

THE ASIPHEPHE ROAD SAFETY PROGRAMME MEASURED AGAINST ISSUES FOR DEVELOPING COUNTRIES AS IDENTIFIED BY GLOBAL ROAD SAFETY PARTNERSHIPS

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Introduction

Since the formation of the Victoria Project, and later the Asiphephe “Let us be Safe” Road Safety Programme, there has been a substantial decrease in fatalities in the roads of KwaZulu-Natal. In every category of transport, aside from the pedestrian sector, there has been a decline over and above the national average. According to CSS and CSIR statistics, there were more than 2000 deaths on the roads of KwaZulu-Natal in 1996, and by 1998 these had been reduced to 1432.

	1997	1998	Decrease
<u>Fatalities</u>			
Number of fatalities KZN	1575	1432	-9.08%
Number of fatalities RSA	9691	9068	-6.43%
Deaths per 100,000 population KZN	16.55	14.75	-10.86%
Deaths per 100,000 population RSA	21.35	19.56	-8.35%
Deaths per 10,000 vehicles KZN	16.92	14.97	-11.50%
Deaths per 10,000 vehicles RSA	15.37	13.99	-8.92%
<u>Casualties</u>			
Number of casualties KZN	23,022	20,649	-10.31%
Number of casualties RSA	140,753	129,969	-7.66%
Casualties per 100,000 population KZN	241.84	212.66	-12.07%
Casualties per 100,000 population RSA	310.05	280.41	-9.56%
Casualties per 10,000 vehicles KZN	247.26	215.86	-12.70%
Casualties per 10,000 vehicles RSA	223.18	200.59	-10.12%
<u>Pedestrian casualties</u>			
Number of pedestrian deaths KZN	658	635	-3.5%
Number of pedestrian deaths RSA	3722	3452	-7.25%
Pedestrian deaths per 100,000 population KZN	6.91	6.54	-5.39%
Pedestrian deaths per 100,000 population RSA	8.20	7.45	-9.16%
Pedestrian deaths per 10,000 vehicles KZN	7.07	6.64	-6.07%
Pedestrian deaths per 10,000 vehicles RSA	5.90	5.33	-9.74%

During the end of year school holiday period in 1999, there was a reduction in deaths in KwaZulu-Natal. In spite of the heaviest rainfall in 40 years, 25% more holiday traffic than usual, concentration of traffic at beachfront festivals and high alcohol usage attributable to Millennium Madness, the figures were down, and we estimate a saving of approximately 50 lives was achieved in a six week period.

Strategy

The program is designed to ensure cooperation and collaboration to gain maximum synergy between all Departmental and other Road Safety initiatives, by concentrating on high volume enforcement, backed up by enforcement-related advertising, education in schools and communities, engineering projects in hazardous locations and research and evaluation of all the various elements and campaigns. The program is data driven, based on scientific research. It uses the internationally recognised principle of 4 E's: Enforcement, Education, Engineering and Evaluation and is based on the Road Safety program implemented in Victoria, Australia which claims to be World's Best Practice.

To put this program into an international context, this paper highlights the 17 key issues identified by the Global Road Safety Partnership (GRSP) and then discusses its own strategy in the light of this perspective.. This is a valid measure, as GRSP is an initiative of the World Bank, which concentrates on implementation of Road Safety projects, specifically in developing countries.

1. Road Crash Problem - loss of lives and injuries

70% of fatalities on roads globally, take place in developing countries. 65% of these deaths involve pedestrians, 35% of these being children. Unless the situation is reversed, 6 million people will die and 60 million will be injured worldwide over the next 10 years. In 1990 traffic crashes were the world's ninth most important health problem. By the year 2020, crashes will be third on the list, only preceded by depression and heart disease.

KwaZulu-Natal has reduced crashes from over 2000 in 1996 to approximately 1400 in 1999, going against the usual rising trend in developing countries, and having a greater success rate than the rest of South Africa.

In KwaZulu-Natal, during Christmas 1999, 33% of road deaths were of pedestrians. Asiphephe intends to save 3,500 lives by the end of the initial five year cycle - at the end of 2002.

2. Economic Perspective

Road crashes cost approximately 1-3% of Gross National Product (GNP) in developing countries. It is estimated that developing countries lose in the region of \$100 billion as a result of crashes. This is almost twice as much as the total development assistance received worldwide by developing countries. Economic and social development is severely inhibited by these costs.

In KwaZulu-Natal, before Asiphephe began to operate, crashes cost over R2 billion annually. Hospitals, ambulance and rehabilitation services were clogged with road trauma patients, at great cost to the state and to individuals.

If the Asiphephe target of 50% reduction in crashes is achieved, there will be a saving of R4.1 billion over the five year period. Savings on fatalities and serious injuries alone, measured 1998 over 1997 amounted to over R100 million.

- The total number of fatalities in 1998 was 1432 for the province of KwaZulu-Natal. This compares with 1575 for 1997, and represents a saving of 143 lives, or R47,100,625 at the CSIR estimate of cost of a death at R329,375 using the human capital approach.
- In KwaZulu-Natal, approximately 88% of collisions take place in Cities and Towns (Urban areas) and the balance of 12% take place in rural areas. Crashes in rural areas have a much higher fatality rate, with approximately 46% of the fatalities occurring in rural areas and the balance in urban areas.

3. Developing a Road Safety Plan

The World Bank initiative, Global Road Safety Partnership, considers national medium or long term plans a pre-requisite for achieving sustainable improvements in road safety. These plans should set measurable targets, build capacity and ensure continued funding through government, as well as alternative sources of income.

In the South African situation, KwaZulu-Natal has led in the introduction of a data driven, scientifically based, long term strategy for Road Safety. The Department of Transport has formed the Asiphephe Road Safety Programme, which coordinates Road Safety initiatives throughout the Department, and pulls in stakeholders from other sectors. The plan that has been adopted, is that from Victoria, Australia, which is world's best road safety practice.

A five year plan is in operation, with annual introduction of critical activity areas so that by the end of 2002 all key dangerous behaviors will have been targeted.

4. Institutional Responsibility for Road Safety

No one sector, working alone, can effectively reduce road trauma. A permanent secretariat and multi-disciplinary team of road safety experts should provide coordination, under the umbrella of a Ministry, Commission or National Road Safety Council. The process should be led by a high-calibre Executive Director.

Organisations which should be represented on this Council are all the road safety stakeholders and should include: DG Transportation, National Police, Justice officials (Attorney General), Finance Department, Military, Department of Health, Local Councils, Department of Education, Automobile Associations, Emergency Services, Chambers of Commerce, Transport related associations, Insurance companies, Driving Schools, Journalists - including radio and television, as well as members of community organisations.

Asiphephe is a coordinating body which works with all stakeholders. It reports to a Road Safety Board, and has a Management Group for planning and consultation purposes. Both of these groups provide a coordinating function, and would include representatives of most of the above sectors.

The Programme is presently being re-constituted as a permanent Road Safety Directorate, within the Department of Transport, having operated as a project since 1996.

Important institutional cooperation is achieved, with Asiphephe representation on the Durban Metro Road Safety Technical Committee, National Arrive Alive Committee and working groups, and regular meetings with other regional organisations such as Business against Crime, Chambers of Commerce, the Automobile Association and others such as vehicle testing associations.

5. Monitoring and Evaluation

In developing countries, initial focus is often on institutional strengthening and capacity building, rather than on reducing casualties in numeric terms. Evaluation should be able to indicate progress towards achievement of institutional impact and developmental objectives.

The KwaZulu-Natal Department of Transport used Victorian consultants to assist in institutional development. These consultants worked with regional role players over a period lasting more than two years, and included visits to Australia and New Zealand for exposure and training purposes. There is continued communication with experts in most fields in Australia, who have been generous in capacity building and mentoring of team members.

During 1999, a CSIR led evaluation produced 50 recommendations, many of which had to do with institutional and functional development of the program. Institutional capacity to implement these recommendations is inadequate in some sectors, but, where possible, recommendations have been adopted. Because of the inadequacy of statistics in South Africa, the evaluation concentrated on progress and function, rather than numerical outcomes.

6. Data Systems and Analysis

Data is the cornerstone of all road safety activity. It is essential for the diagnosis of the road crash problem, and for monitoring road safety efforts. It is important to be able to classify categories of road users involved in crashes, to be able to strategically target behavior patterns that need changing.

Essential components of a data system are standardised report forms, as well as means of storing and analysing the data. This information is also useful in providing data to prove a sound business case for investment.

Up until 1998, the CSS and CSIR were responsible for data-capture. From 1999 this is the responsibility of individual provinces, who obtain copies of the SAPS accident forms for input into the national system. Unfortunately, in KwaZulu-Natal this input has not happened, and therefore no data is available for analysis. This task is extremely urgent if we are to maintain credibility. An essential part of the new Road Safety Directorate will be an information and data department.

60% of crashes occur in the Durban Metro region, and in this urban area very good statistics have been collected. These statistics are used for planning purposes.

7. Financing Road Safety

Sustainable funding is required for implementation of road safety initiatives. These could be either through levies on insurance premiums or fuel levies. In Australia the third party insurance funded initiatives which proved very successful and beneficial from a cost point of view.

In KwaZulu-Natal, Road Safety initiatives are funded through a levy on all licenses issued to vehicles throughout the province. The Asiphephe Road Safety Program receives R15 million through this levy. At present discussions are taking place with individual businesses (Spar, BP, Telkom and others) as well as with groups such as the Chamber of Commerce, to provide supportive funding from the private sector, particularly for advertising and workshops.

8. Designing Roads to improve Road Safety

The introduction of self-enforcing techniques in road design are likely to have a much better short term result than improving vehicle standards and driver testing requirements in developing countries. Traffic mix and adoption of road standards from developed countries are two of the problems identified. Systematic identification and treatment of hazardous locations can improve road safety substantially. Remedial measures can be low cost.

KwaZulu-Natal has a hazardous locations improvement scheme, with nearly 30 sites having been addressed in 1998, and a significantly larger number in 1999. These sites are identified by communities, who then become involved in finding solutions (and providing labour) for the changes required. Some of the difficulties are in road behavior in rural areas, where gravel roads are being "black topped", and where communities are not used to fast moving traffic, but still the largest number of fatalities occur in the urban areas.

9. Road Safety Audits

In many developing countries safety features are included in road design, but are not constructed because of cost factors. Maintenance is limited to fixing potholes and clearing drains and replacement of traffic signs and guardrails, road markings and other necessary features are neglected.

Road Safety Audits should be performed at the design, construction and maintenance phases of road projects, but in developing countries, cost sometimes prevents this process from taking place.

In KwaZulu-Natal, Road Safety Audit workshops have taken place, where practical training on audits at all three phases was done. Specific attention should be given to pedestrian usage during these audits, especially in rural areas where communities and facilities used by them (schools, shops, shebeens) are badly placed in relation to highways.

In South Africa audits of existing roads are necessary as often roads were designed primarily for fast movement of troops, and without taking the needs of communities into consideration.

10. Children's Traffic Education

Educational programs for children are seen as a long-term strategy. Ideally this teaching should be as part of the core curriculum (preferably as a cross curricula theme) and not through reliance on individuals or organisations visiting schools. It is essential that education inputs are incremental (building on previous skills) and that they are linked to a child's physical and psychological abilities. Training of teachers is imperative.

Road Safety Education should work to create a synergy with critical offences, as well as concentrate on issues specific to children eg. pedestrian behavior. RSE has implemented "Safe Routes to School" and "Child in Traffic" programs and is involved in scholar patrols at school premises to encourage safe road use and awareness. They have also worked with the Department of Education to introduce basic road safety awareness through the Outcomes Based Education strategy.

11. Publicity Programmes

Road user education and awareness raising is an important part of any Road Safety strategy. This depends largely on showing success through analysis of data, and encouraging compliance with changed conditions.

In KwaZulu-Natal general awareness of road safety initiatives between 1998 and 1999 rose from 60% to over 90%. Efforts are being made to keep Road Safety in the public arena, and to encourage debate on the issues. Regular media briefings, media releases and letters to the newspapers are the vehicles for this.

The province has produced three of its own television advertisements (one on speed and two on alcohol) and has produced and flighted comprehensive billboard and radio campaigns in support of the TV messages. It is necessary to evaluate every step of an advertising campaign, from conceptualisation through production and to the impact on communities. This research is in line with our strategy which demands a scientific approach to planning and implementation.

12. Driver testing and training

Road user error contributes to the vast majority of crashes. Safe drivers, skilled in defensive driving techniques, should be a primary objective of any Road Safety program. Driving examiners need to be given special training.

KwaZulu-Natal experiences the same difficulties as other developing countries with illegal and unskilled drivers being the cause of many crashes. The new credit card type driving licenses are designed to prevent fraud, and special programs are held with high-risk groups (offenders convicted of alcohol related violations), heavy vehicle and taxi drivers. Regulation (re-capitalisation) of the taxi industry will assist in this area of operation.

Recent research with 100 taxi drivers showed that the vast majority of them (74%) obtained their driving licenses and Public Driving Permits almost simultaneously. It is necessary to

begin lobbying for an experience-related qualification for drivers who are responsible for the lives of many members of the public.

13. Traffic Law and Enforcement

In most developing countries, Traffic Police are under-resourced and under-trained. Effective law enforcement can play a major role in reducing traffic crashes. Australian and other international experience indicates that speed reduction has the quickest effect on reduction of fatalities.

KwaZulu-Natal has adopted the Victorian model and strategy, the main emphasis of which is heavy enforcement. For this reason, the province has increased its screening and offender notices at least five fold. There are two major areas of concern (1) we have only about ¼ of the number of traffic officers as is usual in a developed society and (2) successful follow-up of fines and prosecutions is at a very low level. Only about 25% of fines are collected nationally, and 40% of traffic violations are successfully prosecuted.

KwaZulu-Natal is now moving towards a strategy which is introducing more thorough training of officers, formation of dedicated teams for enforcement (eg heavy vehicle/overloading, or booze bus operations). In terms of our strategy, it is vital that enforcement is backed up by emotive advertising, which emphasises the consequences of poor behavior in all its grim detail.

14. Vehicle Safety Standards

One of the main reasons for the reduction of road trauma in developed countries over the past three decades, is the improvement in vehicle design, the use of seat-belts and airbags, good vehicle maintenance and occupant protection facilities. Inspections by way of road blocks to identify offenders in random checks can assist in obtaining compliance. Special concentration on overloading is also necessary as overloading of goods and passengers is hazardous, especially in developing societies.

It is obvious that it is often the poor who are victims of road related accidents. They travel in public transport vehicles or mini-bus taxis which are sometimes badly maintained and are not designed for the purpose for which they are being used. The regulation of the Taxi Industry which is taking place, and the provision of new vehicles with seatbelts and occupant protection by roll bars should reduce taxi-related deaths.

In a developing society, poverty, unemployment, social problems, many workers living far from city centres, as well as a lack of understanding of technical issues surrounding vehicle condition, severely affect Road Safety. In KwaZulu-Natal we have also identified regulation of the vehicle testing stations as a priority, to end the corruption and fraud which occurs, and which obviates attempts to ensure vehicles are maintained to a high standard.

15. Emergency Medical Services

Efficient emergency services are less likely to exist in developing societies, where infrastructure is less sophisticated. To have the most impact on health, the “golden hour” (ie immediate and effective medical treatment) is vital. Drivers and traffic officers who are

trained in first aid procedures could assist with providing emergency treatment, and the use of a single emergency telephone number expedites quick response times.

Incident Management Systems operate on all National and some Provincial Roads in KwaZulu-Natal. These systems involve all emergency services, and after each incident, an analysis is done to ensure that the services continue to improve.

Unfortunately, there are still unregulated tow-trucks who sometimes hamper rescue attempts, and cause delays in reaching injured people. During holiday seasons, ambulances are stationed at critical points, and are also supported by helicopters and other emergency vehicles.

16. Road Safety Research

Because of the limited resources in developing countries, knowledge which enables authorities to improve factors which lead to road crashes is vital. The effects of various counter-measures, development of new and more effective safety measures can be gauged by comprehensive research. The availability of appropriate research on the Internet could assist developing countries to increase their capacities in this field.

The University of Natal Interdisciplinary Accident Research Centre (UNIARC) is the first of its kind in South Africa, and is modelled on the MUARC pattern from Victoria, Australia. This Unit is instituting research according to a set list of priorities, and the Department of Transport has representation on the Steering and Research Committees to ensure compliance and relevance of research undertaken. Although situated at UND, the Centre uses researchers from all tertiary education institutions in the province, with capacity building assistance where necessary. CSIR is assisting with this process.

Research also enables many people (especially young people who are particularly at risk) to become involved in analysis of Road Safety initiatives, and to increase awareness.

17. The Role of NGOs and civil society

Road Safety cannot be the responsibility of government alone. The commercial sector, service organisations and NGOs, as well as the more obvious role-players such as Taxi and Road Freight associations, play an important role in increasing road safety awareness. NGOs particularly have an important role to play at grass roots level, especially in developing societies.

There are approximately 8000 NGO's in KwaZulu-Natal and input through the NGO Forums would be a successful method of reaching both urban and rural communities. The large religious communities in the province could also be resourced to spread the message of safety on the roads.

The Province has Rural Road Transport Forums, which have sub-committees for Road Safety. These committees play an important part in awareness raising, and in encouraging ownership of road safety initiatives, especially in rural areas.

Conclusion

KwaZulu Natal has invested a large amount of money in Road Safety over the past three years. They have re-structured the Provincial Department of Transport to include a permanent Road Safety Directorate, which reports directly to the Deputy Director General.

The province allocates a larger part of its budget to Road Safety initiatives than any other province, and has the Saving of Lives as one of its primary goals. Although the programme is based on the Victorian strategy from Australia, we have added on a more far-reaching community based element which we deem to be appropriate for a developing society.

To measure our strategy against the Global Road Safety Partnership issues has been interesting, and has confirmed that, in terms of International Strategies, we are in line in every area of our operation. We estimate that the savings since 1996 in our province have amounted to 1957 lives, and R1.2 billion saved in fatalities and serious injuries. We have the political will, and with a coordinated approach, we are using the synergies of the various disciplines to work together for change.

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ABRIDGED CURRICULUM VITAE WENDY PATRICIA WATSON

May 1998 to the present

Manager, Strategy and Planning: Asiphephe Road Safety Campaign, KwaZulu Natal Department of Transport.

The Asiphephe "Let us be Safe" Road Safety Program is an initiative of the Department of Transport, which aims at co-ordinating Road Safety efforts in the province of KwaZulu Natal.

March 1996 to April 1998

Regional Manager of the Truth and Reconciliation Commission, KwaZulu Natal Region.

The Truth and Reconciliation Commission was set up in 1995 as part of the new Constitution of the Republic of South Africa, to give victims the opportunity to tell their stories, to consider and grant amnesty where appropriate, to reveal and write a report on the gross human rights violations which took place between 1960 and 1994, and to recommend to parliament reparation for victims and rehabilitation of the society to prevent such abuses occurring again.

The position of Regional Manager carried responsibility for the functioning of the TRC in the region: supervision of all staff with overall management of hearings, administration, information flow and investigations.

15 February 1994 - March 1996

Administrative Coordinator of Independent Medico-Legal Unit,

The Independent Medico-Legal Unit was set up in February 1994 to provide an independent medical and forensic assessments in cases of state and political violence. It is a non-governmental organisation, funded originally by the Danish Government, then with a broader funding base and is still operating from the campus of the University of Natal..

During four months in 1995 co-ordinated and worked on the **Human Rights Documentation Programme** which collected and documented, in Durban alone, over 5000 cases of human rights violations during the apartheid era, for forwarding to the Truth and Reconciliation Commission to be included in their database.

I have extensive previous informal involvement in movements towards political and social change in South Africa, a wide variety of working experience from managing a chain of retail outlets, to working in schools, and owning a small restaurant.

My interests include writing articles centering around human rights and political issues, and recently Road Safety, as well as travel, music, cooking, art (specifically pottery).