

# AN EVALUATION OF SOUTH AFRICAN ROAD SAFETY PROMOTION STRATEGIES WITH A SELECTED SOCIAL MARKETING MODEL

## TABLE OF CONTENTS

	<b>Page</b>
Acknowledgements	2
Abstract	3
<b>CHAPTER 1</b>	
<b>ORIENTATION AND INTRODUCTION</b>	<b>4</b>
1.1 Problem statement	4
1.2 Assumptions of the study	11
1.3 Aims of the study	12
1.3.1 Justify the necessity	12
1.3.2 Determine the impact	12
1.3.3 Ascertain the extent	12
1.3.4 Determine the extent	12
1.3.5 Recommend Research areas	12
1.4 Key research questions	12
1.4.1 What is the impact of Road Safety Promotion strategies	12
1.4.2 Why and how can road safety promotion strategies be evaluated?	12
1.4.3 Are Road Safety managers (officers/ practitioners) adequately trained	12
1.4.4 Has there been general public engagement	12
1.5 Background to the study	13
1.6 Objectives of the study	14
1.7 Purpose of the study	18
1.8 A literature review	20
1.9 Research Methodology	20
1.9.1 Sample	20

1.9.2	Focus group interviews	20
1.10	Delimitations of the study	21
1.10.1	Justification of the study	21
1.10.2	Definition of terms	22
1.10.2.1	<i>Social Marketing (Donegan's discourse on Social Marketing)</i>	22
1.10.2.2	<i>Promotion: The term is one of the five p's of Social Marketing</i>	23
1.10.2.3	<i>Evaluation</i>	23
1.11	Assessment Exercise by focus group	24
1.12	Thesis outline	25
	Chapter 1: Orientation and Introduction	25
	Chapter 2: Persuasive Communication and Social Marketing	25
	Chapter 3: Theoretical Background	25
	Chapter 4: Road Safety Promotion Strategies	25
	Chapter 5: Nature of Road Safety Promotion	25
	Chapter 6: Research Methodology	26
	Chapter 7: Findings: Interpretation and Discussion of Findings	26
	Chapter 8: Conclusions and Recommendations	26

## CHAPTER 2

2.1	Introduction	27
2.1.1	Theoretical Foundations	27
2.1.2	Persuasive Communication In Social Marketing	28
2.1.3	Persuasive Communication Theory in Social Psychology	29
2.1.4	The Nature of Persuasion	31
2.1.5	Structure of a Message	31
2.1.6	Coercive Persuasion	32
2.1.7	The persuasion context	33
2.1.8	Source factors	34
2.1.9	Recipient factors	34

2.1.10	Media factors	35
2.1.11	Message factors	35
2.1.12	Situational factors	36
2.2	Persuasion	36
2.2.1	Persuasion by Peripheral Route	36
2.2.2	Persuasion by the Central Route	37
2.2.3	Reasoning and Persuasion	37
2.2.4	Yielding and Impact	38
2.2.5	Persuasive Argumentation	39
2.2.6	Changing Behaviour	39
2.2.7	Changing Intentions	39
2.2.8	Changing Attitudes	40
2.2.9	Changing Beliefs	40
2.3	Chapter Summary	41

### **CHAPTER 3**

#### **THEORETICAL BACKGROUND TO SOCIAL MARKETING**

3.1	Orientation	42
3.2	Definition of social marketing	43
3.2.1	Social Marketing for Organisations	44
3.2.2	The Functions of Social Marketing	44
3.2.2.1	<i>Research</i>	45
3.2.2.2	<i>Development</i>	45
3.2.2.3	<i>Communication</i>	45
3.3	The history and nature of Social Campaigns	45
3.4	Characteristics of Social Marketing	47
3.5	The Social Marketing process	48
3.5.1	Step 1: Getting started	48
3.5.2	Step 2: Strategic Planning and Development	49
3.5.3	Step 3: Materials and activities Development	49
3.5.4	Step 4: Draw up a communication plan	49
3.5.5	Step 5: Implement the plan	49

3.5.6	Step 6: Measure the results	49
3.6	Marketing to promote Road Safety	50
3.7	Overcoming objections to Social Marketing	51
3.7.1	Limited budgets	51
3.7.2	Lack of expertise	51
3.8	Social Marketing does not replace	52
3.9	Application areas	52
3.10	Challenges to Social Marketing	53
3.10.1	Changing Behaviour can be a problem	54
3.10.1.1	<i>Behaviours new to the world versus behaviours, new to the individual.</i>	55
3.10.1.2	<i>Behaviours facing serious competition versus behaviours without serious competition</i>	55
3.10.1.3	<i>Behaviours with personal benefits versus behaviours with third-party benefits</i>	56
3.10.1.4	<i>Public behaviours versus private behaviours</i>	56
3.10.1.5	<i>Once-off behaviours versus continuing behaviours</i>	56
3.10.1.6	<i>Behaviours that are carried out alone versus behaviours that require the participation of others</i>	57
3.11	The Problem is Behaviour, not Marketing	57
3.12	Culture and Social Marketing	58
3.13	The Role of Communication and Social Marketing in Road Safety Behaviour	58
3.14	Problems encountered when dealing with messages about Road Safety Behaviour	59
3.14.1	Basic values	59
3.14.2	Difficult to concentrate on exact target groups	59

3.14.3	Message formulation difficulties	59
3.14.4	Message content	60
3.14.5	Evaluation difficulties	60
3.14.6	Rural areas are less informed	61
3.14.7	Mass communication media not as effective	61
3.14.8	Complex messages content	62
3.15	Road Safety Communication media choices	62
3.15.1	Oral media	62
3.15.2	Integrated Communication media approach in South Africa	63
3.16	General Communication Recommendations for the possible improvement of future Road Safety Programmes	64
3.17	Barriers to effective Social Marketing	64
3.18	Conclusion	65

## CHAPTER 4

### ROAD SAFETY PROMOTION STRATEGIES

4.1	Introduction	67
4.2.	Is Road Safety a problem?	67
4.2.1.	Defining the problem	68
4.2.2	The scale of the problem	70
	<i>Table 4.2.2.1: Top 10 Leading contributors to the global burden of disease or injury</i>	70
4.3.	Road Design and Road Furniture	73
4.4	Routine Road Maintenance	75
4.5	Road traffic control, driver training and regulation of motorists	76
4.5.1	Solution	78
4.5.1.1	<i>Driver of the year competition: heavy motor vehicle</i>	79
4.5.1.2	<i>Driver of the year competition: lady driver</i>	79

4.5.1.3	<i>Driver of the year competition: tractor</i>	79
4.6	Road Safety Audits	80
4.7	North West Province specific Road Safety promotion Strategies	80
4.7.1	Scholar patrol	80
4.7.2	Oratory competition	81
4.7.3	Road Safety Education in Schools	81
4.7.4	Road Safety Community Outreach/communication Programme	82
4.7.4.1	<i>Sonic triggers</i>	85
4.8.	Promoting Road Safety promotion in South Africa: Selecting a Model	85
	Figure 4.8.1: Final proposed Social Marketing model for communicating Road Safety in South Africa	87
4.9	The need for a Social Marketing Model for Road Safety promotion in South Africa	88
4.10.	Conclusion	90

## CHAPTER 5

### NATURE OF ROAD SAFETY PROMOTION

5.1	Introduction	91
5.2.	Nature of Road Safety	91
5.3	Road Safety promotion in South Africa	94
5.3.1	Purpose of Traffic Safety Management System (TSMS)	94
5.3.2	The TSMS consisted of 11 functional areas. These were:	94
5.3.2.1	<i>Road Safety Education</i>	94
5.3.2.2	<i>Road Environment</i>	94
5.3.2.3	<i>Registration and licensing</i>	95
5.3.2.4	<i>Adjudication</i>	95
5.3.2.5	<i>Traffic information</i>	95
5.3.2.6	<i>Medical rescue services</i>	96
5.3.2.7	<i>Marketing and Communication</i>	96

5.3.2.8	<i>Driver training</i>	96
5.3.2.9	<i>Technology transfer and implementation</i>	96
5.3.2.10	<i>Traffic control and traffic policing</i>	96
5.3.2.11	<i>Legislation</i>	97
5.4	Approaches to Road Safety promotion in the North West province	97
5.4.1	Road Safety promotion through Road Safety Education	97
5.4.1.1	<i>Why Road Safety Education?</i>	98
5.4.1.2	<i>Effective Road Safety Education</i>	100
5.4.1.3	<i>The role of formal education in Road Safety Education</i>	101
5.4.1.4	<i>Where Road Safety Education begins</i>	101
5.4.1.5	<i>How can the educational experiences gained at early learning stages of children be held in good stead later in life?</i>	102
5.4.2	Community participation in Road Safety	103
5.4.2.1	<i>The role of the community</i>	103
5.4.3	Changing Road Safety Behaviour	104
5.5	Other impacts	104
5.5.1	Social and Economic impacts	104
5.5.2	The vulnerable and disadvantaged road users	104
5.6.	People's right to Safety	105
5.6.1	Safety as a Human Right	105
5.6.2	The Need for a right to Safety	106
5.7.	Chapter Summary	107

## CHAPTER 6

### RESEARCH METHODOLOGY

6.1	Introduction	109
6.2	Methodology, Research methods	109
6.3	Sampling	109
6.4	Methods and Instruments	110

6.4.1	Description of Methodology and Instrumentation	110
6.4.2	Focus group interviews as a selected research method	110
6.4.3	Advantages of focus group interviews	111
6.4.4	Disadvantages of focus group interviews	112
6.5	Construction and Description of the Interview Schedule	112
6.6	Interview Procedures	113
6.6.1	Preliminary institutional arrangements	113
6.6.2	Intermediate arrangements and contingencies	113
6.6.3	Setting the Tone and Ethical Considerations	114
6.6.3.1	<i>Setting the Tone</i>	114
6.6.3.2	<i>Housekeeping and Ethical Considerations</i>	114
6.6.4	Follow-up questions	114
6.6.5	Recording Devices Used	114
6.6.6.	Affirmation of Interview purpose	115
6.6.7	At the end of the focus group discussion and interviews	115
6.7	Decoding of the data	115
6.7.1	Hard Copy Notes	116
6.7.2	Post-focus group process	116
6.8	Population and sample	116
6.8.1	Why the three provinces were used in the study	116
6.8.2	Table 6.1 Provinces of South Africa, which participated in focus group interviews	117
	Table 6.2. provinces of South Africa which did not participate in the focus group interviews	117
6.9	Validity and Reliability of Data	117
6.9.1	Validity	117
6.9.2	Reliability	118
6.9.3	Pre-testing of the Interview Schedule	119
6.10	Data Analysis and Interpretation	... .....120
6.11	Chapter Summary	120



## CHAPTER SEVEN

### FINDINGS, INTERPRETATION AND DISCUSSION OF FINDINGS

7.1	Introduction	121
7.2	Procedures for the Focus Group Interviews conducted in the three provinces	122
7.3	Presentation of the Responses of the Focus Group Interviews	124
7.3.1	Interview question 1	124
7.3.2	Interview question 2	124
7.3.3	Interview question 3	126
7.3.4	Interview question 4	127
7.3.5	Interview question 5	127
7.3.6	Interview question 6	128
7.3.7	Interview question 7	128
7.3.8	Interview question 8	128
7.3.9	Interview question 9	129
7.3.10	Interview question 10	129
7.4	Summary of the Findings from the Focus Group Interviews	131
7.5	Chapter Summary	136

## CHAPTER EIGHT

### CONCLUSIONS AND RECOMMENDATIONS

8.1	Introduction	137
8.2	Assessing the Research Questions	137
8.2.1	What is the impact of Road Safety Promotion Strategies on Road traffic accidents and injuries?	137
8.2.1.1	<i>A comparison between the South African situations with that of other African Countries</i>	139
8.2.2	Why and how should Road Safety Promotion Strategies be Evaluated as part of a Social Marketing Model?	143
8.2.2.1	<i>Matrix table</i>	144

8.2.3	Are Road Safety officers/practitioners adequately trained to evaluate Road Safety promotion strategies in selected provinces? NO	146
8.2.4	Has there been general public engagement in the Road Safety promotion strategies?	146
8.3	Results of the Research: Findings and Conclusions	147
8.3.1	Road Safety Officers	147
8.3.2	Road Safety Promotion Strategies	147
8.3.3	Evaluation of Road Safety Promotion Strategies	147
8.3.4	Road officers or practitioners	
8.3.5	Community Engagement (Participation and Involvement)	148
8.3.6	What is the feasibility and possibility of formulating Road Safety Strategy for provinces and municipalities?	148
8.4.	Recommendations	149
8.4.1	Road Safety Promotion Strategic Imperatives	149
8.4.2	Road Safety Officers and Practitioners	149
8.4.3	Continual community engagement	149
8.4.4	Impact analysis	149
8.5.	Recommendations for Further Study	150
8.5.1.	A study on impact analysis/evaluation	
8.5.2	The levels of training	151
8.5.3	Trainind and Education	151
8.6	Summary and Conclusion	151
	<b>BIBLIOGRAPHY</b>	<b>152</b>
	<b>APPENDICES</b>	
	<b>Appendix A:</b>	
	<b>A Restructed Social Marketing Framework</b>	<b>163</b>
	Figure 8.6.1: Final proposed Social Marketing model for communicating road safety in South Africa	164
i)	Price	165
ii)	Place	165



iii)	Product	166
iv)	Promotion	166
v)	Policy	166
vi)	Public (Target audience)	166

<b>APPENDIX B</b>	<b>167</b>
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Table 8.2.1: Numbers of deaths by cause for persons, males and females,  
South Africa 2000

<b>APPENDIX C</b>	<b>170</b>
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United Nations A/64/L.44/Rev.1\*  
General Assembly

<b>APPENDIX D</b>	<b>175</b>
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Road Traffic Report in the calendar year 2009

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## ABSTRACT

This study was undertaken to evaluate, within the context of a selected Social Marketing Model, the strategies that South Africa has been using in the past 10 years in promoting Road Safety in the country. The underpinning aim of the study was to determine whether or not these strategies have been adequately addressing the essence of Road Safety Promotion in South Africa in the light of the many changes communities have experienced over the past decade. Another key reason for the quest to evaluate these strategies is the fact that even in spite of their partial implementation, the rate of road accidents in the country continues to increase. Effectively, South Africa is busy losing the Road Safety battle. The study argued that it is vital that South Africa embarks on effective strategies of Road Safety promotion in order to drastically reduce road accidents and mortalities to levels, at least, of between one to nine persons per year. All governmental strategies currently in use for promoting Road Safety in South Africa are more than four years old, and no in-depth study has been done to evaluate their effectiveness and the reasons for failure of those well-planned campaigns coming out of the strategies, where the mortality rates from accidents continue to increase. This study evaluated the strategies and the impact of the campaign messages emanating from them. Qualitative research methodology using group interviews was conducted in three of the nine provinces namely North West, Gauteng, and Free State Province, the presumption being that the three South African provinces, like the rest, contain characteristics that are generally prevalent in the country. The findings of the study revealed that Road Safety officers were neither fully conversant with the strategies for promotion of Road Safety in the country, nor adequately equipped to confidently and effectively manage their obligatory mandate to endorse the Road Safety Promotion programmes. The limited and often absent engagement of communities in the design and implementation of Road Safety Promotion Strategies has not boded well for the country. Among the recommendations made were, adequate orientation and training of Road Safety practitioners in the area of Road Safety Strategies and promotion, which would result in the strengthening of community engagement in Road Safety Promotion Strategies, the need to conduct, at short intervals, the impact analyses of the promotional strategies being used, in order, where necessary, to design fresh promotional messages with impact, using the Social Marketing Framework for Road Safety promotion campaigns.

## CHAPTER ONE

### ORIENTATION AND INTRODUCTION

#### 1.1 PROBLEM STATEMENT

Road Safety promotion strategies have been in operation in South Africa for more than seven years now but neither has their impact been assessed nor has their contribution towards the reduction of carnage on our roads been scientifically investigated. Many campaigns have been mounted, which were all aimed at reducing fatalities and serious injuries on the road. However, the trend has been an increase in deaths and injuries, especially around the pressure seasons of Christmas and Easter, when road traffic volumes on the national and provincial roads increase, (Road Traffic Report for the Calendar Year 2009. Road Traffic Management Corporation (RTMC): Statistics: Appendix C).

The periods of strategic planning have always been followed by the periods of campaigns, for example: The National Road to Safety Strategy, (2001-2005) and The National Road Safety Strategy, (2006 onwards). Based on the observed carnages, and as a result of several variables, like old technologies, among which would be worn-out bridges, obsolete messages, which people are no longer sensitive to, stereotyped text messages, disregard for road users in rural areas, or in illiterate settings and undeveloped areas, research apathy in the message domain, disregard for critical audiences like school-goers, pedestrians, the disabled, the aged and criminals, as well as several other misdemeanours in communication, it has become necessary to evaluate the entire message strategy and all the systems associated with it, with Social Marketing as the overarching tool.

According to Goldberg, (1997) some messages often overlook semiotic cultural differences like colour significance and unique cultural interpretations, sound interpretations and attitudes towards sounds and many other signs, text and discourse message designs not suited to village Road Safety audiences. Hirschman, (1991) observed that the culture, level of education, and other variables pertaining to geographical habitat, especially in the lower socio-economic strata of society, often call for in-depth research into the semiotic

expression and interpretation of the cultural groups, the intent being to deliver comprehensible messages.

Message design managers, Road Safety planners, and Road Safety overseers, all need to be sensitive to the way in which their target audiences encode the communication messages of Road Safety. Lack of strategy follow through and lack of dedicated change agents have been some of the aspects of the problem, as has been observed by protagonists of change in the social marketing strategies, among whom are Hollfinn, (1999) and Fishman, (1999), the latter actually proposing the revolutionary approach.

Communication has always been defined simply as successful transmission of messages from a source to a target. Communication strategies would then refer to the “what”, “where”, “when”, and “why” of communicating messages, and finally that significant “how”. In this respect, De Wet, (2010) acknowledges that the concept is defined variously in the communication science literature, and is often reduced to mean the process of expression and interpretation of messages; the process of imparting ideas between communicator and recipient, with the aim of arriving at a mutual understanding on specific issues of the subject matter.

This study refers to the strategies of promoting relevant and effective Road Safety communication messages to the diverse mass population of South Africans who use roads. This study also examines the extent to which managers who oversee the Road Safety messages in their different capacities reach their targets. Whether the latter reach their target audiences is another matter for this study. Changing the behaviours and attitudes of the vast audience of Road Safety message consumers, must have as outcome, the desired effect of reducing serious injuries and deaths, (Road Traffic Report for the Calendar Year 2009: Road Traffic Management Corporation (RTMC): Statistics: Appendix C).

Among those entrusted with the mandatory obligation to endorse programmes are the top managers responsible for planning and implementation, middle managers, responsible for education and persuasion of drivers, pedestrians on the road, and others. Those responsible for enforcement of road traffic laws are part of the hierarchy above, who,

together with the rest of the authorities, have to endorse their obligations through well-planned, well-designed messages of persuasion, programmes and campaigns aimed at persuading all relevant stakeholders, including politicians, towards behaviour and attitude change. The politicians actually form the topmost layer of managers entrusted with the obligation to endorse the entire Road Safety mandate, and these are the Minister of Transport, the Transport Ministry, the Director General, and the chief Director, office of the Director General Strategic Plan, (2007-2010).

The lowest, but not least mandated, are the consumers of Road Safety messages in the school, the village, the city, the country-side and the academy (driving schools and transport colleges, faculties and related education and training agencies), where both research and education are ongoing. These are the change agents and message distributors of significance in all communities, who must of necessity, promote Road Safety messages and literally carry the torch of life on the roads of South Africa, (Road Traffic Report for the Calendar Year 2009: Road Traffic Management Corporation (RTMC) : Appendix C).

Road Safety entails safe roads, safe drivers, safe vehicles, safe engines, safe buildings, safe infrastructure, safe environments, safe minds, healthy eyes, healthy bodies, healthy ears, healthy senses, and a whole milieu of variables that could reduce the high road accident and death figures we experience in South Africa. The five “E’s herein implied, namely Engineering, Environment, Ergonomics, Enforcement, and Education, are clearly significant for a relaxed Transport Ministry and the chief Communications Directorate, but Education is the one “E” that stands out to influence behaviour change in all road users Thebe, (2005).

In spite of the extent, so far, of persuasive communication strategies used in the Road Safety arena, those linear Road Safety messages like “Speed Kills”, “Arrive Alive” and several others in the campaigns, the latter are not necessarily always understood, observed, or even seen by all road users, some of whom are drivers, pedestrians, cyclists and motor cyclists, others who are joggers, road constructors, road repairers and those who use donkey carts, wheel chairs, wheel barrows, and other devices. The present state



of affairs indicates that road accidents and deaths are on the rise, and that, therefore, Road Safety promotion strategies, from which communication messages ensue, have not had the intended impact, (Road Traffic Report for the Calendar Year 2009: Road Traffic Management Corporation, (RTMC) : Appendix C).

Persuasive communication is defined as a process of communication in which the communicator succeeds in voluntarily forming, sustaining, or changing the attitudes or the behaviour of one recipient or a group of recipients in accordance with what the communicator intends by the core message, De Wet, (2010). This study was an attempt to identify and evaluate the message effectiveness gap in the strategies designed by the South African government and her partners, with a view to minimise the huge road risk potential of the country, and hence the translation of these strategies into valid effective communication messages.

The study would assist with the provision of scientific evidence regarding the extent to which the road traffic risks are reduced. It would also measure whether or not these Road Safety promotion strategies have made an impact or a contribution. The scientific evidence would then expose the many flaws in the existing strategic thrusts, as well as lead to decisions to review the strategies. The study would also encourage and give direction to the drawing up of new and more effective messages in order to promote Road Safety in the country. The study would radically change the Road Safety promotion *modus operandi* by encouraging continuous monitoring, assessment and evaluation of strategies. This way, the co-owned culture of promoting relevant and effective messages in an efficient setting would be created. All stakeholders, namely communication managers and their message recipients would participate actively in a "joint space". Mosime, (2005).

The high of road accidents, injuries, casualties and disabilities in the world has been a great concern that has been articulated by the United Nations Road Safety Collaboration, (2004:1) in its statistical report of 1.2 million deaths, and up to 50 million injuries and disabilities worldwide, in spite of those strategies that include regulation, legislation, persuasion, law enforcement, education, and several other means, among which are electronic messages of radio, television, decals, videos, robots, and signage through road signs and billboards as well as several other devices. The United Nations Road Safety

Convention, (2010) report also cites the increasing rates of road traffic accidents in developing countries, while a number of developed countries continue to decrease their road traffic accident rates.

In their attempt to make Road Safety a global and local public health and social issue, the 2010 convention called nations to develop their own 2006-2014 millennium goals as well as their 2011-2020 strategies. The WHO had dedicated the World Health Day to Road Safety with a theme “Road Safety is No Accident” before the convention of 2010. This 2004 macro-event saw several stakeholders from governments, United Nations agencies; the private sector donors and the Non-Governmental Organisation’s participate in what proved to be the biggest Road Safety event for many years. On this occasion, 500 events had taken place to confront Road Safety issues in more than 132 countries (United Nations Road Safety Collaboration).

Subsequently in February 2010, to “proclaim the period of 2011-2020 as the Decade of Action for Road Safety” the United Nations Road Safety Collaboration was released. :

*“1. Recognizing the tremendous global burden of mortality resulting from road traffic crashes, as well as the twenty to fifty million people who incur each year non-fatal road traffic injuries, many of whom are left with lifelong disabilities,  
2. Proclaims the period 2011-2020 as the Decade of Action for Road Safety, with a goal to stabilize and then reduce the forecast level of road traffic fatalities around the world by increasing activities conducted at the national, regional and global levels...(United Nations Road Safety Collaboration, 2010: Appendix D)”*

On that day, (7 April 2004) the World Report on the Prevention of Road Traffic Injury was launched jointly by WHO and the World Bank during the Global World Health Day celebrations in Paris. Policy-makers, representatives of non-governmental organisations, as well as academics from around the world produced the joint report, which stressed the role of public health in the prevention of road traffic injuries, the world report on road traffic injury prevention has described the basic “concepts of road traffic injury prevention, the impact of road traffic injuries, the major determinants and risk factors and intervention strategies”. United Nations Road Safety Collaboration:, (2004:1). Six recommendations followed the report, which

“6. *Calls upon* Member States to implement road safety activities, particularly in the areas of road safety management, road infrastructure, vehicle safety, road user behaviour, including distractions in traffic, road safety education and post-crash care, including rehabilitation for people with disabilities, based on the Plan of Action;  
7. *Invites* all Member States to set their own national road traffic casualty reduction targets to be achieved by the end of the Decade, in line with the Plan of Action;”

Below are two of the six recommendations of the world report on road traffic injury preventions:

3. To prepare a national road safety strategy and a plan of action.
5. To implement specific actions to prevent road traffic accidents, to minimise injuries and their consequences and to evaluate the impact of these actions.

Above points, namely the third and fifth points stood out poignantly to outline the territory of the specific domain of this study, which evaluates the National Road Safety Strategy documents and actions of the past five years in South Africa. It also seeks to find relevant recommendations for implementation of specific actions within the strategies. The aim of the actions is to minimise injuries and deaths, and to finally evaluate the impact of these actions. The final idea would be to find a solution for implementing strategies in a manner that all audiences (Road Safety message consumers and providers) are persuaded to preserve lives on the roads of the country.

A literature review and exposition of the general discourse on Social Marketing and Road Safety strategies, a selection of three provinces, followed by a focus group discussion and interview, recourse to expert opinion on a suggested Social Marketing model (a promotional strategy), formed the pillars of this research project.

A study done on Road Safety Strategies in other countries, in an attempt to efficiently promote Road Safety (The Royal Society for the Prevention of Accidents RoSPA: (2005)) revealed that it is common practice that all strategies and policies that governments use in addressing issues are revised within set intervals in order to evaluate their effectiveness. This is necessary, largely because the needs and wants of communities continue to change from time to time as communities develop and grow in different dimensions, as

cities grow, as technologies become obsolete, as new roads and crossings emerge, and as vehicle populations increase among some of the known developments.

Very often there is a need to refocus governmental resources and to redirect governmental energies through the machinery called “strategies”. Schbeeb, (2000).

In October 2009, the World Health Organisation (WHO) requested all countries worldwide to develop strategies to formulate policies that would address Road Safety issues in their respective countries. Some 400 youths signed the international declaration in Geneva Switzerland committed to take practical measures to improve Road Safety and to encourage adults to play their part as parents and leaders. This received a positive political support from the United Nations Secretary General Ban Ki-moon. It will be interesting and important to find out the performance of South Africa in this regard.

It is in the light of the foregoing that in this study, the researcher critically evaluated the strategies that the South African government has been using in the past 10 years in promoting Road Safety in the country. The aim has been to determine whether or not these strategies had been adequately addressing the needs of Road Safety in South Africa in view of the many changes that communities have experienced over the past decade, as well as to remedy the situation, using Social Marketing. “Social Marketing communicates a message on behalf of some good cause. Its main purpose is the design, implementation and control of communication programmes seeking to increase the acceptability of a social idea or practice in a target group.” Andreason, (1994); Walker, (2008).

Another key reason for the quest to evaluate these strategies is the fact that even though some of them have been applied intensively, the rate of road accidents in the country has not decreased to the levels where the battle is being won. It is vital that South Africa embarks on strategies which would assist in drastically reducing the rate of road accidents to acceptable levels of between one to nine persons per year.

Literature perused has indicated that the Social Marketing Strategy as outlined by Glenane-Antoniadas et al., (2003) and by Thebe, (2005) as well as their associates in this growing school of thought, would most probably assist in the evaluation of the Road Safety Strategies as formulated at National Government level in South Africa, and assist also in offering the desired solution for this study.

The governmental strategies currently in use for promoting Road Safety in South Africa are more than four years old, South Africa Year book, (2007-2008), and apparently no study has been done to evaluate their effectiveness.

This study was therefore an attempt to evaluate these strategies in relation to a Social Marketing Model that has been developed, Kirby, (1995), specifically for the promotion of Road Safety in South Africa. The outcome would be to eventually develop a Social Marketing Model for an effective, efficient, sustainable and popular Road Safety Campaign in South Africa.

## **1.2 ASSUMPTIONS OF THE STUDY**

The samples from the study, namely the three selected provinces in South Africa, are inherently representative of the other South African Provinces in terms of road technologies, the road accident demographics, road infrastructure, the rural-urban mix, and all other variables. The Social Marketing Model selected hinges on the all-inclusive communication strategy that utilises the multi-disciplinary aspects of persuasion, Walker, (2008), Perloff, (2003).

The basic assumption here is that the present strategy may not have addressed all aspects of Road Safety according to standards set and time-frames agreed. Whether the present strategy has addressed all aspects and structures of the diverse Road Safety mix and how Social Marketing will offer solutions, becomes a critical aspect of this study. Evaluation then becomes the critical essence of this study. The aim of the study is to evaluate critical constructs of the Social Marketing Model cited above as described by Kirby, (1995) against the critical constraints placed by organisational bottlenecks in the entire matrix. The study

thus assumes that the existing strategy has not seen a drastic reduction in road accidents and fatalities, and that no scientific evaluation of its impact has been done.

### 1.3 AIMS OF THE STUDY

The aims of this study are to:

- 1.3.1 **Justify** the necessity of evaluating the Road Safety promotion strategies in a selected social marketing model.
- 1.3.2 **Determine** the impact of Road Safety Promotion Strategies on the reduction and prevention of road accidents in South Africa.
- 1.3.3 **Ascertain** the extent to which Road Safety officers/practitioners/managers are equipped to evaluate Road Safety strategies.
- 1.3.4 **Determine** the extent of the general public's participation in the formulation and implementation of the Road Safety promotion strategy.
- 1.3.5 **Recommend** research areas towards improving the Road Safety situation in South Africa.

### 1.4 KEY RESEARCH QUESTIONS

The key research questions of the study to be addressed are mentioned below.

- 1.4.1 What is the impact of Road Safety Promotion Strategies on the reduction and prevention of road traffic accidents, fatalities and injuries?
- 1.4.2 Why and how can Road Safety Promotion Strategies be evaluated? Can Social Marketing offer better solutions?
- 1.4.3 Are Road Safety Managers (officers/ practitioners) adequately trained to assess and evaluate Road Safety Promotion Strategies in selected provinces?
- 1.4.4 Has there been general public engagement in the Road Safety Promotion Strategies?

## 1.5 BACKGROUND TO THE STUDY

The third world countries and those in transition have limited capacity to improve their Road Safety mandates, according to the United Nations General Assembly, whose Resolution 58/289 on “improving global Road Safety” also stresses the importance of international cooperation in this important field. For the implementation of this resolution, the United Nations General Assembly also invited the WHO (World Health Organisation) in collaboration with the United Nations Regional Commission, to be the coordinator of all Road Safety efforts across the United Nations system. This resulted in the consultation meeting hosted by World Health Organisation, and attended by all five United Nation Regional Commissions and some fourteen (14) global Road Safety organisations.

On 22 May 2004, the World Health Assembly (WHA) adopted Resolution WHA 57.10 on “Road Safety and Health”, the first resolution to address this topic in thirty (30) years, in which it accepted the invitation by the United Nations General Assembly for WHO to act as coordinator of Road Safety efforts within the United Nations system. The WHA resolution also called upon member states to prioritise Road Safety as a Public Health issue. United Nations Road Safety Collaboration, (2004:3).

During the first meeting, in which the United Nations Road Safety Collaboration aimed to review the activities of different players in global and regional Road Safety, in order to facilitate co-operation amongst partners, the discussion focused on identifying an overall mission and goal for the collaboration, where objectives towards meeting this goal, and defining the concrete products were articulated, so that collaborating partners could design responsibilities and time frames for their work. United Nations Road Safety Collaboration: (2004:3).

Among the weaknesses pointed out was lack of an integrated approach in the “Arrive Alive” campaign. The latter led to the initiation of a detailed consultative and research process in South Africa which then culminated in the adoption and the launch of the South African National Road to Safety Strategy, (2001-2005) on 20 November 2001. National Road to Safety Strategy, (2001-2005).

The vision of the National Road to Safety Strategy, (2001-2005) is for the Republic of South Africa to become the world's leading country in Road Safety by the year 2005. It would be appropriate that the South Africa's status as world's leading country in Road Safety be achieved through highly structured and professional communication design of Road Safety to road users in the country, but also the move to fully capacitate the organisations and management structures within government who are responsible for the Road Safety campaign management. This would be done via the many available media strategies which would include information and education. Advocacy within various communities would be emphasised, and community mobilisation and participation is of the essence. The move was expected to highlight some successes and some failures in this regard and to assess the performance of this strategy and subsequent other strategies, for example. National Road Safety Strategy, 2007-2010, with regard to their outcomes in the light of road traffic injuries and lethargic communication messages of Road Safety Promotion on the ground.

## **1.6 OBJECTIVES OF THE STUDY**

The objectives of the present study, based on tenets of the National Road to Safety Strategy of 2001 – 2005 and National Road Safety Strategy 2006 Onwards were:

1. To establish the awareness amongst road users and Road Safety officers, and to re-ignite the spirit of Road Safety messages through campaigns.
2. To evaluate the set goals of these strategies and their impact in general.
3. To identify the extent to which road users have adhered to campaign warnings, the extent to which the public has input in this campaign development, the general status of campaigns at present, as well as the attitudes and behaviours of Road Safety consumers since the strategy was put in place.

The study then set out to look into each one of these objectives and to establish whether, to a larger or to a lesser extent; these have been achieved while making use of relevant instruments (comparative literature, research evidence, as well as the focus group interviews). The latest fatality statistics would, as one example, expose the extent of the



achievement or failure of the strategies in place, based on the first objective herein stated that of a 10% reduction of fatalities. Whether the communication strategies were to improve roads, to improve road traffic technologies, to educate communities and the road traffic authorities or even to, at local level, ensure that provincial strategies are fully ingrained in the minds of the practitioners of Road Safety is of the essence in this study. It is important to assess the strategies against achievements or failures within the set time period, namely the period since the launch of the Road to Safety Strategy, 2001-2005.

The Road to Safety Strategy 2001 - 2005 sets out a wide range of initiatives to achieve these targets. The role players within the Road Safety Promotion Strategy were the provincial and national officials of the Department of Transport, Road Accidents Funds and Transport stakeholders. The task of the provincial staff would be to design suitable and relevant messages from the strategy document of the national government, and to then channel them to the many communities of road users, both urban and rural.

However, involvement of communities was minimal, with the result that road accidents and injuries did not decrease, and that road infrastructure did not improve either, especially in the informal settlement areas and in the rural villages. The elements of the strategy would be assessed in the light of effectiveness and efficiency of the communication messages and their total impact on road users in general. They would also be assessed on how they have been communicated to those who would be managers of Road Safety, and all other agencies responsible for implementation of strategies, to effectively communicate these to the diverse audience of road users on the ground. The Road to Safety Strategy was designed for implementation between 2001 and 2005, and although certain elements of the strategy have been successfully implemented, the targets of 5% to 10% per annum reduction of fatalities had not been achieved, the Department of Transport noted with concern. This and other concerns raised the question whether, in the message domain, there is effective communication and reception of all Road Safety messages, and whether audiences are persuaded enough to change the status quo on the roads of the country, National Road Safety Strategy, (2006).

According to the National Road Safety Strategy, (2006), the “Arrive Alive” campaign did not lead to widespread behaviour in attitude change “in spite of a series of highly emotive television, radio and billboard advertisements”. The “Arrive Alive” Campaign also failed to support law enforcement (an international best practice). Public Relations efforts have also declined in recent times according to the strategy document (National Road Safety Strategy, 2006). Because of the ineffectiveness of many systems put in place by government, it has become necessary to look at the area of communication much closer, to ensure that at all levels, all users of the road change their attitudes and behaviour, so that road traffic accidents, injuries and deaths can be reduced. Which strategy, which communication method, which participants, which structures, which model of integration, would bring the relevant and ultimate answers to the inquiry?

The evaluation of the present Road Safety Promotion Strategies using the Social Marketing Model was considered a significant part of the solution, hence this study. The parameters for this evaluation were set, and from that, the research design ensued. Strategic Management consist of a set of decisions and actions that should result in the “formulation and implementation of plans designed to achieve an organisation’s objectives” Pearce II & Robinson, (2005); Walker, (2008). In this case, the organisation is the Road Safety in South Africa, represented by the three provincial governments selected for this study.

The evaluation herein referred to comprised of nine critical issues, which were:

- Formulating the organisation’s mission
- Conducting an analysis of the organisation’s internal conditions, capabilities and capacity.
- Assessing the organisation’s overall and central environment
- Analysing the organisation’s options through resource identification, comparing it with external environment.
- Identifying the most desirable options by evaluating each option in the light of the organisation’s mission.
- Selecting a set of long-term objectives and grand strategies that would achieve the most desirable options.

- Developing annual objectives and short-term strategies compatible with the selected long-term grand strategies.
- Implementing the strategic choice by means of budgeted resource allocation, in an environment that matches people and technology systems that allow for rewards.
- Involving communities and encouraging participation in strategy formulation.
- Evaluating the success of the strategic process for future decision-making.

The decision-making hierarchy of an organisation such as The National Department of Transport and the Provincial Department of Transport typically functions at different levels.

According to Pearce II & Robinson, (2005), the corporate level is found at the top of the hierarchy. The board of directors, the executive managers and administrative officers are responsible for financial performance and for achievement of non-financial goals. They enhance, such as enhancing the organisation's image and fulfilling its social responsibilities.

In the middle of the decision-making hierarchy one finds the business level, composed principally of business and corporate managers, Walker, (2008). The task of these managers is to translate the statements of direction and intent generated at corporate level to concrete objectives and strategies for individual business divisions. In essence, business-level strategic managers determine how the organisation will compete in the selected product market arena, Koekemoer, (2011). They strive to identify and secure the most promising market segment within that arena. This segment is the piece of the total market that the organisation can claim and defend because of its competitive advantage, Pearce II & Robinson, (2005).

At the bottom of the decision-making hierarchy is the functional level, composed principally of managers of product, geographic and functional areas. They develop annual objectives and short-term strategies in such areas as production, operations, research and development, finance and accounting, marketing and human resources. However, their principal responsibility is to implement the organisation's strategic plans, Pearce et al., (2005) for total execution on the ground.

The present study sought to assess the extent to which provinces of South Africa had executed the plans laid out in the 2001-2005 Road to Safety Strategy and the National Road Safety Strategy, (2006) onwards.

Pearce II & Robinson, (2005) argue that whereas corporate and business level managers centre their attention on “doing the right things, managers at the functional level centre their attention on doing things right”.

In the evaluation of the communication strategy for promotion of Road Safety in South Africa, it is essential that at functional level, things must be done right.

The final outcome of the study was expected to be an implementable strategy (based on resources), that is correctly interpreted. A lot of role players were implied here, starting with the planning strategists, the implementation managers and the practitioners to include all systems on the ground. The people and systems responsible for the effective communication of messages to the road users and other agencies may be the secondary consumers, while the tertiary consumers are all those stakeholders in the communities. This implies that the managing groups are the primary consumers of Road Safety messages. The outcomes of the strategy had to be “visible” and measurable.

The functionality of the National Road Safety’s set goals in the message promotion area was measured against responses from the subjects selected from the three provinces. The impact of the messages was measured against the road accident and fatality statistics. The general functionality of provincial communication departments and those in the municipalities was probed.

## **1.7 PURPOSE OF THE STUDY**

The key purpose of the study was to employ Social Marketing to evaluate the present National Road Safety Promotion Strategies against the organisational criteria with the aim to find the solution to the problem.

The expected outcome would be: an integrated all-inclusive communication model that enjoys total support, funding, and all the pillars of a healthy, functional corporate system that detracts from the lethargy of government-run systems and moves in the direction of a business-oriented approach.

To achieve this, other studies would be recommended, which would critically examine the feasibility, possibility, applicability and implementability of the more dynamic model of Social Marketing, which lies in the heart of the dynamic mix of business-oriented messages of promotion and advertising, which utilises the more diversified and integrated mix of people, systems and resources.

Three of the nine provinces, namely North West, Gauteng, and Free State Province were used for the entire evaluation. The North West Province is mostly rural, with a road infrastructure that is challenged mostly by animals, including wild animals, urban and rural pedestrians, most of whom are in the traditional rural villages run by traditional leaders and are often posing demographics of gross illiteracy. The disparity in the material Road Safety promotions provisions between urban towns, rural towns and rural villages are highly visible. All of the environs (rural and urban) are traversed by most provincial and national roads.

How the strategic thrusts have impacted on these communication message targets became critical for the study. On the other hand we have the rural farming-dominated Free State Province with vast stretches of farms, farming villages and a few traditional village areas in the north. The city complexes are highly developed and the messages, although seen everywhere, may not be encoded in the same manner within the illiterate farm working communities. The relatively highly industrialised Gauteng province is more highly developed in terms of infrastructure, education and technology, and would be more disadvantaged in the informal settlements and the urban-rural sprawl typical of the province, namely those islands of former farming areas now occupied by informal settlers, some of whom have been farm workers, and others, immigrant Africans.

The Road Safety Promotional Strategy under evaluation would be assessed with all these differences in mind, using the Social Marketing Model. The evaluation instrument used has considered these differences and similarities in urban areas of the three provinces, and related parameters that go into dynamics and characteristics of groups, individuals, their

attitudes, their needs, and their wants and how dominant groups, (high level managers and politicians), communicate to their colleagues (middle managers and practitioners).

## **1.8 A LITERATURE REVIEW**

A thorough literature study was done to acquire understanding of the main concepts/constructs under study (those listed under section 1.1). To achieve all of these, all available databases to the researcher (both national & international) were consulted during the study.

## **1.9 RESEARCH METHODOLOGY**

Qualitative research methodology in the sense of an exploratory descriptive approach that entailed the following was used for the study:

### **1.9.1 Sample**

The study made use of systematic sampling methods to sample Road Safety officers in the selected three (3) provinces, namely North West, Gauteng and Free State. The sample was drawn from three provinces namely: the North West Province on the basis that it is above 50% rural. Gauteng is industrial and predominantly urban, and Free State is above 50% farming or Agricultural, thus being representative of all the other provinces in this qualitative respect, as well as regarding the numbers in the samples from the entire population of subjects selected. The sample size N=50 was reflective of half the available officers in the entire country, South Africa.

### **1.9.2 Focus group interviews**

Focus group interviews were conducted with practitioners, namely Road Safety Managers working in offices and those working in the field. The focus group pre-test discussions concentrated on communication and promotion of Road Safety only, but technical officers were also included in the sample. The focus group discussions would end up with group

interviews, based on selected aspects of the afore-mentioned strategy documents of 2001-2005 and of 2006, all of them National documents on Road Safety.

Focus group interview questions were prepared for the session. Participants (managers and officers in the Road Safety offices), were selected from provincial levels, from the three provinces.

## **1.10 DELIMITATIONS OF THE STUDY**

The study was conducted in only three provinces of South Africa, which is below 50% of the number of provinces in the country that apply the same Road Safety Promotion Strategies under evaluation in this study. It would be more affordable for the researcher to conduct the study within three provinces due to their close proximity to where the researcher lives, although the cost and convenience factors were not necessarily priority factors. The representation status of the three provinces lies in their alignment with the broad range of criteria required for typical rural cities, typical urban cities, and the typical metropolitan city urban complex found in the mix.

This study has endeavored to take the first step in the direction of “integration” and coordination, mentioned in the two strategy documents as the main weaknesses of the optimum required functioning of the strategy in general.

### **1.10.1 JUSTIFICATION OF THE STUDY**

An inclusive and comprehensive analysis of Road Safety Promotion Strategies has not been done before in South Africa. It has however been widely done in overseas countries as in Ancient Greece and Rome, where campaigns were launched to free slaves, in England during the Industrial Revolution, where campaigns were mounted to abolish debtor prisons, to grant voting rights to women, and to abolish child labour, in Colonial America. The scene of numerous campaigns, where, in 1721, Cotton Mather sought to convince the citizens of Boston, in what was then the Massachusetts Bay Colony, to accept inoculations

to ward off a smallpox epidemic, Andreasen, (1995). The set of analyses has also used other subjects, the recipients of the messages.

In addition, James Madison, Alexander Hamilton and others, published the Federalist Papers after the 1787 Constitutional Convention to win public acceptance of the new U.S. Constitution. Notable Social Reform Campaigns in the nineteenth century America included the abolition movement, the temperance and prohibition movements, the suffragette movement, and a movement to have the federal government regulate the quality of foods and drugs, Andreasen, (1995).

Because of the many aspects related to the theme, it was important to limit the research to a specific area, Leady, (1997). This study does not attempt to analyse the content of existing Road Safety Promotion Strategies, but does, indeed address the context of impact of the messages both within the responsible government organizations and outside of these, where the majority of road users are found.

## 1.10.2 DEFINITION OF TERMS

The following definitions are done in order that the emphasis of this study is highlighted.

### 1.10.2.1 *Social Marketing (Donegan's discourse on Social Marketing)*

“Recently”, Donegan, (2008) asserts, in her article, “Social Marketing: Implications for Contemporary Marketing Practices Classifications Schemes”, that “the three most accepted meanings of Social Marketing manifesting this modern view have been advanced by Kottler et al., (2002), Andreason, (2002) and Hastings, (2003)”.

Kottler's, (2002) view:

Social Marketing is the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify or abandon behaviour for the benefit of individuals, groups, or society as a whole.



Andreason's, (2002) definition:

Social Marketing is the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of society.

According to Hastings, (2003):

Social Marketing's most fundamental feature is that it takes learning from commerce such as consumer orientation, mutually beneficial exchange, the need to focus on behaviour change and to address the context as well as the individual.

#### *1.10.2.2 Promotion: The term is one of the five p's of Social Marketing*

Promotion includes the communication messages, materials, channels and activities that will effectively reach an audience to promote the benefits of the behaviour change as well as the product, price and place features of the program. Messages may be delivered through public relations, advertising, printed material, small groups or one-on-one activities (for example mentoring, counselling, workshops) and other media. Promotion leads to consider the type of media the target audience attends to, when and where they will attend to Road Safety messages and the characteristics of the communication, Andreason, (2005).

#### *1.10.2.3 Evaluation*

For purposes of this study, evaluation refers to the entire process of juxtaposing the Road Safety policies, agreements, strategies, and related legislation against the expected actions (change in the behaviours and attitudes of road users, and reduction of road accidents, injuries and deaths) both within the implementing organizations and structures (Road Traffic officers and Managers of Road Safety) and within the greater milieu of the consumers and road users (communities). The intention would be to measure the degree of

compliance or success or impact, both against the measuring instrument selected, that of Social Marketing and against what is observed to happen on the Road Safety scene in general, both from the literature, the reports, and from deliberate research constructs. The strategy documents have expectations that they have articulated under actions and outcomes that should ensure, to the expected maximum, that lives are preserved to the level of at least one out of nine per annum as the set criterion, as against what is reflected in the Road Accident Statistics of 2008-2009 and of 2010 in the provinces.

### 1.11 Assessment Exercise by focus group

For this exercise to be complete, the respondents had to indicate that there is a modicum of dynamism (positive or forward movement) within the Road Safety promotion milieu, and a satisfactory response to the questions below:

- Formulating the organisation's mission, including broad statements about its purpose, philosophy and goal.
- Conducting an analysis that reflects the organisation's internal conditions, capabilities and capacity.
- Assessing the organisation's external environment including both competitive and general central factors
- Analysing the organisation's options by matching its resources with the external environment.
- Identifying the most desirable options by evaluating each option in the light of the organisation's mission.
- Selecting a set of long-term objectives and grand strategies that will achieve the most desirable options.
- Developing annual objectives and short-term strategies that are compatible with the selected set of long-term objectives and grand strategies.
- Implementing the strategic choice by means of budgeted resource allocation in which the matching of tasks, people, structure, technology and reward systems is emphasized.

- Involving communities and encouraging participation in formulation of strategies.
- Evaluating the success of the strategic process on an input for future decision-making.

## 1.12 THESIS OUTLINE

### **Chapter 1: Orientation and Introduction**

This chapter offered an orientation to the study. The orientation entailed motivation for the study, research questions, and the methodology and also gave general overview of the study.

### **Chapter 2: Literature Survey**

In this chapter the concept of persuasive communication was explored indicating how marketing can be interpreted as part of persuasive communication. The theory of persuasive communication is outlined in the chapter as well.

### **Chapter 3: Theoretical Background and Foundations of Social Marketing**

Within this chapter, the all relevant communication theories and theoretical foundations relating to communication in its diverse ramifications were dealt with. The origin and nature of Social Marketing was outlined. The principles, theories, barriers, successes and ethical issues which govern the application of Social Marketing, were dealt with. The origin and nature of Social Marketing was outlined. Furthermore, Social Marketing for assessment of Road Safety Promotion Strategies was described.

### **Chapter 4: Road Safety Promotion Strategies**

Efforts were made in this chapter to analyse the Road Safety Promotion Strategies. Attention was given to the determination of various approaches that could be used to evaluate the Road Safety Promotion Strategies within a selected Social Marketing Model.

### **Chapter 5: Nature of Road Safety Promotion**

In this chapter the nature of Road Safety promotion internationally and locally was outlined. The principles, laws, rules and ethical issues underscoring the implementation of Road

Safety Promotion Strategies were highlighted. Possible aspects which relate to Road Safety were pointed out as premises for the evaluation of Road Safety Promotion Strategies in a selected Social Marketing Model.

### **Chapter 6: Research Methodology**

Research constructs: Validity (Criteria) and Reliability (Cross Referencing)

The research methods adopted in the study were discussed in detail, indicating their advantages as well as their disadvantages. Other aspects also covered in the chapter were construction and description of the interview schedule, modus operandi of interviews, decoding of data, population sample, validity and reliability of interview questions, data analysis and interpretation. Inferences were drawn on possible aspects where Road Safety Strategies can possibly be evaluated in a selected Social Marketing Model.

### **Chapter 7: Findings: Interpretation and Discussion of Findings**

The data collected was analysed and interpreted in this chapter. Also, the proceedings of the focus group interviews conducted in three provinces were outlined, presentation of the outcome of the focus group interviews was done. Furthermore, interpretation and discussion of interviewee responses was also covered in the chapter.

### **Chapter 8: Conclusions and Recommendations**

In this chapter, the findings emanating from the data collected and interpreted in chapter six were listed as a basis for drawing conclusions and recommendations. Conclusions were made from which recommendations for practical implementation thereof would follow. Suggestions for further study would emanate from the findings.

## CHAPTER TWO

### LITERATURE SURVEY

#### 2.1 INTRODUCTION

##### 2.1.1 THEORETICAL FOUNDATIONS

The premise of this study is the area of communication, which, for this thesis, falls under Social Marketing (which entails the domains of promotion and persuasion). The topic for this study looks at evaluation of the South African Road Safety promotion strategies, using the Social Marketing Model. Social Marketing is defined as the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon behaviour for the benefit of individuals, groups, or society as a whole. Thebe, (2005).

The Road Safety promotion strategies herein referred to are those vital tools used to communicate effective messages to the many audiences. These audiences are both internal (the Road Safety officers) and external, the consumers of Road Safety messages. These consumers of Road Safety messages are the target audiences of Road Safety in its entirety. The main aim of Social Marketing is to influence target audiences to change behaviour. At the root of every Social Marketing campaign is behaviour change. Many are the theoretical foundations of behaviour change and resistance to change, under modes of communication, the most prominent being persuasion. The subject of our study vests in those Road Safety Promotion messages, which from observation, have not had the desired effect over the years, even after the big campaigns following on the formulation of a National Strategy. The theoretical foundations from the study of Social Marketing became fundamental to the study, and gave direction to the manner in which Social Marketing would be used to evaluate the strategies.

Persuasion theories, cited simply by Perloff, (2003), Koekemoer, (2011), Kotler, Roberto and Lee, (2002), and De Wet, (2010), are said to be very evasive, since the concept itself has so many connotations and implications. At best, persuasion is ethically neutral, and in its practice people are persuaded to voluntarism. Persuasion is defined as a symbolic process where people convince other people to change their attitudes or behaviour towards an issue through the transmission of messages. Suicide cults are an attestation to voluntary convictions emanating from repeated charismatic messages of appeal and promise. Persuasion can be bad or good. The bad aspects can be coercion or sanctions, manipulation, blackmail, brainwashing, indoctrination, and psychological warfare, De Wet, (2010); Perloff, (2003). Persuasion is fundamental to the business of Road Safety Promotion, where messages need to be modified to suit modern rural and urban audiences and those in the informal settlements of South Africa. Lots of charisma and other elements of persuasion communication are needed to change the behaviour of the road users of South Africa. In return, it was expected that all barriers and resistance from the target audiences and consumers of messages of Road Safety be removed.

In this chapter the concept of marketing as a persuasive science, how persuasive communication can be interpreted within the Social Marketing Model, and the nature of Social Marketing, are articulated. The principles, theories, barriers, successes and ethical issues which govern the application of Social Marketing, are also dealt with. Furthermore, the impact of Social Marketing on Road Safety Promotion is described; inferences were drawn on possible aspects where Road Safety strategies could possibly be evaluated in a selected Social Marketing Model.

### **2.1.2 PERSUASIVE COMMUNICATION IN SOCIAL MARKETING**

Persuasive communication is used extensively in promotion, both in the advertising field and in Public Relations where goods, services and educational packages within several domains of behaviour and attitude change are marketed in various ways, using various strategies as in the different media campaigns and during political elections.

According to Mondofarcto, (1998), communication is concerned with inducing or urging the adoption of certain beliefs, theories or lines of action by others. Other authorities, De Wet, (2010); Perloff, (2003), contend that persuasion is the act of persuading; the act of influencing the mind by arguments or reasons offered, or by anything that moves the mind or passions, or inclines the will to a determination of being persuaded or convinced; settled opinion or conviction, which has been induced, if the general persuasion of all men does so account it. A creed or a belief; a sector party adhering to a certain creed or system of opinions; as, of the same persuasion; all persuasions are agreed, be they religious, secular, or political in nature.

Other perspectives on persuasion are that it is the power or quality of persuading; persuasiveness. To influence or gain over by argument, advice, entreaty, expostulation, and so on, to draw or incline to a determination by presenting sufficient motives. "Almost thou persuadest me to be a Christian (Acts 28)". "We will persuade him, be it possible". "Hearken not unto Hezekiah, when he persuadeth you" (:Holy Bible. 2 Kings 32: NIV version). Persuasion may also mean to convince by argument, or by reasons offered or suggested from reflection. Beloved, we are persuaded better things of you. (Heb. Vi. 9)."In the context of the present study, indeed all the elements of persuasion and social marketing can be harnessed to change the behaviour and attitudes of all road users effectively based on the known tried and tested principles of message dissemination and audience persuasion that have lasting appeal or can be re-inforced to continue to have appeal."

### 2.1.3 PERSUASIVE COMMUNICATION THEORY IN SOCIAL PSYCHOLOGY

Few subjects in social psychology have attracted as much interest and attention as persuasive communication. One of the first topics to be systematically investigated, persuasion, has been the focus of intense research efforts throughout much of social psychology's brief scientific history. Untold experiments have been conducted to unravel the intricate web of factors that appear to play a role in determining the effectiveness of a persuasive message. The example of charisma and charismatic characters like those cited in history, people like Martin Luther King, Nelson Mandela, Adolf Hitler, Jesse Jackson,

Louis Farrakhan and others, cited by Perloff, (2003) gives interesting insights into persuasion and persuasive messages, both suicidal or life-inspiring.

Road Safety is an area of study that needs persuasion for the sake of the safety of road users, who, through powerful messages, must be influenced to save their lives, or protect themselves from road accidents.

Recently the media of television and radio, as well as the oral communication that uses direct presentations through comedy and motivational speech has used “celebrities”, public figures with credibility, also called role models. These people have high credibility and can easily persuade masses and are therefore used by advertisers. Road Safety promotion is not different from the rest of the commercial advertising and marketing world which exploits the power of charisma and credibility, Koekemoer, (2011); Perloff, (2003).

However, recent years have seen considerable progress at the theoretical level and a resurgence of empirical work has done much to invigorate the field and provide a better understanding of the fundamental psychological processes underlying persuasion. To appreciate the significance of these developments we must compare the emerging ideas and research findings with those from earlier efforts, Perloff, (2003).

The present chapter also provides the required historical perspective. Since it aims to review developments in our understanding of the persuasion process, emphasis is placed on ideas and theories rather than on methodological or practical concerns; empirical research findings are summarized only in broad outline when needed to make a point of theoretical significance. The Yale College empirical research under Carl Hovland studied effects of persuasion in 1953, and its impact on theory and research is still respected in scholarly circles even today. It is dubbed ‘The Yale Attitude Change Approach’. Persuasion is also a mode of promotion communication that features very prominently in this discourse and will become the subset of the inquiry at a certain stage of the study. Road Safety lends itself to communication, both internally among the strategic planners, and also externally within and between the target audience (road users) for which its



promotional messages are designed. Any research study takes cue from historical perspectives of the topic under discussion.

#### **2.1.4 THE NATURE OF PERSUASION**

Persuasive communication involves the use of verbal and non-verbal messages to influence attitudes and behaviour. Although the context of persuasion must necessarily be considered, the most relevant and impactful message, designed to sway the hearts and minds of the recipients, is at the core of persuasive communication.

#### **2.1.5 STRUCTURE OF A MESSAGE**

As a general rule, a message consists of three parts: an advocated position, a set of general arguments in support of the advocated position, and specific factual evidence designed to bolster the general arguments, Fishbein & Ajzen, (1981). The advocated position may be a stand on a particular issue (for example, support for a tax increase) or a recommended action, for example, donating blood).

The general arguments will typically supply reasons for adopting the advocated position, and justification for the arguments is provided in the form of factual evidence. Consider the question of instituting a senior comprehensive examination for undergraduate college students. This type of message is also addressed by De Wet, (2010), who refers to seduction, which aims at subduing the message recipient to a position of surrender. It is essential that this study evaluates the status of advocacy messages used in Road Safety promotion in the not-so-distant past of the strategies used, (2006 onwards), including the “surrender level” of the audience of the many recipients the message were targeting.

Belk, (2006) cites that Petty and Cacioppo, (1986), published some examples of general arguments and supportive evidence used in their research programme. Among the major arguments contained in Petty and Cacioppo's messages were the claims that instituting a comprehensive examination raises students' grade point averages and leads to improvement in the quality of undergraduate teaching. The factual evidence in support of

the first argument was formulated as follows: “The National Scholarship Achievement Board recently revealed the results of a five-year study conducted on the effectiveness of comprehensive examinations at Duke University. The results of the study showed that since the comprehensive examination has been introduced at Duke, the grade point average of undergraduates has increased by 31%. At comparable schools without the examinations, grades increased by only 8% over the same period. The prospect of a comprehensive examination clearly seems to be effective in challenging students to work harder and faculty to teach more effectively. It is likely that the benefits observed at Duke University could also be observed at other universities that adopt the examination policy. If accepted as valid, the factual evidence should result in acceptance of the argument that, instituting a senior comprehensive examination will raise grade point averages, and acceptance of the argument in turn should increase the likelihood that recipients will endorse the position in favour of instituting a comprehensive examination, as advocated in the message. There is, of course, no assurance that recipients of a message will in fact accept the arguments and evidence it contains. On the contrary, identifying the factors and conditions that produce acceptance of information contained in a message is the major purpose of persuasion theory and research. Does Road Safety Promotion also lend itself to the same processes as mentioned above?

This study specifically sought to place Road Safety Promotion evaluation under perspective, in a manner that all parameters that have gone into Road Safety messaging are found to be effective within the road user target audiences of South Africa. Furthermore, in order to develop a better understanding of the nature of persuasion, it is instructive to contrast persuasion with a few alternative influence strategies. The review offered here is far from exhaustive but it will help highlight some critical aspects of persuasive communication.

#### **2.1.6 COERCIVE PERSUASION**

People can be induced to behave in a prescribed way by offering a sizable reward for compliance or by being threatened with severe punishment for non-compliance; De Wet, (2010), refers to “sanction” in this regard. This strategy of change can be very effective in

producing the desired behaviour, but its effectiveness is contingent on supervision as is the case on the road, where traffic officers monitor behaviour of drivers to a large extent, and pedestrians to a lesser extent. Enduring attitude change by means of coercion is more likely in the context of total institutions, such as prisons, mental hospitals, or prisoner-of-war camps. Situations of this kind enable control over many aspects of an individual's life for an extended period of time. Even here, however, enduring attitude change is difficult to obtain and often fades after release from the institution. Road Safety often uses sanction even as the last resort, for “stubborn” message recipients, and those who deliberately disregard the promotional messages on board. However, *sanction* or *coercion* needs to be handled strategically rather than in a linear fashion, where the recipient of the message finally resists the persuasion message.

### 2.1.7 THE PERSUASION CONTEXT

Persuasion, according to Hugh Rank, quoted in De Wet, (2010), offers a model that could help teach people also to be critical recipients of persuasion. This model is most useful for analysing and describing certain strategies and tactics used by mass persuaders. Rank's model, called the intensify/downplay scheme, asserts that persuaders often intensify certain features of their products, services, ideology or candidate or they downplay certain aspects.

Often they do both; “Speed kills” is one such message, which intensifies the negative message of persuasion. “Arrive Alive” is a message that highlights the significance of life, but may downplay the gruesomeness of death. It may be a soft message for some audiences. The study evaluated this aspect through indirect means.

No message appears in a vacuum. At a minimum, we can usually identify the source of a message: an editor of a newspaper editorial, a lawyer pleading a client's case before a jury, or a movie star asking for donations to a charity. The communicator's identity, however, is only one of the many factors that constitute the context of persuasive communication. In the political context we find propaganda and manipulation at work, and the use of high

profile figures doing the job with good results. De Wet, (2010) classifies propaganda and manipulation as some of the processes of persuasive communication.

### **2.1.8 SOURCE FACTORS**

Source factors are observed or inferred as characteristics of the communicator. They include biological attributes such as age, race, height, and gender; behavioural features such as Persuasive Communication Theory of facial expressions, mannerisms, hand and body movements, and the way the communicator is dressed; social properties such as income, power, and social status; and personality traits such as self-confidence and extraversion. The most frequently studied source factors however, are the communicator's credibility and attractiveness.

Credibility refers to the perceived expertise and trustworthiness of the communicator. In other words, does the communicator have the knowledge to provide an informed opinion on the issue in question and, if so, can he or she be trusted to present all relevant information in an unbiased fashion? As noted earlier, persuasion is generally assumed to increase with credibility. The use of former President Nelson Mandela for the World Cup bid has been a case in point. It has similarly been proposed that the amount of behaviour and attitude change in target audiences is influenced by the attractiveness or likeability of the source, whether that attractiveness is defined in terms of physical features or psychological and behavioural characteristics. Indeed it is to be investigated whether messages for Road Safety are communicated at this level, also. This study has also used expert opinion to establish some facts.

### **2.1.9 RECIPIENT FACTORS**

On the opposite end of the communication context, parallel to source factors, are characteristics of the recipient or audience to whom the message is addressed. These characteristics include the recipients' personality traits, sex, social status, intelligence, involvement, and so forth. Any attribute of the audience, or combination of attributes, may provide a context that contributes to the effectiveness of the message, Domegan, (2008).

Recipients are subjects who must learn and absorb the contents of messages, and they are the ones who determine the greater part of message assimilation, processing and understanding, depending on several variables. In the attempt to reach Road Safety messages to children, the use of visuals of their preference, message ambassadors of their preference, and the medium of their preference is very important. Song, interaction and lots of humour, are some of the tools used in children's programming on television. Messages communicated through performance, dance, music, vivid colours and animation as is the case on our television channels, appeal to these recipients, and this is what Domegan (2008) is referring to.

#### **2.1.10 MEDIA FACTORS**

The medium is the message, is the assertion by McLuhan, (1995). Medium preference is even more acute within audiences in the present era of technological explosion. Rural African communities who listen to radio will always prefer the oral medium of music, preaching, praise song and recitation for their information and education. The context of the message can also be defined by the communication means used. Any information can be communicated face-to-face, in writing, audio- or videotape, or through television. The more powerful media like television, use all forms of communication at the same time, and are supported by many audiences. The means may be an overwhelming message of terrorism, which leaves the receiver overwhelmed. This message comes through visuals, for example the Christchurch earthquake disaster of February 20<sup>th</sup>, 2011(CNN Feb. 20<sup>th</sup>). This then triggers public opinion, De Wet, (2010), and the need to convene on climate change issues and future building patterns. What happened in Japan recently could only be relayed most vividly on television

#### **2.1.11 MESSAGE FACTORS**

Message factors refer to the manner in which information messages are communicated to the recipient audience. Some presentations are one-sided, others are emotional appeals, other fear-instilling, while other cause lots of laughter and happy excitement. Clarity of intent is always needed from the communicator before the message is relayed, in order to

avoid confounding. Appeals for voting are often accompanied with actions of benevolence like giving goods and services (blankets, houses, assistance with identity documents etc.) Religious messages are used to those audiences in the churches who the communicator wants to involve in a campaign. Traditional leaders are motivated to action through messages that reinforce their position of authority. The message always has an emotional appeal. In order to instil interest, the message is given to a stand-alone comedian to attract attention from the audience, and to entertain the audience while persuading them.

### **2.1.12 SITUATIONAL FACTORS**

The persuasion context in any situation will be determined by the situation itself. Sporadic violence that comes with the present situation when voting messages are relayed to recipients who are already extremely unhappy with the message source, namely the councillors in various municipalities, have the effect to anger the recipient to an extent that one opposing source who comes with an inciting message towards protest action will immediately be listened to, and action may follow, in this highly emotionally charged situation. This is clearly depicted in the present situation (SABC TV 1 and 2, 12<sup>th</sup> and 13<sup>th</sup> April, 2011) in Ficksburg where running battles between the police and protesters has resulted in the killing of one protester. A situation always has to assess before messages are communicated. The audience, to a large extent, will be affected by the situation. Indeed the persuasion context here “contains several situational variables that do not fit easily into the traditional framework of source, message, channel, and recipient factors. Distraction and forewarning are among these situational variables”. Eagly (1993) asserts that distraction can be the result of environmental noise.

## **2.2 PERSUASION**

### **2.2.1 Persuasion by Peripheral Route**

The historical theories of Chaiken, Petty and Cacioppo in the eighties cited by Eagly, (1993), offer some interesting insights into the passive-learner view of the recipient implicit in the Hovland approach. The peripheral route ensures that message source is not

necessarily message presenter. Lately, the message ambassadors, even for the 2010 World Cup, have been people that communities could relate to, already because of their clout and credibility as outstanding performers, musicians, and actors whose names are known and whose faces are seen on television. The old theories have given impetus to studies that quite naturally led to a focus on the persuasion context. The communicator's task is to ensure that the audience absorb the message (in an advert, an advocacy message or an appeal to vote). The communicators get concerned conditions that facilitate attention to content of the message and understanding of its arguments. Eagly and Chaiken (1993) argue that motivation to process the message and elaborate on it is largely determined by the extent to which the recipient is involved.

### 2.2.2 PERSUASION BY THE CENTRAL ROUTE

The remainder of this chapter focuses on examining the level of persuasion when the recipients are fully motivated and can scrutinise the message contents to the extent that they can assess the merits of the message. This is called the “the central route” to persuasion. The arguments given by recipients are known as systematic information processing, Eagly et al., 1993). Therefore Eagly and others argue that the effectiveness of a message depends on its construct. The relevant question here is “what arguments, when systematically processed via the central route, will have the greatest impact on the recipient's attitudes and behaviour?” In relation to Road Safety, contents of Road Safety messages or communication which address the consequences of unsafe use of the road would constitute the merit of the communication. Closely related to it would be what one needs to do in order to avoid or prevent behaviour and attitudes that could lead to suffering the consequences of unsafe use of the road.

### 2.2.3 REASONING AND PERSUASION

Central to persuasive communication is the process of reasoning and the weighing of merits and demerits of an advocated position. Persuasion always requires that the position of the communicator be accepted by the recipient only after the latter has assessed and scrutinised it. Moreover, change produced by the peripheral route is generally of short-

lived and tends to be susceptible to counterpropaganda (De Wet, 2010). Political change during voting times has the propensity to do exactly this. Most of the reasoning behind the mindset can be triggered to change because of emotional factors. Counterpropaganda has indeed been seen to affect common voters during elections.

#### 2.2.4 YIELDING AND IMPACT

We cannot say with certainty that the recipients of messages have changed their beliefs and their values when they have changed their minds about an issue as a result of persuasion. Attitude and behaviour change is simply not enough. In order that total change occurs (in the central mode) the recipient's fundamental beliefs and values must be uprooted or at least be modified. Culture change is not impossible, although it may be a long and systematic process. Many Africans have yielded and become "black coconuts" through culture change that sees a radical shift in beliefs and values from the founding tradition. Why advocacy messages often target youth is precisely the reason, catching the young, to attain the central mode, and get the thinking (cognitive structure) completely changed.

The ideas discussed below are based on other recent work concerning persuasive communication via the central route, Fishbein, (1995). According to Fishbein, (1995), yielding causes accepted message arguments to produce changes in corresponding beliefs of the recipients, through yielding in the first place. In the charismatic church, yielding manifests itself when a sinner gives in or surrenders his life to Jesus Christ, and is then subsequently bombarded with messages of the Christian faith. The total surrender then sees a total change in behaviour, with the Christian living a "born-again" life and yielding to the "word of God. Evidence of this is seen on the Christian channels on television daily, as messages from the bible get used to change behaviour and attitude.

To the extent that the argument is accepted, it produces yielding in the sense that the Christian's cognitive structure now contains a new belief. Changes in a recipient's primary beliefs, however, can extend far beyond the information directly contained in the message. Such changes that go beyond the information given are termed impact effects (Fishbein, 1995). The Christian concept of "obedience" can be explored to persuade Christians to



obey the rules of the road, and thus influence others to do so. Therefore the possibilities of message design for Road safety are limitless.

### **2.2.5 PERSUASIVE ARGUMENTATION**

When the recipient's cognitive structure or reasoning is affected, then the arguments of the central message of the communicator have been effective. The essential question, therefore, is what makes an argument effective? Novelty of any argument, its strength, and its relevance are the factors most appropriate to behaviour change (Fishbein, 1995).

### **2.2.6 CHANGING BEHAVIOUR**

Future political position and other forms of gratification within the political communication arena normally become the main motivation for certain messages that may not even have to be reasoned or have value weighting. Volition does not become the issue for recipients of political messages that refer to dying for an ideal (Mandela's speech Feb.1990). To be successful, the message may have to provide information that will enable the recipient to gain volitional control and overcome potential obstacles to performance of the behaviour. A review of evidence in support of these propositions can be found in Ajzen, (1991). With regards to road traffic safety, persuasive measures/messages are being used in various road campaigns to lead road users in complying with acceptable road user behaviours.

### **2.2.7 CHANGING INTENTIONS**

Persons' attitudes towards certain behaviours determine whether they will buy into the communicator's messages. Ajzen's (1991) theory of reasoned action refers to a "subjective norm" in this regard. The attitude toward any behaviour is the result of an evaluation of that behaviour in terms of its desirability or not. Subjective norm refers to the perceived social pressure that will determine performance or not of certain behaviour. Perceived behavioural control is a derived from the influence of intentions on attitudes and subjective norms as in the theory of planned behaviour, Ajzen, (1991). A persuasive communication model designed to influence intentions, and thus also behaviour, can be directed at one or more of

the intention's three determinants: attitudes, subjective norms, and perceived behavioural control.

### **2.2.8 CHANGING ATTITUDES**

Changing attitudes can be easy or difficult. The person's belief system is at the centre of this. If a person believes strongly in an institution (a religious belief, a political party, or an event) as well as the evaluations of this institution, then that person is close to.

By considering the determinants of a person's attitudes, one arrives at the level of primary beliefs, in which the theory of reasoned action cites attitudes as a function of salient beliefs about the attitude object (a person, group, institution, behaviour or other event). Fishbein, (1995) maintains that beliefs can be found in free-response communication, and that these beliefs can be used in message construction. The use of the cross, especially the red cross may generate intense attention from Christians during the Easter season, and can easily reduce the number of accidents, if used discreetly in the Road Safety message domain, where new beliefs may be introduced. Research into these and other relevant theories should assist.

### **2.2.9 CHANGING BELIEFS**

Persuasive communication for changing beliefs always addresses the belief content and information, and then deals with it in a manner to eradicate it from the mind of the recipient, leaving the latter with a clean slate in the mind, so as to write new information on that mind. Prior information of a subject that is linked to a belief has been proposed validated (in several probabilistic models. These models suggest that the information introduced by the persuasive communication must be information from which the belief in question can be probabilistically inferred. Koekemoer, (2011), De Wet, (2010).

## 2.3 CHAPTER SUMMARY

Above ideas, theoretical thoughts on the historical perspective and development of persuasive communication theory in social psychology. Several other constructs have not been mentioned here. This chapter provided a brief historical perspective on persuasive communication theory in social psychology as it pertains to Social Marketing. The historical Hovland School of the forties cited by Eagly, (1993), Chaiken, (1995) and associates views message recipients of persuasive communication as passive recipients. Recently, persuasion has been seen to have elements of 'voluntarism' within the recipient population as propounded and proven by De Wet, (2010). Hence the contemporary political bodies, churches and other civil society interest groups are joined willingly by those who want to utilise their messages. Many remains to be done in the research field of persuasion, but suffice to say that persuasion is a critical element of Social Marketing.

## CHAPTER 3

### THEORETICAL BACKGROUND TO SOCIAL MARKETING

#### 3.1 INTRODUCTION

In chapter one, four research questions were set as points of critical points of reference from which answers would emerge which would assist the study. In chapter two, the relationship between persuasion and Social Marketing was discussed. In the second instance, the significance of persuasion in Social Marketing was outlined.

For Social Marketing to be effective, persuasion has a central role to play. In this chapter, the researcher makes an attempt to look at several theoretical foundations in order to approach the problem area of the study, namely, evaluating the Road Safety promotion Strategies within a selected Social Marketing domain.

The preceding chapter also noted and indicated how the previous various intervening measures or variables mediated relationships between the environment, all categories of road users. The chapter documented strategies responsible for success in the promotion of Road Safety as part of the solution, and how Social Marketing has developed in the practice of Road Safety campaigning.

The Road Safety arena has a matrix of situations, social relations, interests, needs and values. Communication of these and other relevant situations has been engaged in the past, but its impact has not been measured or evaluated sufficiently so that rising accident and death rates as well as their attendant other problems (like permanent disability) may be reduced.

Communities and authorities do not seem to have a common platform in which to engage on issues of Road Safety. The top-down communication of regulation, legislation and sanction is the order of the day. Therefore a platform of communication between authorities Road Safety communication through Social Marketing principles has been highly successful and therefore Road Safety can be part of public health campaigning as was suggested by the United Nations Road Safety Collaboration, (2004).

Social Marketing has been used all over the world and can be the future tool for promoting Road Safety in South Africa, only applied systematically. Evaluation of Road Safety Promotion programmes in place so far is essential so that Social Marketing can be positioned for remedial purposes based on the results of the assessment efforts.

“Born” as a new a discipline in the 1970s, Social Marketing was found by authors like Kottler, Zaltman and others to be using the same marketing principles used to sell goods to consumer customers as would sell ideas, attitudes and behaviours. The difference between Social Marketing and other areas of marketing lies only in the objectives of the marketer and those of his organisation, according to Andreasen, (1995). Only social behaviour is influenced in Social Marketing. Not so the target audience as in commercial transactions. International health programmes employ social marketing principles to reach the hearts and minds of audiences in diverse topical areas, among which are drug abuse, smoking, sexual harassment and others. In Social Marketing the emphasis is on the consumer rather than the product being marketed, Andreasen, (1995).

### 3.2 DEFINITION OF SOCIAL MARKETING

The following definitions have been selected for their brief discussion in order to centralise and put in focus the essence of this study.

*“Social Marketing can be defined as design, implementation and control of organisational programmes with the aim of influencing acceptance of social ideas. Social Marketing involves the considerations of place, product, communication, distribution and marketing research”* (Kottler and Zaltman, (1971)

*“Social Marketing is the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon a behaviour for the benefit of individuals, groups or society as a whole”*, Kotler, Roberto and Lee, (2002) .

Rangun and Karim, (1991:3) define Social Marketing as primary *attitude change*, transformation of *belief systems* and *behaviour patterns* of *individuals and groups* for the sake of a *specific campaign* and for the *benefit of society*.

Kotler and Roberto, (1998:6) refer to *“an organised effort conducted by one group (the change agent), which intends to persuade others (the target adopters) to accept, modify, or abandon certain ideas, attitudes, practices, and behaviours”*

Andreasen, (1994) asserts that Social Marketing refers to the use of techniques of *commercial marketing* in social programmes with the intent to persuade campaign message recipients in the direction towards *voluntary behaviour change* in order to *improve their own individual welfare and that of their society*.

Shewchuk, (1994) refers to the *“creation, execution and control of programmes designed to influence social change”*.

The social marketer, according to Sergeant, (2005) is concerned, not solely with communication of a message, but must also attempt to make the adoption of a behaviour change relatively easy to achieve.

### **3.2.1 Social Marketing for Organisations**

Shewchuk, (1994) maintains that organisations are expected to always grasp the essence of the attitudes of the community in which the organisation operates. Their Social Marketing campaign should be approached systematically, starting with the basics (e.g. the society’s basic needs assessment) and moving on to the more secondary needs). In other words, the social marketer does not just go in there, but rather probes the target audience systematically in order to be able to persuade them with a high degree of success.

### 3.2.2 The Functions of Social Marketing

Three primary Social Marketing functions have been identified.

#### 3.2.2.1 Research

The function is about research on isolating and comprehending the determinants of behaviour to be transformed, as well as all those hindrances that may manifest as and when the desired behaviour begins to emerge. It is important to isolate all those outstanding elements within the total behaviour (attitudes, cultural fixations and others) that need to be changed. Belk, (2006), refers to “*distinct prospects for differentiated treatment*”.

#### 3.2.2.2 Development

Using the tools and devices of “*product, place, price, and promotion*” as foundation for persuading target audiences away from their present behaviour and thereby moving them in the direction of expected behaviour, Fishbein , (1995).

#### 3.2.2.3 Communication

Formulating communication messages and choosing suitable and relevant media to communicate the information messages and arguments that will promote transformation in as many recipients as possible, De Wet, (2010).

This study evaluates Road Safety campaigns that have emanated from strategies of government in South Africa in the last ten years and examines the impact of their persuasion messages and the extent to which these have effected change within target communities, with the emphasis on attitudes, behaviour, and opinions of these target groups.

### 3.3 THE HISTORY AND NATURE OF SOCIAL CAMPAIGNS

Andreasen, (1995) has outlined the history for social change, starting from ancient Greece and Rome, where campaigns were launched to free slaves, to England during the Industrial

Revolution, where campaigns were launched for the abolition of debtor prisons, franchising of women, and the abolition of child labour. Among his historical exploits is the Colonial American where several campaigns have been documented. Social campaigns have recently been mounted in South Africa against the scourge of HIV and AIDS, against Tuberculosis and against road deaths and accidents. Among these have been the Soul City education television series on the SABC television screen, as well as the many radio and television and print media campaigns and advertisements currently being mounted to reduce HIV-AIDS and Tuberculosis. In their quest to raise a nation of non-smokers, Sweden mounted a full service anti-smoking campaign, Kotler and Roberto, (1995) while in South Africa, in 1995, the government, under health Minister Nkosazana Zuma, managed to quell the culture of smoking, banning and restricting it in public places and finally legislating against smoking in public places. The successful campaign was reinforced by legislation that saw some very steep increases in cigarette prices, and very strict measures imposed on advertising of cigarettes. South Africa has made notable strides in its anti-smoking campaign, South Africa Year Book, (2007-2008) and would do well to focus with the same intensity on Road Safety. This study acknowledges the successes of the HIV and Aids campaigns in their quest for social change, and would note the success stories and best practices of these in the domain of persuasion studies and Social Marketing in general, and Road Safety in particular.

Kotler & Roberto, (1998:6) have cited similar cases of campaigns in developing countries like the Philippines, Indonesia, and China, where powerful social campaigns were mounted to inoculate children against several viruses, and to use of oral dehydration therapies widely even as they endeavoured to promote family planning, literacy, as well as healthy living through healthy diets. It is the success of such programmes that have given impetus to studies including this one, to utilise and develop the tools of Social Marketing in order to achieve behaviour change in communities that still take Road Safety for granted.

President Mandela, in 1990, soon after his release from prison, launched a powerful campaign called the “Reconstruction and Development Programme” at Nasrec in Johannesburg. The subsequent programmes, amongst which were the Truth and Reconciliation Programme gave South Africa a label that deservedly called a rainbow



nation, surfaced as a miracle to the entire globe. A systematic evaluation of all the campaign messages of the post-apartheid programmes in South Africa will show that their extent and impact has been very profound. The elements of Social Marketing can be found in programmes that have been mounted by the South African government after apartheid. The present study has used the tools of Social Marketing to evaluate the impact of messages used in Road Safety Promotion in South Africa.

### 3.4 CHARACTERISTICS OF SOCIAL MARKETING

Andreasen, (1994), outlined below are the characteristics that poignantly highlight the essence of Social Marketing:

The use of formative research by managers of government programmes to probe the target audience's behaviour and attitudes, their backgrounds, their needs and wants in the relevant domain of formative research is recommended. It is important that top-down communication be avoided. The segmentation of target audiences and markets for the sake of budgeting and formulation of strategies suited to the specific target group is of the essence. Pretesting of all critical elements of the programme strategy with the target members must be engaged.

Formulation of the decision processes by programme managers to ensure that target behaviour change takes into consideration the following:

Getting information on background of option, ensure value acquisition to be in line with behaviour to be learnt, seeing the new behaviour as relevant to the community, agreeing to realistic alternatives and more positive behaviour changes, trusting in the community, and having faith in their community leaders.

When dealing with programmes, managers realise clearly that they are in direct competition for target consumer's behaviours. Behavioural change strategies always emphasise the significance of all four elements of the marketing mix, namely place, product, price and promotion.

Ensure that the behaviour is promoted and is designed in a manner that it is easy and satisfying and thus fully responsive to the needs and wants of target consumers.

Ensure that the space where behaviour change will take place is convenient and accessible. Reduce the economic psychological and social price of the new behaviour, so that not much is lost as a result of the transformation since too radical a change may be harmful to both promoter and recipient. Behaviour promotion should utilise the messages and media that match the target audience in several ways (Andreason, 1994).

### **3.5 THE SOCIAL MARKETING PROCESS**

This discussion on Social Marketing models aims at seeking a model that will assist the Road Safety managers, in their quest to promote Road Safety, persuade road users and influence behaviour and attitude change in their midst, thus laying foundations for a new consciousness in the Road Safety arena. The fundamentals of the discussion of Social Marketing are found in the ideas of Shewchuk, (1994), whose thesis relates to the understanding of the attitudes of the public, followed by the reconciliation of the researcher's concerns with that of the Road Safety audience as priority, followed by the implementation of Social Marketing. In this study, the researcher did exactly that, aligning with the concerns of the audience (Road Safety Managers, practitioners and the road users), for the study's Social Marketing plan to come into being.

There are six basic steps in the Social Marketing process:

#### **3.5.1 Step 1: Getting started**

Firstly, a definition of the issues (terms) is necessary, followed by researching the key details thereof. The key details of this study are Road Safety, road managers and road users, within the milieu of the Road Safety Strategy of South Africa.

This should be followed by learning all about the subject and the possibilities of assessing resources and all available elements favoured to assist in the execution of the Social Marketing plan. Check public attitudes and society's trends, identify and assess the extent

of the problem, identify and check the target audience's needs and wants, and check all the available resources before moving ahead.

### **3.5.2 Step 2: Strategic Planning and Development**

Establish the traits of your target audience, establish the strategy objectives and goals, check critical advantages to the audience, and select suitable techniques that will be used to assess the progress. Exercise great care and observe ethical considerations.

### **3.5.3 Step 3: Materials and Activities Development**

The materials selected should match the message, hence the need to check the message, the media activities, and any special events and other promotions that will help communicate the message.

### **3.5.4 Step 4: Communication Planning**

The communication plan reviews everything done. In the planning we look at the issues at hand, the objectives of the exercise, the quantity, quality (social status, level of education, literacy level, regional and geographical locality), how the audience will benefit from the undertaking, how the campaign methods will be disseminated, what resources, human and material, will be used, and what possible problem might be encountered, how success will be indicated and which methods will be used to assess the entire exercise, with realistic timelines set. Because this is like a road map, it must be properly and systematically recorded.

### **3.5.5 Step 5: Implementation**

When preparing to launch the campaign, consult and work with all stakeholders in the community leadership. Continuously revise and review the plan as it unfolds. Do not go ahead if something is not right. As the plan unfolds, do not hesitate to review and revise as necessary. The researcher for this project worked with community leaders, managers and experts in the implementation of the research plan.

### **3.5.6 Step 6: Measure the results**

Kotler et al., (2002) suggest that the social marketer should write "an honest, detailed assessment report" that will ensure that both the strong and weak points of the campaign

be used as reference points for campaigns to be mounted in the future, so that the trends and movements of society can then be understood. Public opinion surveys may be desirable for measuring public attitudes as a basis for a strong marketing programme. Meanwhile the public needs to be assured there is a lot in it for them, hence the programme, Pitrow, (1997).

### 3.6 MARKETING TO PROMOTE ROAD SAFETY

The OECD Report, (1993:29) observed that through the years Road Safety Promotion was mainly a series of top-down communication messages with the persuasion symbolism of high-handed control, where drinking and driving, speed, safety measures and others are controlled from the belts, traffic codes and other road use controls are non-negotiable legislated and sanctions becomes a way of persuading people towards change of behaviour. Here self-regulation is not the order of the day. Road hazards reduced through the legal route.

The Report therefore admits that consumers and other organisations are potential partners in “the free market”. The need to share information and responsibility among all stakeholders is of the essence. Driving behaviour belongs to both the authorities and consumer stakeholders and other target audiences of Road Safety. Road users need to know more about the rules, but it does look like the other side only wants to legislate and rule from the top. This has caused a problem, hence the assertion by Wittinck, (1992a) that Road conduct is not merely dictated by the need to move from point A to point B. This market is “free” as there is no legislation applicable to driving behaviour or to the conduct of those organisations involved. Road conduct is not merely dictated by the need to move safely from point A to point B; Transport Research Series, (2002:16). Various quality considerations play a role, of which safety is but one. Road users consider Road Safety to be an important factor. According to Wittink, (1992a), 90 per cent of road users wanted to be informed about the subject. When individuals do not see their behaviour as problematic, they feel no need to change. OECD Report, (1993:29).

## 3.7 OVERCOMING OBJECTIONS TO SOCIAL MARKETING

Some communicators may feel that Social Marketing is not appropriate for their organisation and that the Social Marketing approach as outlined cannot always be applied. In the following subsection, likely objections and constraints are anticipated and dealt with Wittink, (1992).

### 3.7.1 Limited budgets

Social Marketing suggests sizeable budgets to cover all aspects of the marketing mix and integrated research. A fully-fledged social marketing approach is likely to be more expensive than simply implementing a media-only plan. Whilst social marketing does involve a comprehensive integrated framework, it also incorporates an essentially well-proven philosophy of persuasion: customer orientation, Wittink, (1992).

Limited budgets can be overcome through feedback loops where consumers are given some voice regarding Road Safety. Listening to road users' suggestions and complaints is a small step towards some collaboration with the latter in the bid to attain Road Safety.

Listening is often followed by action of some kind. If pamphlets are the way to go for a behaviour change campaign, then the target audience will be the ones to say where to find them, when and how to use them, Wittink, (1992).

Some of the methods suggested by Wittink are quite dated, because of the cheaper and more effective technologies, post 1990. However, he suggests radio and television as the most influential media "but a letterbox drop or a direct mail campaign could be considered" and will still involve Social Marketing. Public Relations methods have been highly recommended, Wittink, (1992).

### 3.7.2 Lack of expertise

Experienced marketers are often not found in the government and parastatal groups within Road Safety authorities. The departments have to rely on external consultants for most of their expertise. They do have well-trained scientists and sometimes, experienced mass

communicators. Marketing experts are readily available and either have paid consultants, or as invited volunteers or unpaid members of a committee with other expectations, report to the OECD (1994). Road Safety does not sell in the same manner as the marketing of goods and services. Expertise for this is often external and has to be solicited through committees and other strategies. Wittink, (1992) argues that “the marketing expert needs to be acquainted with the important differences as well as with matters on common ground”.

### **3.8 SOCIAL MARKETING DOES NOT REPLACE**

Among the many strategies, one finds Social Marketing as another addition, where the road user is the point of focus for educational programmes, engineering and maintenance, as well as road traffic law enforcement. The role of Social Marketing is enhancement rather than a replacement. Social Marketing’s role will ensure that the activity is sold to the public, and that mass behaviour can be influenced through programmes as is the case with health programmes. The eclectic nature of Social Marketing helps it to employ even behavioural psychologists with expertise in behavioural change strategies. All initiatives can then harness Social Marketing tools and theories to heighten the impact of behaviour change for the sake of the target audience.

### **3.9 APPLICATION AREAS**

The use of Social Marketing in Road Safety programmes is the crux of this thesis, and therefore the set goals and objectives of this work should be discussed in the build up towards the development of a model for marketing Road Safety. As such it is imperative to discuss Social Marketing applications as a build-up to the development or recommending of a Social Marketing model for marketing Road Safety.

Social Marketing has been applied in several areas of interventions to mobilise people. Tree planting is presently encouraged to combat global warming and climate change. Andreasen and Tyson, (1993) applied Social Marketing to influence builders to plant or save more trees on the residential lots they develop. Recycling was encouraged as a way

to influence households and businesses to keep the environment clean. In South Africa the programmes to combat women abuse has adopted sixteen days “of activism against abuse of women” as packed with activities in every village and town around the spring period. These and other awareness programmes have been cited by Novelli, (1995)

### 3.10 CHALLENGES TO SOCIAL MARKETING

There are numerous challenges to any kind of marketing. It is inevitable that any Social Marketing model developed to communicate road safety would have to face challenges. As such, it is important to present a discussion on the subject in this study.

As many authors and speakers have made clear, the principles of Social Marketing can apply to an extremely diverse set of social problems wherever the bottom line is influencing behaviour, Andreasen, (1995); Kotler & Roberto, (1998). However, as managers and funding agencies begin to use Social Marketing in more and more disparate domains, it is important to repeat the following cautions about basic principles, which, in their haste to adopt the very latest social engineering fad, they may ignore.

Social Marketing can be interpreted as propaganda and get negative rather than positive responses from the target audience. Central to it is behavioural change. Managers must keep it that way. Individuals should not imagine that Social Marketing entails simple public information dissemination, but rather as a journey towards attitude and behaviour change so that people reduce disease statistics, road deaths, and infant mortality and so on. Social Marketing is different from advertising. Social Marketing is much more than just communication. In Social Marketing, we put the stakeholder in the centre, and then get to work. Scholar patrols are done by scholars and by educators, for the safety of scholars who use roads. In Social Marketing, the scholar patrol campaign forgets about the role of the traffic officer but rather that of the school itself as responsible citizen. Andreasen, (1995) refers to Social Marketing as a process of performing marketing within a society, and therefore a combination of co-ordinated interventions in an integrated approach towards changing the mindsets of target market communities for their own sake. “This process involves constantly going back and forth to the target market before and after planning and before and after implementation”. Finally, it informs government and funding agencies. In

the Social Marketing domain, managers are faced with diehard and core values and beliefs that are entrenched, religious beliefs that are dangerously imbedded in the psyche, and traditional practices that are difficult to undo, but that is exactly the problem we must solve if we want to restrict child birth through contraception, reduce spousal abuse through education programmes, empower women in societies that have enslaved them.

These are the challenges of Social Marketing, where even terminologies are carefully designed, like "family planning" versus "contraception", "gender empowerment" versus "spousal abuse" and so on. Social Marketers in developing villages often encounter suspicions from communities that feel that westerners want to eliminate their traditional values and practices. Illiteracy and poverty does not make it easy for any social marketing practitioner. Some interviews target highly sensitive issues where discussions about sex are taboo. Goldberg et al., (1997) have referred to these and other examples.

Communication of benefits is another difficult area, when men will want to know why they must use condoms for safe sex, and many other areas of programme campaigns where children must be inoculated, and mothers with HIV and AIDS must not be breastfed, etc. Visual demonstrations used by western advocates are often regarded as insulting and vulgar by village leaders in developing settings, triggering gross hostility sometimes, and total rejection of the social marketer in some cases. Goldberg, (1997) indeed agrees that "too many programmes are short-lived, and this is where the problem is. Road Safety programmes of the "arrive alive" campaign category ought to be revisited every now and again to give them a new angle, especially in villages and informal settlements. However, this needs active communities, proper planning and training within the government and private sector, collaborative programming, and dedicated funding from agencies.

### **3.10.1 Changing Behaviour can be a problem**

A lot has been said on behavioural change through Social Marketing and the point being made under this section is to further highlight the challenge that Social Marketing has in changing behaviour. It is believed that this is where persuasion comes in handy in aiming at changing the attitude and behaviour of persons concerned. Due to the consideration that communication has a direct influence on the attitude and behaviour of target publics, especially, as it pertains to Social Marketing, it is imperative to look at behaviour as a factor



of Social Marketing in Road Safety and communication thereof. This justifies the inclusion of a literature review on the behaviour of road users and their communication in road traffic situations.

As far as Social Marketing is concerned, behaviour plays a critical role in how people relate to one another. This factor therefore requires that behaviour should be considered as one of the important challenges to Social Marketing. Andreasen, (1993) suggests that because Social Marketing behaviours are significantly diverse and can be measured, “dimensions and these distinctions are worth paying attention to on both theoretical and practical grounds”. The question in this regard is how might behaviours of Social Marketing be categorised? Fishbein, (1995) has considered the following starting point in Social Marketing.

#### *3.10.1.1 Behaviours new to the world versus behaviours, new to the individual.*

Cozby, (2006) refers to the diffusion of innovation theory of Rogers and has suggested that early starters in new behaviours are different from late starters. Adopting a good behaviour early is better than starting late. Baranowski, (1992) refers to “late majority” and “laggards”, these being those that delay in adopting new behaviours. These people are difficult to convince, and may abandon the new behaviour in the process. Their counterparts, the “innovators” and “early adopters” actually benefit more from behaviour change, and they just stay there.

#### *3.10.1.2 Behaviours facing serious competition versus behaviours without serious competition.*

According to Fishbein (1995) marketers watch out for winning behaviours of the competition, and then design strategies for their own side of the behaviour change. “One cannot develop a good strategy without understanding the competition” is the argument. The “status quo” behaviour can be given an alternative so that at least a message goes

through, rather than “no message” at all. Sound strategy is the name of the game (Fishbein, 1995).

#### *3.10.1.3 Behaviours with personal benefits versus behaviours with third-party benefits.*

Behaviour-changing programmes always outline the personal benefits to the target market participants. In any campaign, benefits may go first to the target audience or to the third party. In a good campaign, all parties must win. Losing weight, getting off alcohol and avoiding speed fines are some of these. *Avoidance* and *approach* benefits have to be evaluated for their merits and demerits, De Wet, (2010); Fishbein, (1995).

#### *3.10.1.4 Public behaviours versus private behaviours.*

Weight loss is an example of a behaviour pattern that is visible to the public, while recycling may not be publicly visible. Fishbein, (1995) maintains that each case has its own merits in the Social Marketing domain, where behaviour change of any dimension is seen as a good first step in the right direction. De Wet, (2010) agrees that any such change is a persuasion index. South African parliamentarians were asked to stop smoking in 1997, and by 1998, a lot of them, including former President Mbeki, were never seen with their pipes in the public domain. A modicum of modelling was seen in this example, which could have significance for the public impact of Social Marketing.

#### *3.10.1.5 Once-off behaviours versus continuing behaviours*

A lot of once-off behaviours like going to HIV and TB testing sites make social campaigns easy, but in cases of continuing behaviours, where HIV patients must eat healthy foods, take their prescribed drugs regularly, refrain from unprotected sex, and stay positive in their thinking, there are problems, both for the message campaigners and the message recipients alike. Ongoing campaigns are expensive, but strategies to reward behaviour

change make things easier in the long run. Fishbein maintains that “the risk that the behaviour will be “wrong” will be a more important determinant in the first case as contrasted to the risk that accrues to not taking the behaviour” Fishbein, (1995).

#### *3.10.1.6 Behaviours that are carried out alone versus behaviours that require the participation of others.*

Some behaviours are totally within the control of individuals, like reduction of speed in residential areas. Other behaviours need demonstration or modelling. The former needs different skills. The latter needs interpersonal competence Fishbein, (1995). Some people can go it alone, but others need the aid of important others. Competent Social Marketers design messages and communication models for these differing circumstances, with a view to behaviour change. A methodology in Social Marketing has to be determined.

### **3.11 BEHAVIOUR VERSUS MARKETING**

Baker, (1999) advocates different behavioural change strategies in preference to lumping “everything under a single new approach to behavioural change called Social Marketing”. Culture as inherent in the traditional and religious belief systems does have a role in development of habits and behaviour. In many cases these traditional and religious belief systems do downplay the impact of marketing as people tend to cling to their behaviours in spite of some very strong Social Marketing strategies. Marketers need to change behaviours as their central focus, and sometimes have to forgo the marketing focus, and get to the roots of the culture and the traditions. The present government has managed to bring Sangomas and medical science together in the struggle against HIV and AIDS. This was not easy, but lots of behaviours changed while advocacy continued to happen. It is all about strategy. To this end, Goldberg et al., (1997) maintain that “Social Marketing theory must remain broad, but the practice of Social Marketing should become ever more specialised and professional to meet these new challenges”.

### 3.12 CULTURE AND SOCIAL MARKETING

As already indicated in paragraph 3.10.1.4 above, the influence that culture has on Social Marketing and *vice versa* cannot be over emphasised. Culture refers to a set of shared behaviours and ideas, according to Elliot, (1993). The latter maintains that the forbears of culture, which are language, customs, knowledge, ideas and values determine how people interpret reality and life, and that these must be taken into consideration during Social Marketing. Relevance and appropriateness of messages for audience members become important parameters in the transmission of behaviour-changing messages. Different cultures view the world differently. These differences in world view influence behaviours, levels of groups, beliefs as well as social and personal space, Baronowski, (1992). These need to be taken into consideration when communicating messages of Social marketing for behaviour change among these groups. Several strategies must be summoned for the multi-faceted exercise, and lots of research must be done prior to implementation of programmes.

### 3.13 THE ROLE OF COMMUNICATION AND SOCIAL MARKETING IN ROAD SAFETY BEHAVIOUR

Road Safety behaviour needs to be communicated in a very effective manner to all communities, in spite of their different cultures. De Wet, (2010) refers to the effectiveness of persuasion through interpersonal communication. In the present era, one-on-one communication is possible through the technology of the SMS for instance. Road Safety messages can still be placed on SMS alerts like those adverts people get through their cell phones daily. Social Marketing entails designing, implementing, and controlling communication programmes so that acceptability of social ideas is increased among target groups, Rensburg, (1994); Kotler & Roberto (1998). Cognitive change is the expected outcome in Road Safety campaigns, accompanied by behaviour change. It is important to persuade the target market to stop over-speeding, to change values, to avoid road rage, and in the process, to become change agents for road use in communities. Road Safety ambassadors, as a new idea in this domain, may be the right way to go, if funded.

### **3.14 PROBLEMS ENCOUNTERED WHEN DEALING WITH MESSAGES ABOUT ROAD SAFETY BEHAVIOUR**

Apart from the obvious political, economic and social problems, there will also be Communication problems to cope with when preparing Road Safety programmes to persuade people to adjust to safe behaviour. Some of these problems are as follows:

#### **3.14.1 Basic values**

Village folks basically have their identities centred on certain values that may conflict with messages of change. However, success stories in the development arena have been told, where, especially in health programmes, people have positively embraced habits of health and discarded their traditional beliefs. Change happens over time, but benefits are derived as soon as change is made. South African rural communities still cling to values that militate against change of values, making it difficult to persuade them in the direction to embrace the moral values of Road Safety.

#### **3.14.2 Exact target groups**

Targeting problem groups has been seen as the way to go at present in South Africa. Initially, it was difficult to concentrate on an exact target group. The National Department of Transport Arrive Alive Campaign Report, (2003) cites the problem with targeting specific groups in its report. They were “until now, morally obliged to reach the South African population as a whole and not the problem target groups in particular”. It is advisable that behaviour change be targeted among problem groups, as these people are the most vulnerable on the roads, as pedestrians, as passengers and as drivers of vehicles.

#### **3.14.3 Message formulation difficulties**

South Africa has 11 official languages, and in addition, the Khoi and San languages that are emerging are beginning to put pressure on the system to recognise them in their programmes. Most people who need the programmes in their language, and relevant to their culture for purposes of understanding are the very people from the remote backgrounds of rural villages and very small towns in the poorer areas of South Africa. In the Eastern Cape, Xhosa rural folks who use public transport need programmes. In the

remote Limpopo villages there are similar problems as well as in Kwa-Zulu Natal, Mpumalanga, the Free State, the North West, the Northern and Western Cape, people here speak different languages, have different cultures, live rural lives either in villages or in white farms, are mostly illiterate and may be visually illiterate too, with the tendency to interpret the symbols of Road Safety wrongly. It therefore becomes extremely difficult to formulate the idea of transport planning or traffic control strategically, also bearing in mind the limited number of traffic officials who get deployed on provincial and local roads. It is argued that while in most cases communication message marketers or advertisers sell ideas and products that people want. Behaviour change as a product demands, in this case, that the communication programme persuades the South African population to control their road behaviour and plan their transport, which they might view as unpleasant rather than pleasant, because of several bottlenecks of planning that must be overcome. says the National Department of Transport, Arrive Alive Campaign Report, (2003).

#### **3.14.4 Message content**

The content of any message is communicated in the language, the symbol, and the text and idiom of the culture of the recipient audience. It is difficult to plan and formulate actual message content because not all the identified target groups are affected in the same manner by the messages or the approaches used in the messages. “What works for one target group in a message, might be taboo for others” says the Arrive Alive Report, (2003), and hence all programmes and campaigns should be fully researched and tested before being mounted. This puts a heavy burden on budgets, obviously, tested well before they are launched, but most of the time allocated budgets are not adequate, National Department of Transport, Arrive Alive Campaign Report, (2003).

#### **3.14.5 Evaluation difficulties**

The outcome of a Road Safety programme is often difficult to evaluate because its success can only be measured over time and results therefore are not available immediately. National Department of Transport, Arrive Alive Campaign Report, (2003). However, evaluation being a function of time, it is possible to use partners to observe regional problems and to report them to the central office from time to time. In this study, evaluation

is central to the Social Marketing Promotional strategic model being sought, and it was clear that huge gaps in the system needed to be bridged when they were found. It is these gaps that were the problem, but the solution had to be found. Partnerships are of the essence in any model that needs collaborative efforts, collaborative funding, collaborative system monitoring and development, and engagement of communities. The Department of Transport alone could never change behaviours and attitudes of the broad and culturally diverse road user family of South Africa.

#### **3.14.6 Rural areas are less informed**

In some provinces, poorer rural families are not exposed, on a daily basis, to the daily messages of road safety. The radio messages about traffic report on the density of traffic in the urban complexes of a few selected cities in the country. All of this has no meaning for people who would encounter the main road once in while. What is relevant for the urban communities may be irrelevant for rural areas, and therefore rural people who visit town once a month or once in a while, encounter serious problems in the cities, be they pedestrians, passengers or drivers. These are normally the most highly disadvantaged members of the less informed, less enlightened group of poor rural dwellers. Urban dwellers are often much more informed about road safety programmes than are rural communities. The immediacy, frequency, and impact of the road Safety messages make them more effective in urban areas. National Department of Transport, Arrive Alive Campaign Report, (2003).

#### **3.14.7 Mass communication media not as effective**

The Arrive Alive Report, (2003) observed that the media of mass communication are not as effective as has been assumed. They report that television programming reaches a very small percentage of the population, and that printed media have the lowest reach because of low literacy levels in the rural areas especially. Radio, the one media that has more penetration and reach, is the only hope for the disadvantaged masses.

### **3.14.8 Complex messages content**

The Arrive Alive Report obviously needs help in the contents, particularly; of written messages in printed advertisements about Road Safety programmes and traffic planning are sometimes very complex and difficult to recall National Department of Formulating simple messages for its diverse audience. Also, the messages are top-down, and fail to have the positive appeal to change the behaviour or attitudes of the audiences for which they are intended. Arrive Alive Campaign Report, (2003).

## **3.15. ROAD SAFETY COMMUNICATION MEDIA CHOICES**

Communication media in South Africa and Africa lend themselves to relevance and suitability as media of choice, because of the extreme diversity of the target audiences they must reach all at the same time, provided that special programmes are given special audiences, which has so far not been the case. Novelli, (1995), in agreement with Rensburg, (1994), rightly observe that in South Africa, attention should be more on the oral media rather than on the printed word. Modern mass media have to be completed by other types of relevant and appropriate media. This study still needs to evaluate the media used to reach target audiences.

Oral media are the real media at the grassroots level, as has been proved by most research. While it is agreed that the African world makes a strong case for oral media, it must also be emphasised that for this study, it is essential that post the study, another set of studies recommended, goes deeper into the semiotics of persuasion in the African tradition. Village audiences are amenable to the oral tradition of fireside stories, praise songs, chants and poetry and other cultural forms, which all use the oral face to face communication of the traditional village, which is also responsive to the indigenous language. This study needs to evaluate the media used to reach the target audiences.

### **3.15.1 ORAL MEDIA**

Rensburg, (1994) pertinently notes, and vividly describes that in the African context,

“sounds, sights, tastes and smells age-old and ever-new, experiences of joy and grief, of hunger and war, of harvest and festivity give African languages their own quality. It is a natural audio-visual language, which can teach us something about



communication in Africa. It is the medium that communicates the totality of experiences of a person or of a community, rather than just ideas and thoughts. It expresses the whole person. We should, in essence be communicating a better quality of life Rensburg, (1994). The African oral culture and experience makes a strong case for oral media, For this study, it is essential that post the study, another set of studies recommended, goes deeper into the semiotics of persuasion in the African tradition. Rensburg (1994) is one of the researchers that have observed and acknowledged force, the credibility and the prestige of oral media within the “African social systems and indigenous institutions”.

The train has also become a vehicle that takes messages across the provinces in the country, traversing even the Southern African border, into Botswana, en route to Zimbabwe Lesotho and Swaziland.

### **3.15.2 Integrated communication media approach in South Africa**

South Africa is unique for its integrated communication approach because of diverse cultures and languages. The traditional setting in the country is also person-centred and allows for the oral rural media to be accommodated. In using these oral media, we can harness the electronic medium of radio with its power of penetration, voice, relevance, affordability and reach to harness the oral media of praise song, idiom, music, and poetry to promote behaviour change for Road Safety promotion in this country, although the rural target audience is quite low. This radio use may empower the less advantaged rural communities if done wisely, and should indeed, if need be, be implemented as soon as possible to solve the greater problem. If target group relevant, the radio programmes should also benefit the informal settlements and other semi-rural semi-urban poorer settlements around South Africa. Rensburg, (1994) has offered some useful insights into oral media communication among the rural and similar target audience, and highlighted the issue of oral media credibility, and indeed this study should jump at the prospects of incorporating oral media evaluation into the research equation. Other insights articulated in Rensburg’s stance need special reflection for holistic interventions into the social marketing of Road Safety communication in South Africa.

### **3.16 GENERAL COMMUNICATION RECOMMENDATIONS FOR THE POSSIBLE IMPROVEMENT OF FUTURE ROAD SAFETY PROGRAMMES**

Target group relevance is of utmost importance. The first consideration for any communication is the target audience and its unique attributes. It is important that even though we communicate same messages to many groups, we should isolate specific groups and target them for specialised interpersonal communication of general messages, because of their peculiar culture and language as well as how they decode messages.

Simplicity of messages is the way to go. This is classical within the echelons of communication research. Because most illiterate groups in villages are also visually illiterate, it is wise to avoid the “Tom and Jerry” type animation mode of communication used in children’s television programmes called “Di-Popaye” in Botswana. The language of these visuals is totally foreign to even the adults of the country, and therefore “no sense” is made of the message, Mosime, (2005).

Rensburg, (1994) has, in addition to warning against the animated pictures, also warned against the use of certain animals, which may be totem animals whose usage in communication may be taboo in certain cultures. The Edutel team from a former homeland was attacked by villagers in a village near Mogwase in the vicinity of Moruleng and the Sun City for playing educational videos of baboons and monkeys for the learners of a primary school. The small tribe was informed by rumour and the officials were almost ambushed by a group of armed women as they drove out of the village. The monkey species are a totem animal group for the vast tribe of Mogwase, Moruleng, Bapong and the Lehurutshe areas, which were then under the homeland of Bophuthatswana, Mosime, Edutel, (2005).

### **3.17 BARRIERS TO EFFECTIVE SOCIAL MARKETING**

It is because professionals do not work together that there are problems. Novelli. (1997) contends that Social Marketers must work together broaden their approach and then try to comprehend fully the social and political environments in which they operate in order to get closer to understanding the dynamics of Social Marketing as operating well beyond the arena of behaviour change. This should be done to ensure that theoretical models are

applied in practice and overcoming barriers. One barrier to effective Social Marketing is inadequate formative research and limited monetary resources. To design a change in behaviour it is necessary to expand thinking about research beyond traditional methodologies. Finally, if the Social Marketing field is to continue to develop, grow and adapt to real world changes, practitioners must apply research findings to **Social Marketing**. The present study did just that. Collaboration and co-operation assists in the sharing of resources and the joint use of limited monetary resources, and avoid duplicating efforts. A model that utilises a common strategy and inter-agency co-operation and collaboration can assist managers to work as teams in the field of Social Marketing, guided by interaction, common principles, “communication, relational and value dimensions”. Social Marketing professionals must have a common academic discipline where they initiate and engage continuously in ongoing dialogue to “identify and define models for understanding human behaviour, effective methods for achieving results, and standards of practice for the profession”, Smith, (1997) has also observed that there are “currently very few academic programmes for graduate study, while the workforce not trained sufficiently.

### 3.18 CONCLUSION

The chapter was an exposition of the foundations of Social Marketing with a theoretical background that attempted to redefine fundamental concepts and key aspects of the young discipline and its problems as applied to the promotion of Road Safety. An attempt was made to highlight all aspects of the discipline, all aspects relating to communication, persuasion, behaviour and attitude change, and audience characteristics, including the internal and external environments in which Road Safety promotion is practised, studies and observations by various authorities in the discipline of Social Marketing, its advantages, its strengths, its challenges and its potential in general.

## CHAPTER FOUR

### ROAD SAFETY PROMOTION STRATEGIES

#### 4.1 INTRODUCTION

An analysis of the Road Safety Promotion Strategies that are usable in South Africa as a whole is attempted in this chapter. Various approaches that could be used to evaluate the Road Safety promotion strategies in a selected Social Marketing model were determined in this chapter. Several challenges face the nation in Road Safety. In the quest to improve safety on the roads, the Social Marketing model is to be developed, which will be harnessed in the evaluation of the present Road Safety Strategies so as to offer solutions to managers, agencies and all stakeholders in the Road Safety environment. The following are some of the strategies that are suggested to improve Road Safety in South Africa:

- Road design and road furniture
- Routine Road maintenance
- Road safety audits
- Traffic control, driver training and regulation of professional drivers,
- Public education and information
- Road Traffic Law enforcement and sanctions

According to the findings quoted by Elvik & Vaa, (2005) the survey done in Norway in 1991/2 shows that pedestrians and cyclists are more vulnerable to road accidents when they are on the road compared to drivers and passengers. It shows that pedestrians are 4-6 times and cyclists 6-9 times higher at risk of accidents than those in the vehicle. Therefore strategies are needed to improve the safety of all road users. These findings could be linked to the Road Safety situation in South Africa. The road environment seems to have negative effects on the safety of some categories of road users, especially pedestrians and cyclists. Most of the road designs are made in favour of motor vehicles and their drivers, but unfortunately, most of the other road users are not always catered for and they are at risk as they use such roads.

Notwithstanding, it became imperative to develop a set of questions from which to develop criteria from the adopted Social Marketing Model for the evaluation of Road Safety Promotion Strategies.

The set of questions towards the criteria to evaluate Road Safety promotion strategies are set out as follows:

1. **What** is the Road Safety problem which the selected strategy could address?
2. Are there **appropriate** or correct **actions or activities** suggested in the strategy in question to address the road safety problem?
3. Does the strategy outline or by implication, cite **the implementer of the suggested actions**?
4. Does the strategy spell out the **targeted audience** or beneficiaries from the Road Safety problems?
5. Has the strategy indicated **why** the problem has to be solved or addressed?
6. Does the strategy show **where** (place) the selected actions must be performed?
7. **Which** actions must be taken in order to help meet the needs of the targeted audience or beneficiaries?
8. Does this Road Safety strategy give an outline as to **how** to communicate to the targeted audience or information about the what questions must be raised and **how, why, where** they must apply within the selected model?
9. Has the strategy **considered policies and rules** that have any influence on the Road Safety problem?
10. Is it clear what **policies and rules** (referred to in 9 above) are taken into account by the strategy?

This set of questions is used to assess compliance of Road Safety Promotion Strategies with Social Marketing requirements as set out in the model.

#### 4.2 IS ROAD SAFETY A PROBLEM?

The question whether Road Safety is a problem or not depends on the extent to which Road Traffic accidents, fatalities and disabilities have increased and the extent to which authorities have reacted to the increase in the latter. Because we speak about Road Safety

promotion and Road Safety Promotion Strategies, it means there is a problem with road Safety, which demands that we avoid accidents, fatalities and disabilities, and the problem is “Safety” itself.

Safety, according to Andersson and Svanstrom, (1998) is a fundamental need of human beings. It is a state or situation where enough control of threats, physical, material, or moral is exercised. Safety contributes to the perception of being sheltered from danger. The latter perceive of safety as not absolute but as a dynamic state. They argue that safety is not just the absence of injuries and threats and certainly does not equate to the absence of injuries or threats, and hence Safety Promotion should not be narrowed down to injury prevention.

Safety Promotion is all organised efforts by individuals, organisations and communities to achieve that ultimate goal of aiming to provide groups with the means to ascertain the presence and to maintain the conditions that are needed to reach and to sustain high levels of safety. Behaviour changes, be they structural, attitudinal or behavioural, all aim at creating sustained supportive physical, social, cultural, technological, political, economic, and organisational environments for safety. The aim of safety promotion is to change attitudes and behaviour as a means to achieve a milieu and a social environment with built-in safety.

While roads underpin our economic success, road transport, especially freight, bus, and taxi transport, have been the most important provision for mobility within the country. The road accounts for 96% of all passenger movement and 90% of all freight movement. Road accidents impact negatively on the economics of road transport in South Africa, and human beings and business suffer equally.

The National Road Safety Strategy, (2007) recognises that if responsibility for Road Safety is seen to rest with government and public agencies only, then it will fail. Road Safety depends critically on public support from individual citizens and from voluntary and other local interests.

Local authorities are mandated to promote Road Safety as part of their democratic mandate and because of their close involvement with local communities. They are the key player in the promotion of Roads Safety initiatives within the local municipalities.

Central to this approach is the promotion of each local authority, based on their democratic mandate and close involvement with local communities as a key player in the pursuit and promotion of Road Safety initiatives at local level.

Road Traffic signs and signals are part of the oldest methods of improving Road Safety. The road markings like centre lines and barrier lines and other road marking formats, coupled with driver testing and licensing, concluded the earliest forms of control. These lists of early interventions are some examples of the "three E's": engineering, education, and enforcement efforts to overcome human error and imperfect human reliability Thebe, (2005). Persuasion methods emerged after government convened conferences and put together strategies for Road Safety, and hence the 2001-2005 Road to Safety Strategy, the 2006 National Road Strategy, and the 2007-2010 Road Safety Strategy. Road user error is the reason this has happened. It has also been recognised that road user error has been recognised as a principal causative factor of crashes and collisions from the beginning. The Road Traffic authorities have also noticed that the percentage of crashes directly attributable to animals or mechanical failure is very small. Generally, crashes appear to be results of the "three I's", that is, inattention, illness, or impairment, rather than malice or terror. Vulnerable road users bear the consequences of the 3 I's.

#### 4.2.1 Defining the problem

The problem is speed. Speed is a key goal of modern road design, but impact speed determines the severity of injury to both occupants and pedestrians. Joksch, (1993) found the probability of occupants death for drivers in multi-vehicle accidents increased as the fourth power of impact speed (often referred to by the mathematical term  $\Delta v$  ("delta V"), meaning change in velocity). Because pedestrians travel slowly, vehicle speed dominates the delta V in pedestrian collisions. Best estimates suggest that 5% of pedestrians who are

struck at 30 km/h are killed, 45% at 50 km/h and 85% at 65 km/h, Ashton and Mackay, (1979).

Ashton and Mackay, (1979) maintain that it is safety concerns that have ensured some innovations like segregating motorists from other road users who may be vulnerable. As a result of the need for safety, footpaths, underpasses, guard rails and overhead bridges have emerged in several high pressure traffic areas.

#### 4.2.2 The scale of the problem

Increasing motorisation has resulted in a corresponding growth in crashes and it is currently accepted that in most OECD (Organisation for Economic Cooperation and Development) member countries, the cost of road traffic collisions amounts to about two percent of their Gross Domestic Product (GDP). Silcock, (2003).

Above discussion highlights the problem in global perspective. It gives a clear picture of the global situation; it isolates problems of the road in general for a comprehensive understanding of what is entailed in Road Safety.

The above discussion has been an attempt to highlight aspects of road safety against those of disease

**Table 4.2.2.1:**

1990		2020	
Disease or Injury		Disease or Injury	
1	Lower respiratory infections	1	Ischaemic heart disease
2	Diarrhoeal diseases	2	Unipolar major depression
3	Perinatal conditions	3	<b>ROAD TRAFFIC INJURIES</b>
4	Unipolar major depression	4	Cerebrovascular disease
5	Ischaemic heart disease	5	Chronic obstructive pulmonary disease
6	Cerebrovascular disease	6	Lower respiratory infections
7	Tuberculosis	7	Tuberculosis



8	Measles	8	War
9	<b>ROAD TRAFFIC INJURIES</b>	9	Diarrhoeal diseases
10	Congenital abnormalities	10	HIV

Above table highlights the position of Road Traffic Injuries against diseases mentioned, as this position shifts from 9 to 3 as per projection by the Source, Silcock, (2003).

Road Traffic injuries are indeed a matter of and a serious problem for health and social welfare in the country.

This is partly due to improvements in medicine reducing deaths from other causes but largely due to the steady increase in motorisation around the world, reflecting the greater severity of motor traffic versus other causes of injury. The scale of road casualties is also a concern for public health which must be communicated to all stakeholders as it has become part of the problem. The present study looks at issues of Social Marketing for Road Safety Promotion even in this domain, where public health authorities must engage transport authorities in dialogue.

A recent survey revealed that South Africans spend an average of seven and a half hours a week in their cars. That is equivalent to spending over two and a half years behind the wheel in an average lifetime.

It is a statistic that puts into perspective the importance of ensuring people travel safely and responsibly while on the road. However, new safety initiatives are not always well received. One only needs to think back to the days when people complained about the introduction of seat belts. They were presented as severe infringements of personal liberty then; but today, nobody in their right mind gets into a car without putting on a seat belt. Some people will remember the introduction of the breathalyser - that was tantamount to the arrival of Big Brother! But the vast majority of motorists now agree that anyone who is caught driving while drunk should be prosecuted, Murray and Lopez, (2002).

The task at hand is to change attitudes and the observed driver behaviour of speeding. Speed cameras have been used as part of the solution, and have the dual purpose of sanctioning drivers and reducing casualties at known accident hotspots.

Government would be very happy if they never raised a penny from cameras, because it would mean everyone was travelling at the appropriate speed, and saving lives as a consequence! What needs to be made clear though, is that when policies that are proven to improve Road Safety are introduced, it is unlikely that they will be supported by every driver. Driver behaviour is changed, to a large extent by enforcement through fines emanating from their negligence. This does not guarantee change in behaviour, but it does have a temporary impact, as has been observed over time, as drivers pay their fines happily as routine, and continue to disregard road signs. The visibility of speed cameras improves driver behaviour, since they communicate a valid message for safety. However, even this measure deters erratic behaviour only somewhat. The tendency is to continue with such behaviour, especially during peak hours. This study should benefit from other persuasion modes in the domain of sanctions and enforcement, De Wet, (2010).

Excess or unsafe speeds continue to be cited as a contributing factor among more than 15% of fatally injured road users. Crashes at intersections, which involve a combination of factors including a growing number of drivers who disobey traffic signals, contribute to 25% of fatalities annually. A strong, determined, and patient corps of Road Safety managers is required, if policies are to gain broad acceptance from road users. Communication will always be at the heart of an ongoing dialogue between Road Safety managers and their road user counterparts at all levels. The study actually evaluated two-way communication and other forms of message design, to include encoding and reception-listening systems. The Imbizos suggested by respondents are testimony to this. It is good to get feedback from people on the ground, who represent mostly the pedestrian and non-driver population on our roads. It is also good to listen to taxi drivers and other public transport motorists.

Some governments have balked at the prospect of introducing potentially unpopular legislation. The “million car road block” announced recently was not well received by South African motorists, resulting in resistance to change. The campaign was perceived more as an intimidation **tactic** than a Road Safety strategy, as was reflected in the media. The more Road Safety policies are seen to be successful, the easier it will be to start cutting road deaths across the world.

Nubian Touch PR & Events has evaluated and assessed the challenges to Road safety and subsequently, based on their work, approached this proposal with immense excitement and passion. The proposal is filled with visions of what might yet become the greatest sustained Road Safety campaign in the country.

In order to address these challenges, Nubian Touch PR & Events, recommends that the department undertakes Road Safety Vision 2010 aimed at making the Province's roads the safest in the country and the region. Road Safety Vision 2010 is an enhanced plan that will be supported by all levels of government, as well as by instrumental Public and Private sector stakeholders. It also emphasizes the use of a broad range of initiatives that focus on road users, roadways and motor vehicles. It will also enhance initiatives that address the most obvious problem areas, non-use of seat belts or child restraints, drinking and driving, and other high-risk behaviour such as speeding and aggressive driving.

Road Safety, according to Vision 2020, should ascertain reduction of accidents on roads that will be constructed in future, as well as those that will be rebuilt. A safety checklist is recommended for this function.

The majority of the world's safest countries have long term Road Safety targets in place. The efforts of the Department of Transport to develop and implement effective strategies are intended to achieve a high level of success that calls for a 30% decrease in the average number of road users killed or seriously injured during the period 2006 - 2010. Achieving or surpassing the vision's overall target will result not only in considerably safer road travel, but also in the saving of thousands of lives, a substantially lower serious injury toll and considerable reductions in societal costs during the time frame of the plan.

#### **4.3 ROAD DESIGN AND ROAD FURNITURE**

The design of the road and its furniture is of great importance to road users - they serve as one of the measures to reduce road accidents on our roads. Road design and furniture needs improvement to cope with the new technology of vehicle designers, cyclists and pedestrians since they are all using the road. There are measures that can be used to reduce the death of pedestrians and cyclists on the roads and meeting the needs of all road

users. The measures that can be used or made are pavements for pedestrians, cycle lanes, tracks for walking and cycling and interchanging crossing paths. These measures separate pedestrians and cyclists from motorized traffic, meaning if these parties use their facilities, accidents where they are hit by vehicles will be reduced, Elvik et al., (2005).

One of the strategies of “The Road to Safety” is we want safer pedestrians and cyclists, and to achieve that, the Department of Transport, (2001:35) ensured the full provincial and local implementation of the new pedestrian facility guidelines and the new SA Road Safety and speed limits manuals. Again, on narrow roads pedestrians and cyclists do not have enough space to use compared to wider roads, especially where the traffic is heavy, Elvik, et al., (2005).

According to Elvik et al., (2005), many of our older main roads were not designed to carry a heavy traffic load and that results on poor traffic flow. The construction of the roads has more effect on road safety, and some improvements are needed to improve the situation. The central reservation (median) is mentioned as another way to reduce road accidents compared to the use of road marking, especially when they are erected on a road consisting of four lanes. It also shows that they cause more accidents in rural areas in roads consisting of two lanes with about 20% compared to those in urban areas. Elvik et al, (2005).

Improving the cross-section is one way of decreasing road accidents according to Elvik, (2005). The measures that could be used or applied are to increase the number of lanes, the width of the road and shoulder width, the construction of passing lanes and hard shoulders, increasing the width of bridges and the approaching roads to be the same width. According to an American study, the findings of Mark, (1987) quoted by Elvik, (2005), these measures reduced the rate of accidents by around 30%. Increasing the number of traffic lanes and the width of the road with 1-3 metres reduces accidents and injuries, especially of cyclists who are hit by vehicles on the road. The road is able to carry more volumes of traffic compared to narrow roads and the construction of passing lanes reduces the rate of accidents. It also shows that according to Elvik et al.,(2005) accident rates were reduced by around 20% though with the double lane, there was a 40% reduction. It is important to improve the alignment and sight distances like curves, hilltops, vegetation and buildings on

the road, Elvik et al., (2005), define the alignment as the road's path in a horizontal and vertical plane (the road's spatial curve).

#### 4.4 ROUTINE ROAD MAINTENANCE

The maintenance of roads is crucial for safety of all road users and the health of those living next to the road. Gravel roads cause a lot of dust that can cause problems for road users and residents living along the road, Elvik, (2005). Gravel roads have a high rate of accidents compared to paved and sealed surfaces roads. Poor maintenance of the road surface results in potholes and poor driving quality. Again, if road reserve and road verges are not properly maintained, it endangers the lives of the road user. Therefore, roads must be maintained to prevent poor road verges, potholes, and fences should be erected and maintained to prevent stray animals from wandering onto roads, DoT, (2001). Therefore Road Safety is not only about road users, but also about those entrusted with maintenance and care of roads.

The following are some key areas of road maintenance for safety as mentioned by TRL & ODA (1991:113):NB. Only relevant ones have been selected, among which are road infrastructure, monitoring and routine road maintenance of potholes, drainage ditches free of obstructions, surface and ground water that is able to drain away from the road, pavements with adequate side supports, and all possible road hazards to drivers, like serviced slopes and bridges, efficient road control devices and controlled landscaping and vegetation control. Hazards to drivers are reported by field officers to the unit responsible for maintenance teams, at local district municipalities as well as at provincial and national levels, and this has implications for co-ordination collaboration and co-operation as pillars of the social marketing strategy that persuaded organisations to talk to one another. The present study serves to examine this parameter very closely.

The South African Department of Transport, (2001:35) in their "Road to Safety Strategy" undertook to expand the upgrade maintenance programmes of all rural roads nationwide and integrate safety training in the process of improving road quality and visibility. This

demonstrates the significance of road maintenance, especially in rural areas where roads are still not tarred or paved.

#### **4.5 ROAD TRAFFIC CONTROL, DRIVER TRAINING AND REGULATION OF MOTORISTS**

The problem of Road Safety is largely a problem of motor vehicles, drivers, pedestrians, cyclists and motor cyclists. The Road safety establishment often forgets to provide for pedestrians, cyclist, motor cyclists and wheel-chair users, all of the road users who still have to get solid Road Safety promotion programmes from the government and collaborating agencies. Often, remedial measure focuses more on “reducing accidents” rather than on changing the behaviour and attitudes of road users other than the motorists. However, roads must not be hostile to safe driving. Advocacy campaigns indicate that warnings are part of the good messages on roads, where drivers are told to reduce speed, to heed road constructions ahead and so on.

This study endeavours to highlight the significance of these messages for the sake of Road Safety. The audience of these messages vests in all those politicians at local, provincial and national level and all those decision makers in the management seats of government and its Road Traffic and Road Engineering agencies across the country.

Interest groups working on behalf of pedestrian rights and needs, the environment, and some non-governmental organisations have always wanted faster action, citing the lethargy shown by government and traffic authorities in the problem of dangers posed to vulnerable road users. These interest groups have been hostile to excessive enforcement and sanction. On the other hand, the road traffic departments have failed to ensure that roads are safe for users. The tendency on their part has always been to correct the road users in preference to checking all roads to ensure that they are safe. “Safe roads first, and safe road users next” is the cry of the interest groups.

It is argued that the problem of Road Safety is largely being stated in the wrong terms. Most road safety measures are designed to increase the safety of drivers, but many road

traffic casualties are not drivers (in the UK only 40% of casualties are drivers), and those measures which increase driver safety may, perversely, increase the risk to these others, through risk compensation.

Whereas the drivers' attitudes and how they use their vehicles as a behavioural change exercise as well as psychological conditioning in the formation of good driver habits should be the focus of the Road Safety authorities, indeed the focus is on the driver as a person being confronted for not using the seat belts, the safety cages and other gadgets. The emphasis is on the mechanical gadgets which protect the driver from intrusion by impacting objects, crumple zones, which absorb collision energy as well as on legal restrictions on drunk driving, or driving after medication or drug use, using a mobile phone while driving, driving an aged vehicle without subjecting it to safety checks, maintenance, fittings and repairs, and other legalities relating to insurance, driving hours of commercial vehicles, and tachograph fittings, and so on. All these mechanical checks have nothing to do with behaviour change or attitude change, but rather with enforcement and policing, sending the more negative messages for the drivers. The traffic officers are also more of police persons than peace and education officers.

Pedestrians in particular are often reluctant to use segregated facilities that result in extra distance, extra effort or perceived extra risk. Facilities such as cycle lanes, underpasses and overhead-bridges, pedestrian crossings, traffic calming and speed humps are provided with the cyclist and the pedestrians in mind. There are other interventions, most of which obviously benefit the pedestrians, but often opposed by the motor lobbyists, who object to extreme use of speed humps in selected areas, and indiscriminate over-reduction of urban speed limits in selected areas.

Two-way communication between residents and local traffic authorities is also part of this thesis, and needs to be articulated in the findings and recommendations of this study that the traffic regulators also listen, as listening is a form of communication.

#### 4.5.1 Solution

According to Vision 2010 Road Safety Promotion, human beings must be accountable for their road actions to avoid the present situations where a great majority of accidents have been the result of drunken driving, speed, neglect of safety belt use, and other irresponsible behaviour. Responsibility for Road Safety must be shared amongst the national, provincial and local municipal levels of government.

National Government is responsible for the development and implementation of safety standards and the enhancement of existing standards. Road Safety should establish and distribute information according to set Road Safety standards. Standardisation should impact on shared information and “joint space between different agencies for example police, traffic and ambulance officers on the accident scene, casualty officers at the hospitals, and other interested groups like researchers and non-governmental officers and social workers.

This study is a quest for collaboration between Road Safety agencies at all levels, so that each agency is persuaded to co-operate and to communicate. This is the essence of the study, which aims at looking for a Social Marketing model that changes the entire behaviour pattern in the Road Safety Environment.

South Africa’s dramatic victory to host the FIFA Soccer World Cup 2010 has catapulted the country’s tourism industry into a must-visit-international destination and has injected an incredible spirit of oneness amongst its people. However, the majority of the people of this country live in rural areas and in most cases, road design, higher posted speed limits and emergency medical response time often contribute to serious casualties on rural roads. Greater congestion on our roads, faster traffic speeds, more outbursts of road rage, all of which lead to road crash trauma, are some of the problems. How does this study assist?

Campaigns so far mounted have not persuaded the entire Road Safety fraternity of managers, designers, road users and the entire community through a campaign of the magnitude of the HIV-AIDS campaigns so far mounted. Could the problem be budgets, communities, Road Traffic Departments, lack of co-ordination, lack of business partnership, lack of foresight?



For South Africa to be an international tourism destination, Road Safety may be a priority solution to the problem. This study examines a model best suited to the massive problem at hand.

#### *4.5.1.1 Driver of the year competition: heavy motor vehicle*

Recruitment of drivers, age group, participation at local level, participation at regional level, participation at provincial level, participation at national level entails communication to solicit as well as to promote driving acumen. This strategic thrust is a small part of the massive problem, but a good small measure in the right direction, which could be South Africa wide, highly promoted and publicised. It has the potential to be the greatest media campaign and a strong partnership between many entities.

#### *4.5.1.2 Driver of the year competition: lady driver*

This category is important and could be part of the women's day celebrations often mounted in localities during the month of August. How it is mounted is very important. Change is the key word, in order to give the event popularity and impact. Social Marketing needs to bring out better parameters in the messaging strategies to be applied to give impact and meaning.

#### *4.5.1.3 Driver of the year competition tractor*

The tractor driver competition has been a very good campaign for rural Road Safety, whose aim would be to reduce accidents through tractors from rural roads. The campaign has always needed to be extended to all provinces and local municipalities, supported by farmers and banks that finance tractors. No impact from this strategy has been enjoyed, and how it must be mounted needs review. Tractor drivers need to be highly rewarded for driving safely, slowly, sober and discreetly, taking care to yield to other drivers. The rural development sector of government should support this initiative.

## 4.6 ROAD SAFETY AUDITS

Road Safety audit is one of the suggested strategies to improve Road Safety and is useful in promoting road safety in South Africa as a whole.

## 4.7 NORTH WEST PROVINCE SPECIFIC ROAD SAFETY PROMOTION STRATEGIES

### 4.7.1 SCHOLAR PATROL

Learner patrol (commonly known as scholar patrol). The two levels of government (Local and Provincial government Departments) will, through the relevant department (Transport, Roads and Community Safety in the case of North West, Department of Community Safety in the case of Gauteng Province and Department of Transport, Roads and Public Works in the case of the Free State) (the three Provinces involved in the study) establish a need of safe crossing for learners. The process involves parent or legal guardian to endorse the participation of the learner in the scholar patrol operations. Principals, Road Traffic Officers, Municipal or Provincial Road Traffic Officers, Road Safety Officers and Road Safety Engineers for marking are also involved to ensure that the facilities are available to implement the operation. The department provides comprehensive insurance cover for learners operating the facilities and utilizing the controlled crossing by the operations. That is accommodated in the Road Accident Fund of the country.

The crossing is utilized by learners during school periods with uniform and equipment provided by the Department. Recruitment of these learners is the responsibility of the School Principal or his/her delegate. The learners remain team members for a period of one (1) year and cease to become a member because of various conditions that include disability or death. Members are elected at the beginning of each school year and registration is done by Road Safety Officers on an annual basis. The Road Traffic Officers are obliged to monitor compliance of motorists towards scholar patrol operations.

#### **4.7.2 Oratory competition**

Learners in grade 11 to 12 participate in this competition. The competition starts from the school (High /Secondary Schools) and continues to a District Competition (Local Municipality Area) and then proceeds to the Regional competition (four to five local Municipalities). Only positions one to three represent the District at the Regional Competition. The competition proceeds to Provincial level (five Regional Offices make up the Provincial Competition) with position one to three representing each region. On annual basis, reasonable topics for debate are given to these learners. It is presented orally but facts given out by the learners are of the greatest importance. These facts are translated to Road Safety activities or programme to address or to attempt to reduce road accidents. These are guided by the existing policies in each Province.

#### **4.7.3 Road Safety Education in Schools**

Public health sector campaigns in the field of road injury prevention have encompassed a wide range of measures, but education has always featured as the mainstay of prevention. In the light of ongoing research and experience systems approach to road injury prevention, many professionals in the field have re-examined the role that education plays in prevention. It is clear that information and education road users can improve knowledge about the rules of the road and about such matters as purchasing safer vehicles and equipment. Basic skills on how to control vehicles can be taught. Education can help to bring about a climate of concern and develop sympathetic attitudes towards effective interventions. Consultation with road users and residents is essential in designing urban safety management schemes. Belk, (2006).

As the previous section showed, when used in support of legislation and law enforcement, publicity and information can create shared social norms for safety. However, when in isolation, education, information and publicity do not generally deliver tangible and sustained reductions in deaths and serious injuries. Historically, considerable emphasis has been placed on efforts to reduce road user error through traffic safety education – for example, in pedestrians and cycle education for school children, and in advanced and

remedial driver training schemes. Although such efforts can be effective in changing behaviour, there is no evidence that they have been effective in reducing rates of road traffic crashes, Belk, (2006).

Belk, (2006) has suggested a number of additional measures that could be employed. Among these are provision of signs and means to protect school children near school routes and roads both provincially and locally, Road Safety competitions, school visits, well-designed information packs for learner drivers, use schools for Road Safety publicity, include Road Safety in the primary school curriculum, prepare post-licensing Road Safety materials to new drivers, campaign for dimmed winter lights, distribute leaflets and avail literature, use reflective road gear and promote use of school bags made of reflective material, get partners to put Road Safety messages on their products for school children to see. Many of these suggestions have been implemented to a lesser extent by the Department of Transport's communication sector, without partnerships from outside, and with a limited budget.

#### **4.7.4 Road Safety Community Outreach/communication programme**

Large companies are usually very active with community relations. Community relations, however, doesn't have to be for big companies with big bucks. South Africa for instance, has the largest pedestrian mortality rate, with deadly streets as the norm. The Department of Transport could team up with large corporate companies, take the issue, partner with various mayors and get employees out on the streets for a pedestrian awareness day. Models and local celebrities could be included to help the elderly cross the most deadly intersections. All the role players could wear shirts emblazoned with the Road Safety Promotion emblem and the Minister's smiling face together with the words "Pedestrian Awareness Day 2006: It shouldn't kill you to cross the street." The result would be: saved lives, instant press publicity, instant community goodwill and instant awareness of the company. The cost, a couple of T-shirts.

Additional perks could be considered, such as:

- Open house to celebrate the day with the usual warm welcome such as providing directions, handing out maps and brochures on major routes, restaurants, golf attractions, tours to historic sites, lodging facilities.
- The Regional Road Safety Office together with the Toll Road Management companies could complement the campaign's important impact by serving complimentary ice cream cones or water to motorists at the toll gates.
- Advertorial placements in local newspapers on a special event calendar, information on how motorists and responsible drinking and driving can make a memorable festive season, and messages regarding the importance of tourism's impact on the province and the country.
- Design "**Responsible driving works for South Africa**" buttons to be distributed at major routes, tourism and related business establishments.
- Design free post cards with paid postage for visitors. Local residents are encouraged to send a "**Road Safety Promotion Greeting**" to friends and family, courtesy of Department of Transport.
- Design a "**Passport to South Africa Road Safety**" promotion that entitles passport holders to special free items or discounts at participating tourism attractions and restaurants. Motorists can pick up a free passport card and a list of attractions and restaurants at any of the participating businesses.
- Organise a "**Blood Drive**" with the local blood bank encouraging both visitors and residents to give the gift of life during the Road Safety promotion week.
- Plan a special media event in either Gauteng where mayors from the province along with the Member of Executive Council (MEC) for Transport, Roads and Community safety are invited to show appreciation to our residents and visitors by opening taxi doors, serving coffee and giving flowers to motorists and pedestrians while wearing Road Safety Promotion regalia.
- Have an online promotion with a national publication featuring a Road Safety Trivia contest highlighting the importance of responsible driving to our society.
- Develop a "**South African Road Safety Promotion on My Mind Day**" with an afternoon of entertainment, arts and crafts demonstrations, drawings, exhibitions

and information displays. The activities must include putting greens, basket weaving, local fire and rescue demonstrations, free blood pressure checks and much more. The Department may present the **“Living healthy lives and reduced medical costs through responsible driving”**.

- Organise a special **“Patriotic salute to your road traffic law enforcement day”** to show support for those who are committed to making the world a safer place, where people are free to travel, learn, and experience other places.
- Guest appearances will be made on local morning radio and television shows, and live radio remotes to inform the public of the festivities and educate them about the importance of responsible driving.
- Every 100th motorist will receive a special prize and have their photo placed on the **“Responsible driver Hall of Fame”** board in the Department’s lobby, which will remain on display for a year.
- Design a label to put on popcorn bags that will read **“Pop in any time at South Africa Road Safety section”** to be served at the border posts where a video will flight images that showcase the importance of responsible driving.
- Design **“Thank You”** cards including pins that honour the country’s patriotic and diverse community, thanking motorists/travellers for visiting our province.
- Residents from various rural communities would be invited to choose a region of the province they would like to visit and board a motor coach for a full day of activities and a workshop on Road Safety Promotion, compliments of the South Africa Department.
- In partnership with a national radio station, giveaways will be provided on a morning or afternoon programme. Listeners will receive a **“Road Safety Survival Pack”** that includes two guest passes covering complimentary admission to area attractions. Also included in the pack will be a post card, provincial and a local map.
- Organise and implement the **“Thank You Tickets”** where the local police department will pull over cars with out-of-province plates and give them **“Thank You Tickets”** for visiting the province and a packet of local special offer **“See South Africa Bookmarks”**. The police will also randomly select an **“Arrested Family”** for media interviews with regard to their experience in the South Africa.

- An “Energy to Experience South Africa Road Safety” campaign where the police will offer selected families a good cup of energy drink or water will be organised.

#### 4.7.4.1 *Sonic triggers*

To enhance all the plans, we recommend that a sonic trigger be applied to each Road Safety promotion message, interview or discussion. It is the aural equivalent of the logo, i.e. sound identities that penetrate the emotional and logical mind. Sonic branding allows increased brand recognition across a variety of platforms. Sound, particularly music, has a strong memory trigger that heightens the brain’s ability to recall.

### 4.8. PROMOTING ROAD SAFETY IN SOUTH AFRICA: SELECTING A MODEL

In his master’s degree thesis, Thebe, (2005) examined four Social Marketing models, which he considered as substantial to inform the Social Marketing model that he adopted and modified for North West Province. The four namely: **theory of reasoned action, the Triandis model, the strategic communication model, and the Social Marketing model** are grounded on the theories used by Thebe, (2005) to evaluate Road Safety Promotion Strategies in the North West Province and to formulate a communication model. These models were compared, and from the comparison, Kirby’s, (1995) model was chosen over the others for communicating Road Safety.

One of the most vital reasons for the choice of the Kirby, (1995) model of Social Marketing was that it may trigger participation within the target audience. It may also influence attitudes and behaviour of the target population.

The selected model of Kirby, (1995) cites the following directions:

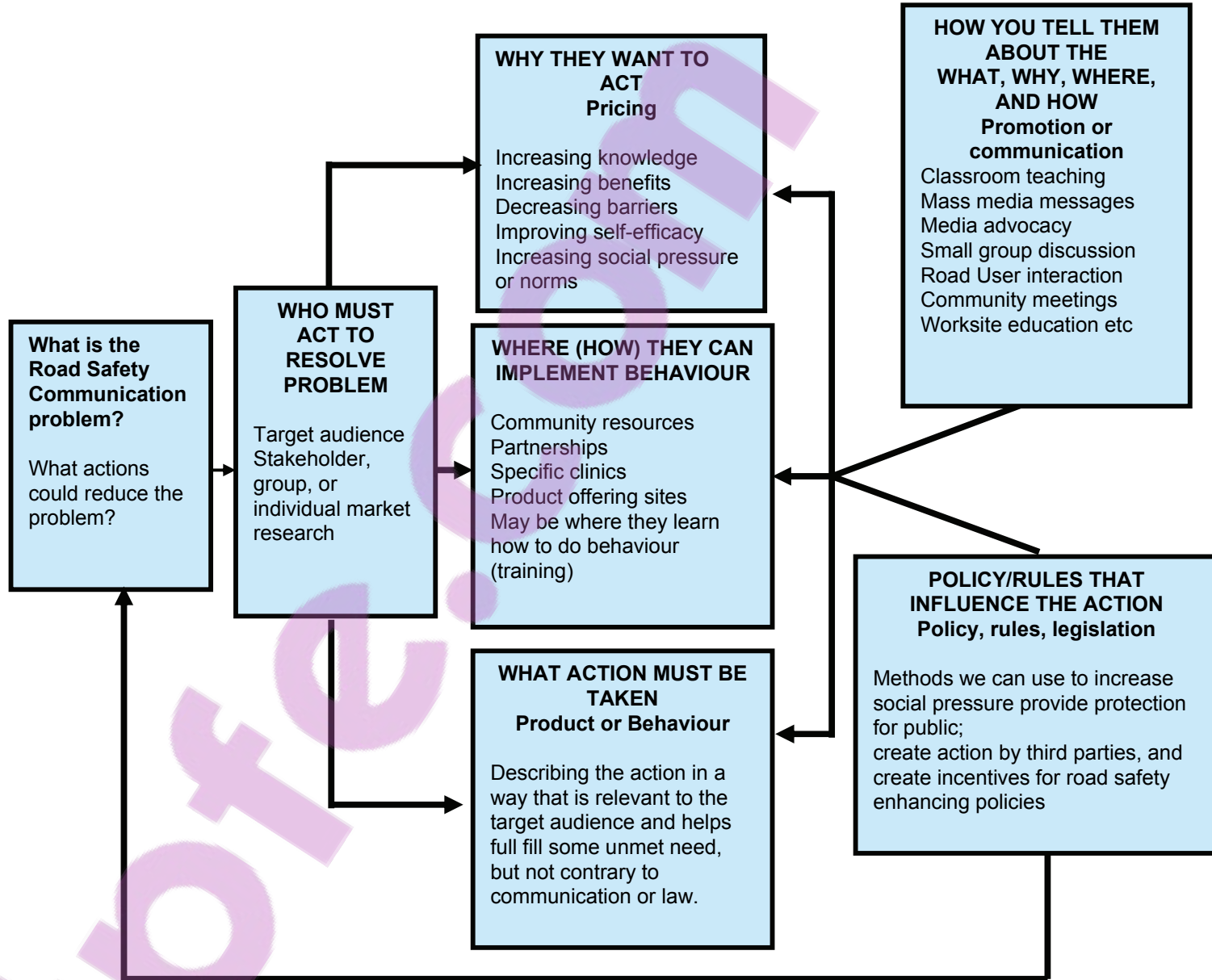
- i) decisive actions towards reduction of the RS problem
- ii) empowering communities, improving their self-efficacy
- lii) changing aspects of peoples’ behaviour in communities.

The target audience of the model is expected, in high probability, to be involved, relevant, and participatory within the Social Marketing strategies of communication. In particular, the model is highly suited to communicating Road Safety because of its relevance and applicability. Other reasons for the choice of this model are based on the results of the empirical investigation as discussed in chapter 6.

The model is problem specific, gives direction, and provides the actions, the reasons, the place and the time of behaviour application. It is communication mode specific, and gives an indication towards the solution, offers support in the form of policy and guiding rules for behaviour influence and actions necessary to deal with the problem. Figure 4.8.1., below depicts the model as adopted.



Figure 4.8.1: Final proposed Social Marketing model for communicating road safety in South Africa



Final proposed Social Marketing model for communicating Road Safety in South Africa  
(Adopted from: Kirby, 1995)

(Adopted from: Kirby, 1995)

“With regard to attitudes and behaviour change, the adopted model offers a theoretical viewpoint which projects cognitive constructs or knowledge and awareness as more likely to guide behaviour when they are accessible in terms of memory recall. Frequent use of a construct activates it and assures permanent accessibility. This kind of information would inform all the Road Safety communication programmes aimed at influencing attitude and behaviour of road users. For instance, a Road Safety awareness programme may aim to increase the target audience’s awareness of the negative consequences of drunk drivers, and may even change their attitudes and drinking behaviour. Temporary accessibility of these constructs is increased through primes such as posters, special awareness weeks or speeches by leaders. Repeated exposure to these primes could help to make constructs of consequences “Kirby, (1995).

On the basis of the foregoing, Kirby’s Social Marketing model is therefore considered useful for communicating Road Safety in the Republic of South Africa.

The Social Marketing Model selected can be applied in specified contexts. For example, this model can be used (among other Road Safety problems) in the campaign against the problem of stray animals in the Republic of South Africa.

This is one of the many examples of the situations or contexts within which the Social Marketing model can be applied to communicate Road Safety towards dealing with Road Safety problems in the Republic of South Africa.

#### **4.9 The need for a Social Marketing Model for Road Safety Promotion in South Africa**

- Road Safety in the Republic of South Africa needs an effective Social Marketing communication model and approach that could address the Road Safety problems in the country.
- There is a need to address Road Safety problems through a Social Marketing approach. This is because Road Safety is considered a social issue.
- The adopted and modified Social Marketing model has the potential to change the attitudes and behaviour of road users.

- The adopted and modified Social Marketing model is deemed useful for communicating Road Safety in the Republic of South Africa.
- The adopted and modified model is deemed relevant to be applied in specified contexts in solving and addressing Road Safety Problems in the Republic of South Africa.
- The adopted and modified Social Marketing Model contains all the necessary variables which do play a role in a Social Marketing Model for communicating Road Safety.
- All Road Safety problems and issues in the Republic of South Africa should be addressed by use of the adopted and modified Social Marketing Model in Figure 4.8.1.
- Government should buy into the use of the Social Marketing Model produced in this study.
- The adopted model should be implemented first at both municipalities and provincial levels and later at national level to ensure synergy among all Road Safety efforts and it is therefore recommended that the model should not be applied only in the participating Provinces, but also in all other provinces as well as nationally.
- At least one audit should be conducted to check the success of the model as this would allow for quality audit both at provincial and national levels.
- This model will facilitate the integration of all communication efforts pertaining to Road Safety on provincial level and ultimately at national level.
- Government departments, non-governmental organisations and private sectors should have knowledge and understanding to implement the model.
- Management at various levels of Government need to buy into the adopted and modified Social Marketing Model for communicating Road Safety in the Republic of South Africa.

#### 4.10 CONCLUSION

Pre-testing and evaluation:

So far, Social Marketing or its important stages, are critical features of accident prevention work in overseas countries outside South Africa. Very few examples of Road Safety campaigns have found their way to the hearts of the target audiences, because budgets are tight, officials are untrained, and agencies work as individuals.

In the Republic of South Africa, Road Traffic law enforcement tends to be rated highest within the ranks of road users as promoting attitude and behaviour change because of heavy fines, and sometimes imprisonment. It has become the most effective method of promoting safe road usage. This study has been an attempt to suggest that Social Marketing of Road Safety would have a far greater effect in reducing road accidents in South Africa, and would rather complement law enforcement. In Social Marketing, attitude and behaviour change is voluntary. Therefore sanction, coercion and enforcement, De Wet, (2010), all of which may have negative semiotic connotations, are often rather avoided or otherwise complemented.

## CHAPTER FIVE

### NATURE OF ROAD SAFETY PROMOTION

#### 5.1 INTRODUCTION

The preceding chapter discussed the theoretical background of Social Marketing. Emphasis was laid on how Social Marketing implicates Road Safety practice or messages. The present chapter discusses the essence of Road Safety promotion. The principles, laws, rules and ethical issues underscoring the implementation of Road Safety promotion strategies are highlighted. Possible aspects which relate to Road Safety have been pointed out as premises for the evaluation of Road Safety promotion strategies in a selected Social Marketing model.

#### 5.2 NATURE OF ROAD SAFETY

It will be inappropriate to discuss the nature of science and technology without doing the same with Road Safety, especially, as the emphasis of this chapter is on establishing the relationship among the three fields.

Road Safety is a compound term that is made up of two sub-terms, namely, traffic and safety. Each of these sub-terms are defined and viewed as separate phenomena, and a combination of the two gives a higher and added value to their meaning and significance as opposed to a case when each is considered separately. For example, applying the concept of safety to a traffic situation implicates and qualifies how the interaction among the people, vehicles, and goods handling as are engaged in a traffic situation should be conducted, White & Spellicy, (2000); Dreyer et al., (1999). The study therefore maintains that the quality and degree of safeness of movement in traffic situations and environments involving the coming and going, the moving of or transporting of persons and goods on roads or streets from place to place, usually (but not always) with the idea of movement in opposite directions simultaneously would therefore signify Road Safety.

When considered separately, the term “traffic” refers to vehicles moving on a public highway, especially of a specified kind, and density, or the transportation of goods from one point to another, the coming and going of people; dealings or communication between people. On the basis of the foregoing, the term “traffic” could be considered to having a broad meaning that could be classified into any form of movement or “coming and going”, and interaction, White & Spellicy, (2000); Dreyer et al., (1999).

Furthermore, the term “safety” denotes security, freedom from danger, protection and refuge, being without fear, and also the condition of being safe, being free from danger or risks Dreyer et al., (1999). There are three components that make up the concept of road traffic, namely the static component, the dynamic component, and the interaction component. The static component comprises roads, pavements, traffic lights, kerbstones, and other road signs like the yellow light or traffic signs like the stop sign. The dynamic or movement component consists of vehicles and pedestrians.

Safety in traffic depends on, amongst other things, the roadworthiness of vehicles, the clothing of pedestrians, motorcyclists, cyclists, and the speed with which the components travel in the traffic. The traffic participant has to possess qualities like knowledge of traffic rules, observation of speed limits, personality factors, knowledge of vehicles and other people’s behaviour, as well as willingness to take responsibility.

The knowledge of the traffic participant is influenced by several factors such as his development level, previous experience, cognitive level, social orientation, as well as attitudes toward obeying or disobeying of the traffic rules, Dreyer et al., (1999); White & Spellicy, (2000).

These three components are constantly in interaction and must therefore not be perceived as being effective in themselves as separate components. Traffic has become part of the everyday reality in which the present-day human beings find themselves. Modern street traffic is, however, so complex that traffic rules, regulations and prescriptions are necessary for its control.

Human beings must therefore be equipped and become skilled at conducting themselves safely in the traffic situation with regards to themselves and their fellow road-users, Economic Commission for Africa, (1997); Dreyer et al., (1999).

Furthermore, man's inborn need to defend himself against loss of life, injuries or harm is morally expressed in the sixth of the Ten Commandments - of God Almighty - which can be explained as follows: that men may not only "harm or wantonly endanger" another but also themselves.

When safety is related to road traffic it implies that the participant in a traffic situation must survive in the street or road and be protected against traffic dangers. This requires rules that will guide conduct in traffic situations, so that persons who venture in the street might reach their destination safely. It also implies that the intended and expected accident free movement or interaction among the traffic components, could lead to no incidents of collisions, no bodily injuries, deaths and no economic loss. In this regard "Road Safety" usually implies the prevention of loss of lives and injuries, as well as all measures that can be taken to prevent traffic accidents. For this reason the traffic and transportation legislation and its enforcement are indispensable parts of Road Safety, Economic Commission for Africa, (1997); Dreyer et al., (1999).

Consequent to the above, one could maintain that road traffic and safety, their principles and operations utilise to a greater extent the fruit of science and technology, so much that one is inclined to assert that without science and technology, road traffic and road safety would not be what they are today. For example, how would motor vehicles themselves be manufactured? How would airbags, anti-braking-system devices and other safety components be manufactured. Furthermore, due to the contribution and impact of science and technology, Road Safety is regarded as a science, White & Spellicy, (2000). This is largely because Road Safety has its methods through which scientific and technological methods are implemented or applied.

### 5.3 ROAD SAFETY PROMOTION IN SOUTH AFRICA

In South Africa, it is expected that Road Safety Education (RSE) should be taught in a formal setting finds its place in the country's Road Safety Management System (TSMS) of the 1990's.

#### 5.3.1 Purpose of Traffic Safety Management System (TSMS)

The purpose was to have an integrated planning by various communities in the country to prevent road accidents and injuries. These communities implemented or actively participated in the promotion of Road Safety independently. No positive impact could be realised as these silo systems have never brought about the intended results.

#### 5.3.2 The TSMS consisted of 11 functional areas. These were:

##### 5.3.2.1 *Road Safety Education*

It was performed in a formal and informal manner. It was about the safe interaction between various road users. No examination in the formal setting was conducted to ensure that the knowledge and skills gained during the process were utilised. However, road users practiced Road Safety interventions with other road users to ensure that road accidents and injuries were prevented. No evaluation was conducted except that every month and every year road accidents were recorded by National Department of Transport. An analysis of the statistics was conducted. The aim would be to develop counter measures to decrease the statistics.

##### 5.3.2.2 *Road Environment*

Road constructions play an important role in the promotion of Road Safety. The virtual assessment, soil testing designs, road signs and marking need to conform to the prescripts of Road Safety Promotion. For example the road alignment passing through the villages or



urban areas have a specific set of construction and other requirements such as speed and traffic accommodation.

The road must conform to advertising policy and accommodate other road users from South African Development Countries visiting the country. The Road Safety Promotion cannot independently develop an action plan that will prevent road accidents and injuries. The road traffic Act 93 of 1996 define public road as an area where the public have the right of access to use the road.

#### *5.3.2.3 Registration and licensing*

The Road Traffic Act of 93 of 1996 makes provision for all vehicles and motor vehicles used on a public road to registered and licensed. This piece of legislation requires that all vehicles used on the public roads be roadworthy. The insurance companies can only insure registered and licensed vehicles that are operated by licensed drivers or learner drivers accompanied by a licensed driver. This legislation cannot be implemented independently.

#### *5.3.2.4 Adjudication*

The application of the traffic law enforcement has to be complemented by the country's judicial system. All traffic offences are sanctioned by the court of law in the country. The court ensures that road traffic offenders do not habitually and freely disregard traffic rules and should be held accountable when they do so.

#### *5.3.2.5 Traffic information*

This function aims at providing traffic information to road users on a regular basis. This would entail regularly updating road users with traffic information on various destinations. For example, in the event of a road accident happening, information is provided to enable road users to deviate or re-plan their routes.

#### *5.3.2.6 Medical rescue services*

As the name implies, the function operates on the public roads in a manner as to provide assistance to road users at accident scenes depending on the nature and dynamics of such an accident. For example, the provision of medical care and fire extinguishing services.

#### *5.3.2.7 Marketing and Communication*

This function is aimed at the promotion of Road Safety by use of communication and marketing principles, strategies, programmes, and activities. This function is in reality the anchor of this study. It has the task of designing and implementing marketing and communication strategies that would promote safe road use by all road users. It makes use of different media to fulfil its purpose.

#### *5.3.2.8 Driver training*

The function concerns driver fitness to effectively control the vehicles on public roads. It provides the provision of adequate driver training, understanding and application of the rules and regulations of the road. For example, drivers are trained to take breaks after every 200km distance travelled.

#### *5.3.2.9 Technology transfer and implementation*

The design and use of road infrastructure and technologies is the core concern of this function area. The use of speed cameras to monitor and control speed of vehicles on the road, and the use of weigh-bridges to control overloading on the roads are but few examples within this function area.

#### *5.3.2.10 Traffic control and traffic policing*

To ensure compliance with the rules and regulations of the public roads at all times. Road traffic agencies at different tiers of government work together in an integrated manner to

enforce traffic rules and regulations on the road. Different measures are used in enforcement of these rules and regulations on the road to a point that punitive measures are applied to compel road users to obey the rules of the road.

#### *5.3.2.11 Legislation*

The three tiers of government must ensure that road traffic regulations are enacted for enforcement of traffic laws by the enforcement agencies. All the above 11 functional areas work in an integrated manner.

### **5.4 APPROACHES TO ROAD SAFETY PROMOTION IN THE NORTH WEST PROVINCE**

Road Safety Promotion encompasses a number of strategies and approaches that include the following:

- Road Safety Education
- Community involvement and outreach programmes
- Communication and Marketing

#### **5.4.1 Road Safety Promotion through Road Safety Education**

Road Safety education is primarily aimed at achieving the following:

- helping learners to gain clear insight into, and understanding of, basic Road Safety principles which must prepare and equip them for safe road usage in any situation
- transferring thorough knowledge of road usage
- developing an interest in Road Safety by ensuring that learners get the opportunity
- investigating Road Safety issues individually or in groups
- making careful observations
- discussing various findings and drawing conclusions
- recording and analysing findings

- developing the ability of the learners in applying Road Safety knowledge and methods to solve problems encountered in daily road usage situations
- contributing to the overall development of learners
- encouraging a commitment to Road Safety
- making them aware of the importance of the interaction between various factors which influence safe road usage
- accepting the principle of defensive road usage, especially with regard to driving vehicles according to the system of vehicle control.
- providing learners with the opportunity of:
  - acquiring and using appropriate Road Safety terminology
  - equipping themselves with basic principles and facts
  - learning the correct technique in the handling of vehicles
  - researching Road Safety issues in greater detail.

#### *5.4.1.1 Why Road Safety Education?*

Road Safety records of mortalities on South African roads for the past few years have reached such an alarming rate that many calls are received from various quarters demanding for the education of the broad masses, stricter and efficient law enforcement and greater funding towards improvement of the roads and transport systems in the country.

It is very easy to compare South Africa with other countries, especially first world countries where attitudes and driving habits are vastly superior to those here. One must keep in mind that two major factors account for better driving in these countries, namely:

- a well developed, functional and dependable public transport system of buses, taxis, trains, metro's, underground, and others
- a strict, continuous and implemented law enforcement policy with genuine and effective punitive measures that ensure adherence to traffic regulations and better driving manners.

However, these two pivotal issues were, and are, understood by continuous and effective education of drivers/pedestrians/commuters/passengers. This education does not begin with the entrance of the individual into the wage-earning strata of society, but with the very beginnings of awareness of the road and the traffic environment as well as road usage and basic travel.

It must be stated from the onset that education is always a lengthy and ongoing process. For example, schooling is done over twelve years for a basis from which further education and training can be undertaken, and many employees are involved in ongoing training in their professions, in spite of their theoretical background.

The information that is put across to the young prospective road user is based on three pillars, which are:

- Knowledge - types of transport, dangers in the road traffic situation, rules and regulations, types of situations that may be encountered, where to partake safely in traffic situations.
- Skills - the use of the knowledge gained in specific situations; the practical application of the knowledge gained, and the practising of various skills, use of vehicles.
- Attitudes. Pedestrians, cyclists and motorists will inevitably increase. This conflict will not necessarily be reduced by merely teaching "road safety skills" or improving the abilities of people to use them, but through attitudinal change.

Road Safety education involves more than teaching people to cross the road, ride a bike, or pass a driving licence test - although these are all very important. Safe road usage places demands on such things as problem solving, decision-making, attitudes and values in addition to the knowledge of traffic laws, consequences of one's actions and an understanding of technical matters related to safe vehicle operation.

Road Safety, then, is not only to be studied at school, but by its very nature should contribute to the development of a person's broader life skills. For example, the school in

its role as one of the community's educational institutions should reflect this philosophy and cater for Road Safety Education as an accepted part of the curriculum.

Road Safety Education in the community should aim to assist people in learning new skills and improving their knowledge. It should challenge their ideas and beliefs and lead towards an appraisal of attitudes. It should encourage adults to examine their roles as suitable models for children to ensure that what is passed on is not in conflict with what is learned formally.

#### *5.4.1.2 Effective Road Safety Education*

Road Safety Education develops knowledge, skills, attitudes and values to enable safe usage as pedestrians, cyclists, motorists, drivers and passengers. This requires an integration of emotional, social, physical and intellectual processes. Road Safety Education must encourage people to examine and explore traffic situations that are relevant to them. These situations should require persons to:

- study the implications for themselves and others
- examine available options of action
- consider the consequences of actions taken.

Choosing options involves the clarification of:

- various issues
- ideas and values
- collecting and organising information
- deliberating on and communicating ideas
- considering alternatives, and making sound decisions based on the above.

This process is a basic ingredient in the acquisition of any life skill or technical process ability, especially where adaptation and change of action is required. Part of a driver's make-up is closely aligned to this process, and is more commonly known as the SIDP process. This process forms the foundation of defensive driving techniques.

Technical knowledge and skills must be developed to enable responsible decisions to be transformed into informed actions. Apart from this, Road Safety education also needs to take personal and social influences into account when forming concepts regarding problem-solving techniques.

#### *5.4.1.3 The role of formal education in Road Safety Education*

Road Safety Education is likely to be more effective when:

- the formal education sector (Department of Education) recognises the significance of the safety and personal development of all learners and allocates a specific place to Road Safety Education in the curriculum
- provision is made for educational staff to attend in-service training with regard to Road Safety Education
- formal educational institutions reflect the concerns of their various communities with regard to Road Safety issues
- appropriate resources within formal education are allocated to the implementation of a directed Road Safety Education programme;
- relevant Road Safety programmes are implemented and evaluated in terms of overall effectiveness and reach
- ongoing appraisal of learner's needs in relation to their immediate communities takes place, with wider social issues and future trends being taken into account
- educational institutions recognise the importance of establishing ownership of Road Safety by establishing an institutional safety culture.

#### *5.4.1.4 Where Road Safety Education begins*

Road Safety Education in SA is started at the lowest level possible, which is pre-school age, and is continued through the schooling phases in a continually expanding and developing nature, from the ordinary safe crossing of a street to the driving of a vehicle carrying passengers. Much time, effort and money was ploughed into this approach though the development of the Curriculum 2005 material, with specific emphasis on the Outcomes Based Education (OBE) principles of the new system of education. Presently the OBE is

being discarded, but parts of the Life Skills learning could look into critical areas like Road Safety. According to the Strategy 2000 document released by the National Department of Transport in May, both short and medium term goals were put down. It will take many years before the fruits of these labours can be seen, but even this will not be worth much if the broad mass of road users do not care or involve them in the active task of making our roads safer.

*5.4.1.5 How can the educational experiences gained at early learning stages of children be held in good stead later in life?*

Continual exposure is one method, through the use of media campaigns, target oriented advertisements, community involvement, advanced training schemes, whilst another method is visible and protracted law enforcement, through the use of safety belts, tough measures against reckless driving, drinking and driving, and others. Another highly successful method of ensuring continued educational awareness is the point system for driving licences linked to the retesting of these licences after five years.

Education in any sphere is based largely on a cause and effect relationship. A house is built in a certain way, or sequence of steps, and not in another way otherwise it will fall apart and walls will crack.

Road Safety Education is built along the same principles. Street should be crossed in a certain manner; otherwise the pedestrian may be seriously injured or killed. One does not overtake on a blind rise because of the danger to yourself and other road users.

Road Traffic Law enforcement should be implemented to re-enforce this concept. Failure to adhere to basic laws governing road usage will mean trouble, whether with the law, or through accident and death, financial loss or compulsory re-training and education.

Education is long term whilst immediate consciousness of the correct type of action in people minds as well as the correct attitudes, are not. Education should be stimulated and re-enforced, especially, when the opportunity for formal education is no longer possible.



## 5.4.2 Community participation in Road Safety

The term community in the context of health and welfare policy usually refers to marginalised people whose need for access to health and welfare services are to be addressed. However, these people should not be viewed as passive recipients, but should be involved as active stakeholders. Most of the above-mentioned changes include inter-governmental or inter-sectoral co-operation.

Participation in service delivery should include all aspects, from planning and decision-making to the management of the implementation, and should eventually lead to the empowerment of the community representatives on the stakeholder structure. Some examples are found in health committees, policing forums, and council committees. Practical aspects of participation: Communities have been contributing to health and welfare through the ages, as in the care for the disabled or elderly or in home-based care for the terminally ill.

### 5.4.2.1 *The role of the community*

The wider community as a whole plays an important role in Road Safety Education. This can be shown by:

- supporting local school initiative to include Road Safety Education in the curriculum
- encouraging members of the community to undertake appropriate Road Safety education programmes
- providing practical, technical, advisory and financial assistance where necessary
- promoting safety practices within the community
- encouraging the improvement of, and interest in, local Road Safety initiatives
- providing positive role models for children
- providing leadership in developing a safe community and a community safety culture.

### **5.4.3 Changing Road Safety Behaviour**

Road Safety behaviour can only be influenced through the Social Marketing route for Road Safety whose ideas must ultimately be ingrained in the mind of the target audience.

Communication is a necessary human activity and will therefore be important when considering Road Safety behaviour. The ideas on Road Safety behaviour should be communicated in the most effective ways in the North West society. The significance of inter-personal communication cannot be emphasised enough in this case, although it is not feasible within the present milieu.

## **5.5 OTHER IMPACTS**

### **5.5.1 Social and Economic impacts**

Estimating the cost of road crashes to the society is important for several reasons. Firstly, it is essential for raising awareness of the seriousness of road crashes as a social problem. Secondly, it serves to make proper comparisons between road traffic crashes and other causes of death and injury. Thirdly, since the social cost of road traffic crashes is a reflection of the social benefits of reducing crashes through safety interventions, scientific assessment of the costs enables priorities between different interventions to be made, using cost-benefit methods, Transport White Paper, (1996).

### **5.5.2. The vulnerable and disadvantaged road users**

Many poor people in several countries are vulnerable and do not have a voice, being cyclists, pedestrians or animal-drawn cart drivers. Their safety may be disregarded while motorists are favoured. The guiding rule for any country should be equal protection of all road users, and avoidance of the unfair injury and death for poorer people and vulnerable users. Equity is central to reduction of road crashes, death and injury.

## 5.6 PEOPLE'S RIGHT TO SAFETY

In May 2002, the 6th World Conference on Injury Prevention and Control was held in Montreal, Canada. An outcome of that conference was the finalization of a draft charter on the people's rights to safety (previously adopted by participants of the 5th World Conference in New-Delhi). "We recognized that this issue of Health and Human Rights, with its special focus on violence, health, and human rights, provided a fitting opportunity to bring together a group of health and human rights experts with diverse opinions and perspectives on the value of recognizing this new right. Awareness of the above facts and of our responsibility to move toward a world in which the right to safe life must be ensured for all resulted in a preliminary workshop on people's Right to Safety". Following discussions at the workshop, all conference participants adopted the Delhi Declaration on a People's Right to Safety on 8 March 2000.

This first declaration endorses the notion of safety as a human right and as an important policy tool for injury control and safety promotion. It outlines further steps that need to be undertaken to develop a charter on a people's Right to Safety.

### 5.6.1 Safety as a Human Right

On 10 December 1948, the General Assembly of the United Nations (UN) adopted and proclaimed the Universal Declaration of Human Rights (UDHR). Article 3 of this Declaration states: "Everyone has the right to life, liberty and security of person." The UDHR also cites rights related especially to the ability to live in good health. The legal obligations of governments under international human rights law have been used effectively all over the world in many an arena: the rights of the child, the rights of women, the rights of workers, and the rights of people in development in general. These rights have been elaborated on and strengthened in international human rights instruments, such as the International Covenant on Economic, Social and Cultural Rights, the Convention on the Rights of the Child, the Declaration on the Elimination of Violence Against Women, and the Employment Policy Convention (Convention No.122).

By adopting these conventions, declaration, and charters, individual, civil society groups, and citizens' organisations are able to demand safer products, safer working and living conditions, and a safer environment in which to live. In response, governments and courts in many countries have instituted safety standards, legislation, and enforcement mechanisms. These efforts to make life safer are not, however, based on the same principles and theories as those used to control malnutrition and infections and contagious diseases. Most efforts to promote safer products are correctional measures rather than policies based on principles of rights. Although the right to life safe from debilitating injuries may seem implicit in the right to life, decision-makers and the public at large have yet to use this right to influence policy in this respect. Therefore, it has become necessary to promote in clear and explicit terms a right of people to live in a world safe from harmful injuries as a fundamental human right.

### **5.6.2 The Need for a Right to Safety**

The demand for establishing a right to safety emerges in a society where people feel the need for a norm on which to base an actionable claim for protection from physical, social, or emotional harm. This need is also strengthened when societal agreement and action take hold. In the past, people used products and lived in homes and in an environment that they themselves, or local communities, participated in creating, and they blamed themselves if they suffered harm or injury from such arrangements. Modern systems, however, do not allow us to live in isolation or independently of others. Normal activities continually preclude individual choices. For example, most of us cannot choose the time at which we travel to work or the road we use to do so. Most of us live in homes that are designed and built by others and use technologies manufactured by powerful organisations not necessarily under our control, and we dare not guess the hazards found in chemicals and other products we purchase.

This is a new development in human history, and for this reason we have to develop a new regimen of rights that protects us from unreasonable harm. Ethical and moral responsibilities of the state need to be understood by civil society, by politicians, in order to ensure that all individuals have a right to life. This need for a right is strengthened by

research that has revealed severe limits to ensuring individuals' safety by "educating" them, and that there is a wide variation between people's knowledge and their actual behaviour. This is particularly true for those situations in which we cannot specifically select the people who will be involved in certain activities, such as domestic work, use of the roadways, and in most of our work environments.

Individuals have a right to lead healthy lives and thus must operate in environments that give them a reasonable opportunity to do so. Therefore, we have a social and moral responsibility to design our products, environment, and laws so that people can easily and conveniently behave in a safe manner without sacrificing their right to earn a living and fulfil their other societal obligations. Systems must be designed safely, not only for "normal" people but also for those who might belong to any of the groups listed above. Such designs, rules, and regulations would reduce the probability of people hurting each other or themselves, even when someone makes a mistake.

Such changes will take place in a systematic manner only when safety is recognized as a fundamental right of communities and is not dependent only on the goodwill of powerful institutions. Perrow, (2003) states this issue forcefully: "Above all, I will argue, sensible living with risky systems means keeping the controversies alive, listening to the public, and the essentially political nature of risk assessment. Ultimately the issue is not risk but power, the power to impose risks on the many for the benefit of the few. A people's Right to Safety is likely to help us move in this direction".

## 5.7 Chapter Summary

In this chapter a number of aspects pertaining to the nature of Road Safety Promotion were outlined. The principles, laws, rules and ethical issues underscoring the implementation of Road Safety promotion strategies were highlighted. Possible aspects that relate to Road Safety have been pointed out as premises for the evaluation of Road Safety Promotion Strategies in a selected Social Marketing Model. In the next chapter efforts are made to analyse the Road Safety Promotion Strategies. Attention is given to the determination of

various approaches that could be used to evaluate the Road Safety Promotion Strategies in a selected Social Marketing Model.

## CHAPTER SIX

### RESEARCH METHODOLOGY

#### 6.1 INTRODUCTION

In chapter five the nature of Road Safety promotion is outlined. The principles, laws, rules and ethical issues underscoring the implementation of Road Safety promotion strategies are highlighted. Possible aspects which relate to Road Safety have been pointed out as premises for the evaluation of Road Safety promotion strategies in a selected Social Marketing model. The purpose of chapter six is to outline the methodology that was applied to obtain and utilise information from both primary and secondary sources with purpose establishing the aims of the study.

#### 6.2 METHODOLOGY, RESEARCH METHODS

The key purpose of the study was to evaluate the Road Safety Promotion Strategies available by utilising a selected social marketing model. Three of the nine provinces namely North West, Gauteng, and Free State Province were used for the evaluation exercise. A thorough literature study was done to acquire understanding of the main concepts and constructs under study (those listed under section 1.1). To achieve all of these, all available databases to the researcher (both national & international) were consulted during the study. Qualitative research methodology was used for the study.

#### 6.3 SAMPLING

A sample of all available Road Safety Officers (managers, officers, field workers) in the selected three (3) provinces, (North West, Gauteng and Free State), was used as sample drawn from a population of N= 50 in the three provinces namely: the North West Province

on the basis that it is above 50% rural, Gauteng is industrial and predominantly urban, while Free State is above 50% farming or agricultural.

Focus group interviews were conducted with Road Safety Officials and their managers, academics, experts in Communication, Social Marketing and Road Safety Promotions. Three focus group interviews were conducted with this sample of practitioners and experts from all three provinces stated above.

## **6.4 METHODS AND INSTRUMENTS**

### **6.4.1 Description of Methodology and Instrumentation**

The focus group technique was employed.

Focus group subjects were selected from three geographical areas mentioned above for pre-testing discussions and for the actual research interview session, based on selected topics from the Road Safety Promotion Strategies, aligned to the Social Marketing domain.

The semi-structured focus group interviews were conducted with all the Road Safety communication managers and Road Safety Officers in the three provinces selected for the study. Leading academics, general managers and other experts in the field of communication, education, and Social Marketing were invited at all stages of the study, either as part of the pilot, as independent observers, or as expert opinion providers.

Structured questions were asked from each province from the research subjects found willing to answer questions from the Road Safety Communication arena.

### **6.4.2 Focus group interviews as a selected research method**

According to Lesedi, (2004) the focus group interview method is a qualitative technique using discussion among a group of 4-12 people, in a comfortable, non-threatening environment, to explore topics or obtain perceptions about a given problem or topic of interest. The technique makes use of group interaction to provide insight and data, which is not accessible without the stimulus of a group discussion.



The aims and purpose of the interview according to Coleman and Biggs, (2002) and De Bruyn, (2003) as quoted by Lesedi, (2005) are:

- To collect data within the limited time.
- To supplement data that had been collected by means of questionnaires.
- Ideas, views and perceptions of participants are verified and synthesised through the discussions.
- Focus groups provide insights into attitudes, perceptions and opinions of participants.
- To confine the role of the interviewer to that of initiating discussions rather than playing the directive role. In this way participants take major responsibility for stating their views and drawing out views of others in the group.

The interactions among the participants stimulate them to state feelings, perceptions and beliefs that would probably not be expressed if interviewed individually.

#### **6.4.3 Advantages of focus group interviews**

According to Cozby, (2001) group discussion questions tend to be open-ended and people can respond to one another and could have various responses. The proceedings of group discussions are usually recorded and may be transcribed as well as can be used repeatedly. A focus group is an interview with a group of about 6–10 individuals brought together for a period of usually 2–3 hours. The group members are often selected because they have a particular knowledge or interest in the topic. The researcher is able to gather different information from different groups.

According to Babbie et al., (2005), the advantage of focus group interviews is the opportunity to observe an interaction on a topic in a limited time and that is based on the ability of the researcher to facilitate the group. The focus group helps to find the primary information the researcher would ordinarily not be able to access, and groups are able to discuss their different opinions based on their knowledge and experiences.

According to Belk, (2006) it is advisable to interview the focus group for utmost one and half hours to enhance the productivity and profitability and that allows the moderator to interview more than one group within one working day. Belk, (2006) emphasises that the use of a focus group is dynamic and highly versatile techniques may be used by a researcher compared to other research techniques. Focus groups should be homogenous in personal characteristic and experiences as well as knowledge because they are likely to disclose information.

#### **6.4.4 Disadvantages of Focus Group Interviews**

According to Cozby, (2006) the focus group is time consuming because it requires people to spend time. Costs are incurred by travelling to the focus group location, and there is usually some sort of monetary or gift incentive to participate. The interviewer must be skilled in working with groups, both to facilitate communication and to deal with any problems that may arise. Some group members may hide behind others, or interpret the given information differently. It requires more attention of the moderator and it provides less depth and detail about the opinions and experiences of any given participants. Again, more than one group must be interviewed because information obtained from one group only, may hamper the results of the study, Babbie et al., (2005).

### **6.5 CONSTRUCTION AND DESCRIPTION OF THE INTERVIEW SCHEDULE**

The key research questions of the study to be addressed are:

- 1 What is the impact of Road Safety Promotion Strategies on the reduction and prevention of road traffic accidents, fatalities and injuries?
- 2 Why and how can Road Safety Promotion Strategies be evaluated?
- 3 Are Road Safety Managers (officers/ practitioners) adequately trained to assess and evaluate Road Safety Promotion Strategies in selected provinces?
3. Has there been general public engagement in the Road Safety Promotion Strategies?

These were broken down into 10 questions for complete discussion and response.

The instrument used in the first part of this study is an interview schedule (refer to Appendix B). Due to the nature and quality of inputs expected for a study like this one, it was opted that focus group interviews would be conducted with the participation of leading persons in the fields of Communication, Road Safety and Social Marketing.

## **6.6. INTERVIEW PROCEDURES**

### **6.6.1 Preliminary institutional arrangements**

Lists of subjects were compiled per province and the first top officials in rank were selected to participate in the study. The researcher obtained the contact details of the subjects and contacted them telephonically and via electronic mail (e-mail) to notify them of their selection as well as to request their participation in the study. On their acceptance to participate in the study as subjects, appointments were arranged with them for dates that suited all subjects within the specific province.

### **6.6.2 Intermediate arrangements and contingencies**

After the appointments were made, the interview schedule was sent to the subjects either via e-mail and fax as required; this was to afford them an opportunity to familiarise themselves with the contents of the interview schedule before the scheduled time. On the appointed date and time, the researcher met with the interviewees and conducted the interview. There were instances where the interview did not start on the stipulated time due to unforeseen circumstances in the workplace of subjects. In many of these cases, both parties met for the first time at each such interview meeting where subjects introduced themselves. The researcher then explained once more the purpose of the interview.

During the interview, the questions on the interview schedule were used as primary questions and depending on the answers of the respondents, follow-up questions were raised by the interviewer. The purpose of the follow-up questions was to gain clarity and more information or understanding on the responses of the subjects on the matter(s) being discussed. Time was allowed for a preliminary general discussion where concepts would

be explained fully. This would be the time also to prepare the subjects in terms of ethical and other consideration like housekeeping, so that the entire environment of the focus interview was conducive, and that all participants are in sync.

### **6.6.3 Setting the Tone and Ethical Considerations**

#### *6.6.3.1 Setting the Tone*

The focus groups were allowed to discuss the core message of the interview topic as well as to warm up, during introductions, explaining every detail and aspect of the process.

#### *6.6.3.2 Housekeeping and Ethical Considerations*

The researcher outlined and discussed with all respondents and accordingly, every individual had a chance to communicate, introduce themselves, their work in the Road Safety office, their experiences within the Communications, Social Marketing practice and research, and their concerns in general. Expectations, house rules and ethical considerations were outlined in detail and at every step.

### **6.6.4 Follow-up questions**

The follow-up questions such as: “motivate your answer” were raised depending on the kinds of responses given by the interviewees. This technically meant that some interviews lasted longer than others. The approximate time allocated per interview was one hour; however, the interviews lasted two to three hours, mainly because of the presence of independent expert observers within the group.

### **6.6.5 Recording Devices Used**

Though there is an overriding perception that the presence of recording devices in an interview session may deter respondent(s) from expressing their opinion freely, Wellman, et al., (2005) maintain that the interviewer should sufficiently explain the purpose

of the recording to the respondent. Consequently, a pocket tape recorder was used to capture the proceedings of the interviews with the interviewees' permission.

For ethical reasons the act that recording devices would be used in the interview was made known to the subjects whilst briefing them about the procedure of the interviews.

#### **6.6.6 Affirmation of Interview purpose**

At the beginning of the interview session(s), the researcher affirmed the purpose of the interview and gave the assurance that all the views gathered from the subjects would be respected and treated confidentially. Interviewees were given an opportunity to ask any questions regarding the procedure and process of the interviews. After every uncertainty was clarified, the researcher opened the general topic of Road Safety to generic discussion in order to "break the ice" and then proceeded asking the questions on the interview schedule in a chronological order from questions 1 to 4.

#### **6.6.7 At the end of the focus group discussions and interviews**

The interview meetings ended with expressions of thanks and appreciation for the interviewees' participation and contribution. Finally, the researcher would bless the interviewees with blessings from our God and Father of Jesus Christ.

### **6.7. DECODING OF THE DATA**

The interview data was recorded on audio-cassettes. As such, the researcher had to make time to:

- Play back each tape in chronological order as the interviews were being conducted
- Listen to all the tapes very carefully and
- Write down the information from the tapes.

### **6.7.1 Hard Copy Notes**

The researcher decoded the data by writing verbatim on paper what was contained on the tapes. However, in some cases, spelling and grammatical errors were corrected for ease of coding by the researcher.

### **6.7.2 Post focus group process**

Post focus group interview housekeeping was done. The researcher then subjected the discussion to the post-interview process, in order to ensure that there are no gaps. The external observers would also give their opinion, and a post-test would be conducted.

## **6.8. POPULATION AND SAMPLE**

A sample which comprised Road Safety Officers managers/technicians was solicited from three (3) provinces, namely, the Free State, the North West, and Gauteng. In each province, Expert Observers would join the Road Traffic Officers. The sample from these provinces comprised focus interview fifty subjects (N=50), representing the RSO's=40 and Expert Observers (EO's) =10. The distribution according to provinces is shown in the table below:

### **6.8.1 Why the three provinces were used in the study**

The researcher intended to use all nine provinces of South Africa. However, focus group interviews were only possible in three provinces as shown on Table 6.1 below. The sample was drawn from three provinces namely: the North West on the basis that it is above 50% rural; Gauteng is industrial and predominantly urban, and Free State is above 50% farming or agricultural. They would therefore be representative of the demographic variables (qualitative and quantitative) of the remaining provinces.

NB. The total of officials in the remaining provinces was given as in the table below.

**6.8.2 Table 6.1 Provinces of South Africa Table 6.2. Provinces of South Africa**  
**which participated in focus group interviews**                      **which did not participate in the focus group interviews**

S/No	Province	RSO's	EO's	S/No	Province	RSO's	Province	RSO's
1	Free State	15	3	1	Eastern Cape*	3	Limpopo*	12
2	Gauteng	20	5	2	Kwa-Zulu Natal*	9	Northern Cape*	5
3	North West	5	2	3	Mpumalanga*	14	Western Cape *	7

**\*Province NOT selected for Focus Group Interview**

RSO's: Road Safety Officers: 40

EO's: Expert Observers (participant): 10

Total: Three Provinces: N=50 ; Total: Remaining Provinces: N=50

This means that the sample consists of 50% of the population in all the provinces.

**6.9 VALIDITY AND RELIABILITY OF DATA**

**6.9.1 Validity**

Validity refers to the extent to which the findings accurately represent what is really happening (the criterion is IMPACT of the Road Safety messages). A test or effect is valid if it measures what it purports to measure, or what the researcher sets out to measure, *Welman, Kruger and Mitchell, (2010)*. This research had set out to measure the IMPACT of the promotional messages of Road Safety which had emanated from the National Road Safety Strategies.

The validity of the interview schedule constructed for the study is founded on the basis that the interview questions were raised from policy issues and decisions made by Government

Departments. The fact that the interview questions were based on the Governmental policy statements ensures their validity – for gathering data that would address the problem questions of the study. Another point that would affirm the validity of the interview schedule is the fact that the subjects of the study were people responsible in whole or in part for the implementation of these government policies.

To ensure validity of the interpretation of the interview data, the triangulation by person technique was used. The researcher used two other academics that are well experienced in research and the field of study to verify the accuracy of data and interpretation. This was done for the purposes of ensuring that the interpretation of data done by the research is valid. In addition, the responses were analysed against data from literature. The limitations of this research method are found in literature, Welman et al., (2005), and the researcher cannot claim that these interpretations would be absolute.

### **6.9.2 Reliability**

Reliability refers to the credibility and consistency of the results of a test, Welman, et al., (2010). The researcher used test-retest methods to ascertain the results. Internal and external re-test methods were used. Internally, the three provinces checked each others' responses for agreement or disagreement. Externally, the researcher used expert opinion for accuracy. The internal process, namely triangulation by person, yielded same results. The external process used two academics experienced in research and in the field of study to verify the accuracy of data decoding. The use of independent observers also assisted during the pre-test discussions. This way the test instrument underwent rigorous refinement.

In order to ensure reliability, interview respondents were asked all questions the first time, and given a chance to think and comment about them, and then discuss them and find out if they understood them, after which the questions were asked for the second time, with responses recorded on tape, Welman, et al., (2005). The technique was explained to them, ensuring that they were heard in the first place. This also made decoding easier.



Same questions were asked to all respondents. This ensured consistency. Repeat of questions and emphasis of critical concepts and their meanings like “Road Safety”, were imbedded in the procedures (pre-test discussion). African language interpretations and cross-discussions among respondents ensured consistency of responses. Respondents were encouraged to ask questions seeking clarity. All questions were repeated. The questions were formulated on the basis of policy documents and then pre-tested with five renowned academics and researchers in Communication as monitors. The post-test session included the expert external observer team.

### 6.9.3 Pre-testing of the interview schedule

The interview schedule was pre-tested with five individuals with the following aims

- To identify possible communication problems which would lead to rephrasing of the questions where necessary?
- To establish whether or not some of the questions were ambiguous and could lead to different interpretations by different participants.

**NB. In this instance (the pre-test scenario), it became imperative that**

- respondents had to know each other through cordial self introduction.
- shyness had to be overcome as a result of introductions and questions
- every term in each sentence had to be explained in context
- there was need to “unpack” and discuss every concept in the interview question was established.
- dictionary and scientific definitions were important and had to be explained fully
- not every technical concept was clear to all the subjects
- the level of understanding of individual subjects was different
- familiarity with the interview environment had to be established, so time had to be extended.
- the full scene had to be set before the focus interview

The pre-test (N=5) assisted the researcher with the smallest details of preparation and planning for the main focus group interview (N=50). Experts were used to give advice

opinions on critical issues of the study. These academics were well-versed with the content of the research, and their expert opinion highlighted pertinent issues in a well-functioning organisational communication system of Road Safety.

## **6.10 DATA ANALYSIS AND INTERPRETATION**

Due to the fact that focus group interviews were held separately in each of the three provinces (Table 6.1), the data was captured and presented in table format province by province.

As such, data collected and decoded were therefore analysed and interpreted province by province. Discussion of the data was made by way of quoting verbatim the information given by the subjects as presented in 7.3.

Furthermore, data was organised question by question according to the question-sequence on the interview schedule. For every question on the interview schedule, the views of all three provinces were presented, province-by-province, in table form for purposes of analysis and interpretation of the data.

## **6.11 CHAPTER SUMMARY**

In this chapter, the research design for the qualitative research was presented. An interview schedule was developed. The questions were used in the semi-structured interviews, where respondents had to articulate their answers in an atmosphere of interaction, explanation, and sharing. The qualitative research method utilised focus group interviews comprising of three samples of people from each of the three provinces of South Africa selected for the study (N=50). The pre-test scenario used five subjects, and the authentication (reliability and validity) exercise was re-enforced with the inclusion of expert opinion of well-versed academic and research leaders who were familiarised with the content of the study.

Data from the interviews were recorded, decoded, structured, analysed and interpreted in chapter seven.

## CHAPTER SEVEN

### FINDINGS, INTERPRETATION AND DISCUSSION OF FINDINGS

#### 7.1 INTRODUCTION

In chapter six the methodology for carrying out this study was discussed in detail. Firm foundations were laid for the collection of primary data from the sample population of the study. In chapter seven, the findings of data collected is presented, analysed and interpreted to provide grounds for the recommendations presented at the end of the chapter.

The instrument for data collection was designed in line with achieving the aims of the study as set in section 1.3., namely to:

- Determine the impact of Road Safety Promotion Strategies on the reduction and prevention of road accidents in selected provinces.
- Justify the necessity of evaluating the Road Safety Promotion Strategies in a selected Social Marketing Model.
- Ascertain the extent to which Road Safety Officers / Practitioners are equipped to evaluate Road Safety strategies.
- Determine the extent of the general public's participation in the formulation and implementation of the Road Safety Promotion Strategy.

It is believed that achieving the aims above would sufficiently address the research questions set in section 1.2 viz:

- What is the impact of Road Safety Promotion Strategies on the reduction and prevention of road traffic accidents and injuries?
- Why and how should Road Safety Promotion Strategies be evaluated as part of the Social Marketing Model?

- Are Road Safety Officers/Practitioners adequately trained to evaluate Road Safety Promotion Strategies in selected provinces?
- Has there been general public engagement in the Road Safety promotion Strategies?

Evidence gathered in answering the above research questions is therefore presented in this chapter. It is important to state that the review of literature in chapters 1 to 4, provided some clues towards the solutions to the items listed above and in section 1.2. Notwithstanding, some parts of answers to the research questions were to be obtained from the empirical part in order to sufficiently answer the questions. This required that focus group interviews were conducted using the interview schedule attached as Annexure C to the study. The participants in the focus group interviews were from the ranks of managers and Road Safety Officers who are responsible for implementation of the Road Safety Promotion Policies and Strategies, and those Communication and Social Marketing expert academics who would authenticate the results, while their participation re-enforced the constructs of the research design.

The focus group interviews were held on different dates in each of the three provinces as was determined or agreed upon by the interviewees and the facilitator(s). These focus group interviews were very successful and the outcome is presented in section 8.2 below.

## **7.2 PROCEDURES FOR THE FOCUS GROUP INTERVIEWS CONDUCTED IN THE THREE PROVINCES**

The focus group interviews were conducted in the North West Province, Gauteng Province and the Free State Province. The North West Province had the minimum number (5) of participants followed by the Free State with (15) participants and Gauteng with the highest number of participants (20). The interviews took 2 to 3 hours each, in spite for the scheduled one hour for each. This gave the researcher and the subjects enough time for interim explanation of concepts and procedures. The participant expert observers were 10 in number. The total number of participants was N= 50.

According to Lesedi, (2005) the focus group interview method is a qualitative technique using discussion among a group of 4–12 people, in a comfortable, non-threatening environment, to explore topics or obtain perceptions about a given problem or topic of interest. The technique made use of group interaction to provide insight and data, which is not accessible without the stimulus of the group discussion.

The aims and purpose of the interview according to Lesedi, (2005) were, to collect data within limited time, supplement data that was collected by means of questionnaires and ideas, views and perceptions of participants are verified and synthesised through the discussions.

Focus groups provide insights into attitudes, perceptions and opinions of participants to confine the role of the interviewer to that of initiating discussion rather than playing the directive role. In this way participants take major responsibility for stating their views and drawing out views of others in the group.

The interactions among the participants stimulate them to state feelings, perceptions and beliefs that would probably not have been stated in a less structured setting. Through these focus groups interviews, primary information that the researcher would not have been able to access was possible. Groups discussed their different opinions based on their knowledge or experiences.

Belk, (2006) emphasises that the focus group is a dynamic and highly versatile technique that a researcher can use compared to other research techniques, and that focus groups should be homogenous in personal characteristic, experiences and knowledge because they are likely to disclose information.

### 7.3 PRESENTATION OF THE RESPONSES OF THE FOCUS GROUP INTERVIEWS

The responses of the focus group interviews are presented province by province.

<p>7.3.1 Interview question 1</p> <p>Interviewer asks:</p> <p>Are you aware of any Road Safety promotion strategies in your (NW/G/FS) province?</p>	<p>Interviewees' responses:</p> <p>Yes, Road Safety Officers are aware of Road Safety Promotion Strategies in the Provinces</p> <p>Road Safety Education (scholar patrol, programmes) Drive Education (which consists of DOTY)</p> <p>Arrive Alive Project</p> <p>Communication and Marketing</p> <p>Road to Safety Strategy 2001 – 2005</p> <p>Road to Safety Strategy 2005 onwards,</p> <p>National Road Traffic Act 1972</p> <p>Educational roadblocks</p> <p>School visits</p> <p>Drivers training campaigns/ driver education project (DOTY)</p> <p>Arrive alive</p> <p>Road Safety Policy Act</p> <p>Communication strategy (using media)</p> <p>Road Safety Strategies (for example 2007/2008 Road safety legislature as an Act it describes many things about roads or how to use our roads.</p>
<p>7.3.2. Interview question 2</p> <p>Interviewer asks:</p> <p>Describe these strategies</p>	<p><b>Interviewees' responses:</b></p> <p>Driver education:</p> <p>There are a number of driving championships taking place around the country in order to train (tractor, taxi, light and heavy vehicle) drivers on how to drive safely on the roads, and to measure the impact of Road Safety Education (RSE) done by Road Safety Officers (RSOs).</p> <p>Incentives such as "Driver of the year" (DOTY) competitions within companies to encourage road user safety. The <b>strategy</b> also assists companies in evaluating their drivers and also assists in improving their driving.</p> <p>There are manuals prepared by the National Department of Transport on DOTY and they are accessible on request.</p> <p>Arrive Alive campaigns: The "Arrive Alive" programme has a number of projects where media is used to communicate with road users (pedestrians, passengers, drivers etc):</p>



Pedestrian campaigns in which RSOs go to communities to educate pedestrians on how to use Roads Safely.

Road shows: are normally done at taxi ranks, shopping malls, giving out pamphlets.

In executing the “Arrive Alive” programme, there are a number of challenges that Road Safety officers encounter where people enlist their **problems during these campaigns, but when these are reported to their management there is no response.** The other problem is that there is no evaluation so far of the work that has been done and therefore **no corrective decisions have been taken.** There is concern that the management is not doing anything with reports and suggestions given to them by RSOs who are in this case field workers, and engaging more with communities.

Road blocks: organizing of road blocks with the South African Police Service, Correctional Services, and Traffic Departments, where each Department comes with its own promotional material to the road users. The main idea of Road Safety roadblocks is to issue **Road Safety materials and messages to road users.**

It is stated that officers do not want to work. It was also stated that RSO’s must ask the **Community forum members to assist in other Road Safety activities.**

The new decision to implement the **driver demerit system received support from the interviewees who suggested that drivers who drive recklessly must face deduction of points until they lose their drivers’ licenses if they do not change their behaviour.**

Arrive Alive is in touch with Municipal and Government organized events on the ground, and they distribute flyers and pamphlets.

**Road Safety Plan/forum involves community awareness programmes that educate community members on Road Safety procedures** and rules that include the wearing of reflectors at night and the dedicated use of safety belts.

Pedestrian management plan – to **identify hazardous locations** and to establish **the needs of the community** in terms of road facilities.

Scholar patrol – involves and educates scholars.

Multi-media – has a long-term impact and it incorporates all multi-media subjects that are available such as television, radio, magazine and billboards, flyers, etc.

School visits

Plan activities in line with programmes like transport



	<p>Road Safety Education programme (<b>RS Curriculum</b>)</p> <p>Integration of Road Safety Manager</p> <p>DOTY is where Road Safety units organize with companies to train their drivers. (<b>Collaboration</b>)</p>
<p>7.3.3 Interview question 3</p> <p>Interviewer asks:</p> <p>Do you think that these strategies have an impact on Road Safety?</p>	<p>Interviewees' <i>responses</i>:</p> <p>The North West Province responded as follows: no, because there is no evaluation of the work done therefore one cannot measure anything and claim that it has an impact.</p> <p>For example, with speech competition nothing is being done with facts, concerns and strategies given / brought by learners. Reports are written but there hasn't been any progress or anything done about it.</p> <p>With DOTY no measures are in place to evaluate the results for any possible impact. Activities are done but there is no evidence to confirm that RSE had impact at all. There are many problems.</p> <p>No evaluation to demonstrate whether it is enforcement or RSE that is bringing better results on roads, for example when they announce the statistics that deaths on roads decreased, it was based on statistics collected during the 2008 Easter weekend.</p> <p>Reports and recommendations are given to the management after all these activities have taken place, but they are not responding to that, though it seems that RSO does not follow up on that to get the report.</p> <p>They complain of management not consulting and engaging with them, what they get is only instructions from above (up-down management) and they have to perform it.</p> <p><b>Gauteng</b> Province categorically answered: <b>yes</b>: an <b>impact</b> is being made... <b>failed to justify the impact</b>.</p> <p>Free State also answered: <b>Yes, strategies</b> have impact on Road Safety. But we have found that stakeholders <b>do not want to participate</b>. Promotional materials and pamphlets are not making an impact; during visits to schools no materials are distributed. <b>Schools so schools lose interest to proceed with Road Safety Education. Materials are out-dated because the contents are not updated every year.</b></p>



<p>7.3.4 Interview question 4</p> <p>Interviewer asks:</p> <p>What is the impact of Road Safety Promotion strategies on the reduction and prevention of road traffic accidents and injuries?</p>	<p>Interviewees' responses:</p> <p>The North West Province advanced the following answers:</p> <p><b>There is an impact done by the enforcement</b>, especially with the "Arrive Alive" campaign. "Arrive Alive" is a national programme/project, it is <b>financed</b> and they use <b>media</b> as part of their strategy to talk to people or alert them on what is happening on the roads. Their staff members are fed from the national department and finances are provided only for a short period, after the campaign there is no "Arrive Alive" existence in the province. They rely on national statistics and that is not really reliable for the province because it does not represent the overall figure of the country.</p> <p>Gauteng Province interviewees simply indicated that statistical agencies could provide relevant statistics to this question. Officers had no answer to this question at the time. <b>No idea about statistical trends.</b></p> <p>Free State respondents maintained that no realistic answer could be provided as there are many factors that relate to statistics and that no assessment tool has been used. <b>No idea about statistical trends.</b></p>
<p>7.3.5 Interview question 5</p> <p>Interviewer asks:</p> <p>Should Road Safety Promotion strategies be evaluated on a continual basis as part of a community engagement exercise?</p>	<p>Interviewees' responses:</p> <p>All three provinces provided the same answer to this question:</p> <p><b>Yes</b>, so that we can have more information as to whether or not the strategies are really working and having an impact</p> <p><b>Yes</b>, in case of scholar patrol though many institutions are involved but there are not enough. It is said that the <b>message strategies</b> must involve every one</p> <p>Assessments must be done on drivers</p> <p>To devise new strategies for driver performance</p> <p>To engage in selected education programmes for specific Road Safety issues</p>

<p>7.3.6 Interview question 6</p> <p>Interviewer asks: Why and how?</p>	<p>Interviewees' responses</p> <p><b>Regarding the 'why' aspect of the question</b></p> <p>Communities must become partners in Road Safety.</p> <p>Rapid increase of population impacts public transport systems because many people will buy cars and accident statistics will increase.</p> <p><b>High petrol price lowers private road users.*</b></p> <p>Strategies should be reviewed.</p> <p>To check if our messages are "hitting the target" (objectives) because of community dynamics. (Motivated in answers to question 5)</p> <p><b>About the 'how' side of the question</b></p> <p>Continuous assessment in school classrooms about previous Road Safety exercises.</p> <p><b>Learner drivers</b></p> <p>Evaluate projects</p> <p>Acquaintances, community engagement (with <b>community forums</b> together with the <b>Directorate for Research</b>), and to make engagement sustainable, Road Safety community forums are not sustained,</p> <p>NB. It was suggested that the Population Unit in the Office of the Premier of the North West Province should bring Road Safety on board in order to assist them with building and sustaining their community forums.</p> <p>An ideas hub. Suggestion Competitions.</p>
<p>7.3.7 Interview question 7</p> <p><b>Interviewer asks:</b></p> <p>Are Road Safety officers/practitioners adequately <b>trained</b> to evaluate Road Safety promotion strategies in the Province?</p>	<p><b>Interviewees' responses:</b></p> <p><b>No</b>, but there was some kind of situation where that was included though not adequately.</p> <p>Legislated training: when the person is taken into a type of <b>training in work they are employed to do, which is not relevant to what they are doing.</b></p> <p><b>Managers</b> in Road Safety <b>do not have knowledge</b> in Road Safety issues, <b>anyone who cannot perform</b> is thrown into the unit (human dumping)</p> <p>They are <b>not receiving any training</b> though they have been <b>raising their training needs</b> with their managers during their monthly meetings for about 5 or 6 years now, but nothing has been done about it. In spite of all this, they are expected to perform and come up with good results</p> <p><b>No, there is no training at all</b></p>
<p>7.3.8 Interview question 8</p> <p><b>Interviewer asks:</b></p> <p>Has there been general community engagement in the Road Safety Promotion Strategies?</p>	<p>Interviewees' responses:</p> <p>(NWP): <b>Yes</b>, during the Road Safety campaigns they engage with communities.</p> <p>(GP): Yes – the community was engaged in the <b>strategy formulation</b>, but <b>not with the implementation</b>. That implies that the <b>product</b> (Road Safety Programme) <b>was not adequately marketed</b>.</p>

	<p><b>(FS):</b> No, communities <b>were not involved in drafting strategies</b>. However, <b>the communities are involved during implementation</b>.</p>
<p>7.3.9 Interview question 9 Interviewer asks: Describe the nature of the community engagement briefly?</p>	<p><b>Interviewees' responses:</b> <b>(NW):</b> They meet with traditional leadership of villages they operate in for permission to engage their community They seek ideas from them, List their problems and some solution from them e.g. at scholar patrols, stations, level crossings. The question was asked as whether they engage communities to help them solve their problems and the answer was "yes", for example, one of the RSO's invited one of the parents from the community to stand for her and monitor at the scholar patrol in her area when she was busy with a Road Safety campaign and was still waiting for scholar patrol resources. <b>(community co-operation)</b> <b>(GP):</b> Already described. They have created Road Safety Forums to assist Road Safety Officers or the Road Safety organisation with the <b>problems of road users</b>. They <b>issue pamphlets</b> to the community about awareness of Road Safety. <b>Calling community meetings</b> and listening to their needs as road users. <b>(FS):</b> DOTY project – <b>community is not involved in the planning</b> but is <b>involved in the execution</b>, this causes <b>the community</b> to lose interest. Even the scholar patrol is doing the same lines. Such as <b>getting ideas from the community</b> regarding their needs to approaches towards clarifying the plans before implementing.</p>
<p>7.3.10 Interview question 10 Interviewer asks: Any other suggestions on Road Safety Promotion Strategies?</p>	<p><b>Interviewees' responses:</b> Intervention by the third party who is an expert in RS issues is needed, Communication between managers and sub-ordinates must improve, Evaluation of ongoing projects, Employ managers who have Road Safety qualifications, Evaluation strategies must / should be put in place to evaluate projects, Relevant manpower is needed in RS Communities must be engaged in RS matters Cross pollination of ideas with other RSO's within the NW province and other provinces Where there is <b>no support on scholar patrol</b> and <b>workload is too much</b> for one person to monitor all of them at the same time, <b>communities can be engaged</b> to assist children. They <b>do not have resources</b> such as <b>teaching aids</b>, and that makes it difficult for</p>

them to perform,

**Experts are needed to manage the unit** in order to have progress.

RSO or Practitioners need skills to be evaluated and maybe introduce a course or training for these.

Introduce **scholar patrol at Provincial level** not at National level.

Formulate **skills analysis training** to determine current RSO level of skills and how to improve employment.

RSO's want **Road Safety Imbizo at least once a year** to discuss strategies they are working on themselves. Imbizo will include:

the **formulation of strategy and implementation strategy to define their role**

Define and review engineers' work on the roads.

In the case of Gauteng province, there is confusion as to whom the provincial MEC should report to! Should the MEC report to the National Minister of Transport or to the National Minister of Safety and Security or both as is the case now? Absence of HOD, Director, and competent managers.

Absence of HOD, Director and competent managers.

Suggestions from the Free State Province were the following:

Budget allocation of strategies

Training of personnel to enhance implementation of Road Safety programmes.

Shortage of human resources needs to be addressed in order to adequately impact on Road Safety in the communities as expected.

**Monitoring and evaluating tools** of the strategies need to be made available.

**Materials for Road Safety Officers** are needed, so that work improves

**Improvement of communication on all levels** within the Department **is a must.**

**Accessibility of information** is still a massive challenge for Road Safety Officers and communities at large.

**Road Safety** workshops must be hosted on an annual basis.

## 7.4 SUMMARY OF THE FINDINGS FROM THE FOCUS GROUP INTERVIEW

### Interview Question 1

#### *Q1. Any Road Safety Promotion Strategies you are aware of?*

All three provinces are aware of all the strategies on paper, the educational strategies, especially the national strategy called “Arrive Alive”.

- (1) Among all strategies, the only visible one was “Arrive Alive”, which was highly visible, using media, heavily supported, funded, highly co-ordinated and articulated at all levels. Persuasion levels and marketing messages for this campaign were seen felt, heard, repeated, and found everywhere, in this massive campaign. However, the messages were not evaluated, and as the novelty factor wore off, the campaign, which was not followed up provincially and locally, was rendered obsolete. Schools and communities soon forgot to make noise about it. Its initial success was because it was collaborative and highly co-ordinated, in addition to the other benefits it enjoyed. Perhaps the provinces should have evaluated its impact in its rural and city roads, run with it, and given it fresh dimensions and more innovative marketing tools. Did it continue to reduce accidents? NO, not in the long run, and therefore road users were not any longer persuaded deliberately, to respect the rules of the road.

### Interview Question 2\*

#### *Q2. Describe the strategies.*

Respondents seem to know the strategies of Road Safety in their totality. They therefore have something to work on. A comprehensive description of all Road to Safety Strategies from the National Government was advanced by all provinces in their responses during the interview.

### Interview Question 3\*

#### *Q3. Do these strategies have an impact?*

A big NO came from all three provinces. No monitoring mechanisms in place, therefore no evaluation, no assessment, no measurement, no feedback (for example, from North West

School' Competition), no assessment of Driver of the Year Competition. Events happen, come and it is business as usual. These way things cannot improve.

#### Interview Question 4

*Q4. Have these strategies helped reduce injuries?*

Only with Road Traffic Law Enforcement, and only under the Arrive Alive campaign, which is not a provincial or local campaign, but a national campaign? The provinces do not have their own active campaigns, or their own mini-campaigns are neither active nor effective. All three provinces report “No Statistics” and “No assessment”.

#### Interview Question 5

*Q5 Should Road Safety Promotion strategies be evaluated on a continual basis as part of a community engagement exercise?*

A unanimous “Yes” was articulated regarding the need for “continuous evaluation” of Road Safety Promotion Strategies as part of a community engagement exercise.

#### Interview Question 6

*Q6. Why and How*

*Q6.1. Why:* The need to continuously evaluate Road Safety Promotion Strategies as part of community engagement is exacerbated by the fact that communities are excluded from the equation and are not part of the strategy plan, increasing vehicle population statistics and the need to plan user-friendly roads, etc.

*Q 6.2. How:* The answer was partnerships, community involvement, more public than private transport, review of strategies, assessment of strategy impact, and evaluation of classroom Road Safety training and learner driver projects.

*Interview Question 7*

***Q7. Are Road Safety officers/ practitioners adequately trained to evaluate Road Safety promotion strategies in the Provinces?***

The answer was an overwhelming NO from the provinces. The word “adequate “does not even apply here. The Provincial officers are NOT trained at all, not in evaluation, and not in observation of the impact of promotion strategies, **not at all**.

**Interview Question 8**

***Q8.Has there been general community engagement in the Road Safety Promotion Strategies?***

**Yes. There were differing views from provinces here.**

**NW:** Communities engaged in both formulation and implementation

**GP:** Community was involved in formulation but **not in implementation**

**FS** Community involved in formulation and not the implementation

**Inference:** The operational differences in provinces point to a very serious country problem

**There is a need to work inter-provincially and to engage communities in the collaborative efforts from the process.**

**Interview Question 9**

***Q9.Describe the nature of the community engagement briefly?***

**NW:** Traditional leaders involved, their ideas noted, communities list their problems and solutions (school patrols, stations, level crossings).

**FS:** DOTY (Driver of the Year Competition) **Planned by government**, implemented by community

**GP:** Road Safety Forums, Pamphlets, community meetings, etc.)

**Finding:** The finding reflects that very little is happening in communities, and that there is little co-ordination as well as well as that there are more problems (e.g. the scholar patrol) than solutions in the Road Safety Promotion scene.

Responses were scanty and dubious.

General recommendation by focus groups: The strategy for community involvement must be formulated by all provinces of South Africa, working together. This recommendation came from the focus groups.

\*NW...North West

\*FS....Free State

\*GP.. Gauteng Province

## Interview Question 10

### *Q.10. Any other suggestions on Road Safety Strategies?*

The responses below actually give the full picture of the state of Road Safety in the provinces. They are suggestions from the provinces.

#### **General**

Intervention by the third party who is an expert in Road Safety issues is needed. This implies the need for **consultants conversant with Road Safety issues**, to assist the **managers, who may be problematic**.

Communication between managers and colleagues must improve. This means that there is a problem of internal communication that forms a barrier to progress needed.

- i. Evaluation of ongoing projects. Projects are NOT evaluated for measurement of objectives, outcomes and for general impact.
- ii. Employ managers who have Road Safety qualifications. Managers are NOT qualified for their Road Safety positions.
  - Evaluation strategies must / should be put in place to evaluate projects. There is NO EVALUATION of the National Strategies. Relevant manpower is needed in Road Safety. There is NO qualified personnel in the offices. Communities must be engaged in Road Safety matters. Communities are **not** optimally involved.

#### **North West**

- ❖ Cross pollination of ideas with other RSO's within the NW province and other provinces. Provinces do not communicate. There is NO collaboration, NO co-operation and NO co-ordination.



- ❖ There is **no support on scholar patrol** and **workload is too much** for one person to monitor all of them at the same time, **communities can be engaged to assist children.**
- ❖ They do not have **resources such as teaching aids**, and that makes it difficult for them to perform,
- ❖ **Experts** are needed to **manage the unit** in order to have progress.
- ❖ RSO or Practitioners **need skills** to be evaluated and maybe **introduce a course or training** for these.
- ❖ Introduce **scholar patrol at Provincial level** not at National level.
- ❖ Formulate **skills analysis training** to determine current **RSO level of skills** and how to improve employment recruitment.

#### All provinces

- ✚ RSO's want **Road Safety Imbizo** at least once a year to **discuss strategies** they are working on themselves. Imbizo will include:
- ✚ Imbizo: the **formulation of strategy and implementation strategy**
- ✚ Imbizo: to **define their role**
- ✚ Imbizo: Define and review **engineers' work on the roads.**

#### Gauteng

- In the case of Gauteng province, there is **confusion** as to whom the provincial MEC should report to! Should the MEC report to the National Minister of Transport or to the National Minister of Safety and Security or both as is the case now!
- Absence of **HOD, Director and competent managers.**

#### Free State

- Suggestions from the Free State Province were the following:
- Budget allocation of strategies
- Training of personnel to enhance implementation of Road Safety programmes.
- Shortage of human resources needs to be addressed in order to adequately impact on Road Safety in the communities as expected.
- Monitoring and evaluating tools of the strategies need to be made available.

- Materials for Road Safety Officers are needed, so that work improves
- Improvement of communication on all levels within the Department is a must.
- Accessibility of information is still a massive challenge for Road Safety Officers and communities at large.
- Road Safety workshops must be hosted on an annual basis.

## 7.5 CHAPTER SUMMARY

In this Chapter, the proceedings of the focus group interviews conducted in the three provinces were described in sub-section 7.2. In section 7.3 the account of the focus group interviews tabling the responses of the interviewees was presented and the interpretation and discussion of the interview results were done in section 7.4. It is appropriate to ascertain that the information in this chapter has laid a basis on which recommendations and conclusions will be made in chapter 8, the last chapter of the thesis.

## CHAPTER EIGHT

### CONCLUSIONS AND RECOMMENDATIONS

#### 8.1 INTRODUCTION

The findings emanating from the data collected and interpreted in chapter seven are listed here as a basis for drawing conclusions and recommendations. Conclusions form the basis for recommendations, which will be the foundation for new strategies for promotion of Road Safety, using the Social Marketing Model. The set of recommendations made should indicate areas of further study in this regard.

#### 8.2 ASSESSING THE RESEARCH QUESTIONS

The following research questions were posed in section 1.3 as the nucleus around which all the actions taken to complete this study revolves. As such, after having done so much and having come this far, it was critical to devote sufficient time to collate all evidence. This paved the way for coding, in order to establish conclusion statements based on the research. Recommendations then followed.

##### 8.2.1 What is the impact of Road Safety Promotion Strategies on road traffic accidents and injuries?

From the responses of the interviewees, there is virtually nothing that one could put on the table as a concrete answer to this research question. An elaborate discussion has been made on the responses of interviewees to interview questions 3 and 4 as presented in sections 6.3.3 and 6.3.4 respectively. It is imperative to turn to the information in the literature to find authentic answer(s) to this research question.

An extract from the speech, (2008) of the Chief Executive Office of the Road Traffic Management Corporation (RTMC) at the official launch of the Arrive Alive campaign exposes some very interesting statistics and facts. What has been cited in the focus group

interview clearly establishes a high correlation between the facts from the interview responses and the facts cited in the speech. The conclusive evidence is obvious: **NO IMPACT.**

**According to Rakgoale (2008:21-24) the following information applies:**

i. HIV-AIDS accounts for 30% of deaths, being the first highest death statistic.

ii. Tuberculosis and road traffic accidents account for the second highest death statistic.

iii. Road crashes come between sixth and tenth in all categories. This is about the same status as crashes in most of the developing countries of the world. The World Bank estimates that by 2020, should nothing effective be done, road crashes will raise to second place as an unnatural cause of death.

**According to Rakgoale's findings,**

a. Road crashes in South Africa are the seventh largest contributor to deaths in the country which is comparable with other developing countries in the world.

b. The World Bank estimates that should nothing effective be done, road crashes will rise to the second largest cause of deaths in SA by 2020.

c. More than 14 000 people die annually on our roads and nearly 50% of these are pedestrians. In addition, around 7 000 road users are annually left permanently disabled and 40 000 are seriously injured.

d. The number of road fatalities decreased by 499 (3,24%) from 15,419 fatalities during 2006 to 14,920 fatalities during 2007.

e. Crashes of motorized vehicles decreased by 1,64(9,71%) from a rate of 16,85 in 2006 to a rate of 15,22 fatal crashes per 10,000 vehicles in 2007.

**f. Increases in fatal crashes were recorded as follows (2006):**

- ❖ Mpumalanga : increase 146 (13,14%);
- ❖ North West : increase of 32 (3,34%);
- ❖ Limpopo : increase of 24 (2,38%); and
- ❖ Western Cape : increase of 22 (1,63%)

**g. Increases in fatalities were recorded as follows: (2007)**

- ❖ Mpumalanga : increase of 290 (19,47%);

- ❖ Limpopo : 79 (6,10%);
- ❖ North West : 28 (2,26%).

h. The number of fatalities per 100 million vehicle kilometres (mvk) travelled decreased by 0,96 (7,96%) from a rate of 12,02 in 2006 to a rate of 11,06 fatalities per 100 mvk in 2007. The percentage (%) annual change in the number of fatal crashes and fatalities over the past 3 years is reflected in the figure below.

### 8.2.1.1 A comparison between the South African situations with that of other African Countries

The South African situation compared with the global environment:

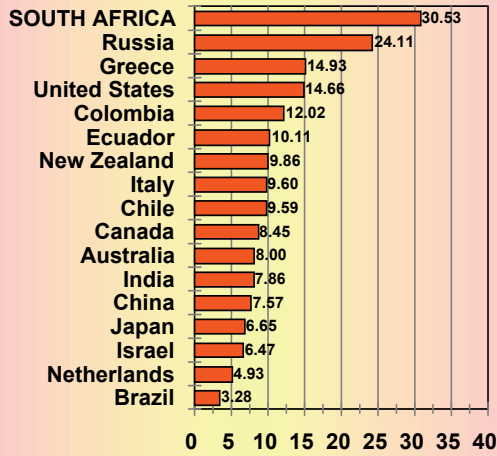


Source: Rakgoale, (2008:21-24)

#### i) Road fatalities

The information in this graph shows that during 2005, the latest year for which international data is available, the country for which the highest number of road fatalities were recorded was China with a total of 98,738 road deaths followed by India with a total of 85,998 fatalities. The number of fatalities in South Africa was 14,316. The country with the lowest number of fatalities is New Zealand with 404 fatalities.

**Fatalities per 100,000 Population  
Global - 2005**

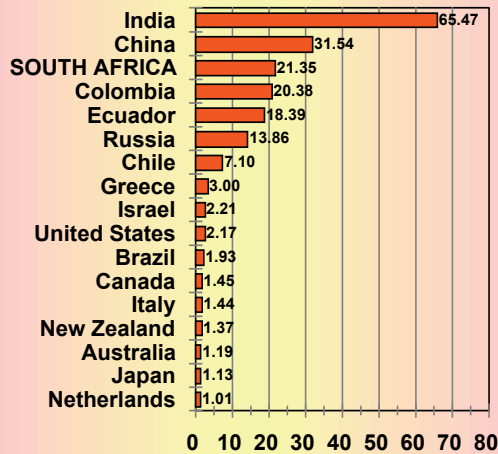


Source: Rakgoale, (2008:21-24)

**ii) Fatalities per 100,000 population**

The information in this graph shows that during 2005 the number of fatalities per 100,000 human population in South Africa was 30,53. The country with the second highest rate in this regard was Russia (24,11), followed by Greece with a rate of 14,93. The country with the lowest rate was Brazil with a rate of 3,28.

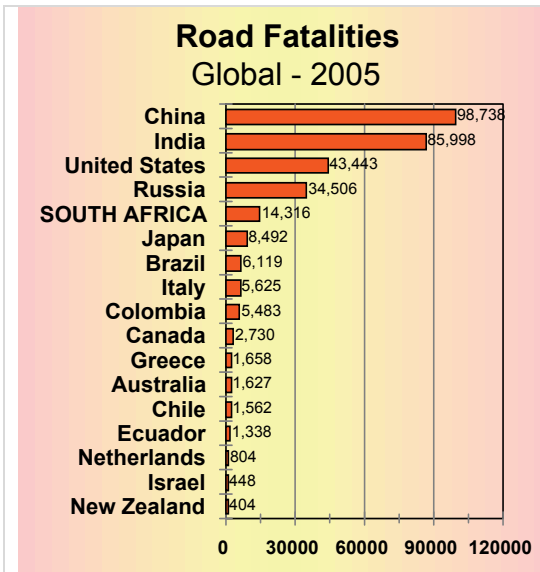
**Fatalities per 10,000 Vehicles  
Global - 2005**



Source: Rakgoale, (2008:21-24)

**iii) Fatalities per 10,000 vehicles**

The information in this graph shows that during 2005 the country with the highest number of fatalities per 10,000 motorised vehicles was India with rate of 65,47 followed by China with a rate of 31,54. The South African rate was 21,35 and the country with the lowest rate was the Netherlands with a rate of 1,01.



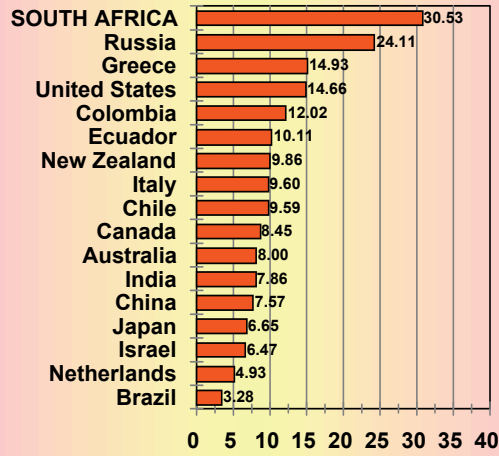
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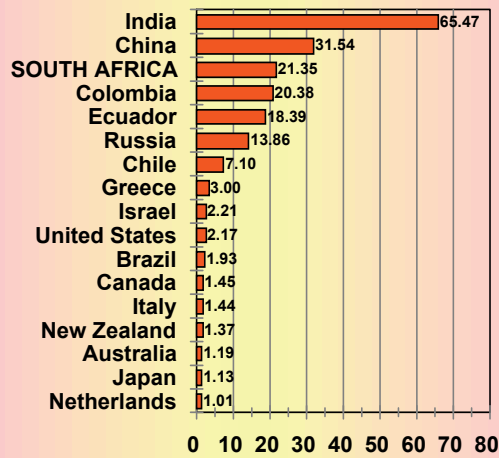


Source: Rakgoale, (2008:21-24)

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**Fatalities per 10,000 Vehicles**  
Global - 2005

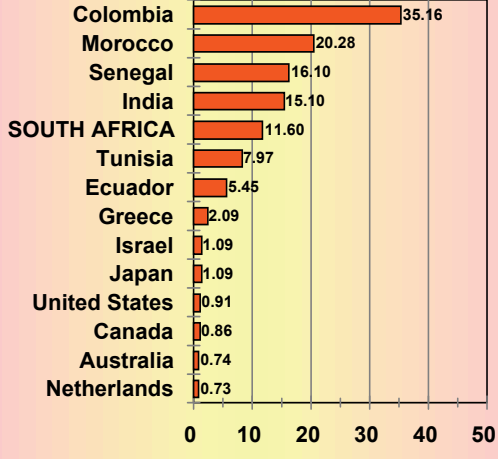


Source: Rakgoale, (2008:21-24)

**iii) Fatalities per 10,000 vehicles**

The information in this graph shows that during 2005 the country with the highest number of fatalities per 10,000 motorised vehicles was India with rate of 65,47 followed by China with a rate of 31,54. The South African rate was 21,35 and the country with the lowest rate was the Netherlands with a rate of 1,01.



<p><b>Fatalities per 100 Mil.Veh.Kms</b> Global - 2005</p>  <table border="1"> <thead> <tr> <th>Country</th> <th>Fatalities per 100 Mil.Veh.Kms</th> </tr> </thead> <tbody> <tr><td>Colombia</td><td>35.16</td></tr> <tr><td>Morocco</td><td>20.28</td></tr> <tr><td>Senegal</td><td>16.10</td></tr> <tr><td>India</td><td>15.10</td></tr> <tr><td>SOUTH AFRICA</td><td>11.60</td></tr> <tr><td>Tunisia</td><td>7.97</td></tr> <tr><td>Ecuador</td><td>5.45</td></tr> <tr><td>Greece</td><td>2.09</td></tr> <tr><td>Israel</td><td>1.09</td></tr> <tr><td>Japan</td><td>1.09</td></tr> <tr><td>United States</td><td>0.91</td></tr> <tr><td>Canada</td><td>0.86</td></tr> <tr><td>Australia</td><td>0.74</td></tr> <tr><td>Netherlands</td><td>0.73</td></tr> </tbody> </table>	Country	Fatalities per 100 Mil.Veh.Kms	Colombia	35.16	Morocco	20.28	Senegal	16.10	India	15.10	SOUTH AFRICA	11.60	Tunisia	7.97	Ecuador	5.45	Greece	2.09	Israel	1.09	Japan	1.09	United States	0.91	Canada	0.86	Australia	0.74	Netherlands	0.73	<p>iv) Fatalities per 100 million vehicle kilometres (100 mvk)</p> <p>The information in this graph shows that during 2005 the country with the highest number of fatalities per 100 mvk motorised vehicles was Colombia with rate of 35,16 followed by Morocco with a rate of 20,28. The South African rate was 11,60 and the country with the lowest rate was the Netherlands with a rate of 0,73.</p>
Country	Fatalities per 100 Mil.Veh.Kms																														
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<p>Source: Rakgoale, (2008:21-24)</p>																															

Note: All the information in section 7.2.1 has been taken from the speech of the Chief executive officer of the Road Traffic Management Co-operation Mr. Rakgoale, R.J. (2008:21-24.)

It is very clear from the above information that South Africa's Road Safety Promotion Strategies are not making the desired impact. Part of the research question has been therefore answered on the basis of the information given above.

### 8.2.2 Why and how should Road Safety Promotion Strategies be evaluated as part of a Social Marketing Model?

Responses to research question 5 from the interviewees stipulate that Road Safety promotions strategies **should be evaluated on a continual basis** as part of a general community engagement exercise. Also, the interviewees outlined the reasons for which these Road Safety Promotions Strategies should be evaluated as presented in section 6.3.6.

The interviewees further gave some tips on “how” the Road Safety Promotion Strategies should be evaluated on a continual basis as part of community engagement exercise as listed in the same section 6.3.6.

This research question is therefore considered to have been answered adequately.

In addition, a summary of Road Safety Strategies to support an ‘all embracing’ policies on all levels of Government (including local and community) is given in the Matrix table below:

#### 8.2.2.1 Matrix table

GOVERNANCE	SOCIAL RESPONSIBILITY	SUSTAINABILITY
There is a need for complete integration of related services to address the issues of Road Safety; in much the same way health, education and social services impact on all levels of activities.	Business community needs to take active part with civil society and local government in addressing the social obligation.  Collaborative Partnerships* Co-operation as Pillar* Communication as Tool (Social Marketing to evaluate impact)*	Identification and evaluation of the ‘real’ cost; and allocation of resources.
Adopting of “top down” and “bottom up” approaches	Adopting of “top down” and ‘bottom up” approach	Identifying what percentage of infrastructure costs should go to Road Safety Education
Identification of the levels in society, led by government and the business community of clear lines of responsibilities, and accountability etc.	The impact of commercial interest on road network, infrastructure and the general population’s use of roads. For example, the separation of “pedestrian traffic” and motorized traffic (related to most deaths, etc)	Providing Road Safety as part of legislation ‘obligation’
Mandatory public reporting by all levels of Governments on their coordinated plans, strategies on annual basis on how we are doing	Costing the benefits , in terms of impact on every costs, e.g. insurances, taxes for health care etc	Costing the benefits in terms impact on every costs, e.g. insurances, taxes for health care etc
In as much as King II impacted on	Engagement of the critical groups	Mandatory planning and reporting

good governance in business, there is need for similar high profile study on Governance and social responsibility.	of society, e.g. Education as part of curriculum; Safety of the family and the community; Safety in design of “safe” areas for play, access to schools, town and trading centers;	on performance. Ensure that trends are captured. Publishing league tables at national and local levels (down to communities).
Legislation to reinforce good governance obligations, mandatory reporting and evaluation. This was archived in SA for the obligations mandatory reporting on their finances, ‘risk’ assessment in the mid 1990’s to ensure good governance	Engaging transport/ road designers, providing community with feedback on progress regarding their needs/demands	Running competitions, in design, for heroes in the industry, contribution of enforcement agencies etc
Integrate “Road Safety” with health education, as major killer and high social cost	Integrate “Road Safety” with health education, as major killer and high social cost	
Costing the real cost of road accidents and allocation of resources accordingly; including the cost benefit and impact on health services, enforcement agencies	Costing the real cost of road accidents and allocation of resources accordingly; including the cost benefit and impact on health services, enforcement agencies	

Above table has highlighted the significance of policy and policy dimensions with regard to governance, social responsibility, and sustainability issues in the area of Road Safety Promotion. The matrix effectively establishes a framework with which to evaluate, in future, the National Road Safety Promotion Strategy within the Social marketing parameters.

### 8.2.3 Are Road Safety officers/ practitioners adequately trained to evaluate road safety promotion strategies in selected provinces? NO

Interview question 7 was dedicated to addressing this research question.

From the proceedings of the focus group interviews, it is evident that Road Safety officers/practitioners were **never adequately trained** to evaluate Road Safety Promotion Strategies that are supposed to be used in their provinces.

This research question is also answered on the basis of the findings as presented in section 6.3.7.

### 8.2.4 Has there been general public engagement in the Road Safety Promotion strategies?

Responses to this interview question do not provide a sense of **the quality of community engagement** that this research question implies.

- i. Follow-ups to the affirmative answer points to serious weakness in such a community engagement advanced by the respondents.
- ii. Another serious point of concern is about the fact that communities are involved in some drafting of the strategies **but not in the implementation thereof!** Yet another focus group interview asserted that there is no level of community engagement at all.
- iii. This research question is answered in a manner to demonstrate that there is no convincing evidence of community engagement or participation in drafting and implementation of Road Safety Promotion Strategies.

NB. This matter however, needs to be addressed by relevant authorities. The question then is: how does feedback on these discrepancies revert back to the relevant authorities?

## 8.3 RESULTS OF THE RESEARCH: FINDINGS AND CONCLUSIONS

### 8.3.1 Road Safety Officers

Road Safety Officers are **not conversant with the Road Safety Promotion Strategies** in the country.

### 8.3.2 Road Safety Promotion Strategies

- It is **not clear** whether or not the Road Safety Promotion **strategies being used** in the country is making impact on Road Safety. This is due to the fact that **no evaluation** is done to determine the impact.
- NB. There is every indication that **very little is done** and that this area of operation is grossly neglected at the provincial level and at local level, where **strategies are NOT found** which could have taken direction and guidance from the National Strategies as formulated.

### 8.3.3 Evaluation of Road Safety Promotion Strategies

- Road Safety Promotion Strategies **should be evaluated on a continual basis** as part of a community engagement (participation and involvement) exercise.

### 8.3.4 Road Traffic Officers and Road Safety Practitioners

- Road officers and practitioners **are not adequately trained to translate** Road Safety Promotion Strategies into relevant communication messages for dissemination to the diverse target market of road users. They **might not even have the capacity** to evaluate the Road Safety Promotion Strategies formulated by government at national level.

### 8.3.5 Community Engagement (Participation and Involvement)

- **Community engagement** in the design and implementation of Road Safety Promotion Strategies is **grossly insufficient**. Community debate or discourse on Road Safety related issues is so minimal that the resultant apathy levels have rendered this serious civil matter irrelevant among community members.

### 8.3.6. What is the feasibility and possibility of formulating Road Safety Strategy for Provinces and municipalities?

- This is a post hoc question, which is not a direct research question, but one that emanates from the responses from other questions. This research question was subjected to expert opinion of an independent expert, as well as to three provincial representatives in the sample, all of whom agree on a high possibility and feasibility of individual strategies for municipalities under provinces, guided by the national strategies.

**The independent expert opinion (these have been familiarised with all aspects of this study) says:**

- ✚ The soil for the formulation of local and provincial Road Safety Strategies and communication strategies for dissemination of information and education to target audiences (both internally and externally) is already fertile, since the policies and strategies at national level are in place.
- ✚ The results of this qualitative survey indicate a large gap in Road Safety Education across the entire milieu within the Road Safety fraternity, to include both officers, who are the implementers of policies, strategies, information and education dissemination, and their targets within communities, both within the provinces and the local government scenario.

## 8.4 RECOMMENDATIONS

On the basis of what has transpired in the entire study, the following recommendations are hereby advanced:

- 8.4.1 Road Safety Promotion Strategic imperatives** aligned to communication messages should be evaluated on a continual basis in order to determine their impact on Road Safety and the reduction of road accidents in the country.
- 8.4.2 Road Safety Officers and Practitioners** should be continually and adequately trained in persuasion communication that leans heavily on Social Marketing for Road Safety work to have the desired impact in the country.
- 8.4.3 Continual community engagement** based on Road Safety Promotion Strategies should be given due attention, with the Social Marketing Model as the dominant communication mode.
- 8.4.4** A dire need exists to **conduct an impact analysis of the strategic imperatives** for utilisation of Social Marketing for Road Safety in order to ascertain whether or not the **campaign messages have the intended impact**.
- 8.4.5** The questionnaire **survey revealed astounding confusion** on the part of the respondents, the supposed dispensers and implementers of Road Safety messages of persuasion. It is clear that these subjects have not participated and been involved with community forums or other **local structures** or **events and campaigns** to make them aware of the significance of Road Safety Education, awareness, and any other form of advocacy pertaining to the reduction of accidents and deaths on the roads. The local level scenario of external communication of Road Safety Promotion messages is apathetic and needs attention. Communities must be made aware of Road Safety and educated on an ongoing basis.

## 8.5 RECOMMENDATIONS FOR FURTHER STUDY

### 8.5.1 A study on impact analysis/evaluation

A study should be done on **impact analysis and evaluation** of the existing **Road Safety Promotion Strategies**. Such a study would provide not only information on whether or not there is an impact but would also assist in providing pointers to areas in the strategies that need improvement or strengthening.

It is extremely crucial that such a study is conducted urgently. The study should expose critical aspects such as

- i. formalising Road Safety for all South African and adding it to the School Curriculum as a compulsory subject, and extending it to the ABET classes.
- ii. changing the way licensing is conducted in the entire country, thus involving as many education stakeholders as possible, among which may be private learner driver institutes, FET colleges, Universities which offer course in Transport and Logistics, NGO,s CBO's, Vehicle Financing Institutes, including Banks, taxi Associations and other Civil Society Groupings.
- iii. Structuring and selling this strategy to government. In rural areas under Traditional Authorities, the Department of Transport can kickstart stakeholder meetings for a co-ordinated driving training and licensing drive, for instance, that will take the monopoly off the hands of field traffic officers, thus ensuring that licenses get into the right hands and doing away with corruption. The outcomes are mentioned below.



### **8.5.2 The levels of training**

An investigation into the levels of training the Road Safety Officers have received should be done soon. The relevance of their training content is also critical to this action.

### **8.5.3 Training and Education**

All consumers of Road Safety need both formal and informal education in Road Safety. All of the leaders at local level must be trained to assist the communities on Road Safety awareness, information, education and practice, inter alia, communication, design of messages, posters, competitions, events and several others mentioned in this thesis. NB. All are consumers of Road Safety, and this includes also the manager's right at the top, including the politicians. This aspect should be taken very seriously. All are affected.

### **8.5.4 Road Deaths**

Road deaths are as devastating as the deaths from HIV and AIDS, and therefore the Social Marketing Promotion Strategies of Road Safety should be as equally virile and visible as those of HIV and AIDS.

## **8.6 SUMMARY AND CONCLUSION**

It is possible and feasible to penetrate the active society with Road Safety messages using the Social Marketing Model. For successful campaigns, the Social Marketing Promotion Strategies must ensure collaboration, co-operation, communication and the community spirit among the implementers (providers and the consumers) of Road Safety Strategies. This approach, which must also be multi-disciplinary, will only succeed when the three pillars of funding, support and continuity are in place as part of the model.

Road Safety, like the any national campaign, belong to the “joint space” of development, Mosime, (2005) and needs to be fully integrated, “co-owned, co-determined, collaborated, co-operated, and co-celebrated” in the end. South Africa did it during the World Cup, and can still do it in order to reduce the ravaging road carnage. The Road Safety Strategy, (2001-2005), the Road to Safety Strategy 2006 Onwards, the National Road Safety Strategy, (2007-2010), the Millennium Goals, (2014) need to be co-visited with all the tools of the Social Marketing Promotion Strategy “to make things happen” Umrabulo, (2005) for Road Safety in South Africa. In conclusion, national, provincial and local community co-operation, collaboration, and communication, supported by joint space (co-ownership), joint funding, and joint monitoring and evaluation, are the pillars of the sustainability model of Social Marketing for promotion of Road Safety, which will ensure that the Road Safety Promotion Strategies will also “arrive alive”, and thus keep the Road safety metaphor alive.

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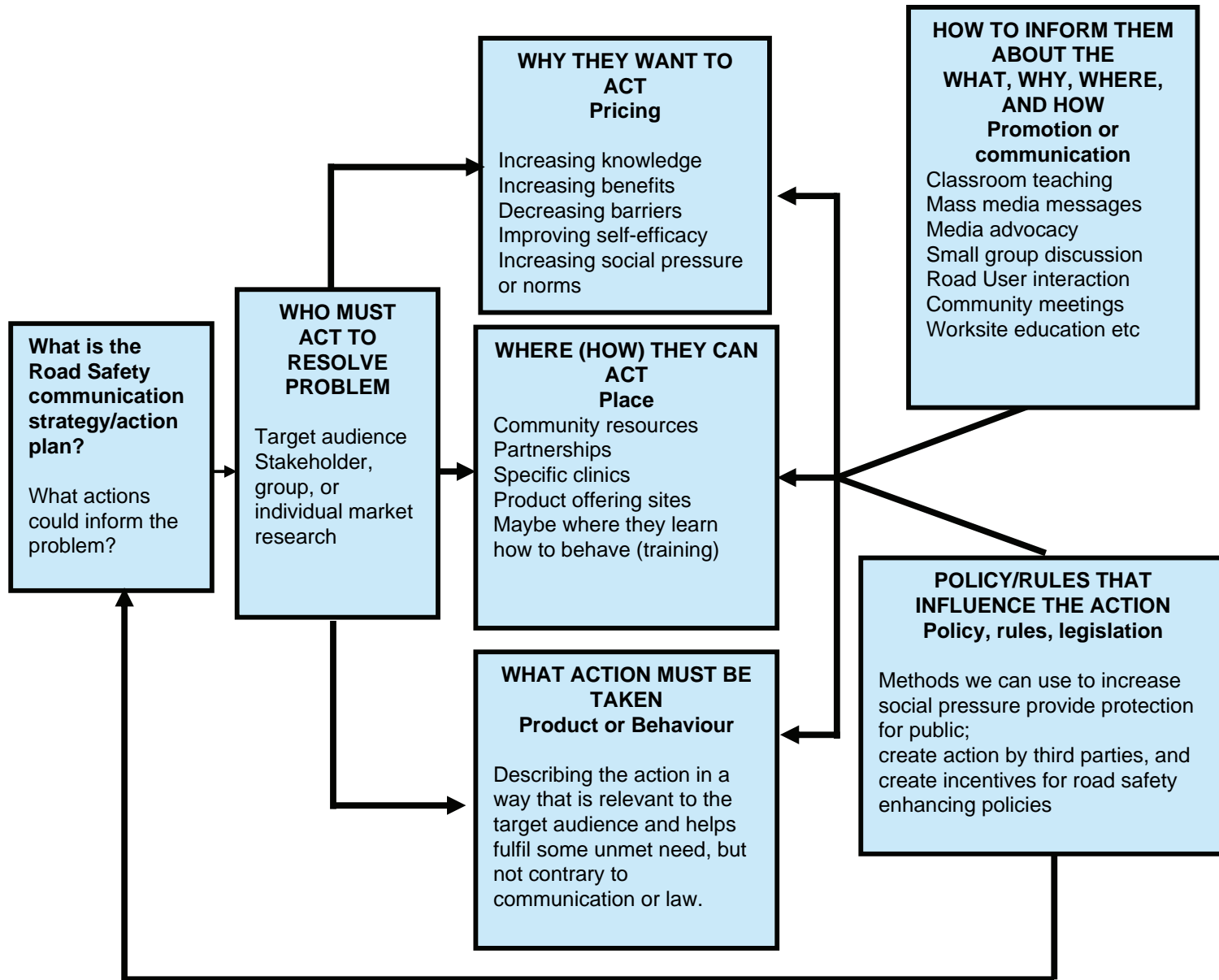
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## APPENDIX A

### A RESTRUCTURED SOCIAL MARKETING FRAMEWORK

It is appropriate at this stage to view the adopted social marketing model in Figure 8.6.1 below.

Figure 8.6.1: Final proposed Social Marketing model for communicating road safety in South Africa



8.6.1 Final adopted social marketing model for communicating road safety in South Africa (Adopted from: Kirby, 1995, restructured by Eddie Thebe according to the findings of this study).

## 8.6.2 Discussion of Social Marketing model for communicating Road Safety Strategies in South Africa: the FIVE P's of Marketing

**The domains of influence to consider when planning intervention activities for reaching target audiences from multiple perspectives.**

These five domains, known as the Five P's of marketing, include: **price, place, product and promotion, policy and public** (target audience) are discussed below.

### i) **Price**

One of the Five P's of marketing is "**price**" which refers to costs (financial, emotional, psychological, or time) or barriers the audience members face in making the desired behaviour change. Price leads to the planning of interventions that reduce the costs of the desired behaviour or increase the costs of the competing risk behaviour. For example, training drivers in techniques for reducing road accidents (e.g., wages determined by many loads) offering a prepaid lunch and soft drinks at an interval of two hundred (200) kilometres to address barriers of lack of time and convenience of resting, or deducting accidents costs from the drivers wages to cover the increased financial costs of repairs.

### ii) **Place**

Another one of the Five P's of marketing is 'place' which mean where and when the target audience will perform the desired behaviour, access program products/services, or think about the proposed road safety issue. It leads to the offering of services or products in a location and manner that it is convenient and pleasant for the target audience. It also leads to offer information when and where the audience is already thinking about the specific issue. For example, intervention may include offering road safety information on a restaurant menu or grocery store food shelf or placing recent road accidents statistic in bus or taxi stops.

**iii) Product**

One of the Five P's of marketing is 'product' which refers to the desired behaviour and associated benefit you are asking the audience to do, and tangible objects or services that support or facilitate behaviour change. For example, offered a free motor vehicle inspection on quarterly or semester basis with the benefit that you are more likely to be able to reach your destinations safely or provide a quality services to your clients.

**iv) Promotion**

Again, one of the Five P's of marketing is "Promotion", which includes the communication messages, materials, channels and activities that will effectively reach an audience to promote the benefits of the behaviour change as well as the product, price and place features of the program. Messages may be delivered through public relations, advertising, printed material, small groups or one-on-one activities (for example mentoring, counselling, workshops) and other media. Promotion leads to consideration of the type of media the target audience is likely to attend to, when and where they will attend to the (Road Safety) messages and the characteristics of the communication.

**v) Policy**

Policy is an add-on to the Four P's of marketing. 'Policy' refers to the consideration of the laws or regulations that influence the behaviour intended to change. This can include those laws or penalties to be used or enacted to further encourage(or discourage) the behaviour (such as rehabilitation of drunk driving) as well as understanding or changing policies or laws that may act as a barrier to such behaviour (such as convenient hospital location).

**vi) Public (Target audience)**

This element is not part of the P's but it does have some critical role in communication and therefore needs to be defined in relation to the adopted Social Marketing Model. The group that the Social Marketing Program seeks to reach, to engage and to influence is a selected portion (or segment) of a larger population that is directly affected by the problem, in this case, the Road Safety problem.



APPENDIX B

**Table 8.2.1: Numbers of deaths by cause for persons, males and females, South Africa 2000**

All persons			Males			Females		
Rank	Cause of death	Deaths	Rank	Cause of death	Deaths	Rank	Cause of death	Deaths
1	HIV/AIDS	165,859	1	HIV/AIDS	80,089	1	HIV/AIDS	85,770
2	Ischaemic heart disease	32,919	2	Homicide/ violence	27,134	2	Stroke	18,184
3	Homicide/ violence	32,485	3	Tuberculosis	19,806	3	Ischaemic heart disease	14,539
4	Stroke	32,114	4	Ischaemic heart disease	18,380	4	Lower respiratory infections	10,430
5	Tuberculosis	29,553	5	Stroke	13,930	5	Tuberculosis	9,748
6	Lower respiratory infections	22,097	6	Road Traffic Accidents	13,076	6	Hypertensive heart disease	9,458
7	Road Traffic Accidents	18,446	7	Lower respiratory infections	11,667	7	Diabetes mellitus	8,081
8	Diarrhoeal diseases	15,910	8	Diarrhoeal diseases	8,150	8	Diarrhoeal diseases	7,761
9	Hypertensive heart disease	14,233	9	Chronic obstructive pulmonary disease	8,102	9	Low birth weight	5,427
10	Diabetes mellitus	13,157	10	Low birth weight	6,449	10	Road Traffic Accidents	5,370

11	Chronic obstructive pulmonary disease	12,473	11	Trachea/ bronchi/ lung cancer	5,085	11	Homicide/violence	5,351
12	Low birth weight	11,876	12	Diabetes mellitus	5,076	12	Chronic obstructive pulmonary disease	4,372
13	Nephritis/nephrosis	7,225	13	Suicide	4,866	13	Nephritis/Nephrosis	3,505
14	Trachea/ bronchi/ lung cancer	7,173	14	Hypertensive heart disease	4,774	14	Cervix cancer	3,424
15	Asthma	6,987	15	Oesophageal cancer	3,886	15	Asthma	3,227
16	Suicide	6,370	16	Asthma	3,760	16	Septicaemia	3,057
17	Septicaemia	6,047	17	Nephritis/nephrosis	3,720	17	Breast cancer	3,009
18	Oesophageal cancer	5,803	18	Cirrhosis of liver	3,704	18	Inflammatory heart disease	2,559
19	Cirrhosis of liver	5,672	19	Protein-energy malnutrition	3,039	19	Protein-energy malnutrition	2,471
20	Protein-energy malnutrition	5,511	20	Septicaemia	2,990	20	Trachea/ bronchi/ lung cancer	2,088
All causes		451,910	All causes		247,683	All causes		207,831

Road crashes in South Africa are the seventh largest contributor to deaths in the country which is comparable with other developing countries in the world. The World Bank estimates that should nothing effective be done, road crashes will rise to the second largest cause of deaths in SA by 2020.

## Appendix C



***Road Traffic Report***  
***for the Calendar Year***  
***2009***



## Index

Section	Topic	Page
<b>1</b>	<b>Executive Summary</b>	<b>4</b>
1.1	Measuring Progress towards Achieving Target to Reduce Fatalities by 50% by 2015	6
<b>2</b>	<b>Vehicle Population, Fuel Sales and Distance Travelled</b>	<b>9</b>
2.1	Number of Registered Vehicles	9
2.2	Number of Un-roadworthy and Un-licensed vehicles	12
<b>3</b>	<b>Driver Population</b>	<b>18</b>
3.1	Learner Driving Licences	18
3.2	Driving Licences Issued and Expired	19
3.3	Professional Driving Permits (PrDP's) Issued and Expired	21
<b>4</b>	<b>Fatal Road Traffic Crashes and Fatalities</b>	<b>23</b>
4.1	Number of Fatal Crashes	23
4.2	Number of Fatalities	24
4.3	Number of Fatalities per Road User Group	25
4.4	Severity of Fatal Crashes	28
4.5	Crash and Fatality Rates and Trends per 10,000 Vehicles	30
4.6	Fatalities per 100,000 Human Population	32
<b>5</b>	<b>Fatality Age Groups, Gender, Day-of-Week &amp; Time-of-Day</b>	<b>34</b>
5.1	Fatalities per Age Group and Gender	34
5.2	Crashes per day of week	34
5.3	Number of crashes per time of day	35
<b>6</b>	<b>Vehicles Involved in Fatal Crashes</b>	<b>37</b>
6.1	Vehicles per Type in Fatal Crashes	37
6.2	Road User Group Fatalities per Type of Vehicle	41
<b>7</b>	<b>Fatal Crashes and Fatalities Types</b>	<b>44</b>

<b>8</b>	<b>Contributory Factors to Crashes</b>	<b>47</b>
8.1	Summary of the contributory factors	47
8.1.1	Human Factor	49
8.1.2	Vehicle Factor	49
8.1.3	Road Factor	50
<b>9</b>	<b>Road Traffic Offence Survey Results: 2009</b>	<b>51</b>
<b>10</b>	<b>Estimated unit cost of crashes</b>	<b>55</b>
<b>11</b>	<b>Summary : Some graphs reflecting Rates and Trends</b>	<b>56</b>
<b>12</b>	<b>Conclusion</b>	<b>60</b>

### ***Annexures***

<b>A</b>	Vehicle Population per Province	<b>62</b>
<b>B</b>	Un-Roadworthy and Un-Licensed Vehicles	<b>63</b>
<b>C</b>	Number of Learner and Driving Licences and PrDPs	<b>67</b>
<b>D</b>	Number of Fatal Crashes per Province	<b>70</b>
<b>E</b>	Number of Fatalities per Province	<b>71</b>
<b>F</b>	Number of Road User Group Fatalities per Province	<b>72</b>
<b>G</b>	Vehicles in Fatal Crashes	<b>73</b>
<b>H</b>	Fatalities per Type of Vehicle	<b>74</b>



## 1. Executive Summary

<b>1.1</b>		<b>Vehicle Population, Fuel Sales and Distance Travelled</b>
	1.1.1	The number of registered vehicles increased by 283 273 (3,04%) from 9 304 508 on 31 December 2008 to 9 587 781 vehicles on 31 December 2009.
	1.1.2	On a percentage basis the biggest change was for motorcycles which increased by 11,79% to 362 400, followed by buses which increased by 5,42% to 45 217 and light trailers which increased by 5,37% to 719 034.
	1.1.3	The total number of vehicles that are either un-roadworthy, un-licenced or both decreased by 93,043 (10,97%) from 848,426 vehicles at the end of December 2008 to 755,383 vehicles at the end of December 2009.
	1.1.4	The number of vehicles that are un-roadworthy (but licenced) increased by 51,609 (13,69%) from 377,105 vehicles at the end of December 2008 to 428,714 vehicles at the end of December 2009.
	1.1.5	The number of un-licenced vehicles decreased by 122,124 (29,41%) from 415,290 vehicles at the end of December 2008 to 293,166 vehicles at the end of December 2009.
<b>1.2</b>		<b>Driver Population</b>
	1.2.1	The number of learner driving licences issued increased by 70,836 (5,77%) from 1,227,206 at the end of December 2008 to 1,298,042 at the end of December 2009.
	1.2.2	The number of driving licences issued increased by 359,210 (4,25%) from 8,457,718 at the end of December 2008 to 8,816,928 at the end of December 2009.
	1.2.3	At the end of December 2009 there were a total of 1,116,038 expired driving licence cards recorded on the National Traffic Information System (NaTIS). This figure represents 12,66% of all driving licences issued.
	1.2.4	The number of Professional Driving Permits (PrDP's) issued increased by 38,038 (5,05%) from 752,916 at the end of December 2008 to 790,954 at the end of December 2009.
	1.2.5	At the end of December 2009 there were a total of 256,952 expired Professional Driving Permits (PrDPs) recorded on the National Traffic Information System (NaTIS).



<b>1.3</b>		<b>Fatal Road Crashes and Fatalities</b>
	1.3.1	Over the 12-month period from 1 January 2009 to 31 December 2009 the number of fatal crashes increased by 52 (0,48%) from 10,805 crashes over the same period the previous year (2008) to 10,857 in 2009.
	1.3.2	Over the 12-month period from 1 January to 31 December 2009 the number of fatalities decreased by 107 (0,77%) from 13,875 fatalities over the same period the previous year (2008) to 13,768.
	1.3.3	The driver fatalities increased by 84 (2,11%) to 4,066; passenger fatalities increased by 58 (1,18%) to 5,023 and pedestrian fatalities decreased by 249 (5,06%) to 4,678 over the 12-month period from 1 January to 31 December 2009.
	1.3.4	During 2008 and 2009 driver fatalities were (28,89% and 29,53%), passengers (36,93% and 36,49%) and pedestrians (34,18% and 33,98% of all fatalities.
	1.3.5	The severity of fatal crashes decreased by 0,016 (1,25%) from 1,284 during 2008 to 1,268 during 2009.
	1.3.6	The number of fatal crashes per 10,000 registered motorised vehicles decreased by 0,25 (1,88%) from 13,04 during 2008 to 12,79 2009.
	1.3.7	The number of fatal crashes per 10,000 registered motorised vehicles decreased by 0,25 (1,88%) from 13,04 during 2008 to 12,79 2009.
	1.3.8	The number of fatalities per 100,000 human population decreased by 0,60 (2,10%) from 28,51 at the end of December 2008 to 27,91 at the end of December 2009.
<b>1.4</b>		<b>CONTRIBUTORY FACTORS AND FATAL CRASHES TYPES</b>
	1.4.1	The human factor contributed 82,85% to fatal crashes during 2009 vehicle factor contributed 9.13% and road and environment contributed 8,02%.

## 1.1 Measuring Progress towards Achieving Target to Reduce Fatalities by 50% by 2015

Based on the 2006 Millennium Development Goals, one of the goals of the 2015 Road Traffic Safety Management Plan is to reduce by half the rate of accident fatalities arising from road and other transport by 2015. In the development of the 2015 Plan it was agreed that the number of fatalities for the year 2007 would be used as the benchmark on which the 50% reduction would be based. Using this benchmark and the 50% target reduction, the maximum allowable number of road fatalities per quarter per province up to the end of 2015 was calculated as continuous reduced target figures over the 8 year period. These set targets for the indicated quarters for each province and the RSA total, are shown in the table below, shown as “Target” figures or maximum allowable number of fatalities.

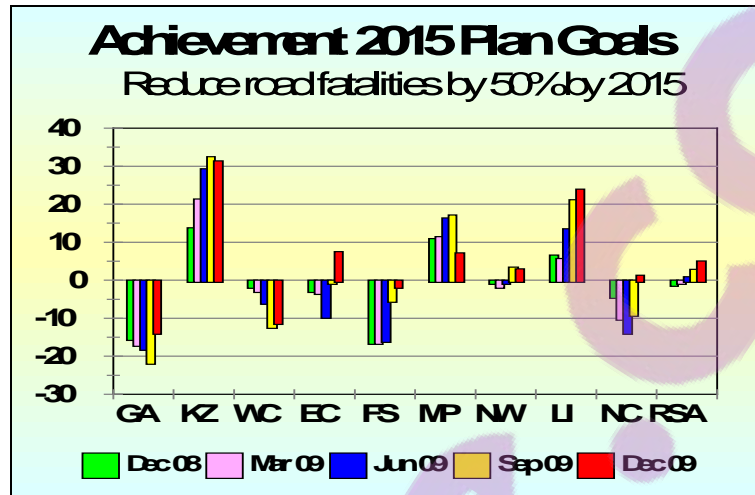
<b>Table 1: Achievement of 2015 Plan Goal to Reduce Road Fatalities by 50% by 2015</b>											
Rolling 12 month Number of Road Fatalities per Province											
Month	Item	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Dec 08</b>	Target	3,074	2,322	1,545	1,534	1,053	1,670	1,173	1,287	356	<b>14,014</b>
	Actual	2,607	2,642	1,523	1,490	882	1,852	1,166	1,372	340	<b>13,875</b>
	Difference	-467	320	-22	-44	-171	183	-8	86	-15	<b>-139</b>
	% Diff	<b>-15.18</b>	<b>13.78</b>	<b>-1.45</b>	<b>-2.90</b>	<b>-16.25</b>	<b>10.94</b>	<b>-0.64</b>	<b>6.65</b>	<b>-4.31</b>	<b>-0.99</b>
<b>Mar 09</b>	Target	3,023	2,284	1,520	1,509	1,035	1,642	1,154	1,265	350	<b>13,782</b>
	Actual	2,507	2,772	1,483	1,464	865	1,830	1,132	1,338	315	<b>13,707</b>
	Difference	-516	489	-37	-44	-171	189	-22	72	-34	<b>-75</b>
	% Diff	<b>-17.07</b>	<b>21.40</b>	<b>-2.45</b>	<b>-2.95</b>	<b>-16.48</b>	<b>11.49</b>	<b>-1.87</b>	<b>5.71</b>	<b>-9.85</b>	<b>-0.54</b>
<b>Jun 09</b>	Target	2,973	2,246	1,495	1,484	1,018	1,615	1,135	1,244	344	<b>13,553</b>
	Actual	2,446	2,904	1,410	1,343	855	1,879	1,132	1,413	297	<b>13,679</b>
	Difference	-527	658	-85	-141	-163	264	-3	169	-47	<b>126</b>
	% Diff	<b>-17.73</b>	<b>29.29</b>	<b>-5.66</b>	<b>-9.48</b>	<b>-16.01</b>	<b>16.37</b>	<b>-0.27</b>	<b>13.54</b>	<b>-13.57</b>	<b>0.93</b>
<b>Sep 09</b>	Target	2,924	2,209	1,470	1,459	1,001	1,588	1,116	1,224	338	<b>13,329</b>
	Actual	2,288	2,926	1,294	1,447	949	1,860	1,154	1,483	308	<b>13,709</b>
	Difference	-636	717	-176	-12	-52	272	38	259	-30	<b>380</b>
	% Diff	<b>-21.75</b>	<b>32.47</b>	<b>-11.97</b>	<b>-0.82</b>	<b>-5.21</b>	<b>17.14</b>	<b>3.43</b>	<b>21.19</b>	<b>-8.93</b>	<b>2.85</b>
<b>Dec 09</b>	Target	2,875	2,172	1,445	1,435	985	1,562	1,097	1,204	333	<b>13,108</b>
	Actual	2,485	2,854	1,285	1,543	967	1,674	1,130	1,492	337	<b>13,768</b>
	Difference	-390	681	-160	108	-17	112	33	288	4	<b>660</b>
	% Diff	<b>-13.58</b>	<b>31.37</b>	<b>-11.08</b>	<b>7.53</b>	<b>-1.74</b>	<b>7.20</b>	<b>3.02</b>	<b>23.95</b>	<b>1.31</b>	<b>5.03</b>

Also shown in the table above are the “Actual” figures, which reflect the real number of road fatalities recorded per each province for the respective quarters as indicated. Both the Target and Actual figures represent the 12-month rolling total fatality figures per province and the RSA on a national basis.

The difference; as well as the percentage difference figures in the table shows the difference between the set Target and Actual number of road fatalities. A difference of “0” indicates that the set target of reducing the number of fatalities was met. Differences smaller than “0” (<0) shows achievements better than what is expected or required and differences larger than “0” (>0) shows that the required targets were

not achieved and reflects inadequate performance towards reaching the desired goal per quarter and ultimately the 2015 goal.

The % difference in meeting the set targets per province is also reflected in the figure below.



The information in the table and graph above shows that better performing provinces (Differences less than "0") well on track towards achieving the goal of reducing road fatalities by 50% by the year 2015, amongst others are :

- Gauteng : which is also continuously improving its performance from -15,18% in December 2008 to -13,58% in December 2009;
- Free State : shows an improved performance from -16.25% in December 2008 to -1.74% in December 2009.
- Mpumalanga: shows an improved performance from 10.94% in December 2008 to 7.20% in December 2009. Even though for three quarters the difference percentage was above 10%.

The provinces that are not performing as required,(Differences larger than "0") are the following:

- KwaZulu-Natal : overall the worst performing province, with even a continuous increase in the quarterly number of road fatalities that exceed the set quarterly targets for the province – ranging from +13,78% in December 2008; +21,40% in March 2009 and +29,29% in June 2009, 32,47% in September 2009, and lastly 31,37% in December 2009. This province was the biggest contributor to the RSA, on a national basis not achieving its set target towards the end of the review period.

- Limpopo : made no contribution towards achieving the 2015 goals. Over the review period the performance of this province worsened from +6,65% in December 2008 to +23,959% in December 2009.

Free State and Northern Cape were operating close to the border-line with figures ranging from -1,74% to 1.31 in December 2009 moving in a non-contributory direction.

National - RSA : over the review period the national figures range from -0,99% in December 2008 to +5,03% in December 2009. The country's performance towards the reduction of fatalities by 50% for the assessed period is deteriorating. The worst performing provinces listed above, contributed to this non-achieving trend, with the biggest negative influence from KwaZulu-Natal.

## 2. Vehicle Population, Fuel Sales and Distance Travelled

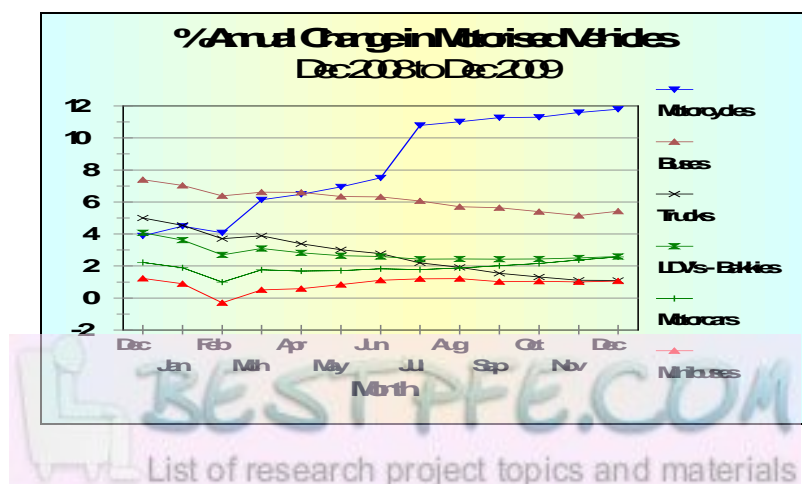
### 2.1 Number of Registered Vehicles

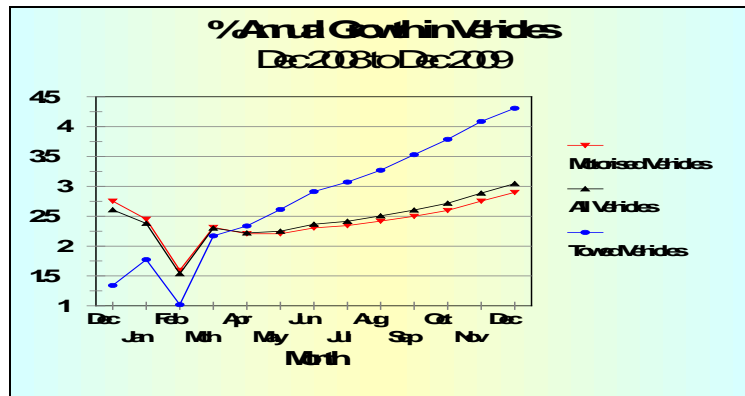
The number of registered vehicles increased by 283 273 (3,04%) from 9 304 508 on 31 December 2008 to 9 587 781 vehicles on 31 December 2009. Detail per type of vehicle is given in Table 2 below.

Table 2 : Number of Registered Vehicles	Number registered Dec 2008	Number registered Dec 2009	Change	% Change	% of Group Dec 2009	% of Total Dec 2009
<b>Motorised Vehicles</b>						
Motorcars	5,275,541	5,411,093	135,552	2.57	62.92	56.44
Minibuses	279,976	282,941	2,965	1.06	3.29	2.95
Buses	42,893	45,217	2,324	5.42	0.53	0.47
Motorcycles	324,172	362,400	38,228	11.79	4.21	3.78
LDV's - Bakkies	1,897,078	1,946,292	49,214	2.59	22.63	20.30
Trucks	318,118	321,604	3,486	1.10	3.74	3.35
Other & Unknown	219,786	230,484	10,698	4.87	2.68	2.40
<b>Total Motorised</b>	<b>8,357,564</b>	<b>8,600,031</b>	<b>242,467</b>	<b>2.90</b>	<b>100.00</b>	<b>89.70</b>
<b>Towed Vehicles</b>						
Caravans	103,774	105,462	1,688	1.63	10.68	1.10
Heavy Trailers	144,408	146,402	1,994	1.38	14.82	1.53
Light Trailers	682,396	719,034	36,638	5.37	72.80	7.50
Other & Unknown	16,366	16,852	486	2.97	1.71	0.18
<b>Total Towed</b>	<b>946,944</b>	<b>987,750</b>	<b>40,806</b>	<b>4.31</b>	<b>100.00</b>	<b>10.30</b>
<b>All Vehicles</b>	<b>9,304,508</b>	<b>9,587,781</b>	<b>283,273</b>	<b>3.04</b>		<b>100.00</b>

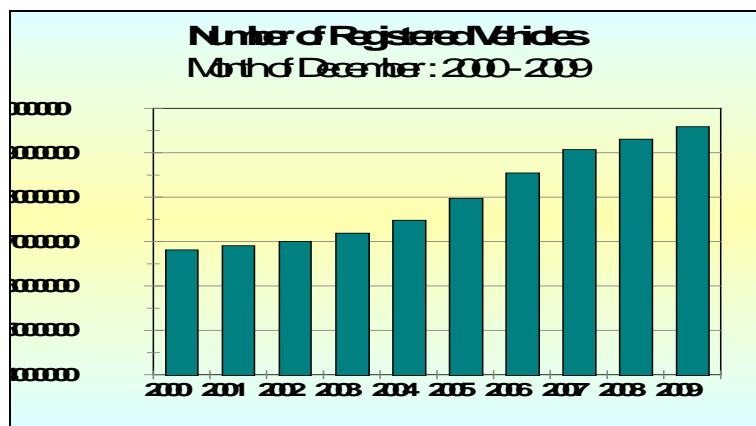
The information above shows that on a percentage basis the biggest change was for motorcycles which increased by 11,79% to 362 400, followed by buses which increased by 5,42% to 45 217 and light trailers which increased by 5,37% to 719 034. Light motor vehicles increased by 2,57% and LDV's increased by 2,59%.

The monthly percentage change over the past year for specific types of vehicles; as well as motorised and towed vehicles, are shown in the figures below.



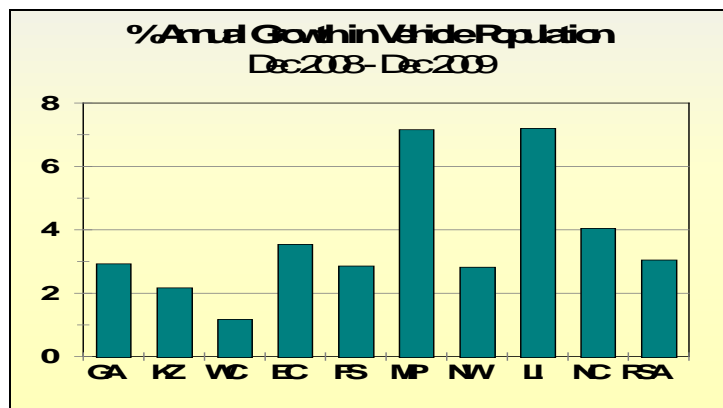


The total number of registered vehicles at the end of each year, for the years 2000 to 2009, is schematically shown in the figure below.



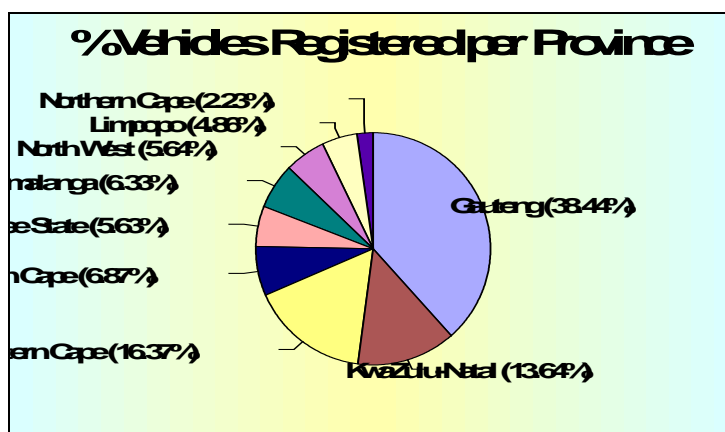
The total motor vehicle population per Province for December 2008 and December 2009 respectively, is given in Table 3 and reflected in the figure below.

Table 3 : Number of Registered Vehicles per Province	Number registered Dec 2008	Number registered Dec 2009	Change	% Change	% of Total Dec 2009
Gauteng	3,575,571	3,680,158	104,587	2.93	38.38
KwaZulu-Natal	1,280,322	1,308,090	27,768	2.17	13.64
Western Cape	1,550,484	1,568,622	18,138	1.17	16.36
Eastern Cape	637,292	659,829	22,537	3.54	6.88
Free State	524,702	539,704	15,002	2.86	5.63
Mpumalanga	567,993	608,676	40,683	7.16	6.35
North West	525,951	540,786	14,835	2.82	5.64
Limpopo	436,293	467,690	31,397	7.20	4.88
Northern Cape	205,900	214,226	8,326	4.04	2.23
<b>RSA</b>	<b>9,304,508</b>	<b>9,587,781</b>	<b>283,273</b>	<b>3.04</b>	<b>100</b>



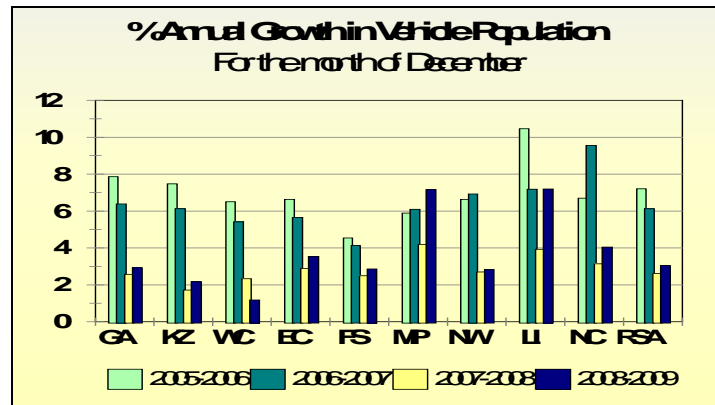
Over the past year from December 2008 to December 2009 the biggest percentage growth in total vehicles was recorded in Limpopo with a growth of 7,20%, followed by Mpumalanga with a growth of 7,16%.

The percentage vehicles registered per province is reflected in the graph below.

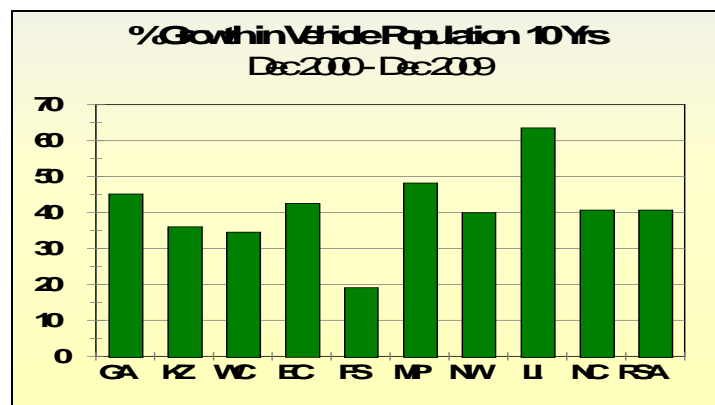


The total number of vehicles registered per province at the end of each year for the years December 2005 to December 2009, are given in Table 4 and the percentage annual growth per province reflected in the graph below.

Table 4 : Number of Registered Vehicles per Province	Number registered Dec 2005	Number registered Dec 2006	Number registered Dec 2007	Number registered Dec 2008	Number registered Dec 2009
Gauteng	3,037,944	3,276,800	3,486,073	3,575,571	3,680,158
KwaZulu-Natal	1,103,642	1,186,082	1,258,720	1,280,322	1,308,090
Western Cape	1,349,553	1,437,288	1,515,147	1,550,484	1,568,622
Eastern Cape	549,829	586,295	619,448	637,292	659,829
Free State	470,314	491,666	511,950	524,702	539,704
Mpumalanga	485,301	513,881	545,212	567,993	608,676
North West	449,215	478,990	512,130	525,951	540,786
Limpopo	354,594	391,678	419,812	436,293	467,690
Northern Cape	170,795	182,222	199,628	205,900	214,226
<b>RSA</b>	<b>7,971,187</b>	<b>8,544,902</b>	<b>9,068,120</b>	<b>9,304,508</b>	<b>9,587,781</b>



The percentage overall growth in the vehicle population over the 10 year period from December 2000 to December 2009 per province is reflected in the graph below.



More detailed information on the number of vehicles per type registered per Province for December 2008 and December 2009 is given in the Table under **Annexure A**.

## 2.2 Un-Roadworthy and Un-Licensed Vehicles

### 2.2.1 General

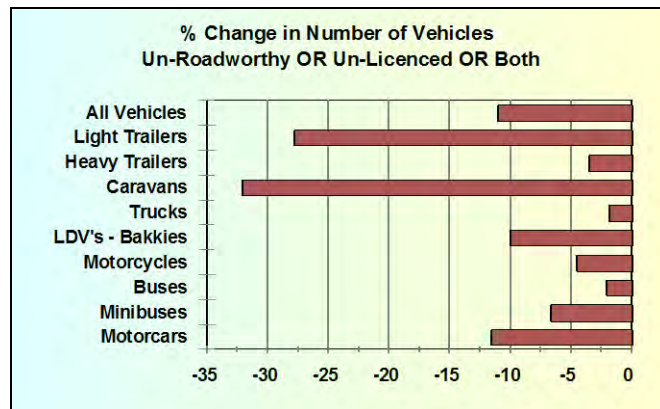
Un-roadworthy vehicles is defined as those of which the owners failed to submit the vehicles for compulsory annual roadworthy tests (including buses, minibus taxis and freight transport vehicles) or on change of ownership. Un-licensed vehicles are those of which the owners failed to renew the vehicle licences within the time frame allowed.

On a national basis the total number of vehicles that are either un-roadworthy, un-licensed or both decreased by 93,043 (10,97%) from 848,426 vehicles at the end of December 2008 to 755,383 vehicles at the end of December 2009.



Detail in this regard per type of vehicle is provided in Table 5 and the percentage (%) change from 2008 to 2009 reflected in the graph below.

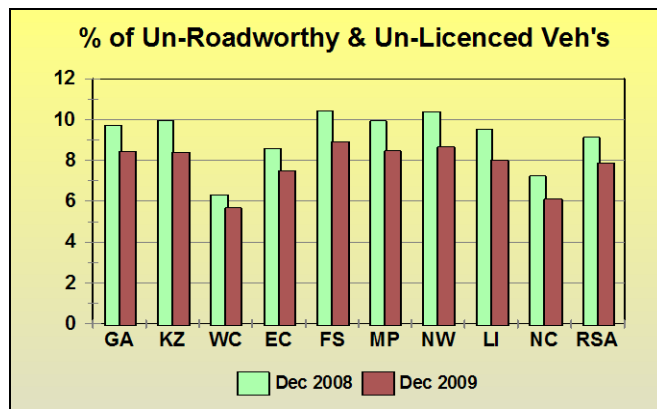
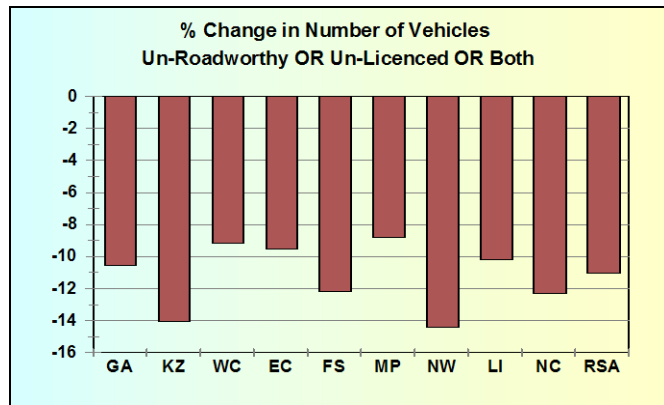
<b>Table 5 : Number of Un-Roadworthy, Un-Licensed Vehicles or Both</b>				
<b>Vehicle Type</b>	<b>Dec 2008</b>	<b>Dec 2009</b>	<b>Change</b>	<b>% Change</b>
Motorcars	398,896	352,715	-46,181	-11.58
Minibuses	51,648	48,229	-3,419	-6.62
Buses	5,770	5,652	-118	-2.05
Motorcycles	102,253	97,648	-4,605	-4.50
LDV's - Bakkies	130,451	117,403	-13,048	-10.00
Trucks	55,293	54,296	-997	-1.80
Caravans	8,365	5,682	-2,683	-32.07
Heavy Trailers	21,363	20,627	-736	-3.45
Light Trailers	50,067	36,150	-13,917	-27.80
Unknown	24,320	16,981	-7,339	-30.18
<b>All Vehicles</b>	<b>848,426</b>	<b>755,383</b>	<b>-93,043</b>	<b>-10.97</b>



Decreases were recorded for all types of vehicles in this regard.

Detail on the number of vehicles that are either un-roadworthy, un-licensed or both per Province is provided in Table 6 and the percentage (%) change from 2008 to 2009 reflected in the graph below.

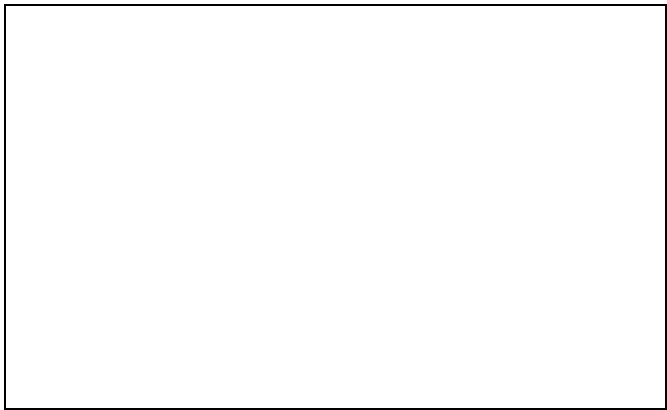
<b>Table 6 : Number of Vehicles that is Un-Roadworthy OR Un-Licensed OR Both</b>										
<b>Year</b>	<b>GA</b>	<b>KZ</b>	<b>WC</b>	<b>EC</b>	<b>FS</b>	<b>MP</b>	<b>NW</b>	<b>LI</b>	<b>NC</b>	<b>RSA</b>
<b>Dec 2008</b>	346,615	127,327	97,873	54,558	54,654	56,350	54,569	41,598	14,882	848,426
<b>Dec 2009</b>	310,578	109,632	89,008	49,408	48,039	51,482	46,756	37,414	13,066	755,383
<b>Change</b>	-36,037	-17,695	-8,865	-5,150	-6,615	-4,868	-7,813	-4,184	-1,816	-93,043
<b>% Change</b>	-10.40	-13.90	-9.06	-9.44	-12.10	-8.64	-14.32	-10.06	-12.20	-10.97



### 2.2.2 Number of Un-Roadworthy Vehicles

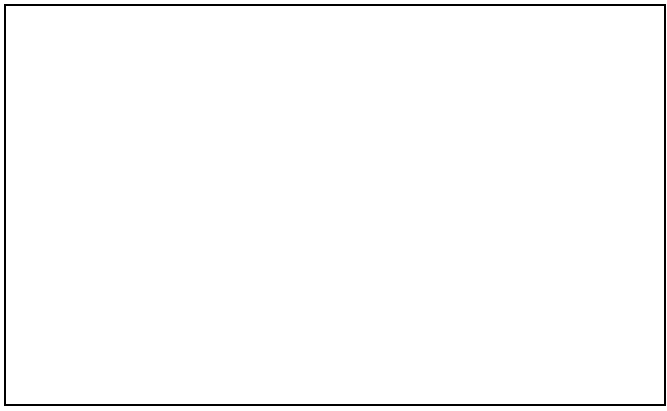
The number of vehicles that are un-roadworthy (but licenced) increased by 51,609 (13,69%) from 377,105 vehicles at the end of December 2008 to 428,714 vehicles at the end of December 2009. Detail in this regard is given in Table 7 and the percentage of un-roadworthy vehicles per type of vehicle, as a percentage of the number registered, is reflected in the graph below.

Vehicle Type	Dec 2008	Dec 2009	Change	% Change
Motorcars		165,925	4,947	3.07
Minibuses	28,308	34,956	6,648	23.48
Buses	3,799	4,615	816	21.48
Motorcycles	56,481	78,257	21,776	38.55
LDV's - Bakkies	52,242	56,589	4,347	8.32
Trucks	37,266	43,116	5,850	15.70
Caravans	2,754	3,138	384	13.94
Heavy Trailers	14,472	16,802	2,330	16.10
Light Trailers	11,811	14,461	2,650	22.44
Unknown	8,994	10,855	1,861	20.69
<b>All Vehicles</b>	<b>377,105</b>	<b>428,714</b>	<b>51,609</b>	<b>13.69</b>



Detail on the number of vehicles that are un-roadworthy per Province is provided in Table 8 and the percentage (%) change from 2008 to 2009 reflected in the graph below.

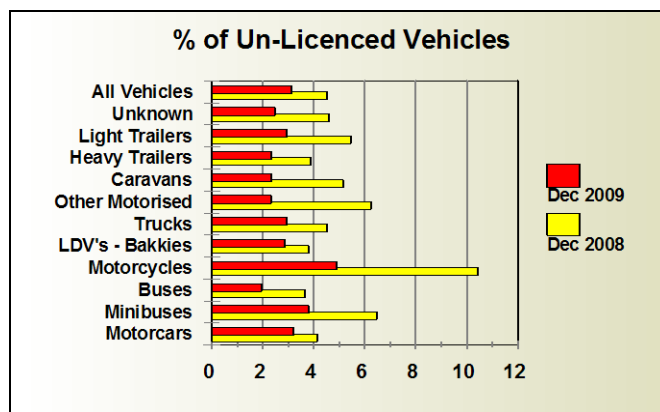
Table 8 : Number of Un-Roadworthy Vehicles										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Dec 2008	162,821	56,926	45,111	19,812	23,088	24,621	23,034	15,870	5,822	377,105
Dec 2009	180,417	64,127	45,206	24,255	28,124	31,912	26,882	20,813	6,978	428,714
Change	17,596	7,201	95	4,443	5,036	7,291	3,848	4,943	1,156	51,609
% Change	10.81	12.65	0.21	22.43	21.81	29.61	16.71	31.15	19.86	13.69



**2.2.3 Number of Un-Licensed Vehicles**

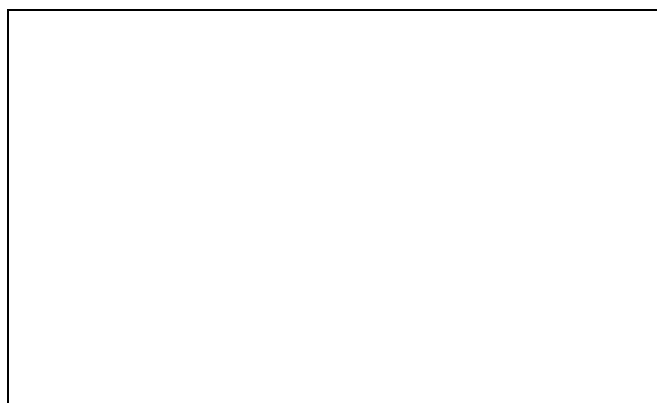
On a national basis the number of un-licensed vehicles decreased by 122,124 (29,41%) from 415,290 vehicles at the end of December 2008 to 293,166 vehicles at the end of December 2009. Detail per type of vehicle in this regard is given in Table 9 and the percentage of un-licensed vehicles per type of vehicle, as a percentage of the number registered, is reflected in the graph below.

Table 9 : Number of Un-Licensed Vehicles				
Vehicle Type	Dec 2008	Dec 2009	Change	% Change
Motorcars	215,888	167,849	-48,039	-22.25
Minibuses	17,860	10,593	-7,267	-40.69
Buses	1,538	838	-700	-45.51
Motorcycles	33,609	17,356	-16,253	-48.36
LDV's - Bakkies	70,931	55,124	-15,807	-22.29
Trucks	14,193	9,230	-4,963	-34.97
Caravans	5,248	2,390	-2,858	-54.46
Heavy Trailers	5,495	3,291	-2,204	-40.11
Light Trailers	36,485	20,864	-15,621	-42.81
Unknown	14,043	5,631	-8,412	-59.90
<b>All Vehicles</b>	<b>415,290</b>	<b>293,166</b>	<b>-122,124</b>	<b>-29.41</b>

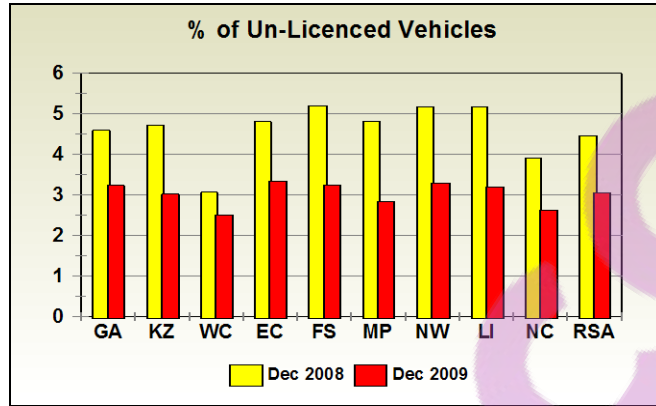


Detail on the number of vehicles that are un-licensed per Province is provided in Table 10 and the percentage (%) change from 2008 to 2009 reflected in the graph below.

Table 10 : Number of Un-Licensed Vehicles										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Dec 2008	164,192	60,421	47,527	30,654	27,253	27,378	27,202	22,595	8,068	415,290
Dec 2009	118,971	39,439	39,457	22,077	17,527	17,256	17,832	14,971	5,636	293,166
Change	-45,221	-20,982	-8,070	-8,577	-9,726	-10,122	-9,370	-7,624	-2,432	-122,124
% Change	-27.54	-34.73	-16.98	-27.98	-35.69	-36.97	-34.45	-33.74	-30.14	-29.41



The percentage of un-licensed vehicles per type of vehicle, as a percentage of the number registered per Province, is reflected in the graph below.



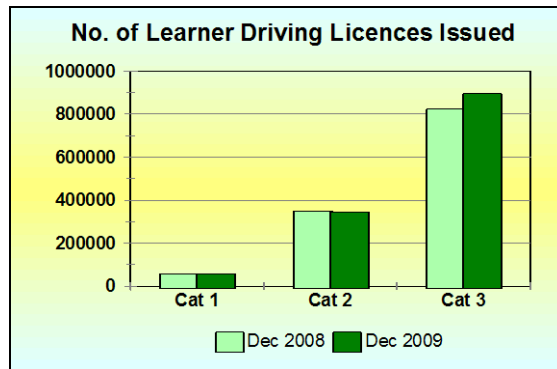
Detailed information in this regard is provided in the tables under **Annexure B**.

## 2. Driver Population

### 3.1 Learner Driving Licences

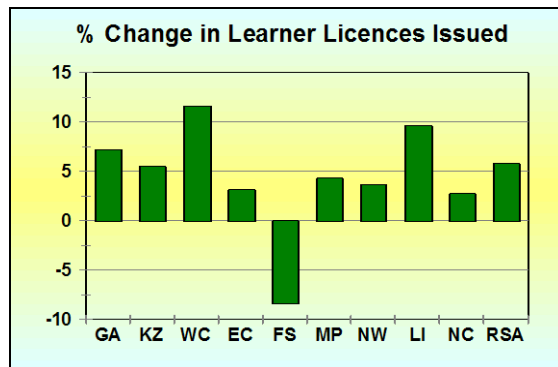
The number of learner driving licences issued increased by 70,836 (5,77%) from 1,227,206 at the end of December 2008 to 1,298,042 at the end of December 2009. Detail on the number of learner driving licences issued per category is given in Table 11 and graphically reflected in the figure below.

Category	Dec 2008	Dec 2009	Change	% Change
1	57,005	58,438	1,433	2.51
2	347,184	344,889	-2,295	-0.66
3	823,017	894,715	71,698	8.71
<b>Total</b>	<b>1,227,206</b>	<b>1,298,042</b>	<b>70,836</b>	<b>5.77</b>



Provincial information in this regard is given in Table 12 and the percentage change per Province over the 12-month period is reflected in the graph below.

Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Dec 2008	390,213	176,237	168,138	107,370	86,238	88,645	82,086	98,405	29,874	<b>1,227,206</b>
Dec 2009	418,369	185,928	187,652	110,735	79,261	92,444	85,117	107,846	30,690	<b>1,298,042</b>
Change	28,156	9,691	19,514	3,365	-6,977	3,799	3,031	9,441	816	<b>70,836</b>
% Change	7.22	5.50	11.61	3.13	-8.09	4.29	3.69	9.59	2.73	<b>5.77</b>

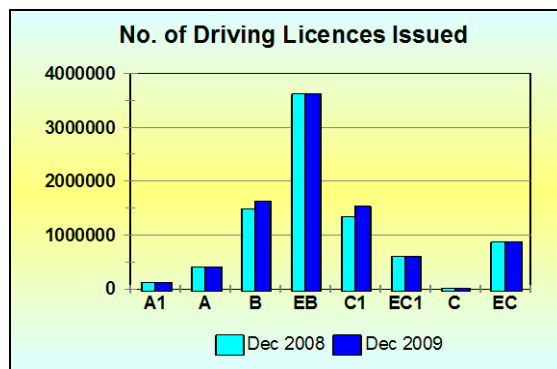


### 3.2 Driving Licences Issued and Expired

#### 3.2.1 Number of Driving Licences Issued

The number of driving licences issued increased by 359,210 (4,25%) from 8,457,718 at the end of December 2008 to 8,816,928 at the end of December 2009. Detail on the number of driving licences issued per category is given in Table 13 and graphically reflected in the figure below.

Category	Dec 2008	Dec 2009	Change	% Change
A1	121,397	122,192	795	0.65
A	403,989	413,768	9,779	2.42
B	1,490,185	1,627,262	137,077	9.20
EB	3,615,659	3,619,966	4,307	0.12
C1	1,335,125	1,536,412	201,287	15.08
EC1	607,107	605,771	-1,336	-0.22
C	14,057	14,928	871	6.20
EC	870,199	876,629	6,430	0.74
<b>Total</b>	<b>8,457,718</b>	<b>8,816,928</b>	<b>359,210</b>	<b>4.25</b>

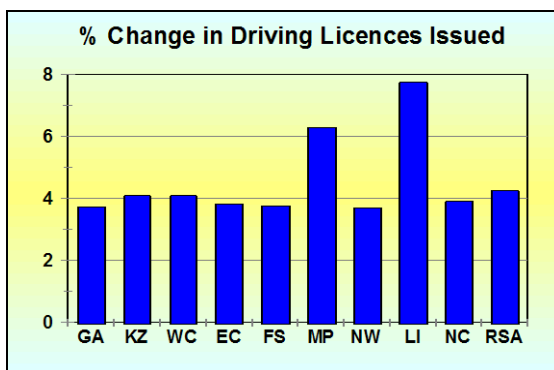


The number and percentage (%) driving licences issued per category at the end of December 2009 is reflected in Table 14 below.

Category	Description	Number	%
A1	Motorcycle < 125 cub.cm	122,192	1.39
A	Motorcycle > 125 cub.cm	413,768	4.69
B	Motor vehicle < 3,5000 kg	1,627,262	18.46
EB	Articulated motor vehicle <16,000 kg	3,619,966	41.06
C1	Motor vehicle 3,500 - 16,000 kg	1,536,412	17.43
EC1	Articulated vehicle 3,500 - 16,000 kg	605,771	6.87
C	Motor vehicle > 16,000 kg	14,928	0.17
EC	Articulated vehicle > 16,000 kg	876,629	9.94
<b>Total</b>		<b>8,816,928</b>	<b>100</b>

Provincial information in this regard is given in Table 15 and the percentage change with regard to all licences issued per Province is reflected in the graph below.

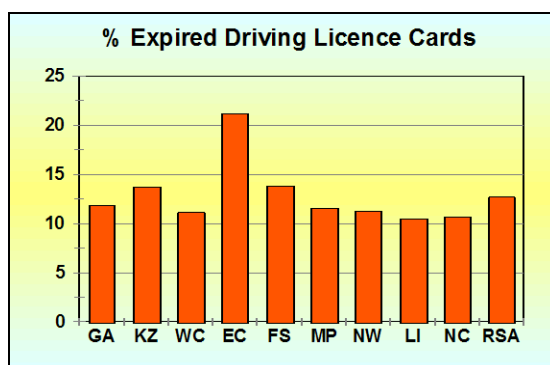
Table 15 : Number of Driving Licences Issued per Province										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Dec 2008	2,978,180	1,359,141	1,397,074	627,234	472,438	507,293	448,097	501,966	166,295	<b>8,457,718</b>
Dec 2009	3,089,191	1,414,678	1,454,140	651,262	490,177	539,176	464,682	540,838	172,784	<b>8,816,928</b>
Change	111,011	55,537	57,066	24,028	17,739	31,883	16,585	38,872	6,489	<b>359,210</b>
% Change	3.73	4.09	4.08	3.83	3.75	6.28	3.70	7.74	3.90	<b>4.25</b>



### 3.2.2 Number of Driving Licence Cards Expired

The information in Table 16 below shows that at the end of December 2009 there were a total of 1,116,038 expired driving licence cards recorded on the National Traffic Information System (NaTIS). This figure represents 12,66% of all driving licences issued. This information is also reflected in the graph below.

Table 16 : Number of Driving Licence Cards Issued and Expired per Province										
Dec 2009 Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
On system	3,089,191	1,414,678	1,454,140	651,262	490,177	539,176	464,682	540,838	172,784	<b>8,816,928</b>
Not expired	2,723,356	1,220,925	1,292,784	513,494	422,622	476,847	412,280	484,127	154,455	<b>7,700,890</b>
Expired	365,835	193,753	161,356	137,768	67,555	62,329	52,402	56,711	18,329	<b>1,116,038</b>
% Expired	11.84	13.70	11.10	21.15	13.78	11.56	11.28	10.49	10.61	<b>12.66</b>



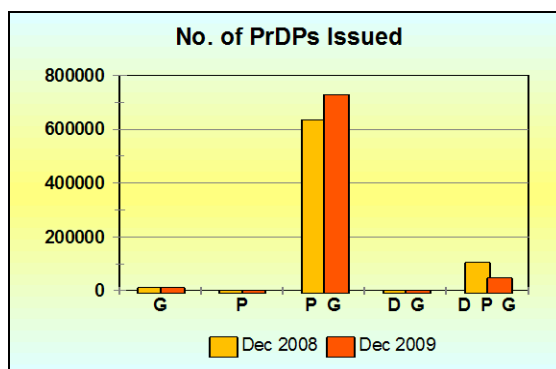


### 3.3 Professional Driving Permits Issued and Expired

#### 3.3.1 Number of Professional Driving Permits Issued

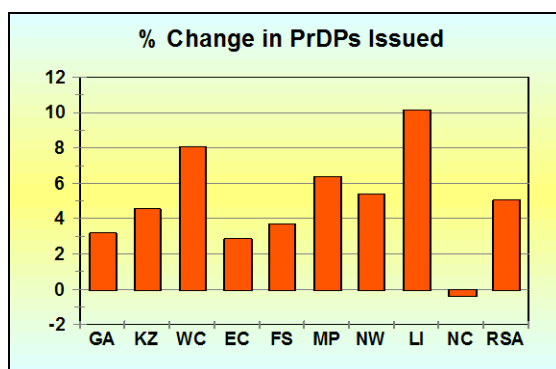
The number of Professional Driving Permits (PrDP's) issued increased by 38,038 (5,05%) from 752,916 at the end of December 2008 to 790,954 at the end of December 2009. Detail on the number of PrDPs issued per category is given in Table 17 and graphically reflected in the figure below.

Category	Dec 2008	Dec 2009	Change	% Change
G	10,764	11,179	415	3.86
P	2,705	2,323	-382	-14.12
P G	634,542	730,133	95,591	15.06
D G	554	210	-344	-62.09
D P G	104,351	47,109	-57,242	-54.86
<b>Total</b>	<b>752,916</b>	<b>790,954</b>	<b>38,038</b>	<b>5.05</b>



Provincial information in this regard is given in Table 18 and the percentage change with regard to all categories of PrDPs issued per Province is reflected in the graph below.

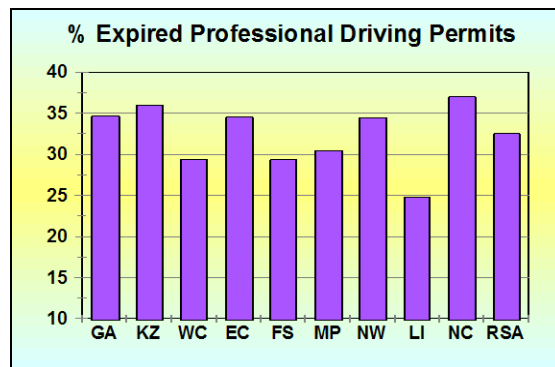
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Dec 2008	210,792	126,695	101,676	60,099	50,751	66,185	46,765	69,358	20,595	<b>752,916</b>
Dec 2009	217,491	132,483	109,877	61,817	52,629	70,421	49,299	76,407	20,530	<b>790,954</b>
Change	6,699	5,788	8,201	1,718	1,878	4,236	2,534	7,049	-65	<b>38,038</b>
% Change	3.18	4.57	8.07	2.86	3.70	6.40	5.42	10.16	-0.32	<b>5.05</b>



### 3.3.2 Number of Expired PrDPs

The information in Table 19 below shows that at the end of December 2009 there were a total of 256,952 expired Professional Driving Permits (PrDPs) recorded on the National Traffic Information System (NaTIS). This figure represents 32,49% of all PrDPs issued. This information is also reflected in the graph below.

Table 19 : Number of Professional Driving Permits (PrDP's) Issued and Expired per Province										
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
On system	217,491	132,483	109,877	61,817	52,629	70,421	49,299	76,407	20,530	790,954
Not expired	142,126	84,856	77,579	40,502	37,183	49,011	32,316	57,488	12,941	534,002
Expired	75,365	47,627	32,298	21,315	15,446	21,410	16,983	18,919	7,589	256,952
% Expired	34.65	35.95	29.39	34.48	29.35	30.40	34.45	24.76	36.97	32.49



Detailed information on the number of learner licences, driving licences and PrDPs per Province is provided in the tables under **Annexure C**.

### 3. Fatal Road Traffic Crashes and Fatalities

#### 4.1 Number of Fatal Crashes

Over the 12-month period from 1 January 2009 to 31 December 2009 the number of fatal crashes increased by 52 (0,48%) from 10,805 crashes over the same period the previous year (2008) to 10,857 in 2009. Provincial detail in this regard is given in Table 20 below.

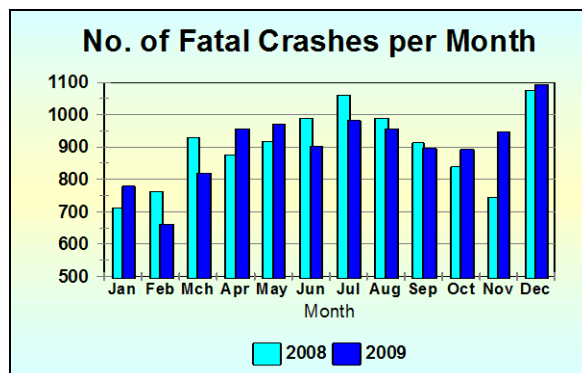
Table 19 : Number of Fatal Crashes per Province over 12 Month Period										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	2,311	2,117	1,290	1,067	650	1,187	869	1,081	233	10,805
2009	2,196	2,214	1,076	1,055	743	1,257	884	1,173	259	10,857
change	-115	97	-214	-12	93	70	15	92	26	52
% change	-4.98	4.58	-16.59	-1.12	14.31	5.90	1.73	8.51	11.16	0.48

With the exception of KwaZulu-Natal, Western Cape and Eastern Cape, an increase in the number of fatal crashes were recorded in all other Provinces. On a provincial percentage basis the biggest increases over the 12-month period from 1 January to 31 December 2009 were recorded as follows:

- Free State :an increase of 93 (14,31%) from 650 to 743;
- Northern Cape : an increase of 26 (11,16%) from 233 to 259, and
- Limpopo : an increase of 92 (8,51%) from 1,081 to 1,173

In Western Cape the number of fatal crashes decreased by 214 (16,59%) from 1,290 during 2008 to 1,076 during 2009. In Gauteng the number of fatal crashes decreased by 115 (4,98%) from 2,311 to 2,196.

The monthly number of fatal crashes over the two comparative 2 year periods is graphically reflected in the figure below.



The number of fatal crashes per month per province is given in the table attached under **Annexure D**.

## 4.2 Number of Fatalities

Over the 12-month period from 1 January to 31 December 2009 the number of fatalities decreased by 107 (0,77%) from 13,875 fatalities over the same period the previous year (2008) to 13,768. Provincial detail in this regard is given in Table 21 below.

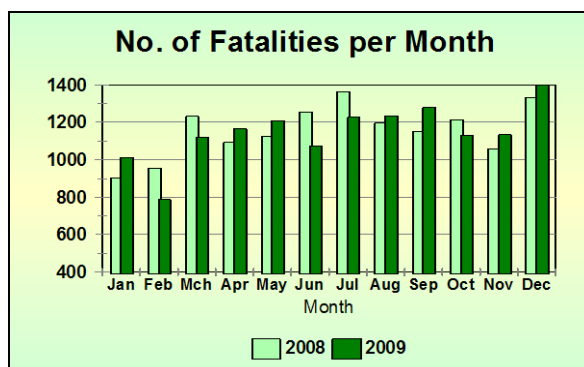
Table 21 : Number of Fatalities per Province over 12 Month Period										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	2,607	2,642	1,523	1,490	882	1,852	1,166	1,372	340	13,875
2009	2,485	2,854	1,285	1,543	967	1,674	1,130	1,492	337	13,768
change	-122	211	-238	53	86	-178	-35	119	-3	-107
% change	-4.70	8.00	-15.61	3.58	9.74	-9.62	-3.02	8.71	-0.97	-0.77

With the exception of KwaZulu-Natal, Eastern Cape, Free State and Limpopo all other Provinces recorded decreases in fatalities. On a provincial percentage basis the biggest decreases were recorded as follows:

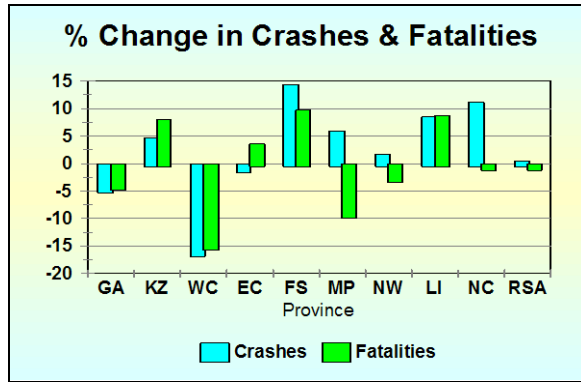
- Western Cape : decrease of 238 (15,61%) from 1,523 to 1,285;
- Mpumalanga: decrease of 178 (9,62%) from 1,852 to 1,674; and
- Gauteng : decrease of 122 (4,70%) from 2,607 to 2,485.

In Free State the number of fatalities increased by 86 (9,74%) from 882 to 967 and in Limpopo the number of fatalities increased by 119 (8,71%) from 1,372 to 1,492.

The national monthly number of fatalities over the 12-month period is graphically reflected in the figure below.



The percentage change in the number of fatal crashes and fatalities over the 12-month period from 1 January to 31 December for 2009 in comparison with 2008 per province is reflected in the graph below.



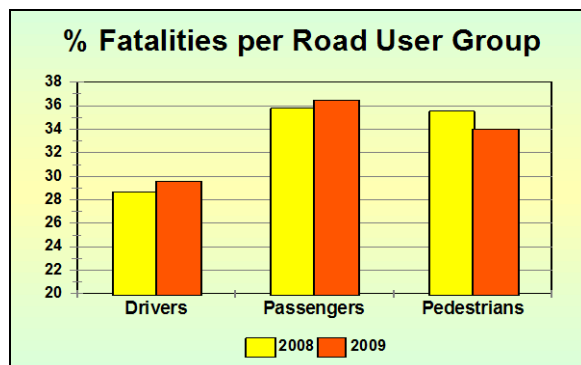
The number of fatalities per month per province is given in the table attached under **Annexure E**.

### 4.3 Number of Fatalities per Road User Group

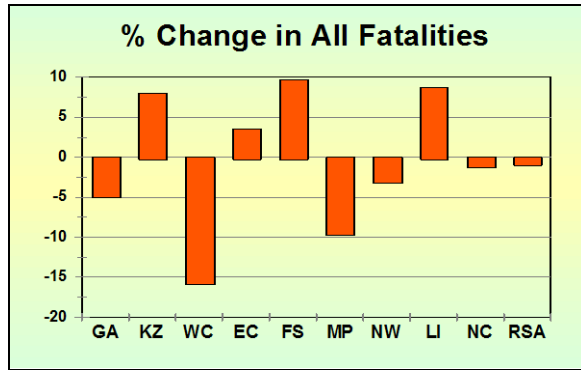
The information in Table 22 below shows that driver fatalities increased by 84 (2,11%) to 4,066; passenger fatalities increased by 58 (1,18%) to 5,023 and pedestrian fatalities decreased by 249 (5,06%) to 4,678 over the 12-month period from 1 January to 31 December 2009.

User Group	2008	2009	Change	% Change
Drivers	3,982	4,066	84	2.11
Passengers	4,965	5,023	58	1.18
Pedestrians	4,927	4,678	-249	-5.06
<b>Total</b>	<b>13,875</b>	<b>13,768</b>	<b>-107</b>	<b>-0.77</b>

The percentage fatalities per road user group for the two comparative years are reflected in the figure below. During 2008 and 2009 driver fatalities were (28,89% and 29,53%), passengers (36,93% and 36,49%) and pedestrians (34,18% and 33,98% of all fatalities.



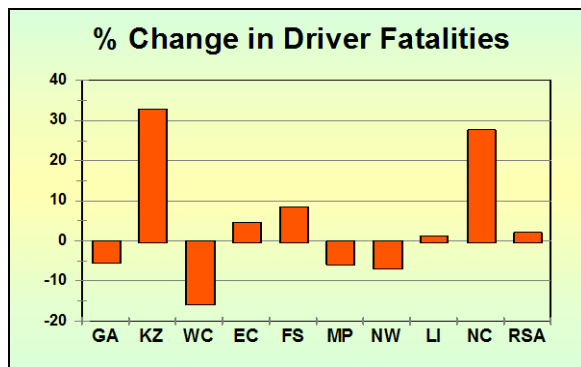
The percentage change in all fatalities per Province is shown in the figure below.



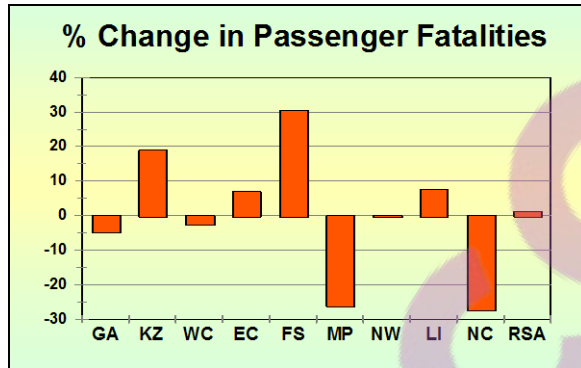
The number of fatalities per road user group per Province for the two respective 12-month periods is shown in Table 23 below.

Year	User Group	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	Drivers	817	534	468	345	300	602	370	432	113	3,982
	Passengers	612	858	406	685	349	857	450	575	174	4,965
	Pedestrians	1,179	1,250	649	460	232	393	346	366	54	4,927
	<b>Total</b>	<b>2,607</b>	<b>2,642</b>	<b>1,523</b>	<b>1,490</b>	<b>882</b>	<b>1,852</b>	<b>1,166</b>	<b>1,372</b>	<b>340</b>	<b>13,875</b>
2009	Drivers	775	710	397	361	326	569	347	438	144	4,066
	Passengers	584	1,021	398	733	456	636	449	618	127	5,023
	Pedestrians	1,126	1,122	491	449	185	469	334	436	65	4,678
	<b>Total</b>	<b>2,485</b>	<b>2,854</b>	<b>1,285</b>	<b>1,543</b>	<b>967</b>	<b>1,674</b>	<b>1,130</b>	<b>1,492</b>	<b>337</b>	<b>13,768</b>
Change	Drivers	-43	176	-71	16	26	-34	-23	6	31	84
	Passengers	-28	163	-8	48	107	-220	-0	44	-46	58
	Pedestrians	-52	-128	-158	-11	-47	76	-12	70	12	-249
	<b>Total</b>	<b>-122</b>	<b>211</b>	<b>-238</b>	<b>53</b>	<b>86</b>	<b>-178</b>	<b>-35</b>	<b>119</b>	<b>-3</b>	<b>-107</b>
% Change	Drivers	-5.22	32.94	-15.23	4.64	8.57	-5.60	-6.26	1.33	27.66	2.11
	Passengers	-4.51	19.02	-2.01	6.99	30.54	-25.73	-0.08	7.62	-26.76	1.18
	Pedestrians	-4.43	-10.22	-24.40	-2.29	-20.06	19.35	-3.39	19.13	22.20	-5.06
	<b>Total</b>	<b>-4.70</b>	<b>8.00</b>	<b>-15.61</b>	<b>3.58</b>	<b>9.74</b>	<b>-9.62</b>	<b>-3.02</b>	<b>8.71</b>	<b>-0.97</b>	<b>-0.77</b>

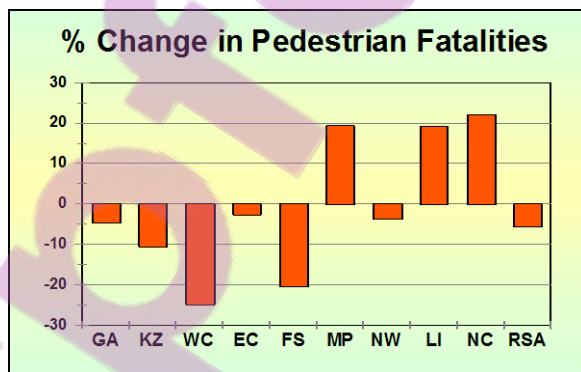
The percentage (%) changes in fatalities per specific road user group from 2008 to 2009 per province are also reflected in the figures below.



The information in the graph above shows that the biggest increase in the number of driver fatalities was recorded in KwaZulu-Natal with an increase of 32,94%, followed by Northern Cape with 27,66%. The biggest decrease in driver fatalities was recorded in Western Cape 15,23%.

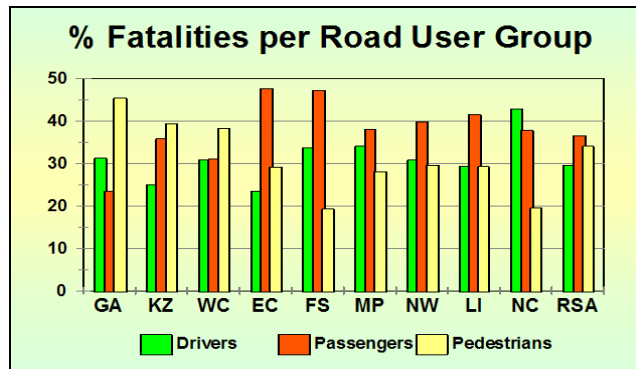


The information in the graph above shows that the biggest increase in the number of passenger fatalities was recorded in the Free State with an increase of 30,54%, followed by KwaZulu-Natal with an increase of 19,02%. The biggest decrease was recorded in Northern Cape with 26,76%, followed by Mpumalanga with a decrease of 25,73%.



The information in the graph above shows that, on a percentage basis, the biggest increase in the number of pedestrian fatalities was recorded in the Northern Cape with an increase of 22,20% followed by the Mpumalanga with an increase of 19,35% and Limpopo with 19.13%. Decreases of more than 20% were also recorded in Western Cape and Free State.

The combined percentages of road user group fatalities (drivers, passengers and pedestrians) per Province for 2009 is also reflected in the graph below.



The information in the graph above shows that in Gauteng, KwaZulu-Natal and the Western the main fatality groups were pedestrians – on average 43,84% of all fatalities. In the other 6 provinces the main fatality groups were passengers – on average 44,68% of all fatalities. (In these 6 provinces the average pedestrian fatalities were in the order of 25,16% of all fatalities).

More detail on the number of fatalities per road user group per month per province for 2007 and 2008 is given in the table attached under **Annexure F**.

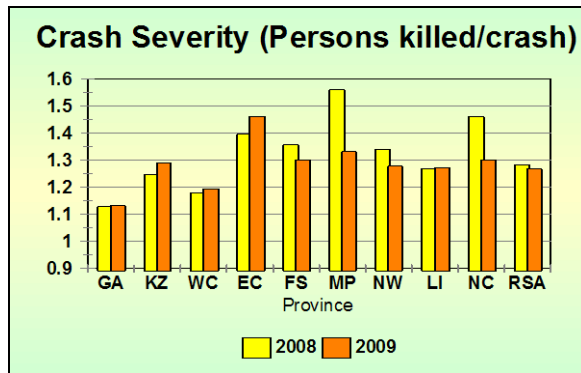
#### 4.4 Severity of Fatal Crashes

The severity of fatal crashes decreased by 0,016 (1,25%) from 1,284 during 2008 to 1,268 during 2009. The individual provincial severity rates are shown in Table 24 below.

Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	1.128	1.248	1.181	1.396	1.356	1.560	1.341	1.270	1.461	<b>1.284</b>
2009	1.132	1.289	1.194	1.463	1.302	1.332	1.279	1.272	1.301	<b>1.268</b>
change	0.003	0.041	0.014	0.066	-0.054	-0.229	-0.063	0.002	-0.159	<b>-0.016</b>
% change	0.30	3.27	1.17	4.76	-4.00	-14.66	-4.67	0.18	-10.92	<b>-1.25</b>

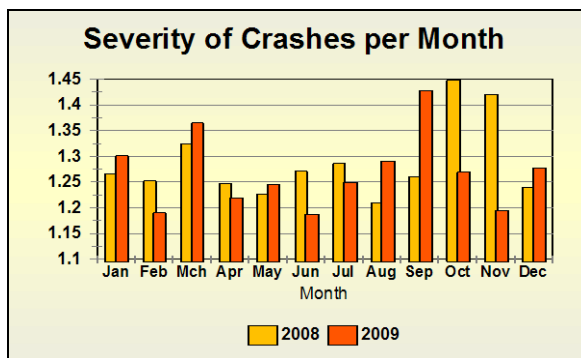
The information in the table above shows that the severity rate in Mpumalanga decreased by 0,229 (14,66%) from 1,560 to 1,332; followed by the Northern Cape with a decrease of 10,92%. The highest rate was recorded in Eastern Cape with an increase of 4,76% and in the KwaZulu-Natal with an increase of 3,27%. The provincial rates for the two comparative years in this regard are also reflected in the figure below.





The severity rate per month is given in Table 25 and also reflected in the figure below.

Month	2008	2009	Change	% change
Jan	1.266	1.301	0.034	2.72
Feb	1.252	1.190	-0.062	-4.95
Mch	1.324	1.365	0.041	3.09
Apr	1.247	1.219	-0.029	-2.29
May	1.227	1.245	0.018	1.50
Jun	1.271	1.187	-0.083	-6.56
Jul	1.286	1.249	-0.037	-2.88
Aug	1.209	1.291	0.082	6.82
Sep	1.261	1.427	0.167	13.23
Oct	1.448	1.269	-0.179	-12.35
Nov	1.420	1.195	-0.225	-15.83
Dec	1.240	1.278	0.038	3.04
<b>Total</b>	<b>1.284</b>	<b>1.268</b>	<b>-0.016</b>	<b>-1.25</b>

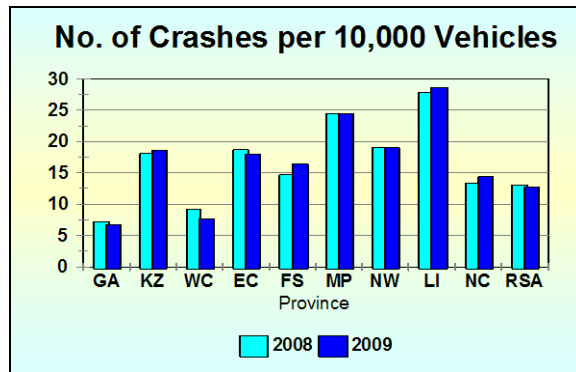


The figure above shows that the two months with exceptionally high severity rates were March and September 2009 with rates of 1,365 and 1,427 respectively. The biggest rate increase was recorded in September with an increase of 13,23% and August with an increase of 6,82%. (These high rates could be attributed to a large number of high occupancy vehicles, buses and minibuses, involved in fatal crashes).

#### 4.5 Crash and Fatality Rates and Trends per 10,000 Vehicles

The number of fatal crashes per 10,000 registered motorised vehicles decreased by 0,25 (1,88%) from 13,04 during 2008 to 12,79 2009. Provincial detail in this regard is given in Table 26 and graphically reflected in the figure below.

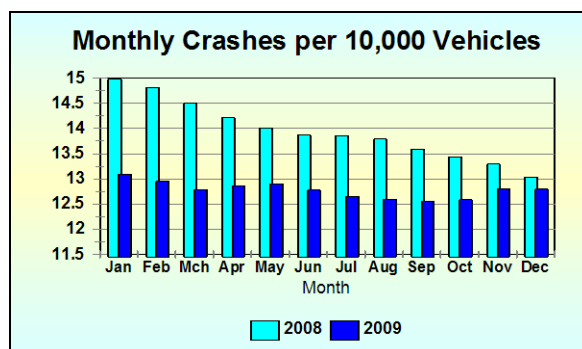
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	7.23	18.06	9.22	18.67	14.65	24.37	19.07	27.82	13.34	<b>13.04</b>
2009	6.72	18.61	7.59	18.01	16.36	24.40	18.98	28.63	14.36	<b>12.79</b>
change	-0.52	0.55	-1.63	-0.66	1.71	0.04	-0.09	0.81	1.02	<b>-0.25</b>
% change	-7.14	3.06	-17.68	-3.55	11.68	0.16	-0.48	2.91	7.63	<b>-1.88</b>



With the exception of Gauteng, Western Cape, Eastern Cape and North West, all other Provinces recorded an increase in this regard. On a Provincial percentage basis the biggest increases were recorded as follows:

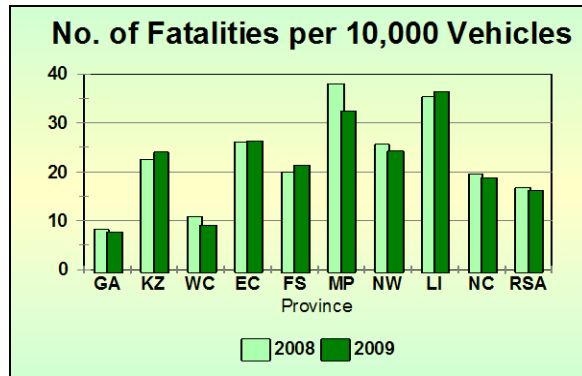
- Free State : increase of 1,71 (11,68%) from 14,65 to 16,36;
- Northern Cape : increase of 1,02 (7,63%) from 13,34 to a rate of 14,36

The number of fatal crashes per 10,000 registered motorised vehicles per month for the two respective years 2008 and 2009 are shown in the figure below.



The number of fatalities per 10,000 registered motorised vehicles decreased by 0,52 (3,1%) from 16,74 during 2008 to 16,22 during 2009. Provincial detail in this regard is given in Table 27 and graphically reflected in the figure below.

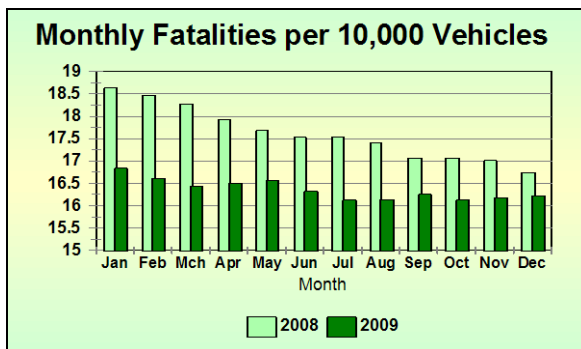
Table 27 : No. of Fatalities per 10,000 Motorised Vehicles per Province										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	8.16	22.54	10.89	26.07	19.86	38.02	25.59	35.31	19.49	16.74
2009	7.60	23.99	9.07	26.34	21.30	32.50	24.27	36.41	18.69	16.22
change	-0.56	1.45	-1.82	0.27	1.43	-5.52	-1.31	1.09	-0.80	-0.52
% change	-6.86	6.42	-16.71	1.04	7.21	-14.52	-5.13	3.10	-4.12	-3.11



With the exception of KwaZulu-Natal, Eastern Cape, Free State and Limpopo, all other Provinces recorded decreases in the number of fatalities per 10,000 vehicles. On a Provincial percentage basis the biggest decreases were recorded as follows:

- Western Cape : decrease of 1,82 (16,71%) from 10,89 to a rate of 9,07;
- Mpumalanga : decrease of 5,52 (14,52%) from 38,02 to a rate of 32,50; and
- Gauteng : decrease of 0,56 (6,86%) from 8,16 to a rate of 7,60.

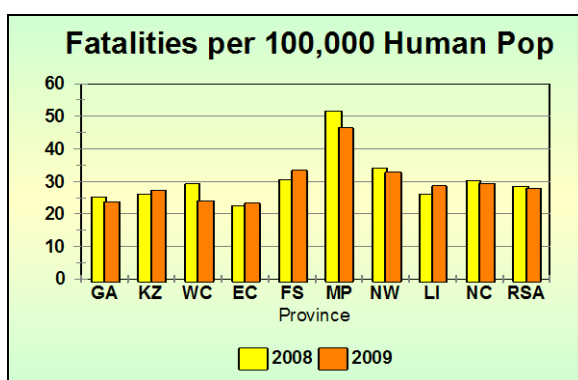
The number of fatalities per 10,000 registered motorised vehicles per month for the two 12-month periods is shown in the figure below.



#### 4.6 Number of Fatalities per 100,000 Human Population

The number of fatalities per 100,000 human population decreased by 0,60 (2,10%) from 28,51 at the end of December 2008 to 27,91 at the end of December 2009. Provincial detail in this regard is given in Table 28 and graphically reflected in the figure below.

Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	25.18	26.06	29.19	22.46	30.47	51.66	34.04	25.96	30.24	28.51
2009	23.60	27.30	23.99	23.21	33.33	46.41	32.76	28.54	29.37	27.91
change	-1.58	1.25	-5.20	0.75	2.86	-5.25	-1.28	2.58	-0.87	-0.60
% change	-6.28	4.78	-17.81	3.33	9.38	-10.17	-3.76	9.92	-2.87	-2.10



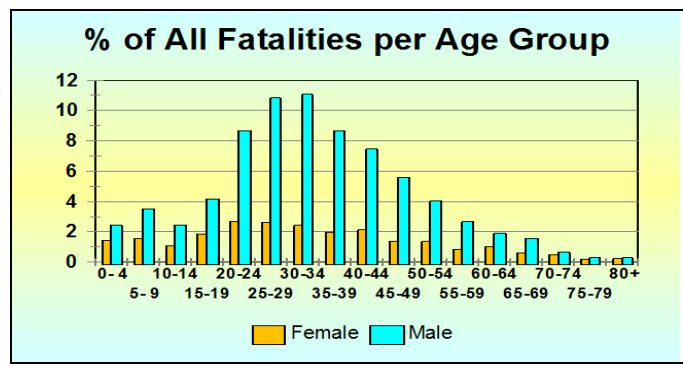
With the exception of KwaZulu-Natal, Eastern Cape, Free State and Limpopo, all other Provinces recorded decreases in this regard. On a Provincial percentage basis the biggest decreases were recorded as follows:

- Western Cape : decrease of 5,20 (17,81%) from 29,19 to a rate of 23,99;
- Mpumalanga : decrease of 5,25 (10,17%) from 51,66 to a rate of 46,41; and
- Gauteng : decrease of 1,58 (6,28%) from 25,18 to a rate of 23,60.

## 5. Fatalities per Age Group, Gender, Day-of-Week & Time-of-Day

### 5.1 Fatalities per Age Group and Gender

The percentage of fatalities per age group and gender for the year 2009 (only for the cases where this information is available) are given in Table 29 and reflected in the graph below.



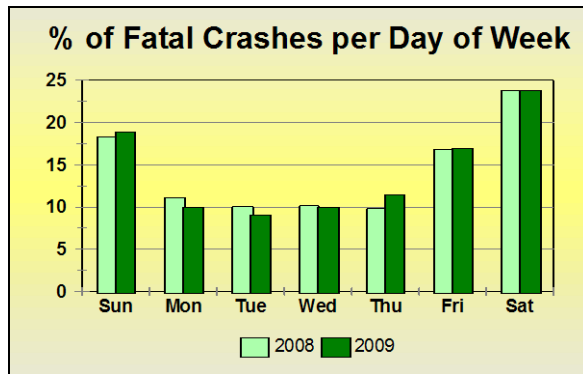
Age group	Driver		Passenger		Pedestrian		Total		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
0- 4	0.00	0.08	1.74	2.97	2.31	3.91	1.42	2.44	3.86
5- 9	0.00	0.16	1.31	2.35	3.25	7.68	1.58	3.51	5.09
10-14	0.00	0.47	1.02	2.66	2.09	3.97	1.08	2.46	3.54
15-19	0.35	2.04	3.41	5.40	1.49	4.70	1.85	4.17	6.02
20-24	0.56	8.73	5.23	10.25	1.76	6.88	2.67	8.66	11.33
25-29	0.70	13.37	5.59	9.86	1.05	9.66	2.60	10.83	13.43
30-34	1.48	16.67	4.14	7.75	1.38	9.80	2.41	11.08	13.49
35-39	0.99	12.58	3.27	5.55	1.38	8.61	1.95	8.67	10.62
40-44	1.20	10.46	3.41	4.77	1.54	7.74	2.12	7.46	9.58
45-49	0.70	9.67	2.40	3.29	0.83	4.57	1.36	5.61	6.97
50-54	0.63	6.92	2.40	1.80	0.88	3.91	1.36	4.03	5.39
55-59	0.21	5.03	1.31	1.33	0.88	2.05	0.84	2.67	3.51
60-64	0.28	2.59	1.67	1.25	0.94	1.92	1.01	1.88	2.89
65-69	0.21	2.20	0.87	1.02	0.61	1.59	0.59	1.56	2.15
70-74	0.07	0.94	0.87	0.23	0.44	0.79	0.49	0.63	1.12
75-79	0.07	0.39	0.36	0.16	0.17	0.33	0.21	0.29	0.50
80+	0.00	0.24	0.29	0.08	0.39	0.53	0.24	0.28	0.52
<b>Total</b>	<b>7.46</b>	<b>92.54</b>	<b>39.29</b>	<b>60.71</b>	<b>21.36</b>	<b>78.64</b>	<b>23.80</b>	<b>76.20</b>	<b>100.00</b>

The above information shows that in the order of 76,20% fatalities during 2009 were male and 23,80% females. 92,54% of all drivers killed in crashes were male and 7,46% female.

## 5.2 Crashes per Day of Week

The number of fatal crashes per day of the week per province during 2009 is given in Table 30 and graphically reflected in the figure below.

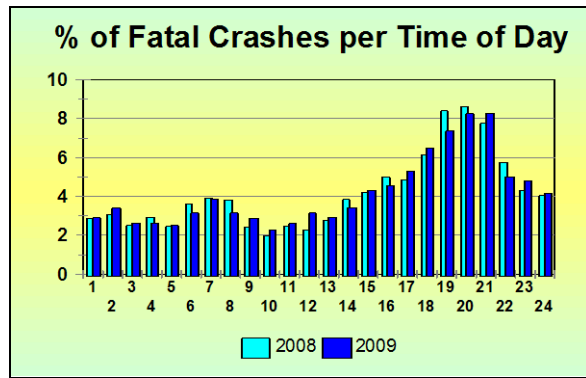
Table 30: Percentage of Fatal Crashes per Day-of-Week							
Province	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Gauteng	21.61	9.97	9.23	10.77	11.17	16.25	21.00
Kwa-Zulu Natal	15.38	11.83	11.02	11.83	11.25	15.04	23.65
Western Cape	16.91	8.71	10.17	9.54	10.27	16.60	27.80
Eastern Cape	18.37	9.01	7.60	8.48	14.84	15.90	25.80
Free State	18.84	11.11	7.25	8.45	9.66	19.08	25.60
Mpumalanga	18.96	10.56	7.53	8.97	12.01	17.37	24.60
North West	19.77	9.20	7.82	10.34	11.03	19.54	22.30
Limpopo	20.33	8.61	9.33	9.21	11.36	18.78	22.37
Northern Cape	16.00	14.00	7.33	10.67	12.67	14.00	25.33
Total	18.89	9.95	9.03	9.95	11.41	16.91	23.86



The information above shows that almost one quarter (23,86%) of the weekly crashes happen on a Saturday, and 59,65% of all fatal crashes happened over weekends from Friday to Sunday. The graph below reflects the comparison of day-of-week crashes between 2008 and 2009.

## 5.3 Number of Crashes per Time of Day

The percentage of fatal crashes per time of day during 2009 is reflected in the graph below.



The above information shows the following percentage of crashes for the respective hours of the day :

- From 18:00 to 19:00 : 6,93%;
- From 19:00 to 20:00 : 7,81%; and
- From 20:00 to 21:00 : 8,27%,

which totals to 23,01%, almost one quarter of the daily fatal crashes.



## 6. Vehicles involved in Fatal Crashes

### 6.1 Vehicles per Type in Fatal Crashes

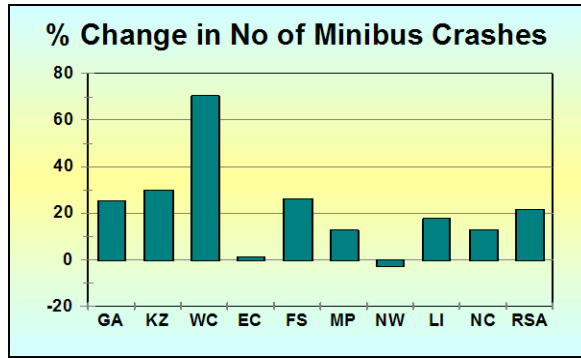
The information in Table 31 below shows that :

- The number of all types of vehicles involved in fatal crashes increased by 1,958 (14,35%) from 13,645 in 2008 to 15,603 in 2009; and
- The number of motorised vehicles involved in fatal crashes increased by 1,951 (14,59) from 13,366 in 2008 to 15,317 in 2009; and
- The number of bicycles involved in fatal crashes decreased by 8 (2,74%) from 278 to 286.

Vehicle Type	2008	2009	Change	% Change
Motorcars	5,959	7,348	1,388	23.30
Minibuses	898	1,130	231	25.77
Minibus Taxis	323	356	33	10.19
Buses	262	354	92	35.21
Motorcycles	268	347	79	29.65
LDV's - Bakkies	3,128	2,926	(202)	-6.47
Trucks - rigid	513	314	(199)	-38.79
Trucks - articulated	845	1,074	229	27.11
Other and unknown	1,170	1,469	299	25.53
<b>Total Motorised</b>	<b>13,366</b>	<b>15,317</b>	<b>1,951</b>	<b>14.59</b>
Bicycle	278	286	8	2.74
Animal drawn	0	0	0	0.00
<b>Total</b>	<b>13,645</b>	<b>15,603</b>	<b>1,958</b>	<b>14.35</b>

The number of all minibuses involved in fatal crashes per province is given in Table 32 and the change reflected in the graph below.

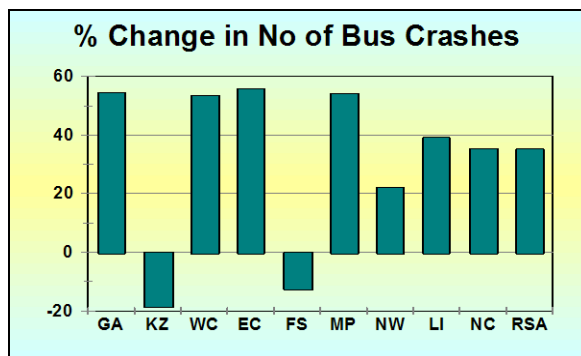
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>2008</b>	221	290	85	161	73	153	104	118	17	1,221
<b>2009</b>	277	377	144	163	92	173	102	139	19	1,486
<b>Change</b>	56	87	60	2	19	19	-2	21	2	264
<b>% Change</b>	25.40	30.00	70.40	1.17	26.28	12.69	-1.80	17.76	12.77	21.65



The information above shows that the number of all minibuses involved in fatal crashes decreased by 264 (21,65%) from 1,221 in 2008 to 1,486 in 2009. With the exception of North West, all other provinces show an increase in this regard. On a percentage basis the biggest increase was recorded in Western Cape where the number of minibuses increased by 60 (70,40%) from 85 to 144 in 2009.

The number of buses involved in fatal crashes per province is given in Table 33 and the change reflected in the graph below.

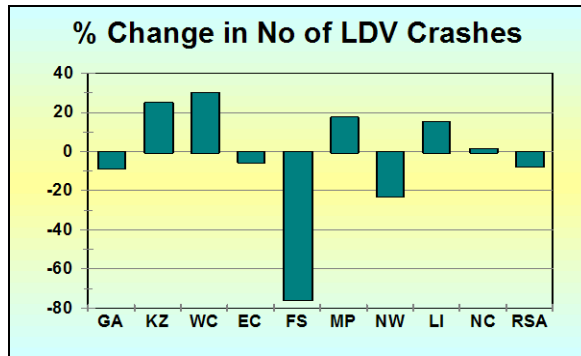
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	39	46	34	42	11	45	19	22	4	262
2009	61	37	52	66	9	69	23	31	6	354
Change	21	-8	18	24	-1	24	4	9	1	92
% Change	54.43	-18.07	53.46	55.73	-11.94	54.25	22.09	39.13	35.32	35.21



The information above shows that the number of buses involved in fatal crashes decreased by 92 (35,21%) from 262 in 2008 to 354 in 2009. With the exception of Kwa-Zulu Natal and Free State, all other provinces show an increase in this regard. On a percentage basis the biggest increase was recorded in the Eastern Cape with an increase of 55,73% followed by the Gauteng where the number of buses increased by 21 (54,43%) from 39 in 2008 to 61 in 2009 and Mpumalanga with an increase of 54.25%..

The number of LDVs (bakkies) involved in fatal crashes per province is given in Table 34 and the change reflected in the graph below.

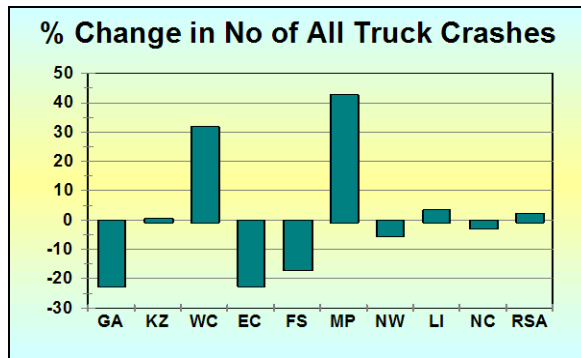
Table 34 : Number of LDVs Involved in Fatal Crashes per Province										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	405	450	257	351	546	396	284	338	100	3,128
2009	374	564	335	336	138	466	222	391	101	2,926
Change	-31	113	78	-16	-408	70	-62	53	1	-202
% Change	-7.72	25.12	30.36	-4.43	-74.75	17.61	-21.96	15.55	1.49	-6.47



The information above shows that the number of LDVs involved in fatal crashes decreased by 202 (6,47%) from 3,128 in 2008 to 2,926 in 2009. Four provinces show decreases, while increases were recorded in five provinces. On a percentage basis the biggest increase was recorded in the Western Cape with an increase of 78 (30,36%) where the number of LDVs increased from 257 in 2008 to 335 in 2009.

The number of articulated trucks involved in fatal crashes per province is given in Table 35 and the % change reflected in the graph below.

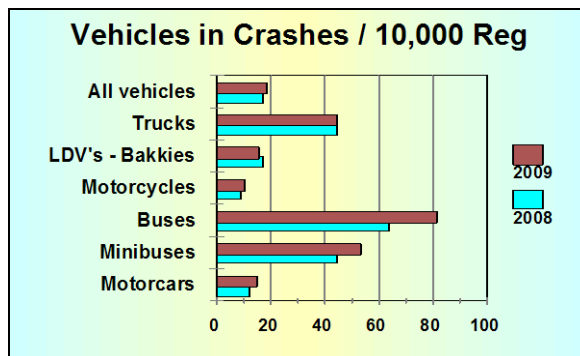
Table 35: Number of All Trucks Involved in Fatal Crashes per Province										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	233	274	121	143	122	220	93	127	25	1,358
2009	182	275	160	111	102	314	88	132	24	1,388
Change	-51	1	39	-31	-20	94	-5	4	-1	30
% Change	-21.97	0.47	31.83	-21.94	-16.53	42.75	-5.31	3.47	-2.27	2.21



The information above shows that the number of All trucks involved in fatal crashes increased by 30 (2,21%) from 1,358 in 2008 to 1,288 in 2009. Five provinces show increases, while decreases were recorded in four provinces. On a percentage basis the biggest increase was recorded in Mpumalanga with an increase of 94 (42,75%) where the number of All trucks increased from 220 in 2008 to 314 in 2009.

The number of vehicles involved in fatal crashes per 10,000 registered vehicles per type of vehicle, is shown in Table 36 and graphically reflected in the figure below. The general rate increased by 11,90% from 16,13 to 18,05.

Vehicle Type	2008	2009	Change	% Change
Motorcars	11.36	13.75	2.38	<b>20.98</b>
Minibuses	43.61	52.59	8.98	<b>20.59</b>
Buses	63.16	80.46	17.30	<b>27.39</b>
Motorcycles	8.39	10.05	1.66	<b>19.73</b>
LDV's - Bakkies	16.72	15.21	-1.51	<b>-9.01</b>
Trucks	43.53	43.32	-0.21	<b>-0.49</b>
<b>All vehicles</b>	<b>16.13</b>	<b>18.05</b>	<b>1.92</b>	<b>11.90</b>



The information above shows that, with the exception of LDVs and Trucks, increases were recorded for all other types of vehicles. The rate in this regard

for Buses increased by 17,30 (27,39%) from 63,16 to 80,46 buses in fatal crashes per 10,000 registered.

More detailed information on the number of vehicles involved in fatal crashes per Province is given in the tables under **Annexure G**.

## 6.2 Road User Group Fatalities per Type of Vehicle

The number of fatalities per type of vehicle during 2008 and 2009 are given in Table 37 below.

Table 37: Number of Fatalities per Type of Vehicle				
Vehicle Type	2008	2009	Change	% Change
Motorcars	6,305	6,782	477	7.57
Minibuses	1,241	1,184	-57	-4.62
Minibus Taxis	457	432	-25	-5.41
Buses	387	360	-27	-6.89
Motorcycles	285	299	14	4.84
LDV's - Bakkies	2,889	2,649	-240	-8.31
Trucks - rigid	338	163	-176	-51.95
Trucks - articulated	510	489	-21	-4.04
Other and unknown	1,179	1,151	-28	-2.37
<b>Total Motorised</b>	<b>13,591</b>	<b>13,510</b>	<b>-82</b>	<b>-0.60</b>
Bicycle	283	258	-25	-8.86
Animal drawn	0	0	0	0.00
<b>Total</b>	<b>13,875</b>	<b>13,768</b>	<b>-107</b>	<b>-0.77</b>

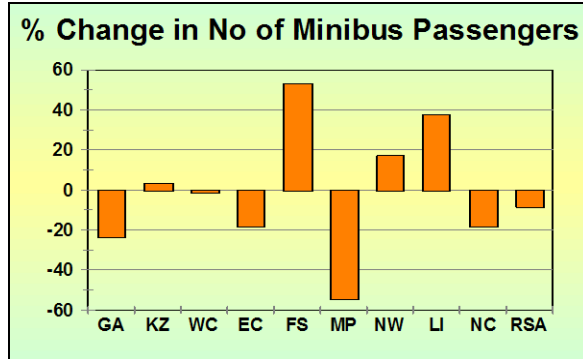
Amongst others, the information in the table above shows that, with the exception of motorcars and motorcycles, fatalities for all the other types of vehicles decreased. The recorded increases are briefly summarised as follows :

- Motorcars : fatalities increased by 477 (7,57%) from 6,305 to 6,782; and
- Motorcycles : fatalities increased by 14 (,84%) from 285 to 299.

The number of passenger fatalities in minibus related fatal crashes (minibuses plus minibus taxis) is given in Table 38 and the % change reflected in the graph below.

**Table 38 : Number of All Minibus Passenger Fatalities per Province**

Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	112	218	48	190	57	178	65	77	12	958
2009	86	226	48	157	87	83	76	107	10	880
Change	-26	7	-0	-33	30	-95	11	29	-2	-78
% Change	-22.95	3.39	-0.70	-17.26	53.11	-53.39	17.10	37.72	-17.44	-8.18

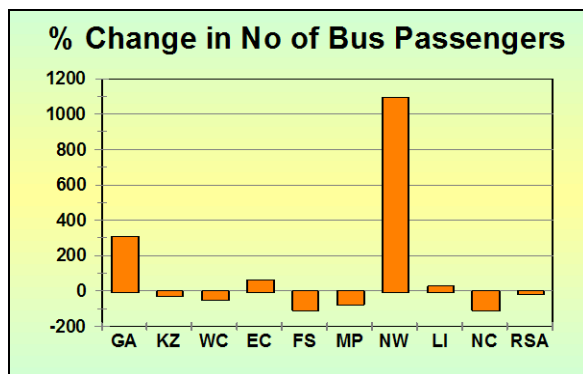


The information above shows that the number of all minibus passenger fatalities decreased by 78 (8,18%) from 958 in 2008 to 880 in 2009. Five provinces recorded decreases and four provinces show increases in this regard. The biggest increase was recorded in Free State where the number of passenger fatalities increased by 30 (53,11%) from 57 to 87 in 2009. The biggest decrease of 53,39% was recorded in Mpumalanga.

The number of passenger fatalities in bus related fatal crashes is given in Table 39 and the % change reflected in the graph below.

**Table 39 : Number of Bus Passenger Fatalities per Province**

Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	7	29	16	45	1	133	2	10	2	245
2009	30	22	9	75	0	44	19	12	0	211
Change	23	-6	-7	29	-1	-89	17	3	-2	-34
% Change	310.06	-21.95	-45.12	64.82	-100.00	-66.77	1096.30	26.76	-100.00	-13.82

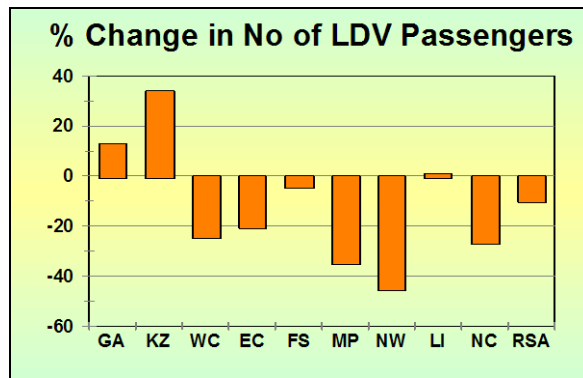


The information above shows that the number of bus passenger fatalities decreased by 34 (13,82%) from 245 in 2008 to 211 in 2009. Four provinces recorded increases and five provinces show decreases in this regard. The biggest increase was recorded in North West where the number of bus

passenger fatalities increased by 17 (1096,30%) from 2 in 2008 to 19 in 2009. In Gauteng the number of bus passenger fatalities increased by 23 (310,06%) from 7 to 30.

The number of passenger fatalities in LDV (bakkie) related fatal crashes are given in Table 40 and the % change reflected in the graph below.

Table 40 : Number of LDV Passenger Fatalities per Province										
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	76	227	97	179	85	178	149	166	50	1,208
2009	86	304	73	143	82	117	82	167	37	1,093
Change	10	77	-23	-36	-3	-61	-66	2	-13	-115
% Change	13.10	34.12	-24.22	-20.20	-3.81	-34.37	-44.62	0.99	-26.40	-9.52



The information above shows that the number of LDV (bakkie) passenger fatalities decreased by 115 (9,52%) from 1,208 in 2008 to 1,093 in 2009. With the exception of Gauteng, Kwa-Zulu Natal and Limpopo where an increase was recorded, all other provinces recorded decreases in this regard. On a provincial percentage basis, the biggest increase was recorded in Kwa-Zulu Natal where the number of LDV passenger fatalities increased by 77 (34,12%) from 227 in 2008 to 304 in 2009. In Gauteng the number of LDV passenger fatalities increased by 10 (13,10%) from 76 to 86.

More detailed information on the number of fatalities per type of vehicle involved in fatal crashes per Province is given in the tables under **Annexure H**.

## 7. Fatal Crashes and Fatalities Types

Types of fatal crashes provide further supporting information on the prevalent conditions and possible factors contributing to crashes. Data in this regard collected for 2009 is given and briefly discussed below.

**Table 41: Percentage(% of Fatal Crashes & Fatalities per Type of Crash**

Crash Type	Crashes	Fatalities	Severity
Pedestrian	34.71	28.23	1.02
Hit and run - mainly pedestrian	8.16	6.50	1.00
Head on	10.79	16.94	1.98
Overturned	23.61	24.67	1.32
Collision - Fixed object	4.50	4.46	1.25
Sideswipe opposite direction	3.21	3.74	1.47
Sideswipe same direction	1.65	1.69	1.29
Head-Rear end	4.77	5.29	1.40
Approach at angle	2.23	2.51	1.42
Turn in face of oncoming traffic	0.45	0.54	1.54
Turn from wrong lane	0.33	0.32	1.19
Person fell off vehicle	1.34	1.06	1.00
Animal	0.48	0.44	1.17
Cyclist	2.07	1.69	1.03
Motorcycle	0.45	0.37	1.04
Multiple vehicle	0.68	0.92	1.70
Unknown and other	0.59	0.62	1.32

The information in the table above shows that Pedestrian and Hit-and-run crashes were in the order of 34,71% and 8,16% respectively of all fatal crashes during 2009. The severity (average number of fatalities per crash) for these crash types is about one (1).

Head-on crashes, mainly due to unsafe and illegal overtaking manoeuvres, were in the order of 10,78% resulting in 16,94% of all fatalities due to the high severity rate of 1,98.

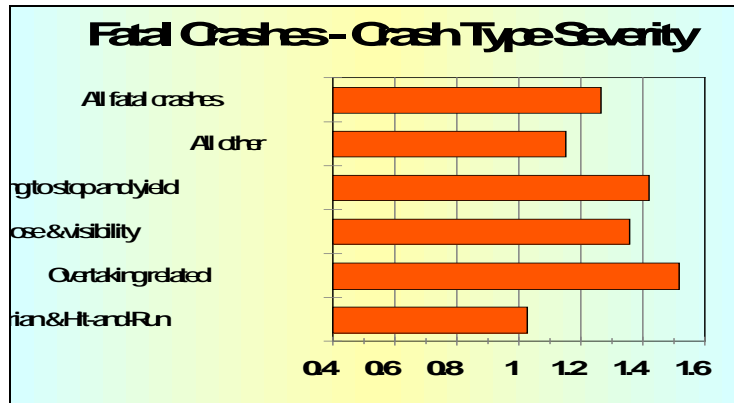
Overturned vehicles, collisions with fixed objects and side-swipes combined were in the order of 32,97% resulting in 34,56% (more than one third) of all fatalities. The contributory factors to these crashes include mainly unsafe and illegal overtaking manoeuvres; fatigue, poor judgement, poor visibility and vehicle and road conditions.

Head-rear-end crashes were in the order of 4,77% resulting in 5,29% of all fatalities with a severity rate of 1,40. These crashes are contributed mainly to by following too close and dirty or non-existent chevrons on heavy vehicles, faulty headlights, etc.

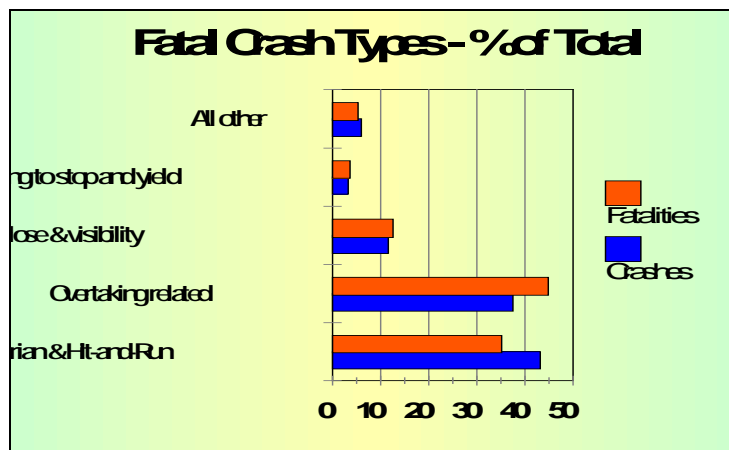


Crashes at junctions (approach at angle, turn in front of oncoming vehicles and turn from wrong lane) totalled 3,00% of all crashes resulting in 3,37% of all fatalities. At 1,41 the combined severity of these crash types is higher than the average of 1,26. The main contributory factor in these types of crashes is failing to stop or yield for oncoming vehicles.

The severity of the various crash types are also reflected in the figure below.



Further analysis and combination of the above types of crashes is shown in the figure and table below.



Crash Type	Crashes	Fatalities
Pedestrian & Hit-and-Run	42.86	34.73
Overtaking related	37.17	44.59
Following too close & visibility	11.36	12.20
Failing to stop and yield	3.00	3.37
All other	5.60	5.10

The information above indicate, amongst others that :

- Pedestrian related crashes was in the order of 42,86% resulting in 34,73% fatalities; and
- Overtaking related crashes was in the order of 37,17% resulting in 44,59% of all fatalities, mainly vehicle passengers.

Note should be taken that vehicle and road factors discussed under contributory factors above, excessive speed and speed too fast for circumstances; drivers driving under the influence of alcohol, also contributed to these crashes. Additional factors include general reckless, negligent and aggressive driver behaviour.

## 8. Contributory Factors to Crashes

### 8.1 Summary Contributory factors to crashes

Crashes do not just happen – they happen because of certain real contributory factors. These contributory factors are circumstantial elements that are present at the time of the crash and are generally classified under four main categories, namely: human, vehicle, roadway and the environment. The first three factors reflect human and authority behaviour, attitude and performance, while the fourth factor, the environment could, to a certain extent, be regarded as being beyond the control of the driver or the authorities.

Information collected over many years on contributory factors, show the general percentage contribution of each of these categories to crashes as indicated in the diagram below. These percentages change from year to year and vary from season to season; province to province and also differ between the various categories of roads.

The contributory factors to road crashes are generally classified under 3 main categories as follows:

- Human
- Vehicle
- Road environment

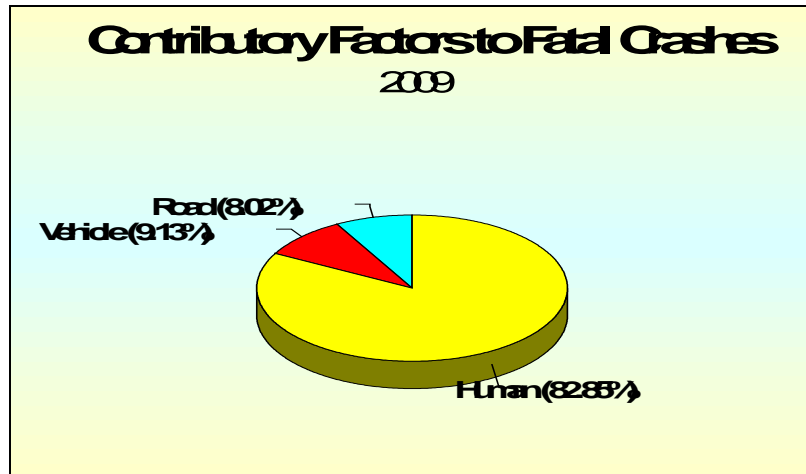
It should be noted that it is very seldom that a crash happens because of only one contributory factor. In most cases there are 2, 3 and even 4 or more factors from any one or more of the above categories present simultaneously.

It is further accepted that 95% or more road traffic crashes happen as a direct result of traffic offences or non-compliance with prescribed norms and standards. In this regard the human element plays a major role. For example, should a crash result from a tyre burst, generally classified under vehicle factors, it still is the responsibility of the driver or owner of the vehicle to see that the worn or damaged tyre is replaced timeously.

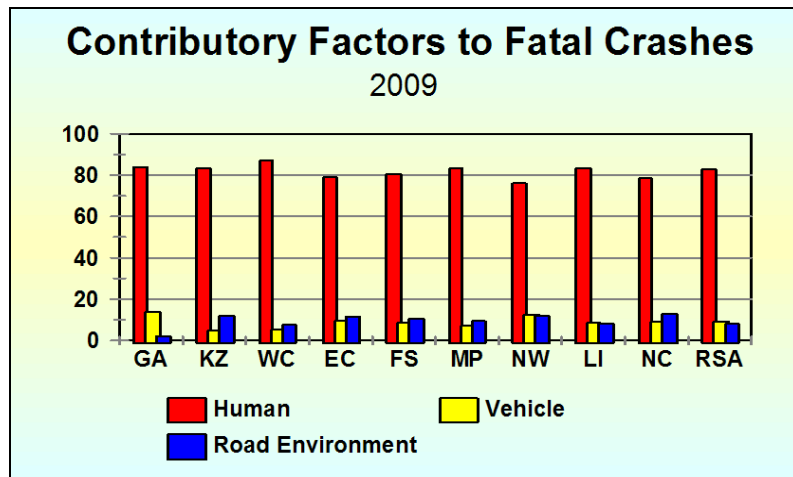
In case of a crash happening a result of a pothole in the road or a smooth road surface, generally classified under road factors, it is the responsibility of the driver to reduce speed and drive more carefully under such circumstances. In such a case it is also the responsibility of the roads authority to detect the unsafe conditions through regular inspections and efficient routine maintenance programmes and

either effect the required remedial measures as soon as possible or, to at least provide the required road signs to warn road users of the unsafe condition of the road

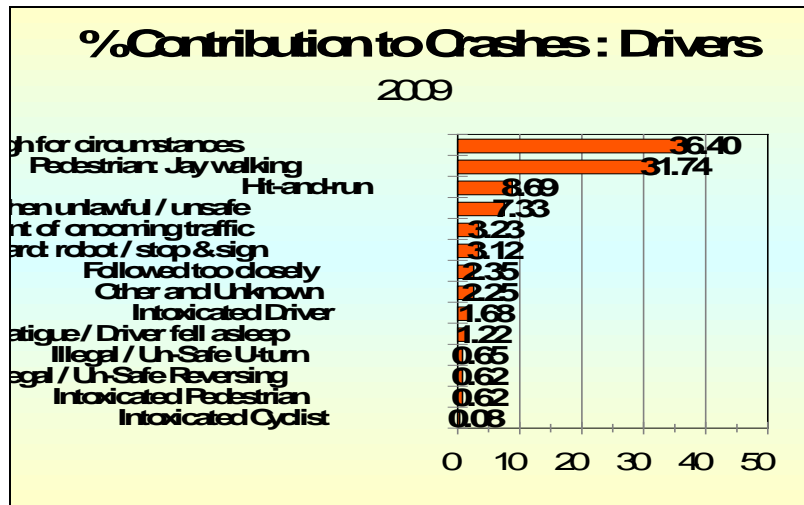
The human factor contributed 82,85% to fatal crashes during 2009 vehicle factor contributed 9.13% and road and environment contributed 8,02%. The reported contributory factors to fatal crashes during 2009 are reflected in the general and respective human, vehicle and road and environment figures below.



The contributory factors per province are reflected in the figure below.



**8.1.1 Human or Driver factors:**



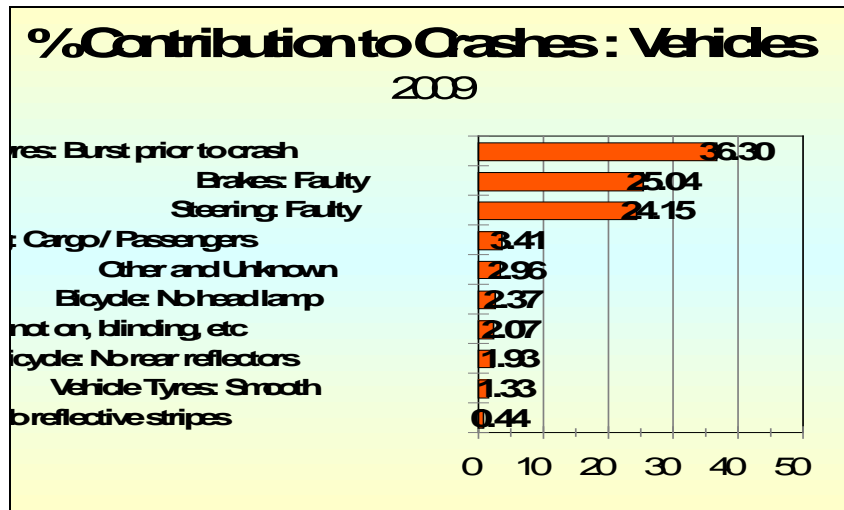
Information in the figure above shows, amongst others, that within the human or driver factor group as reported by the respective investigating officers, excessive speed or speed too fast for circumstances was a factor in 35,40% of fatal crashes; pedestrians jaywalking 31,74% and unsafe and un-lawful overtaking 7,33%.

It should be noted that the reported rates for intoxicated driver (1,63%); intoxicated pedestrian (0,62%) and intoxicated cyclist (0,08%) appears to be too low and does not reflect the real true conditions. This statement is made in comparison with information provided by the Medical Research Council (MRC) that shows that 61% of pedestrians and 59% of drivers killed in road crashes were under the influence of alcohol. This information is collected by the MRC from mortuaries around the country. In order to collect more reliable information in this regard, SAPS investigating officers must be encouraged to take breath sample tests at crash scenes.

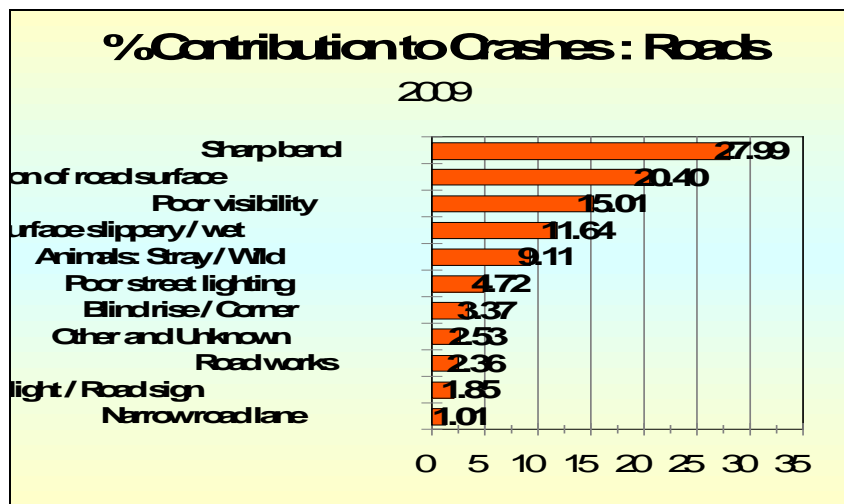
**8.1.2 Vehicle factors:**

Information in the figure on vehicles below shows, amongst others, that within the vehicle factor group, tyre burst due to damaged and smooth tyres was a factor in 36,30% of fatal crashes; faulty brakes 25,04% and unsafe and faulty steering 24,15%, totalling no less than 85,48% in the vehicle factor group.





### 8.1.3 Road environment factors:



Information in the figure on the road environment above shows, amongst others, that within the roads factor group, sharp bends was a factor in 27,99% of fatal crashes; poor condition of the road (potholes, rutting, etc) 20,40% and poor visibility 15,01%.

The vehicle and road factors given above are further aggravated by excessive speed and speed too fast for circumstances; drivers driving under the influence of alcohol, unfit vehicles and driving without a valid driving licence or a professional driving permit. Additional factors include general reckless, negligent and aggressive driver behaviour.



## 9. Road Traffic Offence Survey Results

Traffic offence surveys are annually conducted with the view to:

- determine the general level of lawlessness on the road network on a year to year basis;
- measure the effect and impact of road safety communication and law enforcement programmes, projects and campaigns; and
- complement existing traffic safety information as well as to clarify the factors that contribute to road crashes.

Offence surveys are conducted on the most critical road traffic offences that generally contribute to the occurrence of road crashes and/or the severity thereof; and include the following:

- Speed: in urban and rural areas (for grouped categories of vehicles);
- Alcohol levels (only drivers);
- Wearing rate of seatbelts – Surveyors were not observed by the drivers and passengers of the vehicles (Unobserved drivers & front seat passengers);
- Drivers of vehicles ignoring traffic signals;
- Drivers of vehicles overtaking across barrier (no-overtaking) lines;
- Pedestrian traffic signal compliance at intersections in urban areas;
- Driver documentation:
  - Carrying of driving licences;
  - Carrying of professional driving permits (PrDPs);
- Vehicle documentation; agreement between the license number on the number plate of vehicles and the licence disc;
- Vehicle fitness:
  - Condition of tyres; worn and/or damaged; and
  - Functioning of vehicle lights; front, tail and brake lights.

For the purpose of these surveys vehicles are grouped into the following 4 categories:

- Light motor vehicles (LMVs) : motorcars, light delivery vehicle (LDVs) and motorcycles; as well as minibuses not registered to transport passengers for reward;
- Minibus taxis : minibuses registered to transport passengers for reward;
- Buses : for the transportation of 18 and more passengers; and
- Trucks : for the transportation of freight > 3,5 t.

Offence surveys are conducted on roads and streets in urban and rural areas which are defined as follows:

- Urban areas : local roads and streets in cities, towns and built-up areas where the speed limit may vary between 60km/h to 80km/h;
- Rural areas : including inter-city, inter-regional and inter-provincial roads, which may be national, provincial and regional roads with speed limits generally between 100km/h and 120km/h.

In order to enable the comparison of the different types of traffic offences on an equal basis, index numbers were developed. Without such indices it would be difficult to compare and sum offence which are measured in different terms, for example, “milligrams per litre” (alcohol); “kilometres per hour” (speed) or “percentage of red phases with offence” (skipping traffic signals). By reducing all these offences to index numbers which relate the offence levels to their respective targets, the rates of the different offences become mutually comparable and can also be used to calculate combined (or joint) indices for the different offences.

In order to assist in the calculation of indices, desired maximum offence rates for the various types of traffic offences were determined. These are given in the table below.

<b>Table 43: Desired maximum offence rates for various critical offences</b>	
<b>Offence Type</b>	<b>Desired maximum (standard) offence rate</b>
<b>Speed</b>	5% - not more than 5 out of every 100 vehicles measured exceed the set speed limit on a particular road or street
<b>Alcohol</b>	0,4% - not more than 1 driver in every 250 tested exceed the legal breath alcohol limit
<b>Barrier line</b>	1% - 1 illegal overtaking offence across a barrier or no-overtaking line for every 100 traffic convoys observed
<b>Traffic signals</b>	1% - maximum of 1% of red phases with an offence where the driver of any vehicle failed to clear the junction in time
<b>Seat belts</b>	15% - maximum of 15 vehicle occupants, drivers and passengers, fail to wear seatbelts
<b>Driving licence</b>	1% - maximum of 1 driver out of every 100 interviewed fail to carry or produce a valid driving licence
<b>PrDP</b>	1% - maximum of 1 driver of a public passenger or freight transport vehicle out of every 100 interviewed fail to carry or produce a valid professional driving permit
<b>Vehicle tyres</b>	1% - maximum of 1 tyre out of every 100 tested are damaged or worn below the legal limit
<b>Vehicle lights</b>	1% - maximum of 1 light (head, tail and brake lights) out of every 100 tested are not functioning properly



The index numbers or indices have been formulated in such a way that all these standards are expressed as 1 index unit. This means that when any of these standards have been reached, the index number of that offence will be equal to 1. For example: An index number of 1 for alcohol offences would mean that an offence rate of 0,4% was observed during the survey (this is exactly on the standard rate of 0,4%). An index number of 0,5 for seat belts would mean that an offence rate of 7,5% was observed during the survey (this is 0,5 times the standard rate of 15%). An index number of 2,0 for speeding offences would mean that an offence rate of 10% was observed during the survey (this is 2 times the standard rate of 5%).

Combined offence index numbers or indices across all types of traffic offences are calculated because they represent the joint results for various offences on a provincial and national basis. These combined indices support the addition of the various percentages across the various types of offences in order to allow for the comparison of annual and provincial traffic offence results.

A brief summary of the main traffic offence indices for 2009 on a national level, in comparison with the 2008 indices, is given in the table below. Despite an increase in law enforcement efforts, the independent Road Traffic Offence Survey for 2009 shows an increase of 36,2% in the overall Road Traffic Offence Index from 5,8 in 2008 to 7,9 in 2009.

<b>Table 44: Summary of 2008-2009 Offence Indices</b>					
<b>Offence Type</b>	<b>Description</b>	<b>2008</b>	<b>2009</b>	<b>Change</b>	<b>% Change</b>
<b>Speed</b>	Urban areas	6.7	6.3	-0.4	-6.0
	Rural areas	5.8	7.9	2.1	36.2
<b>Alcohol</b>	Day-time all vehicles	2.4	1.27	-1.13	-47.1
	Night-time all vehicles	3.6	2.38	-1.19	-33.3
<b>Seatbelts</b>	Drivers	4.2	3.9	-0.3	-7.1
	Passengers front seat	4.7	4.5	-0.2	-4.3
<b>Traffic signals</b>	Day-time all vehicles	29.8	24.7	-5.1	-17.1
	Night-time all vehicles	33	19.6	-13.4	-40.6
<b>Driving licence</b>	All vehicles	3.9	1.5	-2.4	-61.5
<b>PrPDs</b>	Minibus taxis, buses, trucks	3.8	2	-1.8	-47.4
<b>Tyres</b>	Worn & damaged tyres	6.8	5.8	-1	-14.7
<b>Lights</b>	Head-lights	3.2	1.1	-2.1	-65.6
	Tail-lights	1.7	0.6	-1.1	-64.7
	Brake-lights	5.3	2.3	-3	-56.6
<b>Vehicle licence</b>	Plate & disc correlation	0.7	0.2	-0.5	-71.4
<b>Combined Index</b>		<b>5.8</b>	<b>7.9</b>	<b>2.1</b>	<b>36.2</b>

The information in the table above shows that an increase was recorded only for one offence type:

- Drivers exceeding the speed limit within a particular road or street in the rural area: increased by 36,2% from an index of 5,8 in 2008 to an index of 7,9. The remaining types of offences showed decreases in excess in this regard.
- A highest decrease was recorded for correlation between the vehicle licence number on the plate and the licence disc, indicating possibility of false number plates: decreased by 71,4% from an index of 0,7 in 2008 to an index of 0,5 in 2008.

Despite decreases in most offences, they still remain types of offences in all provinces which contribute to the occurrence or seriousness of road crashes are speed; alcohol; unsafe and illegal overtaking and the non-wearing of seatbelts. Both speed and seatbelt offences contribute to the seriousness or severity of crashes, while inappropriate speed in addition reduces the available decision time which further contribute to the number of crashes.

## 10 Estimated Unit Cost of Crashes

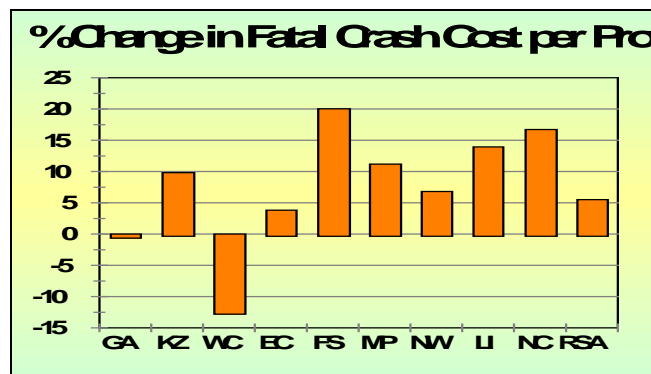
The table 45 below shows the estimated unit cost of crashes as from 2002 to 2009 per crash category or degree. Its clearly shows that the cost is increasing on yearly basis in this regard for all categories. Reduction in the number of fatal crashes and fatalities will contribute to the country’s savings and allow the savings to be utilized efficiently to the priorities of the country.

The estimated unit cost of crashes is given in the table below

Year	Fatal	Major	Minor	Damage
2002	876,198	345,247	189,331	52,700
2003	920,007	362,509	198,797	55,335
2004	966,008	380,635	208,737	58,102
2005	1,014,308	399,666	219,174	61,007
2006	1,065,024	419,650	230,133	64,057
2007	1,118,275	440,632	241,639	67,260
2008	1,174,189	462,664	253,721	70,623
2009	1,232,898	485,797	266,407	74,154

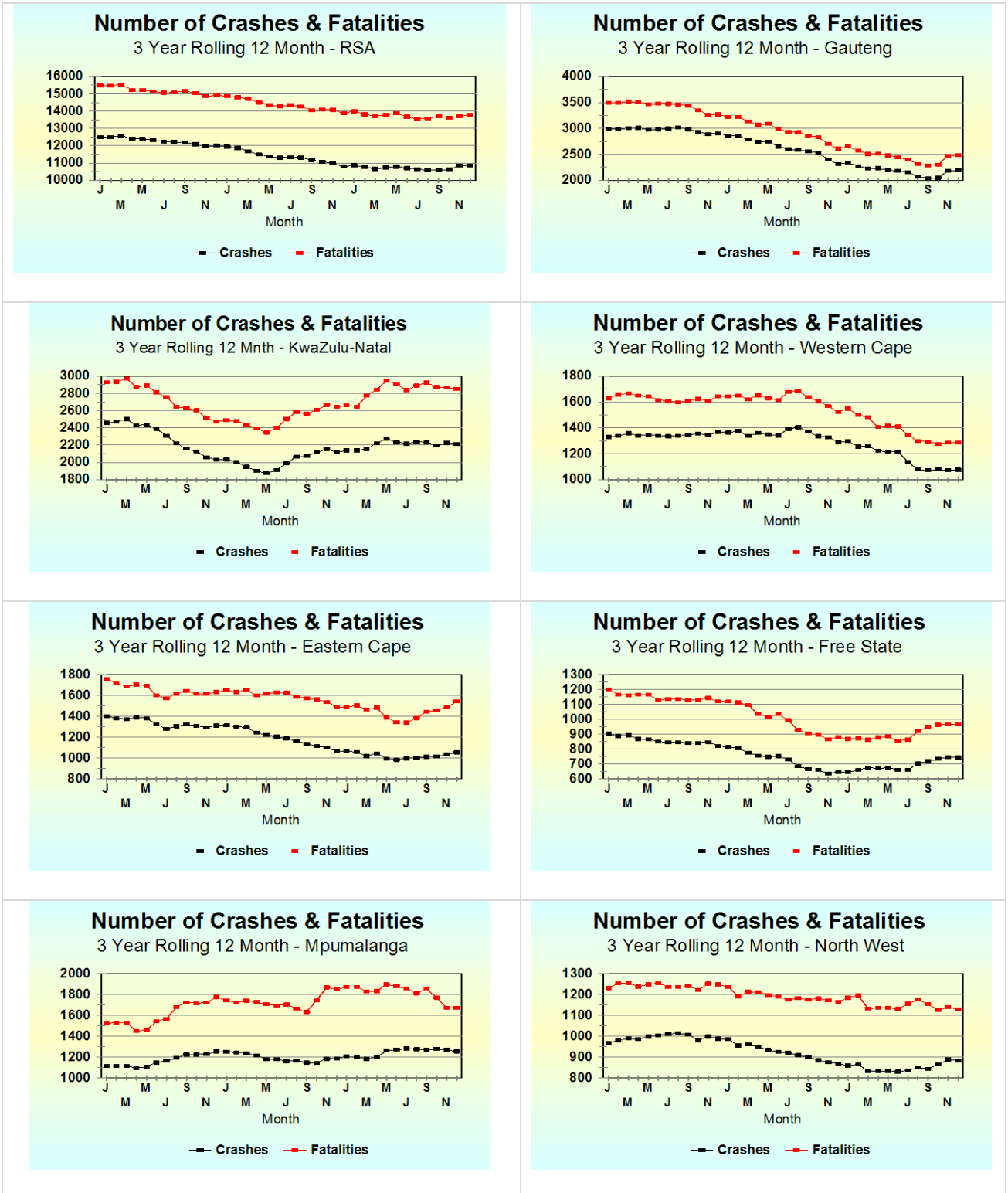
Year	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2008	2713.55	2485.76	1514.70	1252.86	763.22	1393.76	1020.37	1269.30	273.59	12687.11
2009	2707.44	2729.64	1326.60	1300.71	916.04	1549.75	1089.88	1446.19	319.32	13385.58
change	-6.11	243.88	-188.11	47.85	152.82	155.99	69.51	176.89	45.73	698.47
% change	-0.23	9.81	-12.42	3.82	20.02	11.19	6.81	13.94	16.72	5.51

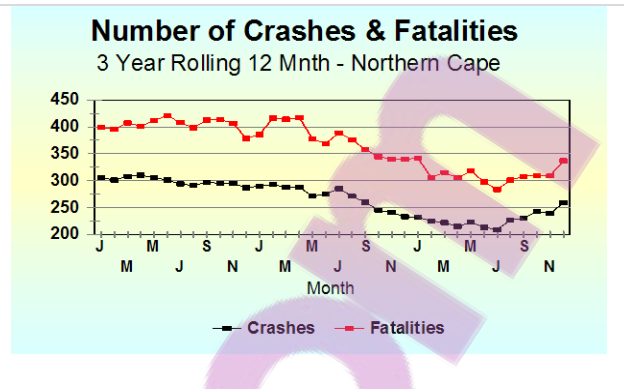
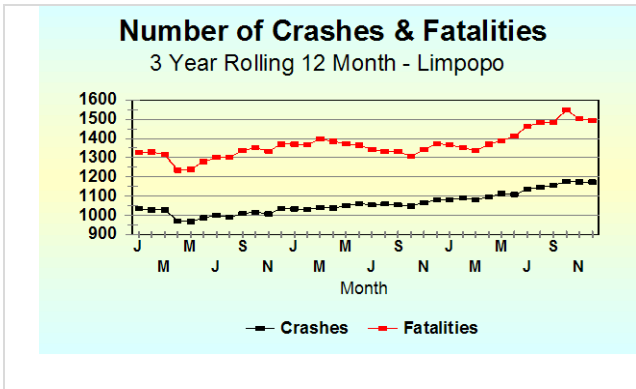
Two provinces recorded decreases and seven provinces show increases in this regard. The biggest increase was recorded in Free State where the number of cost increased by 152 (20,02%) from 763,22 in 2008 to 916,04 in 2009. The biggest decrease of 12,42% was recorded in Western Cape



## 11. Summary : Some graphs reflecting Crash Rates and Trends

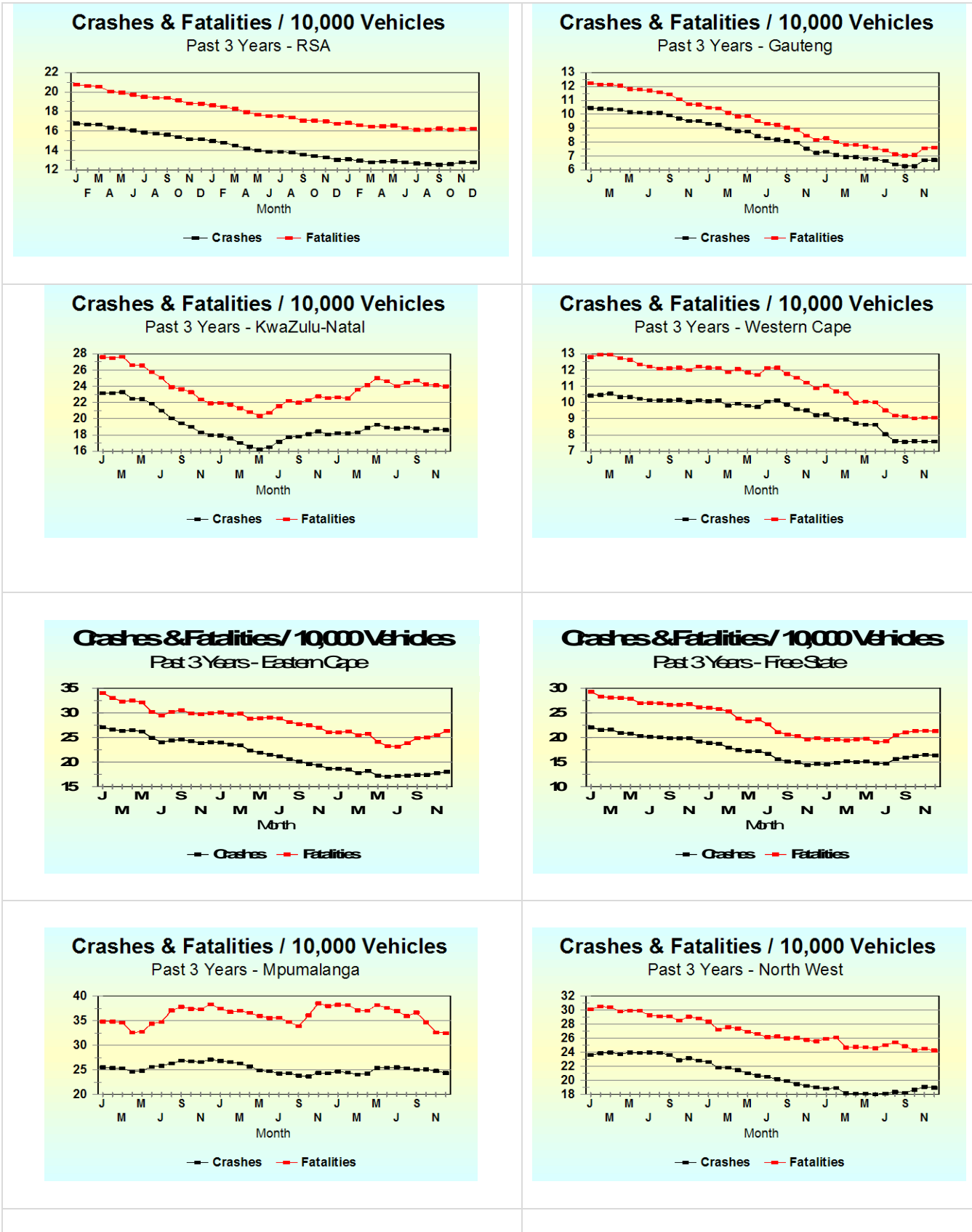
### 11.1 Three (3)-Year Rolling 12-month Number of Fatal Crashes and Fatalities

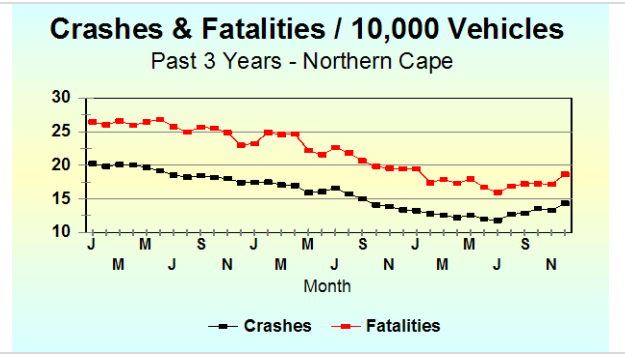
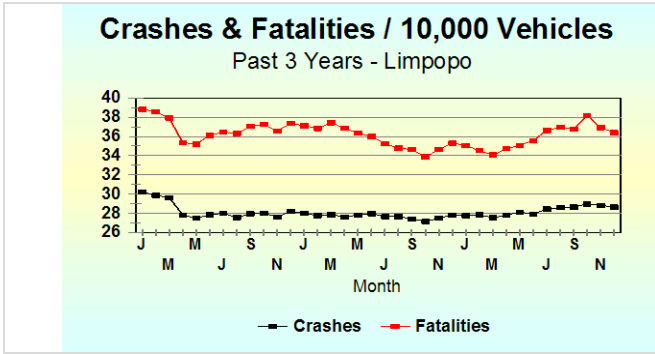




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## 11.2 Number of Fatal Crashes and Fatalities per 10,000 Registered Vehicles over a period of 3 years





## 12. Conclusion

The road traffic offence survey results shows that the level of lawlessness is improving slightly compared to the previous year.

The information contained in this report clearly indicates a slight increase in the national number of fatal crashes and a slight decrease in the number of fatalities. However, 76% of male fatalities were recorded whereby most fatalities were recorded between 16 – 64 age groups. Most crashes still occur over the weekend. The number of fatalities for pedestrians has decreased, and increased for drivers and passengers.

Human factor contributed 82.85% to the total fatal crashes, road factor contributed 8,02% and vehicle factor contributed 9.13%.

Law enforcement, education and communication should be conducted in line with the areas of concern as stipulated in the report to reduce the number of crashes and fatalities in the country.



# **Annexures**

<b>A</b>	Vehicle Population per Province	<b>62</b>
<b>B</b>	Un-Roadworthy and Un-Licensed Vehicles	<b>63</b>
<b>C</b>	Number of Learner and Driving Licences and PrDPs	<b>67</b>
<b>D</b>	Number of Fatal Crashes per Province	<b>70</b>
<b>E</b>	Number of Fatalities per Province	<b>71</b>
<b>F</b>	Number of Road User Group Fatalities per Province	<b>72</b>
<b>G</b>	Vehicles in Fatal Crashes	<b>73</b>
<b>H</b>	Fatalities per Type of Vehicle	<b>74</b>

## Annexure A-1

### Number of Registered Vehicles

Dec 2008	Province									Total RSA
	GA	KZ	WC	EC	FS	MP	NW	LI	NC	
<b>Motorised Veh's</b>										
Motorcars	2,201,397	741,432	958,626	335,399	247,061	264,374	250,843	187,186	89,223	<b>5,275,541</b>
Minibuses	108,837	42,665	36,335	20,525	12,039	19,031	18,609	18,241	3,694	<b>279,976</b>
Buses	13,819	6,796	5,219	3,552	1,943	3,963	2,946	3,574	1,081	<b>42,893</b>
Motorcycles	125,751	30,829	70,948	21,984	20,602	18,317	17,753	10,179	7,809	<b>324,172</b>
LDV's - Bakkies	613,328	275,184	271,214	156,909	107,808	143,659	125,593	144,380	59,003	<b>1,897,078</b>
Trucks	120,953	49,933	34,816	24,572	19,247	24,168	17,689	18,350	8,390	<b>318,118</b>
Other & Unkwn	35,965	30,266	32,583	13,074	38,383	23,056	25,878	13,212	7,372	<b>219,786</b>
<b>Sub-Total</b>	<b>3,220,050</b>	<b>1,177,105</b>	<b>1,409,741</b>	<b>576,015</b>	<b>447,083</b>	<b>496,568</b>	<b>459,311</b>	<b>395,122</b>	<b>176,572</b>	<b>8,357,564</b>
<b>Towed Veh's</b>										
Caravans	40,463	8,462	16,484	5,776	7,948	9,139	7,595	4,965	2,942	<b>103,774</b>
Heavy Trailers	48,574	26,197	11,479	11,132	13,322	13,803	9,587	6,089	4,225	<b>144,408</b>
Light Trailers	263,826	67,048	110,420	43,218	54,277	46,436	46,793	28,821	21,557	<b>682,396</b>
Unknown	2,659	1,510	2,360	1,152	2,073	2,048	2,666	1,296	605	<b>16,366</b>
<b>Sub-Total</b>	<b>355,522</b>	<b>103,217</b>	<b>140,743</b>	<b>61,278</b>	<b>77,620</b>	<b>71,426</b>	<b>66,641</b>	<b>41,171</b>	<b>29,329</b>	<b>946,944</b>
<b>All Vehicles</b>	<b>3,575,571</b>	<b>1,280,322</b>	<b>1,550,484</b>	<b>637,292</b>	<b>524,702</b>	<b>567,993</b>	<b>525,951</b>	<b>436,293</b>	<b>205,900</b>	<b>9,304,508</b>

Dec 2009	Province									Total RSA
	GA	KZ	WC	EC	FS	MP	NW	LI	NC	
<b>Motorised Veh's</b>										
Motorcars	2,256,780	754,048	969,006	346,880	253,701	282,341	255,514	200,662	92,161	<b>5,411,093</b>
Minibuses	110,845	43,394	35,458	20,715	12,035	19,781	18,090	18,781	3,842	<b>282,941</b>
Buses	14,916	6,958	5,107	3,714	2,025	4,406	3,118	3,846	1,127	<b>45,217</b>
Motorcycles	141,423	33,526	74,669	24,281	23,266	22,925	20,681	12,637	8,992	<b>362,400</b>
LDV's - Bakkies	626,637	281,554	271,920	161,633	110,215	151,718	128,660	153,258	60,697	<b>1,946,292</b>
Trucks	121,769	50,441	34,586	24,470	19,227	24,978	17,976	19,504	8,653	<b>321,604</b>
Other & Unkwn	36,706	31,615	33,278	13,929	39,522	25,533	27,259	14,740	7,904	<b>230,484</b>
<b>Sub-Total</b>	<b>3,309,076</b>	<b>1,201,536</b>	<b>1,424,024</b>	<b>595,622</b>	<b>459,991</b>	<b>531,682</b>	<b>471,298</b>	<b>423,428</b>	<b>183,376</b>	<b>8,600,031</b>
<b>Towed Veh's</b>										
Caravans	40,923	8,638	16,456	5,768	8,061	9,754	7,701	5,167	2,994	<b>105,462</b>
Heavy Trailers	49,296	25,744	11,675	10,938	13,365	14,664	9,917	6,386	4,417	<b>146,402</b>
Light Trailers	278,239	70,577	114,105	46,266	56,179	50,395	49,143	31,337	22,793	<b>719,034</b>
Unknown	2,625	1,595	2,362	1,235	2,109	2,182	2,728	1,372	646	<b>16,852</b>
<b>Sub-Total</b>	<b>371,083</b>	<b>106,554</b>	<b>144,598</b>	<b>64,207</b>	<b>79,714</b>	<b>76,995</b>	<b>69,489</b>	<b>44,262</b>	<b>30,850</b>	<b>987,750</b>
<b>All Vehicles</b>	<b>3,680,158</b>	<b>1,308,090</b>	<b>1,568,622</b>	<b>659,829</b>	<b>539,704</b>	<b>608,676</b>	<b>540,786</b>	<b>467,690</b>	<b>214,226</b>	<b>9,587,781</b>

% Change Dec 2008-2009	Number of Registered Vehicles per Province									Total RSA
	GA	KZ	WC	EC	FS	MP	NW	LI	NC	
<b>Motorised Vehicles</b>										
Motorcars	2.52	1.70	1.08	3.42	2.69	6.80	1.86	7.20	3.29	<b>2.57</b>
Minibuses	1.84	1.71	-2.41	0.93	-0.03	3.94	-2.79	2.96	4.01	<b>1.06</b>
Buses	7.94	2.38	-2.15	4.56	4.22	11.18	5.84	7.61	4.26	<b>5.42</b>
Motorcycles	12.46	8.75	5.24	10.45	12.93	25.16	16.49	24.15	15.15	<b>11.79</b>
LDV's - Bakkies	2.17	2.31	0.26	3.01	2.23	5.61	2.44	6.15	2.87	<b>2.59</b>
Trucks	0.67	1.02	-0.66	-0.42	-0.10	3.35	1.62	6.29	3.13	<b>1.10</b>
Other & Unkwn	2.06	4.46	2.13	6.54	2.97	10.74	5.34	11.57	7.22	<b>4.87</b>
<b>Sub-Total</b>	<b>2.76</b>	<b>2.08</b>	<b>1.01</b>	<b>3.40</b>	<b>2.89</b>	<b>7.07</b>	<b>2.61</b>	<b>7.16</b>	<b>3.85</b>	<b>2.90</b>
<b>Towed Vehicles</b>										
Caravans	1.14	2.08	-0.17	-0.14	1.42	6.73	1.40	4.07	1.77	<b>1.63</b>
Heavy Trailers	1.49	-1.73	1.71	-1.74	0.32	6.24	3.44	4.88	4.54	<b>1.38</b>
Light Trailers	5.46	5.26	3.34	7.05	3.50	8.53	5.02	8.73	5.73	<b>5.37</b>
Unknown	-1.28	5.63	0.08	7.25	1.74	6.54	2.33	5.86	6.87	<b>2.97</b>
<b>Sub-Total</b>	<b>4.38</b>	<b>3.23</b>	<b>2.74</b>	<b>4.78</b>	<b>2.70</b>	<b>7.80</b>	<b>4.27</b>	<b>7.51</b>	<b>5.19</b>	<b>4.31</b>
<b>All Vehicles</b>	<b>2.93</b>	<b>2.17</b>	<b>1.17</b>	<b>3.54</b>	<b>2.86</b>	<b>7.16</b>	<b>2.82</b>	<b>7.20</b>	<b>4.04</b>	<b>3.04</b>

**Annexure A-2**

**Number of Registered Vehicles per Province per Month**

2007	Number of All Registered Vehicles per Province									
Month	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Jan	3,307,891	1,198,448	1,450,593	591,072	495,598	518,683	483,274	394,900	184,068	8,624,527
Feb	3,329,720	1,203,861	1,457,771	593,461	497,436	522,138	485,692	397,358	185,044	8,672,481
Mch	3,354,147	1,210,839	1,466,330	596,561	499,736	525,798	483,559	399,020	191,072	8,727,062
Apr	3,372,379	1,216,650	1,471,884	599,163	501,539	527,913	487,717	401,336	191,962	8,770,543
May	3,390,612	1,222,461	1,477,438	601,764	503,342	530,027	491,875	403,651	192,853	8,814,023
Jun	3,408,844	1,228,272	1,482,992	604,366	505,145	532,142	496,033	405,967	193,743	8,857,504
Jul	3,426,784	1,235,304	1,490,158	607,552	506,949	534,721	499,767	409,226	195,142	8,905,603
Aug	3,446,168	1,242,804	1,497,494	610,026	508,479	537,119	503,400	412,136	196,290	8,953,916
Sep	3,461,393	1,248,187	1,502,859	612,370	509,152	539,508	506,078	414,199	197,085	8,990,831
Oct	3,476,337	1,253,897	1,509,448	616,189	510,841	542,309	508,866	416,691	198,269	9,032,847
Nov	3,488,772	1,258,400	1,514,622	618,742	512,133	544,316	511,147	418,996	199,242	9,066,370
Dec	3,486,073	1,258,720	1,515,147	619,448	511,950	545,212	512,130	419,812	199,628	9,068,120

2008	Number of All Registered Vehicles per Province									
Month	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Jan	3,510,621	1,263,165	1,524,937	625,973	515,458	548,123	515,501	423,309	200,881	9,127,968
Feb	3,523,905	1,267,310	1,529,166	628,138	517,433	551,351	517,914	425,579	202,051	9,162,847
Mch	3,531,181	1,269,715	1,531,928	629,573	518,545	552,846	519,401	426,618	202,870	9,182,677
Apr	3,545,424	1,273,280	1,536,804	631,410	519,992	554,340	521,403	428,225	203,383	9,214,261
May	3,550,122	1,275,151	1,538,156	632,343	520,815	555,553	522,245	428,990	203,651	9,227,026
Jun	3,553,503	1,276,856	1,539,407	632,674	521,697	556,500	523,328	429,321	204,288	9,237,574
Jul	3,564,996	1,278,983	1,539,870	634,356	522,464	558,651	523,830	430,960	204,737	9,258,847
Aug	3,571,284	1,279,822	1,541,510	635,452	523,632	560,732	524,807	431,793	204,720	9,273,752
Sep	3,576,155	1,282,086	1,544,798	636,468	524,628	563,281	525,984	433,062	205,066	9,291,528
Oct	3,579,799	1,282,550	1,547,910	637,425	525,192	565,511	526,898	434,459	205,479	9,305,223
Nov	3,581,675	1,281,462	1,548,976	637,221	524,798	567,020	525,983	434,765	205,594	9,307,494
Dec	3,575,571	1,280,322	1,550,484	637,292	524,702	567,993	525,951	436,293	205,900	9,304,508

2009	Number of All Registered Vehicles per Province									
Month	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Jan	3,236,054	1,180,456	1,413,342	578,677	449,139	500,761	460,439	398,068	178,072	8,395,006
Feb	3,219,376	1,174,531	1,405,246	575,984	447,376	500,885	459,080	397,818	177,657	8,357,950
Mch	3,250,368	1,184,258	1,416,174	581,829	451,258	507,328	463,371	402,966	178,924	8,436,473
Apr	3,257,063	1,186,774	1,417,350	583,487	452,656	510,719	464,447	405,472	179,358	8,457,325
May	3,263,619	1,187,332	1,416,813	584,313	453,291	513,056	464,641	407,448	179,752	8,470,264
Jun	3,270,549	1,189,292	1,417,016	585,366	454,016	515,954	466,169	409,898	180,279	8,488,538
Jul	3,276,993	1,192,934	1,418,521	587,855	456,546	518,256	467,479	412,930	181,048	8,512,559
Aug	3,287,734	1,193,727	1,419,553	588,738	456,948	521,399	468,528	415,096	181,576	8,533,298
Sep	3,298,709	1,195,897	1,420,456	590,979	458,175	523,636	469,187	417,465	182,326	8,556,828
Oct	3,307,305	1,198,259	1,422,244	592,728	459,245	526,400	469,904	419,390	182,720	8,578,193
Nov	3,311,251	1,199,950	1,423,386	594,059	459,558	529,402	470,707	421,637	183,000	8,592,950
Dec	3,309,076	1,201,536	1,424,024	595,622	459,991	531,682	471,298	423,428	183,376	8,600,031

## Annexure B-1

### Number of Vehicles that are Un-Roadworthy

Number of Un-Roadworthy Vehicles										
December 2008	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	78,189	23,941	22,557	7,741	7,723	7,488	7,797	4,338	1,204	160,978
Minibuses	12,199	5,308	2,950	1,745	1,042	1,627	1,759	1,444	234	28,308
Buses	1,157	908	396	345	131	335	214	216	97	3,799
Motorcycles	25,104	4,684	6,366	2,085	3,926	4,968	4,766	3,126	1,456	56,481
LDV's - Bakkies	21,085	9,716	5,824	3,226	2,630	3,645	2,922	2,437	757	52,242
Trucks	12,822	6,322	3,412	2,614	2,889	3,234	2,378	2,310	1,285	37,266
Other & Unkwn	1,979	1,304	542	354	1,499	878	998	632	177	8,363
<b>Sub-Total</b>	<b>152,535</b>	<b>52,183</b>	<b>42,047</b>	<b>18,110</b>	<b>19,840</b>	<b>22,175</b>	<b>20,834</b>	<b>14,503</b>	<b>5,210</b>	<b>347,437</b>
<b>Towed Vehicles</b>										
Caravans	990	317	319	114	218	297	261	162	76	2,754
Heavy Trailers	4,815	2,758	1,034	968	1,673	1,263	964	640	357	14,472
Light Trailers	4,327	1,565	1,656	586	1,290	808	889	527	163	11,811
Unknown	154	103	55	34	67	78	86	38	16	631
<b>Sub-Total</b>	<b>10,286</b>	<b>4,743</b>	<b>3,064</b>	<b>1,702</b>	<b>3,248</b>	<b>2,446</b>	<b>2,200</b>	<b>1,367</b>	<b>612</b>	<b>29,668</b>
<b>All Vehicles</b>	<b>162,821</b>	<b>56,926</b>	<b>45,111</b>	<b>19,812</b>	<b>23,088</b>	<b>24,621</b>	<b>23,034</b>	<b>15,870</b>	<b>5,822</b>	<b>377,105</b>
Dec 2009	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	77,476	25,738	21,083	9,009	9,370	8,991	7,684	5,243	1,331	165,925
Minibuses	15,123	6,137	2,989	2,325	1,378	2,251	2,322	2,092	339	34,956
Buses	1,612	865	434	403	194	403	266	307	131	4,615
Motorcycles	34,579	6,282	7,426	3,028	5,466	7,872	6,851	4,755	1,998	78,257
LDV's - Bakkies	22,077	10,646	5,790	3,801	3,062	4,200	3,132	3,038	843	56,589
Trucks	14,939	7,294	3,443	3,085	3,391	3,898	2,832	2,868	1,366	43,116
Other & Unkwn	2,027	1,748	646	476	1,775	1,092	1,227	799	261	10,051
<b>Sub-Total</b>	<b>167,833</b>	<b>58,710</b>	<b>41,811</b>	<b>22,127</b>	<b>24,636</b>	<b>28,707</b>	<b>24,314</b>	<b>19,102</b>	<b>6,269</b>	<b>393,509</b>
<b>Towed Vehicles</b>										
Caravans	1,132	365	335	130	246	364	279	211	76	3,138
Heavy Trailers	6,006	2,915	1,096	1,176	1,725	1,670	1,089	727	398	16,802
Light Trailers	5,245	2,006	1,902	774	1,452	1,042	1,099	727	214	14,461
Unknown	201	131	62	48	65	129	101	46	21	804
<b>Sub-Total</b>	<b>12,584</b>	<b>5,417</b>	<b>3,395</b>	<b>2,128</b>	<b>3,488</b>	<b>3,205</b>	<b>2,568</b>	<b>1,711</b>	<b>709</b>	<b>35,205</b>
<b>All Vehicles</b>	<b>180,417</b>	<b>64,127</b>	<b>45,206</b>	<b>24,255</b>	<b>28,124</b>	<b>31,912</b>	<b>26,882</b>	<b>20,813</b>	<b>6,978</b>	<b>428,714</b>
% Change	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	-0.91	7.51	-6.53	16.38	21.33	20.07	-1.45	20.86	10.55	3.07
Minibuses	23.97	15.62	1.32	33.24	32.25	38.35	32.01	44.88	44.87	23.48
Buses	39.33	-4.74	9.60	16.81	48.09	20.30	24.30	42.13	35.05	21.48
Motorcycles	37.74	34.12	16.65	45.23	39.23	58.45	43.75	52.11	37.23	38.55
LDV's - Bakkies	4.70	9.57	-0.58	17.82	16.43	15.23	7.19	24.66	11.36	8.32
Trucks	16.51	15.37	0.91	18.02	17.38	20.53	19.09	24.16	6.30	15.70
Other & Unkwn	2.43	34.05	19.19	34.46	18.41	24.37	22.95	26.42	47.46	20.18
<b>Sub-Total</b>	<b>10.03</b>	<b>12.51</b>	<b>-0.56</b>	<b>22.18</b>	<b>24.17</b>	<b>29.46</b>	<b>16.70</b>	<b>31.71</b>	<b>20.33</b>	<b>13.26</b>
<b>Towed Vehicles</b>										
Caravans	14.34	15.14	5.02	14.04	12.84	22.56	6.90	30.25	0.00	13.94
Heavy Trailers	24.74	5.69	6.00	21.49	3.11	32.22	12.97	13.59	11.48	16.10
Light Trailers	21.22	28.18	14.86	32.08	12.56	28.96	23.62	37.95	31.29	22.44
Unknown	30.52	27.18	12.73	41.18	-2.99	65.38	17.44	21.05	31.25	27.42
<b>Sub-Total</b>	<b>22.34</b>	<b>14.21</b>	<b>10.80</b>	<b>25.03</b>	<b>7.39</b>	<b>31.03</b>	<b>16.73</b>	<b>25.16</b>	<b>15.85</b>	<b>18.66</b>
<b>All Vehicles</b>	<b>10.81</b>	<b>12.65</b>	<b>0.21</b>	<b>22.43</b>	<b>21.81</b>	<b>29.61</b>	<b>16.71</b>	<b>31.15</b>	<b>19.86</b>	<b>13.69</b>

**Annexure B-2**

**Number of Un-Licensed Vehicles**

Number of Un-Licensed Vehicles										
December 2008	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	93,415	30,720	28,435	14,950	11,878	11,752	11,755	9,571	3,412	215,888
Minibuses	7,729	2,941	1,388	1,351	631	1,155	1,374	1,092	199	17,860
Buses	450	293	130	182	75	118	94	146	50	1,538
Motorcycles	14,232	3,686	4,056	1,910	2,601	2,436	2,499	1,484	705	33,609
LDV's - Bakkies	21,895	11,962	6,916	7,084	4,393	5,521	5,167	6,152	1,841	70,931
Trucks	5,045	2,371	915	1,295	884	1,319	1,005	1,067	292	14,193
Other & Unkwn	2,316	1,981	948	697	2,353	1,477	1,515	890	394	12,571
<b>Sub-Total</b>	<b>145,082</b>	<b>53,954</b>	<b>42,788</b>	<b>27,469</b>	<b>22,815</b>	<b>23,778</b>	<b>23,409</b>	<b>20,402</b>	<b>6,893</b>	<b>366,590</b>
<b>Towed Vehicles</b>										
Caravans	2,141	525	476	289	459	488	472	287	111	5,248
Heavy Trailers	1,838	1,141	216	530	479	534	388	244	125	5,495
Light Trailers	14,843	4,630	3,920	2,283	3,276	2,416	2,687	1,543	887	36,485
Unknown	288	171	127	83	224	162	246	119	52	1,472
<b>Sub-Total</b>	<b>19,110</b>	<b>6,467</b>	<b>4,739</b>	<b>3,185</b>	<b>4,438</b>	<b>3,600</b>	<b>3,793</b>	<b>2,193</b>	<b>1,175</b>	<b>48,700</b>
<b>All Vehicles</b>	<b>164,192</b>	<b>60,421</b>	<b>47,527</b>	<b>30,654</b>	<b>27,253</b>	<b>27,378</b>	<b>27,202</b>	<b>22,595</b>	<b>8,068</b>	<b>415,290</b>
Dec 2009	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	73,950	22,020	23,534	11,596	9,170	8,759	8,974	7,056	2,790	167,849
Minibuses	4,768	1,625	1,108	793	418	550	711	530	90	10,593
Buses	265	157	81	102	30	75	55	55	18	838
Motorcycles	6,784	1,694	3,999	1,309	1,171	746	864	485	304	17,356
LDV's - Bakkies	17,793	8,361	5,991	5,530	3,363	4,176	3,797	4,655	1,458	55,124
Trucks	3,429	1,567	732	708	549	797	637	606	205	9,230
Other & Unkwn	768	724	479	306	814	442	804	349	132	4,818
<b>Sub-Total</b>	<b>107,757</b>	<b>36,148</b>	<b>35,924</b>	<b>20,344</b>	<b>15,515</b>	<b>15,545</b>	<b>15,842</b>	<b>13,736</b>	<b>4,997</b>	<b>265,808</b>
<b>Towed Vehicles</b>										
Caravans	1,023	187	272	118	176	212	209	138	55	2,390
Heavy Trailers	1,310	706	176	235	243	230	206	126	59	3,291
Light Trailers	8,768	2,319	2,972	1,317	1,502	1,183	1,397	901	505	20,864
Unknown	113	79	113	63	91	86	178	70	20	813
<b>Sub-Total</b>	<b>11,214</b>	<b>3,291</b>	<b>3,533</b>	<b>1,733</b>	<b>2,012</b>	<b>1,711</b>	<b>1,990</b>	<b>1,235</b>	<b>639</b>	<b>27,358</b>
<b>All Vehicles</b>	<b>118,971</b>	<b>39,439</b>	<b>39,457</b>	<b>22,077</b>	<b>17,527</b>	<b>17,256</b>	<b>17,832</b>	<b>14,971</b>	<b>5,636</b>	<b>293,166</b>
% Change	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	-20.84	-28.32	-17.24	-22.43	-22.80	-25.47	-23.66	-26.28	-18.23	-22.25
Minibuses	-38.31	-44.75	-20.17	-41.30	-33.76	-52.38	-48.25	-51.47	-54.77	-40.69
Buses	-41.11	-46.42	-37.69	-43.96	-60.00	-36.44	-41.49	-62.33	-64.00	-45.51
Motorcycles	-52.33	-54.04	-1.41	-31.47	-54.98	-69.38	-65.43	-67.32	-56.88	-48.36
LDV's - Bakkies	-18.73	-30.10	-13.37	-21.94	-23.45	-24.36	-26.51	-24.33	-20.80	-22.29
Trucks	-32.03	-33.91	-20.00	-45.33	-37.90	-39.58	-36.62	-43.21	-29.79	-34.97
Other & Unkwn	-66.84	-63.45	-49.47	-56.10	-65.41	-70.07	-46.93	-60.79	-66.50	-61.67
<b>Sub-Total</b>	<b>-25.73</b>	<b>-33.00</b>	<b>-16.04</b>	<b>-25.94</b>	<b>-32.00</b>	<b>-34.62</b>	<b>-32.33</b>	<b>-32.67</b>	<b>-27.51</b>	<b>-27.49</b>
<b>Towed Vehicles</b>										
Caravans	-52.22	-64.38	-42.86	-59.17	-61.66	-56.56	-55.72	-51.92	-50.45	-54.46
Heavy Trailers	-28.73	-38.12	-18.52	-55.66	-49.27	-56.93	-46.91	-48.36	-52.80	-40.11
Light Trailers	-40.93	-49.91	-24.18	-42.31	-54.15	-51.03	-48.01	-41.61	-43.07	-42.81
Unknown	-60.76	-53.80	-11.02	-24.10	-59.38	-46.91	-27.64	-41.18	-61.54	-44.77
<b>Sub-Total</b>	<b>-41.32</b>	<b>-49.11</b>	<b>-25.45</b>	<b>-45.59</b>	<b>-54.66</b>	<b>-52.47</b>	<b>-47.53</b>	<b>-43.68</b>	<b>-45.62</b>	<b>-43.82</b>
<b>All Vehicles</b>	<b>-27.54</b>	<b>-34.73</b>	<b>-16.98</b>	<b>-27.98</b>	<b>-35.69</b>	<b>-36.97</b>	<b>-34.45</b>	<b>-33.74</b>	<b>-30.14</b>	<b>-29.41</b>

**Annexure B-3**

**Number of Vehicles that are Un-Roadworthy, Un-Licensed or Both**

Number of Vehicles : Un-Roadworthy OR Un-Licensed OR Both										
December 2008	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	179,203	58,860	53,875	24,463	21,325	20,588	20,944	14,761	4,877	398,896
Minibuses	22,256	9,424	4,658	3,469	1,871	3,088	3,534	2,869	479	51,648
Buses	1,706	1,318	564	581	224	492	328	400	157	5,770
Motorcycles	44,519	9,520	11,204	4,509	7,536	8,581	8,505	5,427	2,452	102,253
LDV's - Bakkies	44,837	23,456	13,409	10,985	7,489	9,782	8,594	9,122	2,777	130,451
Trucks	18,920	9,499	4,571	4,237	4,085	4,929	3,691	3,681	1,680	55,293
Other & Unkwn	4,552	3,466	1,539	1,108	4,072	2,519	2,679	1,611	601	22,147
<b>Sub-Total</b>	<b>315,993</b>	<b>115,543</b>	<b>89,820</b>	<b>49,352</b>	<b>46,602</b>	<b>49,979</b>	<b>48,275</b>	<b>37,871</b>	<b>13,023</b>	<b>766,458</b>
<b>Towed Vehicles</b>										
Caravans	3,247	881	826	419	712	829	780	473	198	8,365
Heavy Trailers	7,105	4,170	1,297	1,683	2,290	1,936	1,430	934	518	21,363
Light Trailers	19,814	6,450	5,745	2,983	4,750	3,361	3,735	2,157	1,072	50,067
Unknown	456	283	185	121	300	245	349	163	71	2,173
<b>Sub-Total</b>	<b>30,622</b>	<b>11,784</b>	<b>8,053</b>	<b>5,206</b>	<b>8,052</b>	<b>6,371</b>	<b>6,294</b>	<b>3,727</b>	<b>1,859</b>	<b>81,968</b>
<b>All Vehicles</b>	<b>346,615</b>	<b>127,327</b>	<b>97,873</b>	<b>54,558</b>	<b>54,654</b>	<b>56,350</b>	<b>54,569</b>	<b>41,598</b>	<b>14,882</b>	<b>848,426</b>
Number of Vehicles : Un-Roadworthy OR Un-Licensed OR Both										
Dec 2009	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	157,909	50,997	47,288	22,501	19,946	18,944	17,731	13,064	4,335	352,715
Minibuses	20,960	8,313	4,430	3,308	1,899	2,928	3,207	2,734	450	48,229
Buses	1,939	1,070	536	524	229	498	331	372	153	5,652
Motorcycles	42,276	8,198	11,734	4,441	6,779	8,745	7,841	5,307	2,327	97,648
LDV's - Bakkies	41,357	20,270	12,385	9,947	6,804	8,916	7,248	8,070	2,406	117,403
Trucks	18,911	9,253	4,386	3,926	4,085	4,859	3,619	3,642	1,615	54,296
Other & Unkwn	2,885	2,547	1,153	810	2,669	1,564	2,104	1,180	401	15,313
<b>Sub-Total</b>	<b>286,237</b>	<b>100,648</b>	<b>81,912</b>	<b>45,457</b>	<b>42,411</b>	<b>46,454</b>	<b>42,081</b>	<b>34,369</b>	<b>11,687</b>	<b>691,256</b>
<b>Towed Vehicles</b>										
Caravans	2,204	572	624	255	434	590	508	363	132	5,682
Heavy Trailers	7,501	3,746	1,308	1,446	2,018	1,932	1,325	878	473	20,627
Light Trailers	14,312	4,445	4,982	2,138	3,018	2,288	2,555	1,679	733	36,150
Unknown	324	221	182	112	158	218	287	125	41	1,668
<b>Sub-Total</b>	<b>24,341</b>	<b>8,984</b>	<b>7,096</b>	<b>3,951</b>	<b>5,628</b>	<b>5,028</b>	<b>4,675</b>	<b>3,045</b>	<b>1,379</b>	<b>64,127</b>
<b>All Vehicles</b>	<b>310,578</b>	<b>109,632</b>	<b>89,008</b>	<b>49,408</b>	<b>48,039</b>	<b>51,482</b>	<b>46,756</b>	<b>37,414</b>	<b>13,066</b>	<b>755,383</b>
Number of Vehicles : Un-Roadworthy OR Un-Licensed OR Both										
% Change	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
<b>Motorised Vehicles</b>										
Motorcars	-11.88	-13.36	-12.23	-8.02	-6.47	-7.99	-15.34	-11.50	-11.11	-11.58
Minibuses	-5.82	-11.79	-4.89	-4.64	1.50	-5.18	-9.25	-4.71	-6.05	-6.62
Buses	13.66	-18.82	-4.96	-9.81	2.23	1.22	0.91	-7.00	-2.55	-2.05
Motorcycles	-5.04	-13.89	4.73	-1.51	-10.05	1.91	-7.81	-2.21	-5.10	-4.50
LDV's - Bakkies	-7.76	-13.58	-7.64	-9.45	-9.15	-8.85	-15.66	-11.53	-13.36	-10.00
Trucks	-0.05	-2.59	-4.05	-7.34	0.00	-1.42	-1.95	-1.06	-3.87	-1.80
Other & Unkwn	-36.62	-26.51	-25.08	-26.90	-34.45	-37.91	-21.46	-26.75	-33.28	-30.86
<b>Sub-Total</b>	<b>-9.42</b>	<b>-12.89</b>	<b>-8.80</b>	<b>-7.89</b>	<b>-8.99</b>	<b>-7.05</b>	<b>-12.83</b>	<b>-9.25</b>	<b>-10.26</b>	<b>-9.81</b>
<b>Towed Vehicles</b>										
Caravans	-32.12	-35.07	-24.46	-39.14	-39.04	-28.83	-34.87	-23.26	-33.33	-32.07
Heavy Trailers	5.57	-10.17	0.85	-14.08	-11.88	-0.21	-7.34	-6.00	-8.69	-3.45
Light Trailers	-27.77	-31.09	-13.28	-28.33	-36.46	-31.93	-31.59	-22.16	-31.62	-27.80
Unknown	-28.95	-21.91	-1.62	-7.44	-47.33	-11.02	-17.77	-23.31	-42.25	-23.24
<b>Sub-Total</b>	<b>-20.51</b>	<b>-23.76</b>	<b>-11.88</b>	<b>-24.11</b>	<b>-30.10</b>	<b>-21.08</b>	<b>-25.72</b>	<b>-18.30</b>	<b>-25.82</b>	<b>-21.77</b>
<b>All Vehicles</b>	<b>-10.40</b>	<b>-13.90</b>	<b>-9.06</b>	<b>-9.44</b>	<b>-12.10</b>	<b>-8.64</b>	<b>-14.32</b>	<b>-10.06</b>	<b>-12.20</b>	<b>-10.97</b>



## Annexure C-1

### Number of Learner Licences Issued

Dec 2008	Number of Learners Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
1	21,946	4,999	14,108	4,301	3,887	2,522	2,569	1,145	1,528	57,005
2	104,302	44,848	87,207	44,306	21,406	11,270	17,171	8,269	8,405	347,184
3	263,965	126,390	66,823	58,763	60,945	74,853	62,346	88,991	19,941	823,017
<b>Total</b>	<b>390,213</b>	<b>176,237</b>	<b>168,138</b>	<b>107,370</b>	<b>86,238</b>	<b>88,645</b>	<b>82,086</b>	<b>98,405</b>	<b>29,874</b>	<b>1,227,206</b>
Dec 2009	Number of Learners Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
1	21,638	4,699	16,036	4,200	3,441	2,845	2,659	1,370	1,550	58,438
2	102,676	44,056	94,651	40,108	19,293	11,551	15,789	8,640	8,125	344,889
3	294,055	137,173	76,965	66,427	56,527	78,048	66,669	97,836	21,015	894,715
<b>Total</b>	<b>418,369</b>	<b>185,928</b>	<b>187,652</b>	<b>110,735</b>	<b>79,261</b>	<b>92,444</b>	<b>85,117</b>	<b>107,846</b>	<b>30,690</b>	<b>1,298,042</b>
% Change	Number of Learners Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
1	-1.40	-6.00	13.67	-2.35	-11.47	12.81	3.50	19.65	1.44	2.51
2	-1.56	-1.77	8.54	-9.48	-9.87	2.49	-8.05	4.49	-3.33	-0.66
3	11.40	8.53	15.18	13.04	-7.25	4.27	6.93	9.94	5.39	8.71
<b>Total</b>	<b>7.22</b>	<b>5.50</b>	<b>11.61</b>	<b>3.13</b>	<b>-8.09</b>	<b>4.29</b>	<b>3.69</b>	<b>9.59</b>	<b>2.73</b>	<b>5.77</b>

#### Learner Licences :

Category 1 : Motorcycle

Category 2 : Light Motor Vehicle

Category 3 : Heavy Motor Vehicle

## Annexure C-2

### Number of Driving Licences Issued

Dec 2008	Number of Driving Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
A1	44,837	12,958	24,965	9,013	9,335	6,833	7,238	3,865	2,353	121,397
A	149,815	53,937	83,743	30,702	24,572	20,420	19,758	12,715	8,327	403,989
B	499,809	274,785	294,796	123,534	82,475	67,586	78,628	39,350	29,222	1,490,185
EB	1,319,427	578,869	751,040	306,036	177,296	160,790	152,673	105,244	64,284	3,615,659
C1	454,972	226,832	83,074	52,926	72,461	116,636	96,375	203,452	28,397	1,335,125
EC1	238,078	70,882	52,162	44,822	36,581	52,018	39,797	61,777	10,990	607,107
C	2,733	4,336	2,398	609	352	620	1,541	1,169	299	14,057
EC	268,509	136,542	104,896	59,592	69,366	82,390	52,087	74,394	22,423	870,199
<b>Total</b>	<b>2,978,180</b>	<b>1,359,141</b>	<b>1,397,074</b>	<b>627,234</b>	<b>472,438</b>	<b>507,293</b>	<b>448,097</b>	<b>501,966</b>	<b>166,295</b>	<b>8,457,718</b>
Dec 2009	Number of Driving Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
A1	44,738	12,969	25,655	9,101	9,291	6,862	7,270	3,881	2,425	122,192
A	153,284	54,739	87,456	31,203	24,915	20,751	20,025	12,908	8,487	413,768
B	550,096	293,057	327,371	134,078	89,957	74,173	83,045	43,672	31,813	1,627,262
EB	1,316,406	578,424	756,675	306,843	176,996	161,057	153,347	105,893	64,325	3,619,966
C1	517,218	261,907	96,498	64,009	82,323	140,035	107,106	235,620	31,696	1,536,412
EC1	236,338	70,754	51,995	44,995	36,261	52,077	39,929	62,333	11,089	605,771
C	2,892	4,466	2,619	725	378	758	1,565	1,206	319	14,928
EC	268,219	138,362	105,871	60,308	70,056	83,463	52,395	75,325	22,630	876,629
<b>Total</b>	<b>3,089,191</b>	<b>1,414,678</b>	<b>1,454,140</b>	<b>651,262</b>	<b>490,177</b>	<b>539,176</b>	<b>464,682</b>	<b>540,838</b>	<b>172,784</b>	<b>8,816,928</b>
% Change	Number of Driving Licences Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
A1	-0.22	0.08	2.76	0.98	-0.47	0.42	0.44	0.41	3.06	0.65
A	2.32	1.49	4.43	1.63	1.40	1.62	1.35	1.52	1.92	2.42
B	10.06	6.65	11.05	8.54	9.07	9.75	5.62	10.98	8.87	9.20
EB	-0.23	-0.08	0.75	0.26	-0.17	0.17	0.44	0.62	0.06	0.12
C1	13.68	15.46	16.16	20.94	13.61	20.06	11.13	15.81	11.62	15.08
EC1	-0.73	-0.18	-0.32	0.39	-0.87	0.11	0.33	0.90	0.90	-0.22
C	5.82	3.00	9.22	19.05	7.39	22.26	1.56	3.17	6.69	6.20
EC	-0.11	1.33	0.93	1.20	0.99	1.30	0.59	1.25	0.92	0.74
<b>Total</b>	<b>3.73</b>	<b>4.09</b>	<b>4.08</b>	<b>3.83</b>	<b>3.75</b>	<b>6.28</b>	<b>3.70</b>	<b>7.74</b>	<b>3.90</b>	<b>4.25</b>

#### Driving licences :

A	Motorcycle > 125 cub.cm	A1	Motorcycle < 125 cub.cm	B	Motor vehicle < 3,5000 kg
C	Motorvehicle > 16,000 kg	C1	Motor vehicle 3,500 – 16,000 kg	EB	Articulated motor vehicle <16,000 kg
		EC	Articulated vehicle > 16,000 kg	EC1	Articulated vehicle 3,500 – 16,000 kg



### Annexure C-3

## Number of Professional Driving Permits (PrDPs) Issued

Dec 2008	Number of Professional Driving Permits (PrDP's) Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
G	1,851	2,238	2,040	791	832	1,089	475	939	509	10,764
P	323	298	1,018	244	352	213	104	84	69	2,705
P G	190,696	83,060	78,866	48,212	46,225	57,608	44,979	65,566	19,330	634,542
D G	129	45	229	15	51	50	15	12	8	554
D P G	17,793	41,054	19,523	10,837	3,291	7,225	1,192	2,757	679	104,351
<b>Total</b>	<b>210,792</b>	<b>126,695</b>	<b>101,676</b>	<b>60,099</b>	<b>50,751</b>	<b>66,185</b>	<b>46,765</b>	<b>69,358</b>	<b>20,595</b>	<b>752,916</b>
Dec 2009	Number of Professional Driving Permits (PrDP's) Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
G	1,896	2,285	2,034	820	952	1,103	528	1,119	442	11,179
P	247	270	933	237	215	167	64	121	69	2,323
P G	205,737	113,487	97,856	56,417	49,475	66,012	47,780	73,788	19,581	730,133
D G	48	22	64	5	17	27	14	10	3	210
D P G	9,563	16,419	8,990	4,338	1,970	3,112	913	1,369	435	47,109
<b>Total</b>	<b>217,491</b>	<b>132,483</b>	<b>109,877</b>	<b>61,817</b>	<b>52,629</b>	<b>70,421</b>	<b>49,299</b>	<b>76,407</b>	<b>20,530</b>	<b>790,954</b>
% Change	Number of Professional Driving Permits (PrDP's) Issued per Province									
Category	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
G	2.43	2.10	-0.29	3.67	14.42	1.29	11.16	19.17	-13.16	3.86
P	-23.53	-9.40	-8.35	-2.87	-38.92	-21.60	-38.46	44.05	0.00	-14.12
P G	7.89	36.63	24.08	17.02	7.03	14.59	6.23	12.54	1.30	15.06
D G	-62.79	-51.11	-72.05	-66.67	-66.67	-46.00	-6.67	-16.67	-62.50	-62.09
D P G	-46.25	-60.01	-53.95	-59.97	-40.14	-56.93	-23.41	-50.34	-35.94	-54.86
<b>Total</b>	<b>3.18</b>	<b>4.57</b>	<b>8.07</b>	<b>2.86</b>	<b>3.70</b>	<b>6.40</b>	<b>5.42</b>	<b>10.16</b>	<b>-0.32</b>	<b>5.05</b>

### Professional Driving Permits (PrDPs)

G : Goods

P : Passengers

D : Dangerous goods



**Annexure D**  
**Monthly Number of Fatal Crashes per Province : 2007 - 2009**

Year	Number of Fatal Crashes per Province per Month										
	Month	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2007	Jan	189	128	84	88	60	70	62	76	17	774
	Feb	209	168	95	85	45	81	75	65	20	843
	Mch	282	230	136	102	80	106	80	82	26	1,124
	Apr	248	184	101	123	75	114	98	92	24	1,059
	May	225	201	125	116	71	95	92	78	27	1,030
	Jun	257	196	113	112	61	118	88	96	23	1,064
	Jul	288	138	107	101	83	120	86	93	13	1,029
	Aug	268	122	118	128	66	120	81	87	20	1,010
	Sep	241	161	126	117	71	127	80	95	30	1,048
	Oct	206	152	118	105	60	106	77	80	28	932
	Nov	199	117	104	83	81	72	81	73	27	837
	Dec	295	235	142	153	70	128	89	117	32	1,261
2008	Jan	141	131	80	89	51	65	59	75	20	711
	Feb	205	135	106	71	40	75	45	63	23	763
	Mch	211	176	100	99	48	99	85	91	21	930
	Apr	203	138	120	69	56	90	87	89	24	876
	May	232	172	114	96	63	62	77	91	10	917
	Jun	162	233	107	94	65	115	78	107	27	988
	Jul	240	220	157	87	62	103	82	86	23	1,060
	Aug	250	193	131	102	19	126	70	92	6	989
	Sep	216	172	94	91	51	109	71	90	19	913
	Oct	176	195	80	82	55	102	61	74	13	838
	Nov	69	157	97	69	57	111	72	90	23	745
	Dec	206	195	104	118	83	130	82	133	24	1,075
2009	Jan	172	154	87	89	46	86	50	76	19	779
	Feb	136	135	65	64	56	68	51	70	16	661
	Mch	166	189	103	60	65	84	52	83	18	820
	Apr	208	208	83	96	49	105	87	103	17	956
	May	194	223	109	44	69	125	79	109	18	970
	Jun	155	194	107	82	49	123	74	102	17	903
	Jul	206	203	75	101	62	114	89	113	19	982
	Aug	169	212	74	107	63	121	82	104	24	956
	Sep	185	169	88	102	65	101	66	98	22	896
	Oct	181	156	86	84	71	112	82	94	26	892
	Nov	205	187	94	89	69	102	94	89	19	948
	Dec	219	184	105	137	79	116	78	132	44	1,094

**Annexure E**  
**Monthly Number of Fatalities per Province : 2007 - 2009**

Year	Number of Fatalities per Province per Month										
	Month	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
2007	Jan	215	139	103	102	80	118	82	100	18	958
	Feb	233	185	119	99	51	115	98	95	23	1,020
	Mch	316	261	162	123	86	141	96	93	38	1,316
	Apr	292	218	124	149	126	150	107	115	28	1,309
	May	252	245	141	141	94	116	112	118	50	1,267
	Jun	295	215	135	133	75	179	119	129	46	1,326
	Jul	325	197	126	121	125	158	112	124	13	1,300
	Aug	284	149	126	161	90	228	96	114	22	1,270
	Sep	293	251	159	156	93	152	103	131	41	1,379
	Oct	222	200	136	129	97	140	103	106	40	1,174
	Nov	218	140	145	124	112	103	108	102	27	1,077
	Dec	326	272	168	196	93	178	113	144	33	1,523
2008	Jan	162	156	102	120	80	86	70	100	26	900
	Feb	237	173	125	81	45	94	54	93	54	955
	Mch	231	223	134	140	67	160	118	123	36	1,231
	Apr	225	172	155	99	67	136	105	102	31	1,093
	May	274	200	118	155	72	94	98	105	10	1,125
	Jun	190	268	118	147	96	166	110	123	37	1,255
	Jul	272	300	191	117	83	168	98	101	33	1,363
	Aug	278	229	133	125	23	192	104	103	9	1,196
	Sep	232	231	110	138	72	119	95	131	23	1,151
	Oct	188	243	106	121	86	252	110	82	26	1,213
	Nov	88	198	106	101	83	227	98	136	23	1,058
	Dec	232	249	124	146	107	160	107	175	33	1,333
2009	Jan	208	173	127	122	67	104	89	95	27	1,013
	Feb	153	158	75	95	50	98	64	77	18	787
	Mch	168	351	118	100	58	116	54	110	45	1,119
	Apr	237	246	80	118	81	140	111	133	21	1,165
	May	236	300	128	62	79	159	98	124	23	1,208
	Jun	155	226	112	99	66	146	104	148	17	1,072
	Jul	223	234	124	115	92	147	123	151	19	1,227
	Aug	192	283	88	170	82	147	123	123	26	1,235
	Sep	209	266	106	199	98	165	74	131	30	1,279
	Oct	204	190	88	131	101	161	82	146	28	1,132
	Nov	252	191	114	132	87	130	112	93	22	1,133
	Dec	248	237	125	200	106	161	97	162	61	1,398

**Annexure F-1**

2008	Number of Fatalities per Road User Group										
Month	User Group	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Jan	Drivers	44	28	28	28	27	27	26	26	7	242
	Passengers	46	48	36	57	36	36	19	53	11	342
	Pedestrians	72	79	37	36	17	23	24	21	7	316
	<b>Total</b>	<b>162</b>	<b>156</b>	<b>102</b>	<b>120</b>	<b>80</b>	<b>86</b>	<b>70</b>	<b>100</b>	<b>26</b>	<b>900</b>
Feb	Drivers	75	47	31	22	18	28	21	32	3	278
	Passengers	59	53	31	23	16	35	12	39	41	308
	Pedestrians	103	73	62	37	11	31	21	22	10	370
	<b>Total</b>	<b>237</b>	<b>173</b>	<b>125</b>	<b>81</b>	<b>45</b>	<b>94</b>	<b>54</b>	<b>93</b>	<b>54</b>	<b>955</b>
Mch	Drivers	77	49	44	29	16	49	39	42	13	357
	Passengers	54	92	53	69	30	75	45	46	16	479
	Pedestrians	100	82	37	42	22	36	34	35	6	395
	<b>Total</b>	<b>231</b>	<b>223</b>	<b>134</b>	<b>140</b>	<b>67</b>	<b>160</b>	<b>118</b>	<b>123</b>	<b>36</b>	<b>1,231</b>
Apr	Drivers	64	32	42	24	32	49	46	31	11	330
	Passengers	50	57	50	42	15	59	35	32	17	357
	Pedestrians	111	84	63	33	21	29	24	39	4	406
	<b>Total</b>	<b>225</b>	<b>172</b>	<b>155</b>	<b>99</b>	<b>67</b>	<b>136</b>	<b>105</b>	<b>102</b>	<b>31</b>	<b>1,093</b>
May	Drivers	83	50	34	25	21	32	34	43	5	326
	Passengers	79	31	24	82	27	44	34	32	5	358
	Pedestrians	112	119	60	48	24	18	29	30	0	441
	<b>Total</b>	<b>274</b>	<b>200</b>	<b>118</b>	<b>155</b>	<b>72</b>	<b>94</b>	<b>98</b>	<b>105</b>	<b>10</b>	<b>1,125</b>
Jun	Drivers	61	69	42	36	31	62	41	42	19	403
	Passengers	46	71	21	66	46	68	48	46	17	428
	Pedestrians	83	129	55	44	19	37	21	35	2	425
	<b>Total</b>	<b>190</b>	<b>268</b>	<b>118</b>	<b>147</b>	<b>96</b>	<b>166</b>	<b>110</b>	<b>123</b>	<b>37</b>	<b>1,255</b>
Jul	Drivers	95	50	54	30	23	49	27	40	13	381
	Passengers	61	113	50	50	29	92	39	35	10	478
	Pedestrians	116	138	87	37	31	27	32	26	10	504
	<b>Total</b>	<b>272</b>	<b>300</b>	<b>191</b>	<b>117</b>	<b>83</b>	<b>168</b>	<b>98</b>	<b>101</b>	<b>33</b>	<b>1,363</b>
Aug	Drivers	86	48	57	36	8	55	26	30	2	348
	Passengers	58	64	12	49	9	86	52	41	6	377
	Pedestrians	135	117	64	39	6	50	26	32	1	471
	<b>Total</b>	<b>278</b>	<b>229</b>	<b>133</b>	<b>125</b>	<b>23</b>	<b>192</b>	<b>104</b>	<b>103</b>	<b>9</b>	<b>1,196</b>
Sep	Drivers	72	30	35	32	26	64	28	36	15	337
	Passengers	44	81	33	69	30	26	41	65	4	391
	Pedestrians	117	121	43	36	17	29	26	30	4	423
	<b>Total</b>	<b>232</b>	<b>231</b>	<b>110</b>	<b>138</b>	<b>72</b>	<b>119</b>	<b>95</b>	<b>131</b>	<b>23</b>	<b>1,151</b>
Oct	Drivers	64	56	26	25	36	57	27	19	9	319
	Passengers	27	96	36	66	38	166	58	35	13	534
	Pedestrians	96	91	44	31	12	29	24	28	4	360
	<b>Total</b>	<b>188</b>	<b>243</b>	<b>106</b>	<b>121</b>	<b>86</b>	<b>252</b>	<b>110</b>	<b>82</b>	<b>26</b>	<b>1,213</b>
Nov	Drivers	28	32	40	20	33	65	26	34	8	286
	Passengers	30	57	22	58	31	120	29	71	15	433
	Pedestrians	30	108	44	23	18	42	43	32	0	339
	<b>Total</b>	<b>88</b>	<b>198</b>	<b>106</b>	<b>101</b>	<b>83</b>	<b>227</b>	<b>98</b>	<b>136</b>	<b>23</b>	<b>1,058</b>
Dec	Drivers	68	44	35	37	30	65	28	59	9	375
	Passengers	58	96	38	56	42	52	38	80	19	479
	Pedestrians	106	109	51	53	35	43	41	36	5	479
	<b>Total</b>	<b>232</b>	<b>249</b>	<b>124</b>	<b>146</b>	<b>107</b>	<b>160</b>	<b>107</b>	<b>175</b>	<b>33</b>	<b>1,333</b>
Year Total	Drivers	817	534	468	345	300	602	370	432	113	3,982
	Passengers	612	858	406	685	349	857	450	575	174	4,965
	Pedestrians	1,179	1,250	649	460	232	393	346	366	54	4,927
	<b>Total</b>	<b>2,607</b>	<b>2,642</b>	<b>1,523</b>	<b>1,490</b>	<b>882</b>	<b>1,852</b>	<b>1,166</b>	<b>1,372</b>	<b>340</b>	<b>13,875</b>



**Annexure F-2**

2009		Number of Fatalities per Road User Group									
Month	User Group	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Jan	Drivers	72	58	33	24	20	35	14	20	6	283
	Passengers	63	50	50	63	38	39	59	43	13	418
	Pedestrians	73	65	44	34	9	30	16	32	8	312
	<b>Total</b>	<b>208</b>	<b>173</b>	<b>127</b>	<b>122</b>	<b>67</b>	<b>104</b>	<b>89</b>	<b>95</b>	<b>27</b>	<b>1,013</b>
Feb	Drivers	42	20	16	23	17	19	17	32	8	194
	Passengers	29	61	35	49	20	40	34	25	2	295
	Pedestrians	81	76	24	23	13	38	13	20	8	297
	<b>Total</b>	<b>153</b>	<b>158</b>	<b>75</b>	<b>95</b>	<b>50</b>	<b>98</b>	<b>64</b>	<b>77</b>	<b>18</b>	<b>787</b>
Mch	Drivers	63	88	50	17	19	21	25	31	27	341
	Passengers	17	176	21	51	23	32	14	49	18	400
	Pedestrians	87	88	47	31	15	63	16	30	0	378
	<b>Total</b>	<b>168</b>	<b>351</b>	<b>118</b>	<b>100</b>	<b>58</b>	<b>116</b>	<b>54</b>	<b>110</b>	<b>45</b>	<b>1,119</b>
Apr	Drivers	65	55	28	33	26	59	34	38	6	345
	Passengers	49	78	14	46	43	48	40	54	11	382
	Pedestrians	122	113	38	39	13	32	36	41	4	439
	<b>Total</b>	<b>237</b>	<b>246</b>	<b>80</b>	<b>118</b>	<b>81</b>	<b>140</b>	<b>111</b>	<b>133</b>	<b>21</b>	<b>1,165</b>
May	Drivers	85	56	43	14	39	54	41	30	14	375
	Passengers	62	129	40	29	30	51	35	48	5	428
	Pedestrians	89	116	45	19	10	54	22	46	5	405
	<b>Total</b>	<b>236</b>	<b>300</b>	<b>128</b>	<b>62</b>	<b>79</b>	<b>159</b>	<b>98</b>	<b>124</b>	<b>23</b>	<b>1,208</b>
Jun	Drivers	55	107	29	19	21	49	34	47	17	378
	Passengers	25	55	21	30	34	51	47	62	0	326
	Pedestrians	75	63	62	50	11	46	23	38	0	368
	<b>Total</b>	<b>155</b>	<b>226</b>	<b>112</b>	<b>99</b>	<b>66</b>	<b>146</b>	<b>104</b>	<b>148</b>	<b>17</b>	<b>1,072</b>
Jul	Drivers	73	65	45	33	32	52	37	41	7	384
	Passengers	44	65	49	38	42	55	49	75	5	423
	Pedestrians	106	103	30	44	18	40	37	34	7	419
	<b>Total</b>	<b>223</b>	<b>234</b>	<b>124</b>	<b>115</b>	<b>92</b>	<b>147</b>	<b>123</b>	<b>151</b>	<b>19</b>	<b>1,227</b>
Aug	Drivers	58	67	19	33	32	46	21	43	13	332
	Passengers	56	94	26	100	38	53	67	35	7	477
	Pedestrians	78	121	43	37	11	48	36	45	6	426
	<b>Total</b>	<b>192</b>	<b>283</b>	<b>88</b>	<b>170</b>	<b>82</b>	<b>147</b>	<b>123</b>	<b>123</b>	<b>26</b>	<b>1,235</b>
Sep	Drivers	80	54	32	51	33	61	18	41	12	382
	Passengers	46	129	46	116	43	84	26	54	16	561
	Pedestrians	82	83	28	32	22	20	29	36	2	335
	<b>Total</b>	<b>209</b>	<b>266</b>	<b>106</b>	<b>199</b>	<b>98</b>	<b>165</b>	<b>74</b>	<b>131</b>	<b>30</b>	<b>1,279</b>
Oct	Drivers	57	53	35	40	34	66	36	45	11	377
	Passengers	50	46	10	73	54	63	14	73	7	389
	Pedestrians	98	91	43	18	14	33	31	28	10	365
	<b>Total</b>	<b>204</b>	<b>190</b>	<b>88</b>	<b>131</b>	<b>101</b>	<b>161</b>	<b>82</b>	<b>146</b>	<b>28</b>	<b>1,132</b>
Nov	Drivers	54	51	39	43	23	53	37	19	6	324
	Passengers	82	55	35	46	37	49	30	31	6	372
	Pedestrians	117	86	40	43	26	28	46	43	10	438
	<b>Total</b>	<b>252</b>	<b>191</b>	<b>114</b>	<b>132</b>	<b>87</b>	<b>130</b>	<b>112</b>	<b>93</b>	<b>22</b>	<b>1,133</b>
Dec	Drivers	70	37	29	30	30	54	33	51	16	351
	Passengers	60	83	50	92	54	71	35	68	39	552
	Pedestrians	118	117	46	79	22	36	29	43	6	496
	<b>Total</b>	<b>248</b>	<b>237</b>	<b>125</b>	<b>200</b>	<b>106</b>	<b>161</b>	<b>97</b>	<b>162</b>	<b>61</b>	<b>1,398</b>
Year Total	Drivers	775	710	397	361	326	569	347	438	144	4,066
	Passengers	584	1,021	398	733	456	636	449	618	127	5,023
	Pedestrians	1,126	1,122	491	449	185	469	334	436	65	4,678
	<b>Total</b>	<b>2,485</b>	<b>2,854</b>	<b>1,285</b>	<b>1,543</b>	<b>967</b>	<b>1,674</b>	<b>1,130</b>	<b>1,492</b>	<b>337</b>	<b>13,768</b>

## Annexure G Vehicles Involved in Fatal Crashes

2008										
Number of Vehicles per Type Involved in Fatal Crashes										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	1,672	958	598	452	407	654	508	583	127	5,959
Minibuses	211	139	83	155	56	146	45	46	17	898
Minibus Taxis	10	151	1	6	17	7	59	72	0	323
Buses	39	46	34	42	11	45	19	22	4	262
Motorcycles	104	30	42	16	26	22	19	7	2	268
LDV's - Bakkies	405	450	257	351	546	396	284	338	100	3,128
Trucks	70	139	28	10	117	7	55	74	12	513
Trucks - articulated	163	135	93	133	5	213	38	53	12	845
Other and unknown	249	325	118	99	46	94	75	147	17	1,170
<b>Total Motorised</b>	<b>2,925</b>	<b>2,373</b>	<b>1,255</b>	<b>1,263</b>	<b>1,231</b>	<b>1,583</b>	<b>1,102</b>	<b>1,342</b>	<b>291</b>	<b>13,366</b>
Bicycle	74	20	35	20	14	23	52	34	6	278
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2,999</b>	<b>2,393</b>	<b>1,290</b>	<b>1,283</b>	<b>1,245</b>	<b>1,607</b>	<b>1,154</b>	<b>1,377</b>	<b>297</b>	<b>13,645</b>
2009										
Number of Vehicles per Type Involved in Fatal Crashes										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	1,816	1,204	957	633	447	916	573	637	165	7,348
Minibuses	276	104	136	161	89	173	77	98	17	1,130
Minibus Taxis	2	272	9	2	3	0	25	41	2	356
Buses	61	37	52	66	9	69	23	31	6	354
Motorcycles	118	43	86	16	14	29	23	10	8	347
LDV's - Bakkies	374	564	335	336	138	466	222	391	101	2,926
Trucks	49	5	46	0	96	2	36	61	19	314
Trucks - articulated	133	270	113	111	6	311	52	71	6	1,074
Other and unknown	326	393	203	95	49	155	88	143	19	1,469
<b>Total Motorised</b>	<b>3,154</b>	<b>2,892</b>	<b>1,937</b>	<b>1,420</b>	<b>851</b>	<b>2,122</b>	<b>1,118</b>	<b>1,481</b>	<b>342</b>	<b>15,317</b>
Bicycle	66	24	58	12	6	36	54	21	8	286
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3,219</b>	<b>2,916</b>	<b>1,996</b>	<b>1,432</b>	<b>857</b>	<b>2,158</b>	<b>1,172</b>	<b>1,503</b>	<b>349</b>	<b>15,603</b>
% Change										
Number of Vehicles per Type Involved in Fatal Crashes										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	8.55	25.69	60.23	40.06	9.66	40.16	12.64	9.24	30.15	23.30
Minibuses	30.45	-25.00	63.07	3.52	58.26	18.25	72.22	112.59	1.49	25.77
Minibus Taxis	-83.31	80.66	488.27	-63.50	-81.32	-100.00	-57.77	-42.87	0.00	10.19
Buses	54.43	-18.07	53.46	55.73	-11.94	54.25	22.09	39.13	35.32	35.21
Motorcycles	13.13	43.58	102.85	6.18	-45.61	34.76	22.09	40.19	260.86	29.65
LDV's - Bakkies	-7.72	25.12	30.36	-4.43	-74.75	17.61	-21.96	15.55	1.49	-6.47
Trucks	-29.71	-96.15	67.19	-100.00	-18.61	-68.90	-35.45	-17.99	50.36	-38.79
Trucks - articulated	-18.66	99.93	21.33	-16.13	36.98	46.53	38.74	33.51	-54.89	27.11
Other and unknown	30.93	20.65	71.40	-4.06	6.16	65.06	16.54	-2.91	12.77	25.53
<b>Total Motorised</b>	<b>7.82</b>	<b>21.89</b>	<b>54.36</b>	<b>12.39</b>	<b>-30.88</b>	<b>34.02</b>	<b>1.44</b>	<b>10.36</b>	<b>17.28</b>	<b>14.59</b>
Bicycle	-10.96	21.15	66.68	-37.43	-54.34	53.10	4.21	-37.85	20.29	2.74
Animal drawn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>7.36</b>	<b>21.88</b>	<b>54.70</b>	<b>11.62</b>	<b>-31.13</b>	<b>34.30</b>	<b>1.57</b>	<b>9.16</b>	<b>17.34</b>	<b>14.35</b>

## AnnexureH-1 Driver Fatalities per Type of Vehicle

<b>2008</b>										
<b>Number of DRIVER Fatalities per Type of Vehicle</b>										
<b>Vehicle Type</b>	<b>GA</b>	<b>KZ</b>	<b>WC</b>	<b>EC</b>	<b>FS</b>	<b>MP</b>	<b>NW</b>	<b>LI</b>	<b>NC</b>	<b>RSA</b>
Motorcars	480	270	235	154	163	326	184	242	62	2,116
Minibuses	28	23	21	40	16	40	3	7	2	179
Minibus Taxis	1	31	0	1	5	2	7	7	0	55
Buses	0	4	2	1	3	6	0	1	0	18
Motorcycles	94	21	45	12	19	21	14	5	0	230
LDV's - Bakkies	105	96	73	87	54	132	98	100	35	781
Trucks	5	23	9	0	20	2	6	10	4	80
Trucks - articulated	16	21	21	19	2	44	3	4	2	131
Other and unknown	14	23	19	12	5	8	4	32	0	116
<b>Total Motorised</b>	<b>743</b>	<b>513</b>	<b>423</b>	<b>326</b>	<b>286</b>	<b>580</b>	<b>319</b>	<b>409</b>	<b>106</b>	<b>3,705</b>
Bicycle	74	21	45	19	14	23	51	23	7	277
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>817</b>	<b>534</b>	<b>468</b>	<b>345</b>	<b>300</b>	<b>602</b>	<b>370</b>	<b>432</b>	<b>113</b>	<b>3,982</b>
<b>2009</b>										
<b>Number of DRIVER Fatalities per Type of Vehicle</b>										
<b>Vehicle Type</b>	<b>GA</b>	<b>KZ</b>	<b>WC</b>	<b>EC</b>	<b>FS</b>	<b>MP</b>	<b>NW</b>	<b>LI</b>	<b>NC</b>	<b>RSA</b>
Motorcars	477	417	213	189	202	315	188	233	73	2,309
Minibuses	36	17	8	23	28	39	6	20	2	178
Minibus Taxis	0	19	1	0	0	0	2	11	0	34
Buses	3	3	1	10	0	7	0	1	2	28
Motorcycles	93	39	47	13	12	20	19	7	8	259
LDV's - Bakkies	90	127	63	92	49	128	72	102	48	771
Trucks	2	3	4	0	17	0	2	14	2	44
Trucks - articulated	11	33	5	10	3	24	4	9	0	99
Other and unknown	9	30	13	10	7	6	4	18	0	97
<b>Total Motorised</b>	<b>721</b>	<b>688</b>	<b>355</b>	<b>348</b>	<b>319</b>	<b>539</b>	<b>297</b>	<b>416</b>	<b>136</b>	<b>3,819</b>
Bicycle	54	22	42	13	7	30	50	21	8	247
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>775</b>	<b>710</b>	<b>397</b>	<b>361</b>	<b>326</b>	<b>569</b>	<b>347</b>	<b>438</b>	<b>144</b>	<b>4,066</b>
<b>% Change</b>										
<b>Number of DRIVER Fatalities per Type of Vehicle</b>										
<b>Vehicle Type</b>	<b>GA</b>	<b>KZ</b>	<b>WC</b>	<b>EC</b>	<b>FS</b>	<b>MP</b>	<b>NW</b>	<b>LI</b>	<b>NC</b>	<b>RSA</b>
Motorcars	-0.57	54.40	-9.11	22.54	23.80	-3.41	2.38	-3.65	17.95	9.08
Minibuses	30.64	-28.05	-63.04	-41.76	79.29	-2.84	104.24	168.68	-5.64	-0.52
Minibus Taxis	-100.00	-38.44	0.00	-100.00	-100.00	-100.00	-72.77	53.53	0.00	-38.61
Buses	0.00	-34.05	-32.24	614.81	-100.00	29.55	0.00	15.15	0.00	61.67
Motorcycles	-1.00	84.67	4.47	7.22	-34.63	-2.84	36.16	43.94	0.00	12.28
LDV's - Bakkies	-14.46	31.91	-13.12	6.62	-10.36	-2.84	-26.99	2.35	35.64	-1.18
Trucks	-70.06	-88.01	-59.34	0.00	-13.80	-100.00	-65.96	43.94	-52.82	-45.00
Trucks - articulated	-35.52	58.29	-75.36	-45.01	124.11	-45.08	36.16	130.30	-100.00	-24.28
Other and unknown	-34.68	31.91	-32.24	-10.65	49.41	-27.13	-9.23	-42.43	0.00	-15.93
<b>Total Motorised</b>	<b>-3.06</b>	<b>34.06</b>	<b>-16.12</b>	<b>6.90</b>	<b>11.45</b>	<b>-6.99</b>	<b>-7.00</b>	<b>1.93</b>	<b>27.77</b>	<b>3.07</b>
Bicycle	-26.93	5.52	-6.83	-34.02	-50.20	29.55	-1.66	-9.09	25.81	-10.77
Animal drawn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>-5.22</b>	<b>32.94</b>	<b>-15.23</b>	<b>4.64</b>	<b>8.57</b>	<b>-5.60</b>	<b>-6.26</b>	<b>1.33</b>	<b>27.66</b>	<b>2.11</b>

## Annexure H-2 Passenger Fatalities per Type of Vehicle

<b>2008</b>										
Number of PASSENGER Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	354	300	216	225	173	290	212	266	69	2,106
Minibuses	112	63	48	185	46	168	19	41	12	695
Minibus Taxis	0	155	0	4	10	10	47	37	0	264
Buses	7	29	16	45	1	133	2	10	2	245
Motorcycles	7	6	0	1	3	0	3	0	0	21
LDV's - Bakkies	76	227	97	179	85	178	149	166	50	1,208
Trucks	21	35	6	0	25	0	14	11	12	125
Trucks - articulated	18	16	15	35	1	75	2	16	2	180
Other and unknown	14	27	6	10	3	0	3	28	26	117
<b>Total Motorised</b>	<b>610</b>	<b>858</b>	<b>404</b>	<b>685</b>	<b>349</b>	<b>855</b>	<b>450</b>	<b>575</b>	<b>174</b>	<b>4,960</b>
Bicycle	1	0	2	0	0	2	0	0	0	5
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>612</b>	<b>858</b>	<b>406</b>	<b>685</b>	<b>349</b>	<b>857</b>	<b>450</b>	<b>575</b>	<b>174</b>	<b>4,965</b>
<b>2009</b>										
Number of PASSENGER Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	349	416	240	320	264	341	247	284	71	2,531
Minibuses	86	81	40	157	80	83	64	66	9	667
Minibus Taxis	0	145	8	0	7	0	12	40	1	213
Buses	30	22	9	75	0	44	19	12	0	211
Motorcycles	6	0	4	2	2	5	0	3	0	21
LDV's - Bakkies	86	304	73	143	82	117	82	167	37	1,093
Trucks	3	0	4	0	13	0	4	14	4	42
Trucks - articulated	2	31	11	35	0	39	4	12	0	134
Other and unknown	20	22	8	2	8	0	16	18	4	99
<b>Total Motorised</b>	<b>582</b>	<b>1,021</b>	<b>397</b>	<b>733</b>	<b>456</b>	<b>630</b>	<b>449</b>	<b>617</b>	<b>127</b>	<b>5,012</b>
Bicycle	2	0	1	0	0	7	0	1	0	11
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>584</b>	<b>1,021</b>	<b>398</b>	<b>733</b>	<b>456</b>	<b>636</b>	<b>449</b>	<b>618</b>	<b>127</b>	<b>5,023</b>
<b>% Change</b>										
Number of PASSENGER Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	-1.41	38.44	11.16	42.31	52.40	17.44	16.43	6.45	4.07	20.22
Minibuses	-22.95	27.77	-16.38	-15.30	73.25	-50.52	243.38	63.89	-29.23	-4.00
Minibus Taxis	0.00	-6.55	0.00	-100.00	-36.06	-100.00	-73.42	8.92	0.00	-19.17
Buses	310.06	-21.95	-45.12	64.82	-100.00	-66.77	1096.30	26.76	-100.00	-13.82
Motorcycles	-17.99	-100.00	0.00	34.46	-44.06	0.00	-100.00	0.00	0.00	1.32
LDV's - Bakkies	13.10	34.12	-24.22	-20.20	-3.81	-34.37	-44.62	0.99	-26.40	-9.52
Trucks	-85.53	-100.00	-41.20	0.00	-47.35	0.00	-70.46	25.20	-64.62	-65.95
Trucks - articulated	-91.80	87.80	-21.61	0.84	-100.00	-47.74	165.84	-21.99	-100.00	-25.32
Other and unknown	45.38	-15.95	17.59	-80.79	179.72	0.00	431.69	-36.31	-83.67	-15.90
<b>Total Motorised</b>	<b>-4.57</b>	<b>19.02</b>	<b>-1.93</b>	<b>6.99</b>	<b>30.54</b>	<b>-26.34</b>	<b>-0.08</b>	<b>7.38</b>	<b>-26.76</b>	<b>1.06</b>
Bicycle	23.02	0.00	-21.61	0.00	0.00	227.19	0.00	0.00	0.00	122.64
Animal drawn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>-4.51</b>	<b>19.02</b>	<b>-2.01</b>	<b>6.99</b>	<b>30.54</b>	<b>-25.73</b>	<b>-0.08</b>	<b>7.62</b>	<b>-26.76</b>	<b>1.18</b>



### Annexure H-3 Pedestrian Fatalities per Type of Vehicle

2008										
Number of PEDESTRIAN Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	638	447	305	146	96	144	138	145	22	2,083
Minibuses	90	91	48	46	24	29	21	13	6	368
Minibus Taxis	8	75	0	1	5	2	18	30	0	138
Buses	15	23	21	23	5	20	10	5	2	124
Motorcycles	6	2	6	4	6	2	4	3	0	34
LDV's - Bakkies	156	213	112	117	32	97	78	82	14	900
Trucks	15	48	12	4	29	2	12	13	0	134
Trucks - articulated	45	36	35	44	3	26	7	3	0	199
Other and unknown	205	315	110	73	33	71	57	71	10	946
<b>Total Motorised</b>	<b>1,179</b>	<b>1,250</b>	<b>649</b>	<b>460</b>	<b>232</b>	<b>393</b>	<b>346</b>	<b>364</b>	<b>54</b>	<b>4,926</b>
Bicycle	0	0	0	0	0	0	0	1	0	1
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,179</b>	<b>1,250</b>	<b>649</b>	<b>460</b>	<b>232</b>	<b>393</b>	<b>346</b>	<b>366</b>	<b>54</b>	<b>4,927</b>
2009										
Number of PEDESTRIAN Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	586	388	210	170	95	158	152	156	26	1,942
Minibuses	108	36	42	56	18	25	27	26	2	339
Minibus Taxis	1	150	2	2	2	0	10	17	0	185
Buses	19	15	17	17	3	27	10	10	2	121
Motorcycles	7	2	6	0	0	2	0	1	0	19
LDV's - Bakkies	108	179	83	102	22	95	52	123	21	785
Trucks	18	2	11	0	17	0	15	10	3	76
Trucks - articulated	34	75	29	42	0	52	10	13	0	256
Other and unknown	244	274	90	61	28	110	56	80	12	955
<b>Total Motorised</b>	<b>1,126</b>	<b>1,122</b>	<b>491</b>	<b>449</b>	<b>185</b>	<b>469</b>	<b>334</b>	<b>436</b>	<b>65</b>	<b>4,678</b>
Bicycle	0	0	0	0	0	0	0	0	0	0
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,126</b>	<b>1,122</b>	<b>491</b>	<b>449</b>	<b>185</b>	<b>469</b>	<b>334</b>	<b>436</b>	<b>65</b>	<b>4,678</b>
% Change										
Number of PEDESTRIAN Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	-8.11	-13.23	-31.05	16.35	-1.22	9.61	10.20	7.20	18.40	-6.75
Minibuses	19.59	-59.93	-13.78	21.10	-23.75	-14.20	31.76	98.26	-71.06	-7.76
Minibus Taxis	-80.62	100.73	0.00	21.10	-63.03	-100.00	-40.88	-42.53	0.00	34.22
Buses	25.95	-35.90	-20.56	-24.31	-26.06	34.40	1.36	92.75	-13.18	-2.94
Motorcycles	16.26	6.84	-2.90	-100.00	-100.00	5.60	-100.00	-44.93	0.00	-43.88
LDV's - Bakkies	-30.82	-15.89	-25.67	-12.86	-31.34	-2.37	-33.07	50.36	48.84	-12.86
Trucks	16.26	-94.91	-2.90	-100.00	-41.63	-100.00	24.16	-22.90	0.00	-43.06
Trucks - articulated	-23.60	107.01	-15.85	-6.24	-100.00	103.65	41.90	395.65	0.00	28.52
Other and unknown	19.19	-13.14	-18.23	-16.89	-14.30	54.34	-1.76	12.15	21.55	0.97
<b>Total Motorised</b>	<b>-4.43</b>	<b>-10.22</b>	<b>-24.40</b>	<b>-2.29</b>	<b>-20.06</b>	<b>19.35</b>	<b>-3.39</b>	<b>19.55</b>	<b>22.20</b>	<b>-5.03</b>
Bicycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-100.00	0.00	-100.00
Animal drawn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>-4.43</b>	<b>-10.22</b>	<b>-24.40</b>	<b>-2.29</b>	<b>-20.06</b>	<b>19.35</b>	<b>-3.39</b>	<b>19.13</b>	<b>22.20</b>	<b>-5.06</b>

## Annexure H-4 All Fatalities per Type of Vehicle

<b>2008</b>										
Number of TOTAL Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	1,472	1,017	756	525	433	761	534	654	153	6,305
Minibuses	230	177	117	271	86	237	42	61	20	1,241
Minibus Taxis	9	261	0	7	20	14	71	74	0	457
Buses	23	55	39	70	9	159	12	16	4	387
Motorcycles	108	29	51	17	28	23	22	8	0	285
LDV's - Bakkies	337	536	281	383	171	407	325	347	100	2,889
Trucks	41	105	27	4	74	4	31	34	17	338
Trucks - articulated	80	74	70	98	6	144	12	22	4	510
Other and unknown	232	365	135	95	41	79	65	132	36	1,179
<b>Total Motorised</b>	<b>2,532</b>	<b>2,621</b>	<b>1,477</b>	<b>1,471</b>	<b>868</b>	<b>1,827</b>	<b>1,114</b>	<b>1,348</b>	<b>334</b>	<b>13,591</b>
Bicycle	75	21	46	19	14	25	51	25	7	283
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2,607</b>	<b>2,642</b>	<b>1,523</b>	<b>1,490</b>	<b>882</b>	<b>1,852</b>	<b>1,166</b>	<b>1,372</b>	<b>340</b>	<b>13,875</b>
<b>2009</b>										
Number of TOTAL Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	1,413	1,221	664	678	561	814	588	672	171	6,782
Minibuses	230	134	90	235	126	147	97	112	12	1,184
Minibus Taxis	1	315	11	2	8	0	25	69	1	432
Buses	53	40	27	102	3	79	29	24	4	360
Motorcycles	107	41	56	15	14	27	19	11	8	299
LDV's - Bakkies	284	611	220	338	152	339	206	393	106	2,649
Trucks	22	5	19	0	48	0	21	38	10	163
Trucks - articulated	46	139	46	87	3	115	18	34	0	489
Other and unknown	273	327	110	73	44	116	77	116	16	1,151
<b>Total Motorised</b>	<b>2,429</b>	<b>2,831</b>	<b>1,242</b>	<b>1,531</b>	<b>960</b>	<b>1,637</b>	<b>1,080</b>	<b>1,469</b>	<b>329</b>	<b>13,510</b>
Bicycle	56	22	43	13	7	36	50	23	8	258
Animal drawn	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2,485</b>	<b>2,854</b>	<b>1,285</b>	<b>1,543</b>	<b>967</b>	<b>1,674</b>	<b>1,130</b>	<b>1,492</b>	<b>337</b>	<b>13,768</b>
<b>% Change</b>										
Number of TOTAL Fatalities per Type of Vehicle										
Vehicle Type	GA	KZ	WC	EC	FS	MP	NW	LI	NC	RSA
Motorcars	-4.04	19.98	-12.18	29.28	29.66	7.02	9.99	2.87	11.77	7.57
Minibuses	0.15	-24.44	-23.47	-13.01	47.13	-38.00	130.31	83.96	-38.93	-4.62
Minibus Taxis	-83.33	20.33	0.00	-76.15	-57.47	-100.00	-65.29	-7.34	0.00	-5.41
Buses	131.13	-28.57	-31.20	47.06	-63.37	-50.48	144.66	46.95	-4.73	-6.89
Motorcycles	-1.14	40.11	11.12	-16.85	-49.88	20.17	-10.88	50.07	0.00	4.84
LDV's - Bakkies	-15.76	13.83	-21.93	-11.90	-10.98	-16.56	-36.52	12.99	6.11	-8.31
Trucks	-45.71	-95.08	-31.15	-100.00	-36.00	-100.00	-34.20	12.25	-40.63	-51.95
Trucks - articulated	-41.83	88.87	-34.53	-11.23	-42.47	-20.07	56.86	52.01	-100.00	-4.04
Other and unknown	17.52	-10.50	-18.46	-22.99	7.19	46.46	18.51	-11.55	-54.81	-2.37
<b>Total Motorised</b>	<b>-4.06</b>	<b>8.02</b>	<b>-15.87</b>	<b>4.07</b>	<b>10.70</b>	<b>-10.38</b>	<b>-3.09</b>	<b>9.02</b>	<b>-1.51</b>	<b>-0.60</b>
Bicycle	-26.11	5.52	-7.34	-34.02	-50.20	45.98	-1.66	-8.27	25.81	-8.86
Animal drawn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>-4.70</b>	<b>8.00</b>	<b>-15.61</b>	<b>3.58</b>	<b>9.74</b>	<b>-9.62</b>	<b>-3.02</b>	<b>8.71</b>	<b>-0.97</b>	<b>-0.77</b>



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## Appendix D



## General Assembly

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### Sixty-fourth session

Agenda item 46

#### Global road safety crisis

**Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belgium, Benin, Chile, Costa Rica, Cuba, Cyprus, Dominican Republic, Finland, France, Germany, Greece, Hungary, Iceland, India, Israel, Italy, Jamaica, Jordan, Kazakhstan, Lao People's Democratic Republic, Lebanon, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Norway, Oman, Peru, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Saudi Arabia, Serbia, Seychelles, Singapore, Slovenia, Sri Lanka, Sweden, Tajikistan, Thailand, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, United Kingdom of Great Britain and Northern Ireland, Venezuela (Bolivarian Republic of), Viet Nam, Uruguay, Uzbekistan and Yemen: revised draft resolution**

#### Improving global road safety

*The General Assembly,*

*Recalling* its resolutions 57/309 of 22 May 2003, 58/9 of 5 November 2003, 58/289 of 14 April 2004, 60/5 of 26 October 2005 and 62/244 of 31 March 2008 on improving global road safety,

*Having considered* the note by the Secretary-General transmitting the report on improving global road safety and the recommendations contained therein,<sup>1</sup>

*Recognizing* the tremendous global burden of mortality resulting from road traffic crashes, as well as the twenty to fifty million people who incur each year non-fatal road traffic injuries, many of whom are left with lifelong disabilities,

*Noting* that this major public health problem has a broad range of social and economic consequences which, if unaddressed, may affect the sustainable development of countries and hinder the progress towards the Millennium Development Goals,

*Underlining* the importance for Member States to continue using the *World Report on Road Traffic Injury Prevention* as a framework for road safety efforts and implementing, as appropriate, its recommendations by paying particular attention to

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\* Reissued for technical reasons on 1 March 2010.

<sup>1</sup> A/64/266.



the main risk factors identified, namely, the non-use of safety belts and child restraints, the non-use of helmets, driving under the influence of alcohol and drugs, inappropriate and excessive speed and the lack of appropriate infrastructure, and by strengthening road safety management and paying particular attention also to the needs of vulnerable road users, such as pedestrians, cyclists and motorcyclists, and users of unsafe public transport, and improving post-crash care for victims of road crashes,

*Commending* the World Health Organization for its role in implementing the mandate conferred upon it by the General Assembly to work in close cooperation with the United Nations regional commissions to coordinate road safety issues within the United Nations system, and the progress of the United Nations Road Safety Collaboration as a consultative mechanism whose members provide Governments and civil society with good practice guidelines to support action to tackle the major road safety risk factors and support their implementation,

*Recognizing* the work of the United Nations regional commissions and their subsidiary bodies in increasing their road safety activities and advocating increased political commitment to road safety, and in this context welcoming the conclusions and recommendations of the project “Improving global road safety: setting regional and national road traffic casualty reduction targets”, implemented by the United Nations regional commissions to assist low-income and middle-income countries in setting and achieving road traffic casualty reduction targets,

*Acknowledging* the Ministerial Declaration on Violence and Injury Prevention in the Americas, signed by the Ministers of Health of the Americas during the meeting on Violence and Injury Prevention in the Americas, held in Merida, Mexico on 14 March 2008, “The Doha Declaration” and other outcomes of the workshop on building the Arab Mashreq road safety partnership, organized by the Economic and Social Commission for Western Asia in Doha on 21 and 22 October 2008,<sup>2</sup> the conclusions and recommendations of the Economic Commission for Europe Conference on Improving Road Traffic Safety in South-Eastern Europe: Setting Regional and National Road Traffic Casualty Reduction Targets, held in Halkida, Greece, on 25 and 26 June 2009, the workshop on setting regional and national road traffic casualty reduction targets in the Economic and Social Commission for Western Asia region, organized by the Economic and Social Commission for Western Asia, in collaboration with the United Arab Emirates National Authority for Transportation, held in Abu Dhabi on 16 and 17 June 2009, the conference on the theme “Make roads safe Africa”, organized by the Economic Commission for Africa in Dar es Salaam on 7 July 2009, the Ministerial Declaration on Improving Road Safety in Asia and the Pacific,<sup>3</sup> and the recommendations of the Expert Group Meeting on Improving Road Safety organized by the Economic and Social Commission for Asia and the Pacific, held in Bangkok from 2 to 4 September 2009, noting, in particular the usefulness of compiling a guideline outlining best practices in road safety improvement in the region, as well as the outcomes of expert group meetings on improving road safety organized by the Economic and Social Commission for Asia and the Pacific in 2008 and 2009,

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<sup>2</sup> E/ESCWA/EDGD/2008/5.

<sup>3</sup> E/ESCAP/63/13, chap. IV.

*Also acknowledging* a number of other important international efforts on road safety, including the report of the International Transport Forum of the Organization for Economic Cooperation and Development, entitled *Towards zero: ambitious road safety targets and the safe system approach*, the International Conference on Road Safety at Work, held in Washington, D.C., from 16 to 18 February 2009, and the Road Safety at Work Conference, held in Dublin on 15 June 2009, which highlighted the importance of fleet safety and the important role of the private sector in addressing driving behaviour concerns among their workers,

*Noting* all national and regional initiatives to raise awareness of road safety issues,

*Also noting* the important role of the World Bank Global Road Safety Facility as a funding mechanism to support capacity-building and provide technical support for road safety and as a means to increase the resources needed to address road safety in low-income and middle-income countries, acknowledging the increase in funding to support national, regional and global road safety work, and welcoming, in particular, the financial assistance given to the World Health Organization and the World Bank Global Road Safety Facility by all donors, including the Governments of Australia, the Netherlands and Sweden, and by Bloomberg Philanthropies and the FIA Foundation for the Automobile and Society,

*Further noting* the work of the International Organization for Standardization to develop standards for road traffic safety management systems,

*Taking note* of the report of the Commission for Global Road Safety, *Make Roads Safe: A Decade of Action for Road Safety*, which links road safety with sustainable development and calls for a decade of action on road safety, and the “Make Roads Safe” campaign as a global tool for increasing awareness and advocating increased funding for road safety,

*Recognizing* the publication of the World Health Organization, *Global Status Report on Road Safety*, which provides the first assessment of the road safety situation at a global level and highlights the fact that half of all road traffic deaths are among vulnerable road users, as well as the relatively low proportion of the countries in the world that have comprehensive legislation on key road safety risk factors,

*Welcoming* the joint statement from the World Bank and the six leading multilateral development banks, namely, the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Inter-American Development Bank and the Islamic Development Bank, to cooperate on increasing the road safety component of their infrastructure programmes through better coordination of their investments and through the application of safety audits and assessments of road infrastructure projects,

*Expressing its concern* at the continued increase in road traffic fatalities and injuries worldwide, in particular in low-income and middle-income countries, bearing in mind that the fatality rate within the road system is considerably higher than in other transport systems, also in high-income countries,

*Recognizing* the efforts made by some low-income and middle-income countries to implement best practices, set ambitious targets and monitor road traffic fatalities,

*Reaffirming* the need for the further strengthening of international cooperation and knowledge-sharing in road safety, taking into account the needs of low-income and middle-income countries,

*Recognizing* that the solution to the global road safety crisis can only be implemented through multisectoral collaboration and partnerships among all concerned in both the public and private sectors, with the involvement of civil society,

*Also recognizing* the role of research in informing policy-based decisions on road safety and in monitoring and evaluating the effect of interventions, as well as the need for more research to address the emerging issue of distractions in traffic as a risk factor for road traffic crashes,

*Acknowledging* the leading role of Oman in drawing the attention of the international community to the global road safety crisis,

*Commending* the Government of the Russian Federation for hosting the First Global Ministerial Conference on Road Safety: Time for Action, held in Moscow on 19 and 20 November 2009, which brought together delegations of ministers and representatives dealing with transport, health, education, safety and related traffic law enforcement issues and which culminated in a declaration inviting Member States to declare a decade of action for road safety,

1. *Welcomes* the declaration adopted at the First Global Ministerial Conference on Road Safety: Time for Action, held in Moscow on 19 and 20 November 2009;<sup>4</sup>

2. *Proclaims* the period 2011-2020 as the Decade of Action for Road Safety, with a goal to stabilize and then reduce the forecast level of road traffic fatalities around the world by increasing activities conducted at the national, regional and global levels;

3. *Requests* the World Health Organization and the United Nations regional commissions, in cooperation with other partners in the United Nations Road Safety Collaboration and other stakeholders, to prepare a Plan of Action of the Decade as a guiding document to support the implementation of its objectives;

4. *Reaffirms* the importance of addressing global road safety issues and the need for the further strengthening of international cooperation, taking into account the needs of low-income and middle-income countries, including those of the least developed countries and African countries, by building capacities in the field of road safety and providing financial and technical support for their efforts;

5. *Acknowledges* that multilateral technical and financial assistance in support of capacity-building for enhancing road safety should be provided in a predictable and timely manner without unwarranted conditionalities, considering that there is no one-size-fits-all formula and the specific situation of each country based on its needs and priorities;

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<sup>4</sup> A/64/540, annex.



6. *Calls upon* Member States to implement road safety activities, particularly in the areas of road safety management, road infrastructure, vehicle safety, road user behaviour, including distractions in traffic, road safety education and post-crash care, including rehabilitation for people with disabilities, based on the Plan of Action;

7. *Invites* all Member States to set their own national road traffic casualty reduction targets to be achieved by the end of the Decade, in line with the Plan of Action;

8. *Calls for* the inclusion of activities to pay attention to the needs of all road users within the Plan of Action of the Decade, in particular, the needs of pedestrians, cyclists and other vulnerable road users in low-income and middle-income countries, through support for appropriate legislation and policy, and infrastructure, and by increasing means of sustainable transport, and in this regard invites international financial institutions and regional development banks to assist developing countries in building sustainable mass transportation systems with a view to reducing road traffic accidents;

9. *Also calls for* joint multisectoral action to increase the proportion of countries with comprehensive legislation on key risk factors for road traffic injuries, including seat belt and child restraint and helmet use, drink driving and speed, from the 15 per cent identified in the 2009 Global Status Report on Road Safety to over 50 per cent by the end of the Decade, and encourages Member States to strengthen their enforcement of existing road safety legislation of these risk factors;

10. *Encourages* Governments, public and private corporations, non-governmental organizations and multilateral organizations to take action, as appropriate, to discourage distractions in traffic, including texting while driving, which lead to increased morbidity and mortality owing to road crashes;

11. *Invites* Governments to take a leading role in implementing the activities of the Decade, while fostering a multisectoral collaboration of efforts that includes academia, the private sector, professional associations, non-governmental organizations and civil society, including national Red Cross and Red Crescent Societies, victims' organizations and youth organizations, and the media;

12. *Invites* Member States, international organizations, development banks and funding agencies, foundations, professional associations and private sector companies to consider providing adequate and additional funding to activities relating to the Decade;

13. *Requests* the United Nations Road Safety Collaboration to continue its role of informal consultative mechanism, including for the implementation of activities relating to the Decade;

14. *Invites* the World Health Organization and the United Nations regional commissions, in cooperation with other partners in the United Nations Global Road Safety Collaboration, to organize the second United Nations Global Road Safety Week to launch the Decade;

15. *Encourages* Member States to continue to strengthen their commitment to road safety, including by observing the World Day of Remembrance for Road Traffic Victims on the third Sunday of November every year;

16. *Also encourages* Member States to become contracting parties and implement the United Nations road safety-related legal instruments, as well as adhere to the Convention on the Rights of Persons with Disabilities;<sup>5</sup>

17. *Invites* the World Health Organization and the United Nations regional commissions to coordinate regular monitoring, in the framework of the United Nations Road Safety Collaboration, of global progress towards meeting the targets identified in the Plan of Action and to develop global status reports on road safety and other appropriate monitoring tools;

18. *Invites* Member States and the international community to integrate road safety into other international agendas, such as those on development, environment and urbanization;

19. *Acknowledges* the importance of midterm and final reviews of the progress achieved over the Decade, and invites interested Member States, in consultation with the United Nations Road Safety Collaboration, to organize international, regional and national meetings to assess the implementation of the Decade;

20. *Decides* to include in the provisional agenda of its sixty-sixth session the item entitled “Global road safety crisis”, and requests the Secretary-General to report to the General Assembly at that session on the progress made in the attainment of the objectives of the Decade of Action.

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<sup>5</sup> Resolution 61/106, annex I.



APPENDIX D

Road Traffic Report in the calendar year 2009

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## General Assembly

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### Sixty-fourth session

Agenda item 46

#### Global road safety crisis

**Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belgium, Benin, Chile, Costa Rica, Cuba, Cyprus, Dominican Republic, Finland, France, Germany, Greece, Hungary, Iceland, India, Israel, Italy, Jamaica, Jordan, Kazakhstan, Lao People's Democratic Republic, Lebanon, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Norway, Oman, Peru, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Saudi Arabia, Serbia, Seychelles, Singapore, Slovenia, Sri Lanka, Sweden, Tajikistan, Thailand, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, United Kingdom of Great Britain and Northern Ireland, Venezuela (Bolivarian Republic of), Viet Nam, Uruguay, Uzbekistan and Yemen: revised draft resolution**

#### Improving global road safety

*The General Assembly,*

*Recalling* its resolutions 57/309 of 22 May 2003, 58/9 of 5 November 2003, 58/289 of 14 April 2004, 60/5 of 26 October 2005 and 62/244 of 31 March 2008 on improving global road safety,

*Having considered* the note by the Secretary-General transmitting the report on improving global road safety and the recommendations contained therein,<sup>1</sup>

*Recognizing* the tremendous global burden of mortality resulting from road traffic crashes, as well as the twenty to fifty million people who incur each year non-fatal road traffic injuries, many of whom are left with lifelong disabilities,

*Noting* that this major public health problem has a broad range of social and economic consequences which, if unaddressed, may affect the sustainable development of countries and hinder the progress towards the Millennium Development Goals,

*Underlining* the importance for Member States to continue using the *World Report on Road Traffic Injury Prevention* as a framework for road safety efforts and implementing, as appropriate, its recommendations by paying particular attention to

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\* Reissued for technical reasons on 1 March 2010.

<sup>1</sup> A/64/266.



the main risk factors identified, namely, the non-use of safety belts and child restraints, the non-use of helmets, driving under the influence of alcohol and drugs, inappropriate and excessive speed and the lack of appropriate infrastructure, and by strengthening road safety management and paying particular attention also to the needs of vulnerable road users, such as pedestrians, cyclists and motorcyclists, and users of unsafe public transport, and improving post-crash care for victims of road crashes,

*Commending* the World Health Organization for its role in implementing the mandate conferred upon it by the General Assembly to work in close cooperation with the United Nations regional commissions to coordinate road safety issues within the United Nations system, and the progress of the United Nations Road Safety Collaboration as a consultative mechanism whose members provide Governments and civil society with good practice guidelines to support action to tackle the major road safety risk factors and support their implementation,

*Recognizing* the work of the United Nations regional commissions and their subsidiary bodies in increasing their road safety activities and advocating increased political commitment to road safety, and in this context welcoming the conclusions and recommendations of the project “Improving global road safety: setting regional and national road traffic casualty reduction targets”, implemented by the United Nations regional commissions to assist low-income and middle-income countries in setting and achieving road traffic casualty reduction targets,

*Acknowledging* the Ministerial Declaration on Violence and Injury Prevention in the Americas, signed by the Ministers of Health of the Americas during the meeting on Violence and Injury Prevention in the Americas, held in Merida, Mexico on 14 March 2008, “The Doha Declaration” and other outcomes of the workshop on building the Arab Mashreq road safety partnership, organized by the Economic and Social Commission for Western Asia in Doha on 21 and 22 October 2008,<sup>2</sup> the conclusions and recommendations of the Economic Commission for Europe Conference on Improving Road Traffic Safety in South-Eastern Europe: Setting Regional and National Road Traffic Casualty Reduction Targets, held in Halkida, Greece, on 25 and 26 June 2009, the workshop on setting regional and national road traffic casualty reduction targets in the Economic and Social Commission for Western Asia region, organized by the Economic and Social Commission for Western Asia, in collaboration with the United Arab Emirates National Authority for Transportation, held in Abu Dhabi on 16 and 17 June 2009, the conference on the theme “Make roads safe Africa”, organized by the Economic Commission for Africa in Dar es Salaam on 7 July 2009, the Ministerial Declaration on Improving Road Safety in Asia and the Pacific,<sup>3</sup> and the recommendations of the Expert Group Meeting on Improving Road Safety organized by the Economic and Social Commission for Asia and the Pacific, held in Bangkok from 2 to 4 September 2009, noting, in particular the usefulness of compiling a guideline outlining best practices in road safety improvement in the region, as well as the outcomes of expert group meetings on improving road safety organized by the Economic and Social Commission for Asia and the Pacific in 2008 and 2009,

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<sup>2</sup> E/ESCWA/EDGD/2008/5.

<sup>3</sup> E/ESCAP/63/13, chap. IV.

*Also acknowledging* a number of other important international efforts on road safety, including the report of the International Transport Forum of the Organization for Economic Cooperation and Development, entitled *Towards zero: ambitious road safety targets and the safe system approach*, the International Conference on Road Safety at Work, held in Washington, D.C., from 16 to 18 February 2009, and the Road Safety at Work Conference, held in Dublin on 15 June 2009, which highlighted the importance of fleet safety and the important role of the private sector in addressing driving behaviour concerns among their workers,

*Noting* all national and regional initiatives to raise awareness of road safety issues,

*Also noting* the important role of the World Bank Global Road Safety Facility as a funding mechanism to support capacity-building and provide technical support for road safety and as a means to increase the resources needed to address road safety in low-income and middle-income countries, acknowledging the increase in funding to support national, regional and global road safety work, and welcoming, in particular, the financial assistance given to the World Health Organization and the World Bank Global Road Safety Facility by all donors, including the Governments of Australia, the Netherlands and Sweden, and by Bloomberg Philanthropies and the FIA Foundation for the Automobile and Society,

*Further noting* the work of the International Organization for Standardization to develop standards for road traffic safety management systems,

*Taking note* of the report of the Commission for Global Road Safety, *Make Roads Safe: A Decade of Action for Road Safety*, which links road safety with sustainable development and calls for a decade of action on road safety, and the “Make Roads Safe” campaign as a global tool for increasing awareness and advocating increased funding for road safety,

*Recognizing* the publication of the World Health Organization, *Global Status Report on Road Safety*, which provides the first assessment of the road safety situation at a global level and highlights the fact that half of all road traffic deaths are among vulnerable road users, as well as the relatively low proportion of the countries in the world that have comprehensive legislation on key road safety risk factors,

*Welcoming* the joint statement from the World Bank and the six leading multilateral development banks, namely, the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Inter-American Development Bank and the Islamic Development Bank, to cooperate on increasing the road safety component of their infrastructure programmes through better coordination of their investments and through the application of safety audits and assessments of road infrastructure projects,

*Expressing its concern* at the continued increase in road traffic fatalities and injuries worldwide, in particular in low-income and middle-income countries, bearing in mind that the fatality rate within the road system is considerably higher than in other transport systems, also in high-income countries,

*Recognizing* the efforts made by some low-income and middle-income countries to implement best practices, set ambitious targets and monitor road traffic fatalities,

*Reaffirming* the need for the further strengthening of international cooperation and knowledge-sharing in road safety, taking into account the needs of low-income and middle-income countries,

*Recognizing* that the solution to the global road safety crisis can only be implemented through multisectoral collaboration and partnerships among all concerned in both the public and private sectors, with the involvement of civil society,

*Also recognizing* the role of research in informing policy-based decisions on road safety and in monitoring and evaluating the effect of interventions, as well as the need for more research to address the emerging issue of distractions in traffic as a risk factor for road traffic crashes,

*Acknowledging* the leading role of Oman in drawing the attention of the international community to the global road safety crisis,

*Commending* the Government of the Russian Federation for hosting the First Global Ministerial Conference on Road Safety: Time for Action, held in Moscow on 19 and 20 November 2009, which brought together delegations of ministers and representatives dealing with transport, health, education, safety and related traffic law enforcement issues and which culminated in a declaration inviting Member States to declare a decade of action for road safety,

1. *Welcomes* the declaration adopted at the First Global Ministerial Conference on Road Safety: Time for Action, held in Moscow on 19 and 20 November 2009;<sup>4</sup>

2. *Proclaims* the period 2011-2020 as the Decade of Action for Road Safety, with a goal to stabilize and then reduce the forecast level of road traffic fatalities around the world by increasing activities conducted at the national, regional and global levels;

3. *Requests* the World Health Organization and the United Nations regional commissions, in cooperation with other partners in the United Nations Road Safety Collaboration and other stakeholders, to prepare a Plan of Action of the Decade as a guiding document to support the implementation of its objectives;

4. *Reaffirms* the importance of addressing global road safety issues and the need for the further strengthening of international cooperation, taking into account the needs of low-income and middle-income countries, including those of the least developed countries and African countries, by building capacities in the field of road safety and providing financial and technical support for their efforts;

5. *Acknowledges* that multilateral technical and financial assistance in support of capacity-building for enhancing road safety should be provided in a predictable and timely manner without unwarranted conditionalities, considering that there is no one-size-fits-all formula and the specific situation of each country based on its needs and priorities;

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<sup>4</sup> A/64/540, annex.

6. *Calls upon* Member States to implement road safety activities, particularly in the areas of road safety management, road infrastructure, vehicle safety, road user behaviour, including distractions in traffic, road safety education and post-crash care, including rehabilitation for people with disabilities, based on the Plan of Action;

7. *Invites* all Member States to set their own national road traffic casualty reduction targets to be achieved by the end of the Decade, in line with the Plan of Action;

8. *Calls for* the inclusion of activities to pay attention to the needs of all road users within the Plan of Action of the Decade, in particular, the needs of pedestrians, cyclists and other vulnerable road users in low-income and middle-income countries, through support for appropriate legislation and policy, and infrastructure, and by increasing means of sustainable transport, and in this regard invites international financial institutions and regional development banks to assist developing countries in building sustainable mass transportation systems with a view to reducing road traffic accidents;

9. *Also calls for* joint multisectoral action to increase the proportion of countries with comprehensive legislation on key risk factors for road traffic injuries, including seat belt and child restraint and helmet use, drink driving and speed, from the 15 per cent identified in the 2009 Global Status Report on Road Safety to over 50 per cent by the end of the Decade, and encourages Member States to strengthen their enforcement of existing road safety legislation of these risk factors;

10. *Encourages* Governments, public and private corporations, non-governmental organizations and multilateral organizations to take action, as appropriate, to discourage distractions in traffic, including texting while driving, which lead to increased morbidity and mortality owing to road crashes;

11. *Invites* Governments to take a leading role in implementing the activities of the Decade, while fostering a multisectoral collaboration of efforts that includes academia, the private sector, professional associations, non-governmental organizations and civil society, including national Red Cross and Red Crescent Societies, victims' organizations and youth organizations, and the media;

12. *Invites* Member States, international organizations, development banks and funding agencies, foundations, professional associations and private sector companies to consider providing adequate and additional funding to activities relating to the Decade;

13. *Requests* the United Nations Road Safety Collaboration to continue its role of informal consultative mechanism, including for the implementation of activities relating to the Decade;

14. *Invites* the World Health Organization and the United Nations regional commissions, in cooperation with other partners in the United Nations Global Road Safety Collaboration, to organize the second United Nations Global Road Safety Week to launch the Decade;

15. *Encourages* Member States to continue to strengthen their commitment to road safety, including by observing the World Day of Remembrance for Road Traffic Victims on the third Sunday of November every year;



16. *Also encourages* Member States to become contracting parties and implement the United Nations road safety-related legal instruments, as well as adhere to the Convention on the Rights of Persons with Disabilities;<sup>5</sup>

17. *Invites* the World Health Organization and the United Nations regional commissions to coordinate regular monitoring, in the framework of the United Nations Road Safety Collaboration, of global progress towards meeting the targets identified in the Plan of Action and to develop global status reports on road safety and other appropriate monitoring tools;

18. *Invites* Member States and the international community to integrate road safety into other international agendas, such as those on development, environment and urbanization;

19. *Acknowledges* the importance of midterm and final reviews of the progress achieved over the Decade, and invites interested Member States, in consultation with the United Nations Road Safety Collaboration, to organize international, regional and national meetings to assess the implementation of the Decade;

20. *Decides* to include in the provisional agenda of its sixty-sixth session the item entitled “Global road safety crisis”, and requests the Secretary-General to report to the General Assembly at that session on the progress made in the attainment of the objectives of the Decade of Action.

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<sup>5</sup> Resolution 61/106, annex I.