



### International Seminar on Road Safety Policies and Programs

Buenos Aires, Argentina 11 - 12 November 2013

# Policy Challenges Pedestrian Road Safety



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- Road Safety Situation in South Africa
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### **Road Safety Situation**





Source: Road Traffic Management Corporation





### **Road Safety Situation**

South Africa 2011/12

- 13 932 Fatalities (RTMC)
  - Drivers: 3 763
  - Passengers: 4 458
  - Pedestrians: 5 154
  - Cyclists: 557



### SADC Region : +/- 63 000 Road Fatalities per year













# **Global Comparison**



#### Figure 6. Road fatalities per 100 000 population in 2011



IRTAD Road Annual Safety Report 2013



ARGENTINA

Decidation: 40 412 376

#### AUSTRALIA

Population: 22 268 384

#### BRAZIL

Population: 194 946 488 Income group: Middle Gross national income per capita: US\$ 9 540

#### **COLOMBIA**

Population: 46 294 842

#### NORWAY

Lead agency

Population: 4 883 111 Income group: High Gross national income per capita: US\$ 86 390

INSTITUTIONAL FRAMEWORK

#### Norwegian Public Roads Administration

#### SOUTH AFRICA

Population: 50 132 820 Income group: Middle Gross national income per capita: US\$ 6 090

| INSTITUTIONAL FRAMEWORK        |                                     |  |  |  |  |  |  |
|--------------------------------|-------------------------------------|--|--|--|--|--|--|
| Lead agency                    | Road Traffic Management Corporation |  |  |  |  |  |  |
| Funded in national budget      | Ye                                  |  |  |  |  |  |  |
| National road safety strategy  | Ye                                  |  |  |  |  |  |  |
| Funding to implement strategy  | Partially funde                     |  |  |  |  |  |  |
| Fatality reduction targets set | Yes (2010-2014                      |  |  |  |  |  |  |
| Fatality reduction target      | 5% annual)                          |  |  |  |  |  |  |

| SAFER ROADS AND MOBILITY                             |                  |
|------------------------------------------------------|------------------|
| Formal audits required for new road construction     | No               |
| Regular inspections of existing road infrastructure  | Parts of network |
| Policies to promote walking or cycling               | Subnational      |
| Policies to encourage investment in public transport | Yes              |
| Policies to separate road users to protect VRUs      | Yes              |

#### SAFER VEHICLES











#### SAFER ROAD USERS

Penalty/demerit point system in place

Yes



| SAFER ROAD USERS                                |                             |  |  |  |  |  |
|-------------------------------------------------|-----------------------------|--|--|--|--|--|
| Penalty/demerit point system in place           | Yes                         |  |  |  |  |  |
| National speed limits                           | Yes                         |  |  |  |  |  |
| Local authorities can set lower limits          | Yes                         |  |  |  |  |  |
| Maximum limit urban roads                       | 60 km/h                     |  |  |  |  |  |
| Enforcement                                     | 012345678910                |  |  |  |  |  |
| National drink-driving law                      | Yes                         |  |  |  |  |  |
| BAC limit – general population                  | 0.05 g/dl                   |  |  |  |  |  |
| BAC limit – young or novice drivers             | 0.05 g/dl                   |  |  |  |  |  |
| BAC limit - professional/commercial drivers     | 0.02 g/dl                   |  |  |  |  |  |
| Random breath testing and/or police checkpoints | Yes                         |  |  |  |  |  |
| Enforcement                                     | 01 🛛 345678910              |  |  |  |  |  |
| % road traffic deaths involving alcohol         | 55%°                        |  |  |  |  |  |
| National motorcycle helmet law                  | Yes                         |  |  |  |  |  |
| Applies to drivers and passengers               | Yes                         |  |  |  |  |  |
| Helmet standard mandated                        | Yes                         |  |  |  |  |  |
| Enforcement                                     | 012345 🌀 78910              |  |  |  |  |  |
| Helmet wearing rate                             | 95% Drivers⁵                |  |  |  |  |  |
|                                                 | 90% Passengers <sup>e</sup> |  |  |  |  |  |
| National seat-belt law                          | Yes                         |  |  |  |  |  |
| Applies to front and rear seat occupants        | Yes                         |  |  |  |  |  |
| Enforcement                                     | 0 1 2 3 4 5 6 7 8 9 10      |  |  |  |  |  |
| Seat-helt wearing rate                          | 59% Drivers <sup>d</sup>    |  |  |  |  |  |



SUPPORTING A DECADE OF ACTION

GLOBAL

STATUS

REPORT

SAFETY

2013

**ON ROAD** 





### **Global Comparison**





#### Fatalities / 100 000 population







States and

# **Global Comparison**



| DRTING A DE | CADE OF ACTION | Road Safety Laws           |                             |                  |                              |                  |                    |                 |
|-------------|----------------|----------------------------|-----------------------------|------------------|------------------------------|------------------|--------------------|-----------------|
|             |                | Demerit<br>Point<br>System | National<br>Speed<br>Limits | Drink<br>Driving | Motorcycle<br>Helmet<br>Laws | Seat<br>Belt Law | Child<br>Restraint | Mobile<br>Phone |
| •           | Argentina      | Yes                        | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |
| AK.         | Australia      | Yes                        | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |
|             | Brazil         | Yes                        | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |
|             | Columbia       | No                         | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |
|             | Norway         | Yes                        | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |
|             | South Africa   | Yes                        | Yes                         | Yes              | Yes                          | Yes              | Yes                | Yes             |



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50

### Law Enforcement

National Speed Limits
 Motorcycle Helmet Laws
 Child Restraint Laws















# Safe Systems Approach



 Despite all efforts to prevent crashes, road users will remain fallible and crashes will occur.

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- 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.
- It stresses that those involved in the design of the road transport system need to accept and share responsibility for the safety of the system, and those that use the system need to accept responsibility for complying with the rules and constraints of the system.



# Safe Systems Approach



### **Role of System Designers**

- Rules and Constraints
  - Compliant Society
  - Human Error versus Human Fault
  - Road Safety Competes on a Hierarchy of Social Needs
- What is reality?

# The Case for Pedestrians



- Genuine need for pedestrians to cross or travel along major routes.
  - Vulnerable Road Users
  - Captive Road Users Poorest of the poor
- Poor land use planning resulting in unsafe desire lines



World Roai

MONDIALE DE LA ROUTE











### Retrofit existing infrastructure A Safer Place to Walk





WORLD ROAD

-ASSOCIATION MONDIALE DE LA ROUTE









### Retrofit existing infrastructure A Safer Place to Cross





WORLD ROAD

-ASSOCIATION Mondiale De la route







# Case Study: Cape Town Freeways

Mernyn Hector

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-ASSOCIATION MONDIALE DE LA ROUTE

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Argentina 0-4 Germany

### Cape Town Stadium, 3 July 2010

# Land Use Development





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### **Total number of pedestrian collisions = 250**





## Freeway Management System







### Pedestrian Activity Study





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### Land Use Development

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### **Pedestrian Activity**

### on Freeways





#### 704 H7 SB AFPOTSDAM







Pedestrian Activity Study



### Total Pedestrian Activity Count for 7 Day Period



### 36 767 illegal activities

# Infrastructure Monitoring



- Monitor Pedestrian Infrastructure
  - Fencing

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# Infrastructure Monitoring

- Monitor Pedestrian Infrastructure
  - Theft and Vandalism

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# CCTV Video Surveillance



Road Safety Campaigns

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> Planning Road Safety Law Enforcement/Education



# CCTV Video Surveillance



- Pedestrian Bridge Surveillance
  - Safety and Security



World Road

AIPCR PIARC

MONDIALE DE LA ROUT



![](_page_32_Picture_0.jpeg)

# Conclusion

![](_page_32_Picture_2.jpeg)

- The good news for South Africa is that many other countries before us have addressed the challenges that we are currently facing; so there is good data, and good experience internationally to draw from.
- The less good news is that some of the problems here are embedded in deeper social and historical issues, and we need more information on those for our roads safety systems to be competent enough to make the changes that are necessary.

# Conclusion

![](_page_33_Picture_1.jpeg)

- The CT FMS can play a meaningful role in addressing pedestrian road safety on the freeways.
  - Understanding Pedestrian Activity guides
    intervention
  - Monitoring Infrastructure
    - Maintenance

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- Theft and Vandalism
- Tools such as the Cape Town FMS allows the System Designer to play a proactive approach in the Safe Systems approach to road safety, notwithstanding the issues of non-compliance.

THANK YOU FOR YOUR ATTENTION !

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