

Part FIVE : THE STRATEGY

The fundamentals on which the strategy is based on the prioritization of public transport:

Public Transport

- Providing for an extra capacity of Traffic Officers to enforce the safety standards of the Taxi Recapitilisation Program.
- Providing for the Auditing of the Vehicle Testing Centres that will service the Taxi Recap Program and maintaining these stations at acceptable levels of compliance and free from corruption.
- Providing a proper monitoring and enforcement of the permit system including Professional Driving Permits.
- Providing proper enforcement of the routes as designated by the permit system.
- Providing law enforcement for the safety and environmental standards of public transport particularly those funded by Government for public transport purposes.
- For scholar transport, providing law enforcement as well as technical support to the Department of Education in the management of safety standards.
- Providing training and capacity development to support the industry.

With regards to the overall road transport the strategy is as follows:

- Ensure a culture of proper road traffic enforcement with new values and with more visibility.
- Proper gathering and maintenance of data for research and development of road safety and road traffic management.
- Proper capacity development in various levels of oversight over road traffic matters.
- Providing for proper coordination of road traffic matters across all spheres of Government.

In support of the above strategy the following instruments will be employed:

- Management, good governance and co-ordination
- Institutional Reform – Regulatory Framework
- Road Environment quality
- Driver Fitness
- Vehicle Fitness

- Pedestrian and Cyclist Safety

Management, Good Governance and Coordination

Strategic Imperatives

- Given that the first phase of the RTMC has been effected, the consideration and transfer of the remaining functions to the RTMC for effectiveness.
- Strengthen Arrive Alive campaign. Proper coordination of the communication functions within the stakeholders to ensure that there is no duplication of roles, but most importantly, those critical issues of road safety are clearly articulated and communicated to the public.
- Ensure good working relationships with other departments (Health, Justice, Safety and Security, Education, Labour, Tourism etc), and the NGO and business community through establishment of appropriate forums
- Use available research to ensure a scientifically based, data driven approach to road safety.
- Management of Driving Licence and National Traffic Information contracts.
- Introduction of Best Practice Models in licensing centres to reduce levels of corruption.
- Allocation of sufficient government resources (staff and budget) to implement a holistic, year-round road safety campaign.
- Emphasis on public-private partnerships, identification and use of sponsorships.

PARTNERSHIPS

Preventing crashes and injuries: Prevention relies on different actors: government (law establishment), NGOs, local communities, schools (sensitizing children to the issue), media, private businesses, and the transport and health sectors. Raising the level of awareness of all the actors is a prerequisite to crash and injury prevention. Measures should first focus on **road-users' behavior** (reduce speed, anti-drinking campaigns, mandatory use of seat-belts and helmets, safe pedestrian behavior), since 64% to 95% of casualties in developing countries are due to improper human behavior (TRL 1990). Improved infrastructure (traffic lights, bumpers, etc.) and vehicle attributes (seat belts, brakes, etc.) should also be considered. The police play an important role in enforcing safe driving practices.¹²

¹² GRSP report 2003

Coordination is necessary with all stakeholders in government at all levels (local authority and provinces) but also with other government departments – Health, Justice, Safety and Security, Labour, Education and others and stakeholders in business and industry, as well as the NGO community and with transport organizations such as NAAMSA, Business against Crime and the Road Freight Association

“A strong, focused, professional Department of Transport will play a leading role in co-ordinating transport policy, and developing and implementing strategies. This it will do in close co-operation with other government departments, other levels of government, and other stakeholders”¹³. *The establishment of the Road Traffic Management Corporation fulfills this role within the traffic management sector, acting as a regulating agent to coordinate activities throughout the spheres of government.*

Without sustainable financing, even the best action plans will fail. Because of limited resources and competing needs faced by government, additional sources of funding are required. Road user fees, levies on gas and on vehicle licenses, insurance premiums, private business funds and community contributions in kind (volunteer work) are common measures.

The public sector is often deemed responsible for road safety, especially the transport ministry and police. However, health, educational and judiciary agencies have a large role to play as well. Civil society, academic and non-government agencies, and the private sector are being strongly urged to help form a wide partnership to initiate appropriate, feasible and cost-effective responses to the problem.¹⁴

RESEARCH AND DEVELOPMENT

Research is an integral part of the road safety solution. What are we doing that is working? What are the cost/benefits of the various efforts? There is a great deal of appropriate local and international research available which could assist us in strategizing. Use of both national and international material will enable us to have the required data-driven and scientifically based strategic imperatives.

The meeting of the objectives of this strategy in terms of both outputs and outcomes will be measured at regular intervals of six months, to ensure

¹³ Government White Paper on Transport Policy 1996

¹⁴ GRSP World Bank report 2003

that goals are being met, particularly at critical times ie before the FIFA World Cup in 2010.

USE OF TECHNOLOGY

The use of new technology is extremely important in the light of our lack of personnel and the few officers at our disposal. Speed and video cameras (to detect moving violations) and alcohol testers are vital to detect offenders and be acceptable in court.

Technology such as Electronic Vehicle Identification and Micro-dotting will assist with reducing crime in this sector. The EVI also has enforcement possibilities at a later stage, and can be used for planning, traffic flow, toll charges and other applications. The installation of permanent speed enforcement tools at strategic locations in terms of PPP concept should be intensified along strategic routes. This has proved most successful along the N3 between Durban and Gauteng, with a decrease in those breaking the speed limits in the order of 80% on some sections.

The Card Verification Device project needs to be continued and developed to its full potential, as a way to make officers more effective.

A camera system at testing stations should be introduced, to ensure that vehicles actually undergo road worthy testing. This equipment has been developed to an advanced stage, and only needs regulation and financial resources to be implemented.

Although we need to move away from a concentration on speed enforcement we must keep in mind that a 1% reduction in average speed, leads to a 3 to 4% reduction in fatalities. Internationally it is accepted that a speed camera does the work of 17 officers in changing behavior.

Best Practice Models

Attention should be devoted to the issue of designing and implementing best practice models at driving license testing Centres and vehicle roadworthiness Centres.

This issue is central since the efficiency and effectiveness of these Centres determines, to a large degree, the nature and extent of illegal practices, and thus impacts directly both driver and vehicle fitness. Typically this issue would not necessarily be highlighted in developed countries, but needs to take prominence in our country as one of the basic issues which need attention.

Institutional Reform – Regulatory Framework

Strategic Imperatives

- ❑ Exploration of the KZN, W Cape and Gauteng models where enforcement activities fall within Departments of Community Safety, with other enforcement agencies, rather than in Public Works or Transport.
- ❑ Development of a national contravention register – under eNaTIS
- ❑ Agreements with provinces to utilize above.
- ❑ Best Practice Models in Driver License Testing Centres and Vehicle Testing Stations as well as Registering Authorities
- ❑ Implementation of AARTO under the Road Traffic Infringement Agency
 - Parity of fines
 - Points demerits
 - Easier fine payment, nationally
 - Improved fine collection
 - Provision of funding channel for road safety
 - Moving from judicial to administrative process..

FINE COLLECTION

The following factors contribute to the high number of traffic offences:

- ❑ Public attitude towards road safety
- ❑ Lack of effective and consistent policing
- ❑ Poor road conditions
- ❑ Poor driving skills/bad driving habits
- ❑ Poor roadworthiness of vehicles
- ❑ Pedestrian and or animal presence and
- ❑ Rapid urbanization.

There will be little or no attitudinal (and therefore perceptual and behavioral) change unless persons are held individually and collectively accountable for their actions.

AARTO brings with it parity of fines which will encourage the public to take fines seriously, rather than seeing them as a “cash cow” for local authorities; it also brings with it improved fine collection and a revenue stream for improving road safety, as well as a more convenient way of paying fines and more penalties for not paying, leading eventually to confiscation of property. Most importantly it needs a National Contravention Register to be used, which is part of the new eNaTIS system. Repeat offenders will also be punished by de-merit points, which

will lead to confiscation of drivers licenses, or a financial penalty when re-licensing vehicles, and even vehicle confiscation.

The AARTO Act takes the control of notices away from provinces and local authorities. All are issued in the name of the RTIA. All contraventions are immediately noted on a real time database which will enable us to identify repeat offenders.

Under AARTO penalties are paid to RTIA without court process – applications to go to court can, however, still be considered. This is combated by no discount allowed, the maximum fines being paid with no lowering of fines, or a total withdrawal by the court if an offender has been proven innocent..

The introduction of AARTO has been discussed with the Department of Justice in the past, and there is agreement on its implementation. Implementation of AARTO also means that officers actually issue fines in the name of the RTIA, and this is moving towards the national ethic that we want to see in respect to traffic issues.

Business Against Crime is working with provinces to improve Best Practice Models in Mpumalanga and the Eastern Cape during the 2006/7 financial year. They will concentrate on working with the authorities and in the establishment of a Help Desk.

Road Environment quality

Strategic Imperatives

- ❑ Low cost engineering of identified hazardous locations
- ❑ Road Safety Audits – at design, implementation and usage stages
- ❑ Accident Investigations
- ❑ New innovation introduction – e.g. intelligent car's eyes

ENGINEERING

“Road user behavior contributes to most crashes, but we cannot focus entirely on trying to change people’s driving habits – the road itself and the vehicle must also be made safer. We recognize that, whatever we do to make road users more alert, law abiding and competent, some will still make mistakes. Vehicle design and construction increasingly protects drivers and passengers from crashes and injuries. We must also work on designing and operating a road network that better accommodates human error.”¹⁵

This statement is equally true in South Africa. The RTMC has created a functional entity on Road Audits procedures, and has already identified 88 hazardous locations on major national routes which may need engineering remediation procedures. In the interim, the National Highway Patrol patrols such routes to ensure safe driving.

There is not a single site in South Africa where more than 1% of crashes occur. Therefore, even if that site is remediated by engineering methods, only a maximum of 1% of crash reduction will occur. Putting effort into behavior and attitude change is therefore more beneficial.

Identification of hazardous locations (stretches of road), are, however, still a priority, so that enforcement activities can be concentrated on those areas, during the most dangerous times of the day, and engineering solutions can be explored.

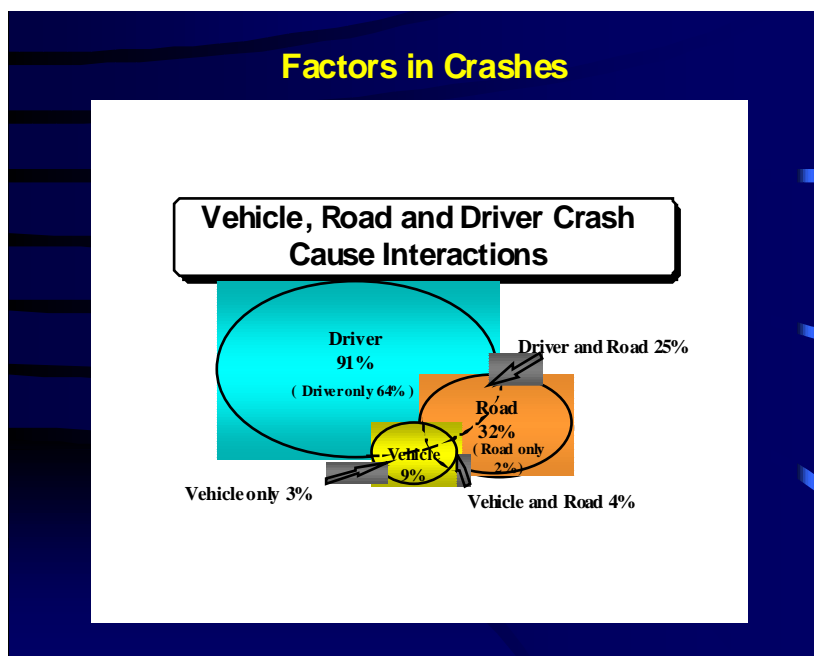
¹⁵ Road Safety to 2010: Road Safety outcomes in New Zealand.

Driver Fitness

Strategic Imperatives

- ❑ Advertising : television, radio, billboards etc.
- ❑ Public relations campaigns
- ❑ Communication to support enforcement initiatives.
- ❑ Communication to be emotive, and focused on one behavior problem at a time.
- ❑ Emphasis on public transport – drivers and commuters
- ❑ Develop training program for PrDP Drivers, and develop test to ensure defensive driving skills.
- ❑ Identify disqualifying criteria for medical issues in respect to PrDP and Public Transport Drivers
- ❑ Regulate the Driving School Industry.
- ❑ Inspections of all DLTCs in terms of legislation.
- ❑ Speed limiting projects on national highways – stationary cameras at regular intervals, particularly along hazardous routes.

International comparisons emphasise the role played by individuals, as against the road environment or other factors. The following slide is typical for South Africa, and other countries.



Emphasis must therefore be on attitude and behavior change, especially of high-risk groups such as those within the public transport sector and pedestrians.

EDUCATION AND COMMUNICATION

In line with best practice, the advertising should be hard-hitting and emotive, without showing blood and gore. It should clearly indicate the consequences of poor road behavior. People need to think “this could happen to me!”

As stated previously, communication efforts that are not in support of enforcement have not shown success in several regions of the world, eg. the USA. All advertising and PR should support enforcement efforts, and this is where the campaign has fallen short in the past.

Education activities in schools are taking place through a comprehensive schools campaign on TV, radio and training of 116,000 teachers will take place. This will reach all students between grades R and 9, starting July 2006.

Concentration on Further Education and Training for adult learners is also a priority, and must start with SAQA (South African Qualification Authority) accreditation processes. This should be introduced in a pilot and rolled out by 2008 throughout the country.

Community involvement is also necessary to get “buy in” from all road users, particularly in respect to commuters and pedestrians.

*“Education shows people how to use the roads safely and tries to persuade them to change unsafe behavior, while effective enforcement and appropriate penalties help deter people from potentially dangerous behavior”.*¹⁶

DRIVER TRAINING

All PrDP holders should be required to attend approved advanced driver training courses, which in the main teach **defensive driving**, and have proved to be effective in reducing crashes in other parts of the world, as well as with certain segments in South Africa.. The Australian model informs us that advanced driver training, without defensive training methods, does not work, so we need to be exceptionally careful in the

¹⁶ Road safety to 2010: Road Safety outcomes in New Zealand.

development of this course. PrDPs should also be renewable annually, instead of every second year as at present.

An alternative is to develop a special course for existing PrDP holders, and ensure that a further test is taken to qualify for this permit. As all PrDP permits are re-issued annually it would not take long to implement this training and ensure all public transport and heavy-duty drivers were adequately trained and qualified.

Passing of SAQA approved First Aid courses should be a requirement for all PrDP qualified drivers, and eventually for all licensed drivers.

The Driving School Industry needs to be regulated, and this process has started. Driving instructors need to be trained and qualify to do their jobs. There is no national register of driving instructors or driving schools, and the process of regulation has begun, but will take some time to complete. International models of driving instructor training have been examined, and a register of driving schools and instructors is being finalized.

TRAFFIC OFFICER TRAINING

The new national syllabus for training of traffic officers was introduced this year, 2006. This was developed with wide consultation with provincial and national training institutes. It covers extra subjects such as statement taking, ethics, use of equipment, public relations and customer care, more legal information, incident management, narcotics etc.

The course material has been improved, and the course is longer and more in depth than before. This should begin to have an impact on levels of law enforcement in the next few years as around 1000 officers are trained annually, in two intakes. New recruits will therefore have more skills when they move onto the roads, and re-training of existing officers needs to be implemented. A National Academy would be the ideal situation, but that is a long-term goal.

More than 5,000 officers have been given training in the enforcement of dangerous goods legislation in the last year.

Around 800 officers leave the force each year so the numbers of people in enforcement remains constant. It is up to local authorities and provinces to ensure the numbers in their agencies are adequate to meet the enforcement needs of their communities. The necessity of increasing the number of officers by 1,350 per year for five years cannot be ignored, and this should be over and above the present 1,000 that are trained and qualify annually.

ENFORCEMENT

Enforcement needs to be increased markedly so that there is a REAL chance of being caught. We must adopt a ZERO TOLERANCE approach to all infringements. In Victoria, Australia and other examples of world's best practice, research indicated AT LEAST a 4 to 5 fold increase in enforcement activities to make a real difference. In Victoria and other parts of the world where there is successful traffic management, traffic police are part of the general police force, but hold special traffic responsibilities. A National Traffic Force would be more manageable than the present system, with the responsibility lying with local authorities, metros and provinces. However, the RTMC has a coordinating function and may be able to fulfill its coordination role throughout the levels of government should its resources be improved.

A single person cannot coordinate road safety activities around the country. There should be at least one facilitator for each province, and a person dedicated to the oversight of equipment in the provinces. This is one of the mandates of the RTMC.

It may be appropriate to adopt the Gauteng, Western Cape or KwaZulu Natal model where enforcement activities fall under a Department of Community Safety, rather than within Works or Transport as in most other provinces. This requires further exploration by MECs, and the Cabinet.

Providing for the fact that, for various reasons traffic officers work together in teams of 2; as well as allowing for the maximum number of working hours per week, public holidays and annual leave, the current "coverage" of the road network by traffic teams in the various provinces are indicated in the table below.

One Traffic Team per km of road per Type of Road – Rural & Urban Roads (2 shifts per day - 7 days per week)										
Province	GA	KZ	WC	EC	FS	MP	NW	LI	NC	Total
Rural roads	145	1,033	488	1,435	1,069	467	550	568	5,097	756
Urban roads	50	692	296	898	1,683	555	4,357	910	3,291	623
Total	78	844	377	1,129	1,281	503	911	685	4,082	689

The information in the table above indicate that, on average in the Northern Cape one (1) traffic team (2 officers) is responsible for about 4,082 kilometres of road; in the Eastern Cape one team is responsible for 1,129 kilometres, etc. Considering the fact that these figures also include supervisory staff (who normally do not do active enforcement) and omit to take cognisance of other duties of officers, for example court attendance, special duties, such as escorting abnormal loads, attending to abandoned

vehicles, etc, clearly indicate the dire need for more traffic officers to be deployed to ensure more visible and active enforcement.

The minimum number of traffic officers required to provide a more effective service for at least 16-hours per day for 7 days per week on only the rural, inter-city road network was determined. In this process it was accepted that officers work in teams, and that each team would consist of 2 officers; as that each team would be responsible for 100 kilometres of road. Provision was made for the maximum number of working hours allowed by legislation; as well as weekends, holidays, sick leave and annual leave, etc. This rather conservative estimate (which does not take into consideration the percentage (%) time spent on other duties), indicates that, over and above the current 3,291 provincial officers, an additional 5,764 officers are needed to comply with the required level of coverage of only the rural road network, making the total traffic officers required 9,055. On a Provincial basis only, the needs are as shown in the table below.

Multi-disciplinary mini-road blocks/random vehicle checking activities: Road blocks are one of the most effective ways to enforce traffic rules. They must be regular, random and widespread. They not only help identify problem drivers, vehicles and behavior, but also assist in combating regular crime by bringing to light illegal firearms, stolen property and vehicles, and wanted people.

This is probably the most effective short-term solution to turning around the damage on our roads, and has been piloted by Operation Emisa during Easter 2006. This campaign will concentrate on:

- ❑ Improved visibility of enforcers, and perception of higher levels of enforcement
- ❑ Changing the public perception of speed enforcement being used as a “cash cow”
- ❑ Identification of illegal drivers and vehicles
- ❑ Identification of un-road worthy vehicles
- ❑ Analysis of driving hours of PrDP drivers
- ❑ Assisting with general crime
- ❑ Prosecutions of seat-belt offenders
- ❑ Prosecutions of alcohol abuse
- ❑ Public support for enforcement and respect for enforcers
- ❑ SANDF and SAPS co-operation.

Information provided by 7 provinces shows that during December 2005 a total of 1727 road-blocks were conducted, and 246,524 vehicles were stopped and both the driver and vehicle was inspected. A further 6991

*general law enforcement operations were conducted. 304,298 notices were issued for speed, and 3,773 for moving violations.*¹⁷

These figures indicate that during December a total of 281 operations were carried out each day. This means that the target of 1000 mini-road blocks would give a four-fold increase in enforcement, which research in Australia indicates is necessary to achieve behavior change.

The more comprehensive use and further development of Card Verification Device (CVD) equipment would ensure accurate reporting of enforcement activities. The use of this equipment has not been sufficiently resourced and it has the potential of improving the productivity of officers.

The Coordinating role of the Road Traffic Management Corporation is vital for the success of this project. They are in a position to negotiate with agencies, provinces and local authorities for the installation of static camera stations along hazardous routes, and other systems based solutions to poor driver behavior.

The RTMC is also planning the employment and utilization of a “strike force” of officers to attend areas where there are special needs, and this may also include attendance at serious crash sites, and investigation of crashes.

In terms of their powers in relation to the RTMC Act, they will also engage in Memoranda of Understanding between themselves and the various authorities to ensure that enforcement activities are in line with the national strategic imperatives, and are able to re-locate responsibilities where the regional authority is not in a position to effectively enforce the law.

Speed Calming

Introduction of Speed Calming on National and Major Provincial Roads

About 2 years ago, Kwazulu Natal embarked on a speed-calming project on the N3 National Road between Durban and Pietermaritzburg. Within a period of 3 months after the project commenced, the percentage of vehicles exceeding the speed limit of 120km/h dropped from about 18% to about 2%.

¹⁷ Summary: Road Traffic December 2005 report: RTMC

It is envisaged to expand the project to other National and major Provincial roads over the next 2 to 3 years. Identified hazardous sections of road with high accident rates will be targeted supported by a detailed and comprehensive information and management system, will consist of the following:

- 200 traffic counting stations equipped for permanent speed enforcement; and
- 1,063 locations equipped for rotating speed enforcement by camera

The project will be implemented in a phased manner and provide for the following:

- Continuous monitoring of speed violations;
- Permanent speed calming at sites with a high number of violations;
- Rotating speed enforcement at the other identified sites;
- A dedicated team and supporting system to ensure continuous improvement enforcement has a lasting effect.

Vehicle Fitness

Strategic Imperatives

- ❑ Introduce the compulsory fitting of seat-belts and speed governors in all public transport vehicles, at the expense of the operator with immediate effect.
- ❑ Explore the use of technology to add value: micro-dotting, electronic vehicle identification and wider use and development of Card Verification Devices.
- ❑ Install cameras at vehicle testing stations to ensure validity of tests and equipment. Pilot within one year.
- ❑ Complete feasibility study for periodic vehicle testing, and introduce as soon as possible thereafter.
- ❑ Bring vehicle testing inspectorate function back to the Department of Transport from the SABS – legislative changes required.
- ❑ Ensure that recommendations by the VTS inspectorate or their agency are adhered to by provinces.
- ❑ Develop set of criteria for closing VTS's which are non-negotiable.

VEHICLE ROADWORTHINESS

Due to the age of the fleet on South African roads, Periodic Vehicle Testing must be introduced. A tender for a feasibility study has been completed and will be awarded this year.

The Department of Transport should, in terms of The Road to Safety Strategy, take back the responsibility for inspection of Vehicle Testing Stations from the SABS. This will require some legislation changes as the Minister appointed SABS as its agent in this regard. Talks on this issue have begun, and we expect to take back the function during 2007/8.

It will be important to attract committed and well-qualified inspectors, especially with the perceived growth in the industry due to the introduction of periodic vehicle testing.

Special emphasis must be placed on the testing and road-worthiness of public transport vehicles, buses and mini-bus taxis on a more frequent basis than every two years.

Pedestrian and Cyclist Safety

Strategic Imperatives

- ❑ Pedestrian visibility campaigns
- ❑ Education of school children
- ❑ Reduction of speed limits in areas of heavy pedestrian activity
- ❑ Enforcement of no-pedestrian laws on freeways
- ❑ Advertising – radio campaigns on community radio – visibility
- ❑ Engineering solutions eg. bridges, sidewalks and traffic calming
- ❑ Enforcement activities for pedestrians
- ❑ Revision of drink-walking laws
- ❑ Limit vehicles carrying passengers on load areas to 80 kph, and eventually prevent this type of transport altogether.

Nearly half of the deaths that occur on South African roads are of pedestrians. This is true for other developing countries, where the percentage of pedestrian deaths is from 65-90%. There are several challenges that affect projects in this area.

- ❑ Many roads are not designed for pedestrian usage, with features such as side-walks and pedestrian crossings and/or fences are often non-existent.
- ❑ High levels of alcohol abuse result in drunk people walking on the roads. 70% of adult pedestrians who are killed on our roads are drunk.
- ❑ Lack of visibility of pedestrians is an issue, and several projects are being introduced to address this problem, including the use of retro-reflective material on school uniforms being introduced in 2006.
- ❑ Due to a lack of public transport in some areas, people walk for long distances to reach buses or taxis.
- ❑ Informal, unplanned housing and even formal suburbs are often separated from schools, shops, clinics or places of recreation by highways.
- ❑ We are one of the few countries in the world where first class roads run across “third world” settlements.

Vehicle speed in areas of high pedestrian activity (schools, intersections, outside shebeens etc) should be reduced to 30 kph. *“At impact speeds over 30 kmh, pedestrians and cyclists risk sustaining life-threatening injuries. At 60 kph, death is virtually certain¹⁸.”*

¹⁸ Ashtons 1982 formula: cited by Pasanen and Salmivaara 1993 (City of Helsinki)