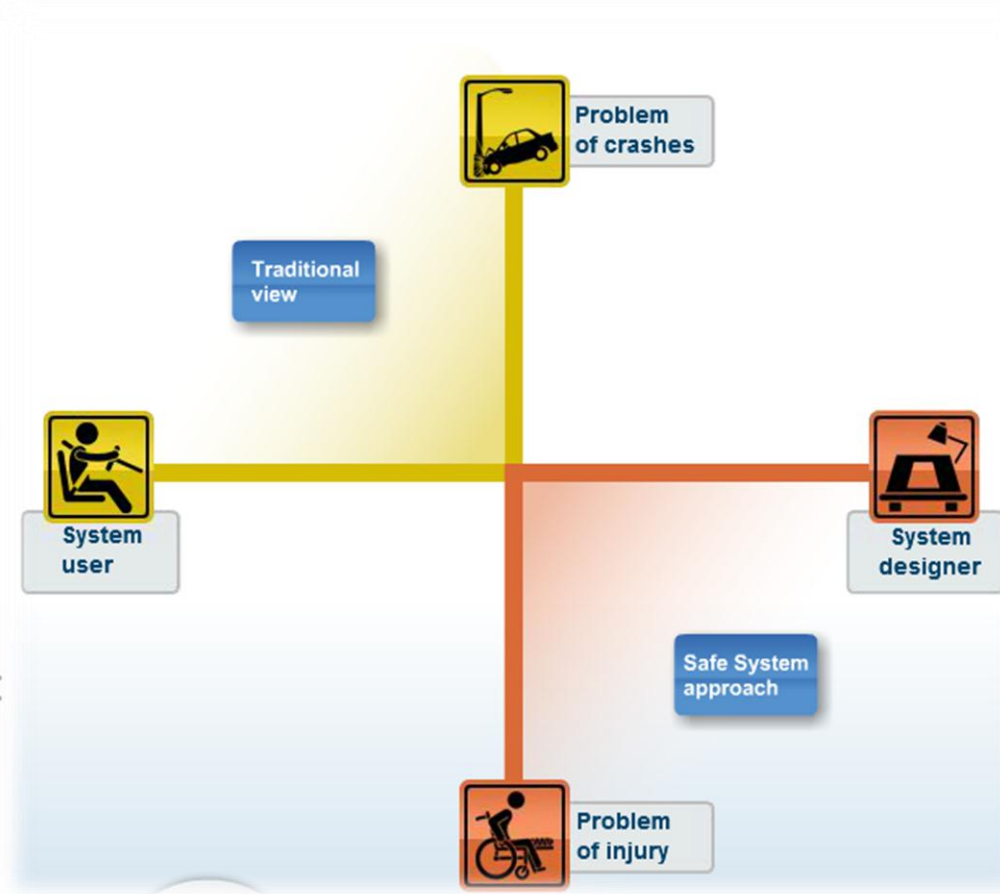


From Crash Reduction to Injury Prevention

The understanding and expectation of road safety has evolved over time. The focus has shifted from efforts to change human behavior blamed for road crashes, to systemic analysis and multi-sectoral interventions aimed at reducing the number of fatalities.

The Safe System approach requires that the road system be designed to anticipate and accommodate human error. This long-term goal shapes interventions, rather than the estimated gains from incremental system improvements.

The aim of the Safe System approach is to ensure that in the event of a crash, the impact energies remain below the threshold likely to produce either death or serious injury.



The Safe System Approach

The Safe System shapes interventions to meet the long term goal, rather than relying on “traditional” interventions to set the limits of any long term targets. It relies on multi-sectoral interventions around the five pillars of road safety.

The Safe System recognizes that:

- Prevention efforts notwithstanding, road users will remain fallible and crashes will occur.
- Humans are fragile. Unprotected, we cannot survive impacts that occur at greater than approximately 30km/h.
- Designers of the road transport system need to accept and share responsibility for the safety of the system.
- System users need to accept responsibility for complying with the rules and constraints of the system.
- Safety management decisions need to be aligned with broader transport and planning decisions that meet wider economic, human, and environmental goals.

These are some causes of RTIs that the Safe system seeks to address.

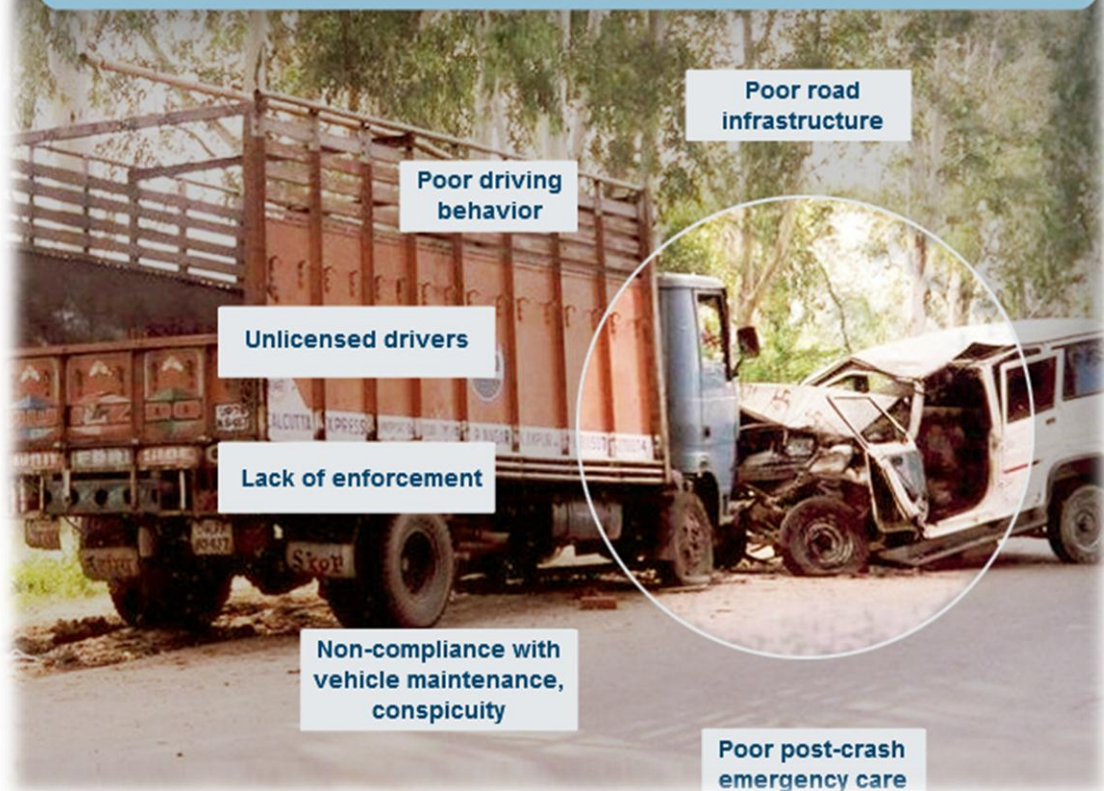


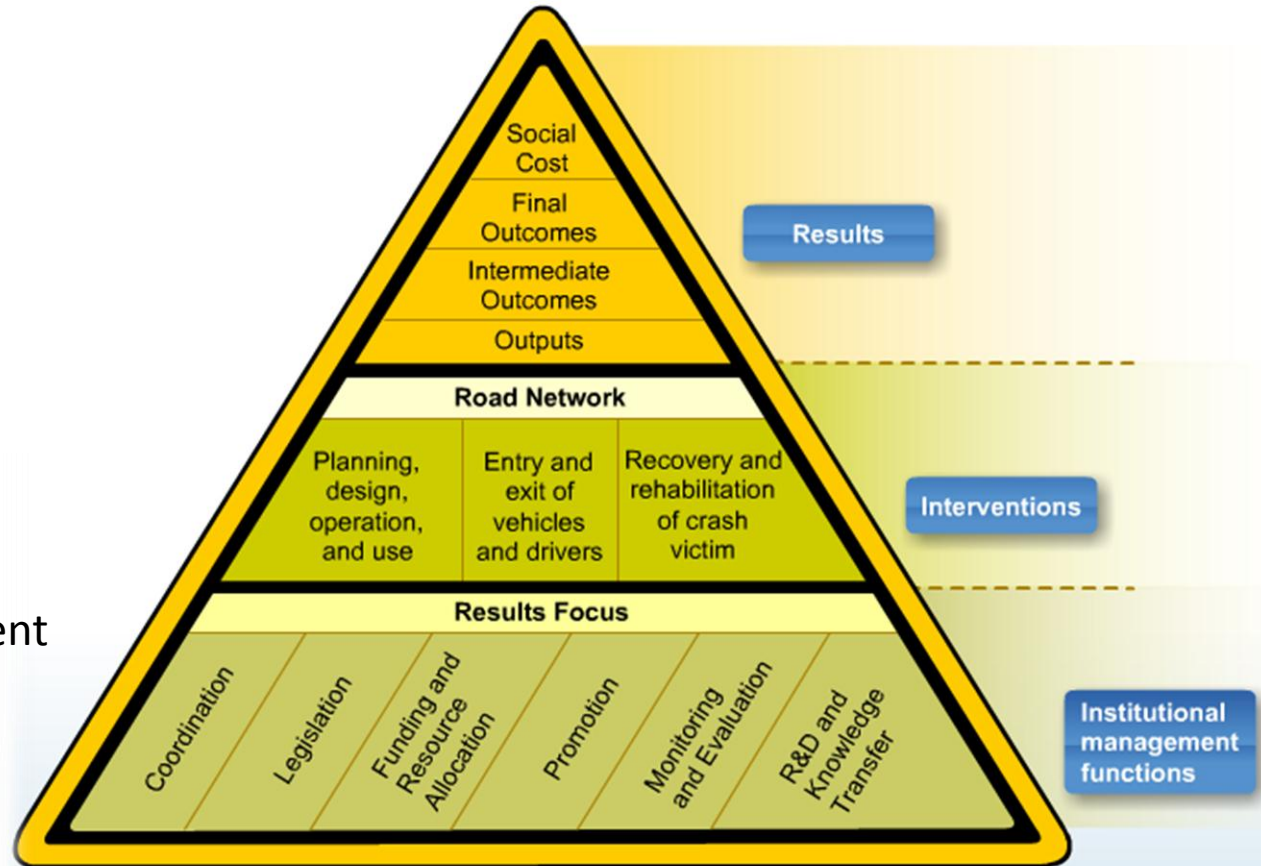
Photo Credit: Vani Viswanathan

Road Safety Management System

Road safety needs to be produced, much like other goods and services. This production process can be viewed as a management system.

There are three distinctive levels in the management system:

- 1) Institutional management functions
- 2) Interventions
- 3) Results



Safe System Project Components

Capacity strengthening priorities:

- Lead agency
- Crash database development
- Other institutional reforms

High-risk corridors and areas to be targeted with good practice interventions:

- Infrastructure safety improvements
- General deterrence-based traffic safety enforcement programs, supported by intensive publicity & awareness campaigns (e.g. speed, alcohol, safety belts & helmets, fatigue, commercial vehicles)
- Improved post-crash response and emergency medical and rehabilitation services

Policy reforms (e.g. driver licensing, vehicle safety standards)

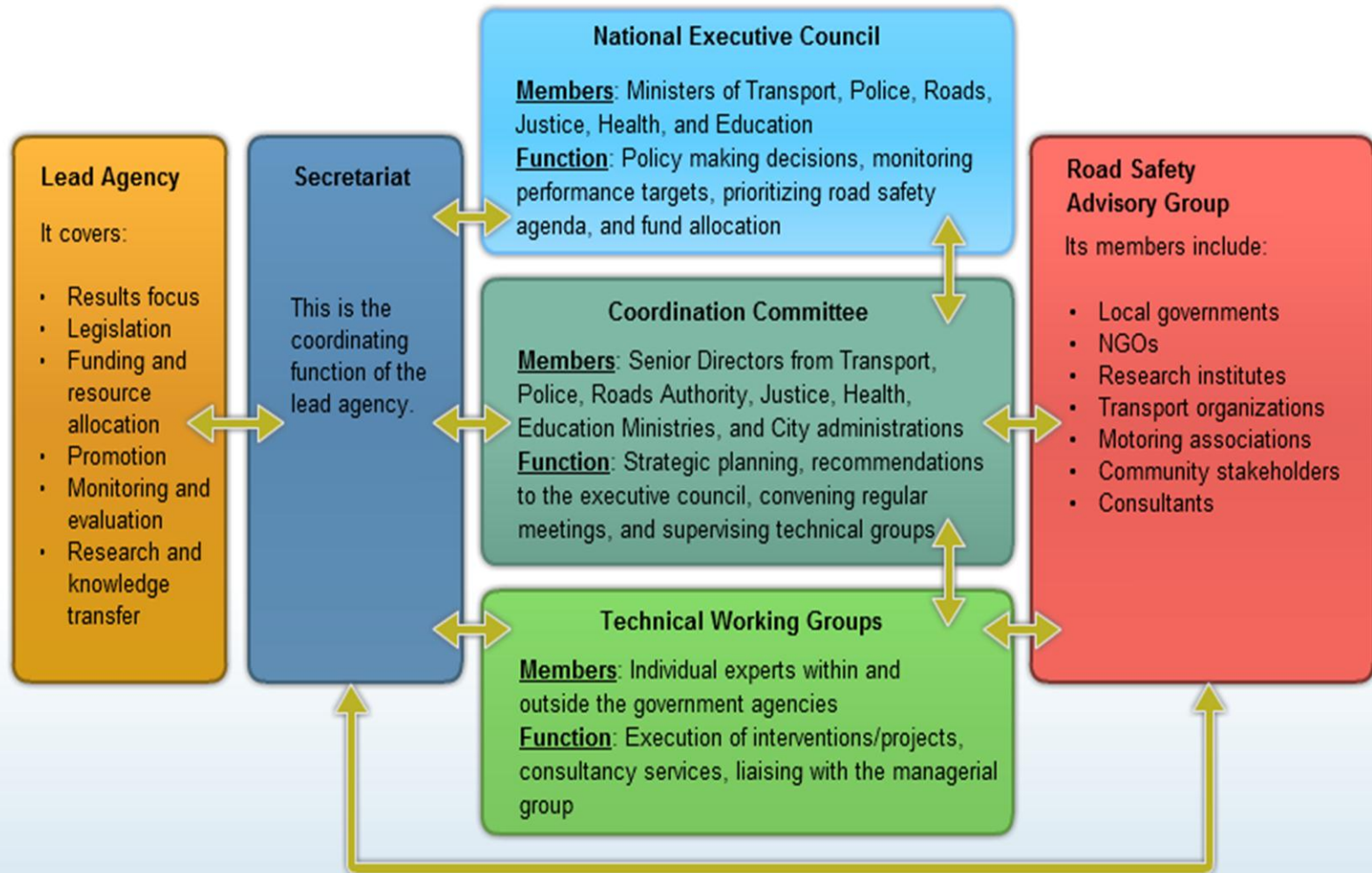
Project management arrangements:

- Lead agency role
- Coordination

Monitoring and evaluation systems:

- Performance targets for high-risk corridors and areas
- Procedures
- Reporting arrangements

Institutional Arrangements in Road Safety Management



Institutional Capacity Building

Country Capacity Reviews

- Set out an integrated multi-sectoral framework for dialogue with country partners and stakeholders on potential road safety investments.
- Assess government ownership of safety results and identify related institutional responsibilities and accountabilities.
- Reach official consensus on road safety management capacity weaknesses and institutional strengthening and investment priorities to overcome them.
- Identify Safe System implementation projects to launch the investment strategy.

Poland Review - Findings

- Without a Road Safety Lead Agency road safety organisation lacks clear leadership, accountability, responsibility and coordination
- Need for strong political commitment
- Broad access to, and effective use of, crash and other data is not occurring
- Multi-layered government risks fragmentation of knowledge, action, resources, ownership and accountability for road safety.
- Good co-ordination, cooperation and communication is lacking
- Lack of a systematic communications strategy for road safety
- Improvements needed in infrastructure esp for VRUs
- Aged vehicle fleet
- Key risk factors (seat belt & Drinking driving) are a challenge

Safe System in Practice: Argentina

Project Objective

Reduce the number and severity of road traffic crashes on Argentina's road network through:

- Strengthening the institutional framework for road safety, and the management of road safety interventions
- Enhanced monitoring and evaluation of road safety performance
- The achievement of targeted safety improvements on defined pilot corridors.

Project Components

- Institutional capacity building (legal framework, education/civil society, first response, and law enforcement)
- Demonstration corridors and incentive funds program
- Road safety monitoring and evaluation system (National Road Safety Observatory)

Safe System in Practice: Argentina



Argentina – Key aspects of Institutional Management

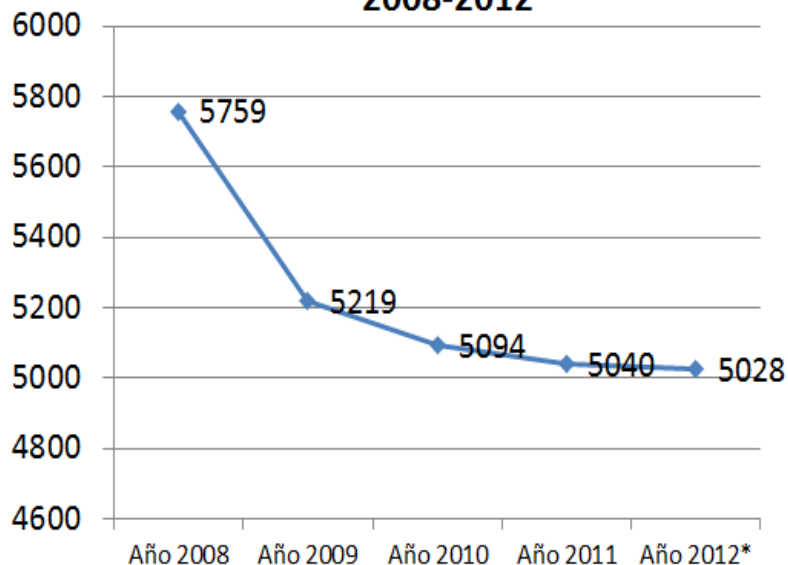
- Strong political leadership
- Establishment of a Lead Agency
- Championing a **far reaching road safety vision.**
- Coordinating actions amongst all **key stakeholders**
- Establishing mechanisms to ensure stakeholder **accountability for results.**
- Setting up adequate monitoring and evaluation systems. Leading knowledge and research.
- Ensuring **sustainable funding** resources
- Adopting the **Safe System approach**
- ANSV own road control unit to lead and coordinate targeted police **enforcement activities:**

Argentina – Key Achievements

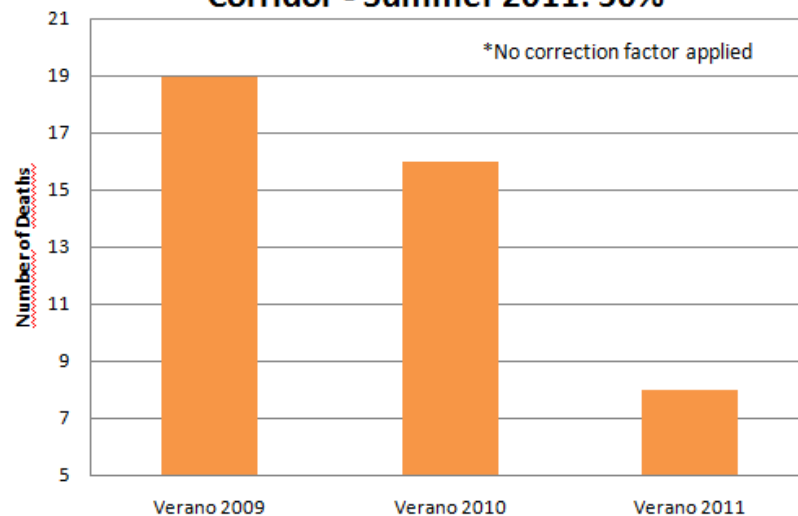
- Focus on Institutional Aspects-Key role of Lead Agency
- Multi-sectoral/Multi-jurisdictional Approach
- Emphasis on *Safe System* Approach and Results
- Use of ITC tools to enhance transparency and accountability:
- Knowledge Transfer/Partnerships

Argentina - Preliminary Results

Evolution of Road Crashes Deaths Rates in Argentina
2008-2012



Reduction in Number of Deaths along Atlantic Coast
Corridor - Summer 2011: 50%



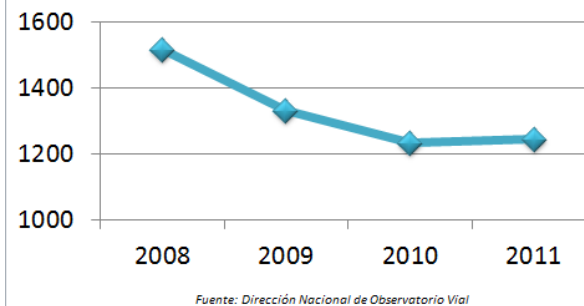
Speed, alcohol, seat belt usage, helmet usage

Resultado positivo / Cambio de conducta

- Disminución de velocidades promedio **15 %** ↓
- Disminución de alcoholemias positivas **50%** ↓
- Incremento en el uso del cinturón de seguridad **43 %** ↑
- Incremento en el uso de Casco **19,5%** ↑



Evolution of Crashes Every 100,000
vehicles registered



-24%

Safe System in Practice: Demonstration Corridors

Why Demonstration Corridor Approach?

- Demonstration is the best driver for change
- In a system approach, prototype development is critical before rolling out
- Allows experimentation and mid course correction
- Could be very effectively used for a catalyst for agency coordination
- Could be used as a stepping stone for higher level strategy / policy formulation
- Could be effectively used for developing M & E Framework and Research and Knowledge transfer

Safe System in Practice: Demonstration Corridors

Karnataka State, India

- Target a **high risk, high volume highway corridor**
- 50- 70km ideal – avoid blackspots
- Implement appropriately funded **multi-sectoral, evidence based** interventions
- Undertake **legislative action** to achieve targets
- Achieve **quick results & benchmarking** of measures

Karnataka

115 km, iRAP, ADB review

Baseline data through health project

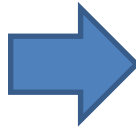
Implementation: T&RS cell (transport)

Management: VicRoads (1 yr)

Safe System in Practice: Karnataka State, India

POLICY

Lead Agency
Traffic &
Road Safety
Cell in
Transport
Department



STRATEGY

Internal Institutions

1. Project Implementation Unit
 2. Government of Karnataka
 3. Public Works Department
 4. The New Road Fund
 5. Karnataka Road Development Corporation Limited
 6. Traffic Police
 7. Emergency Services
 8. Hospitals and Trauma Units
 9. Road Safety Center of Excellence (During and after its establishment)
 10. Independent Panel of Experts Monitoring the Results
 11. The Public
- * Working groups formed for each intervention.*



IMPLEMENTATION

Intervention activities

SPEED

ALCOHOL

SEAT BELTS

HELMETS

COMMUNITY



Safe Systems in Implementation - Lessons Learned

- Lead Agency Empowerment
- Health Sector Collaboration and Partnership
- Sequencing of World Report Recommendations and Projects
- Strengthening Monitoring and Evaluation
- Integrating Project Management Arrangements
- Targeting road policing and communications support
- Engaging all tiers of government, NGOs, and the private sector
- Ensuring access to project performance data
- Partnering with global and regional service networks
- Stimulating south-south dialogue and action
- Accelerating project implementation
- Adapting to unique country circumstances

THANK YOU



[HTTP://WWW.WORLDBANK.ORG/GRSF](http://www.worldbank.org/grsf)

Safe, Clean, Affordable
TRANSPORT



GRSF
Global Road Safety Facility

