

# **The Prime Minister's Office**





REPORT OF THE COMMISSION OF ENQUIRY TO INVESTIGATE THE ROAD ACCIDENT OF THE 29<sup>TH</sup> APRIL 2014 ALONG THE MR3 FREEWAY AT MALAGWANE HILL PURSUANT TO LEGAL NOTICE NO. 66 OF 2014







**MAXIMISING EXCELLENCE IN ROAD SAFETY** 



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### **FOREWORD**

In Swaziland, the World Health Organization (WHO) estimates that road accidents cost E400 million per annum. In 2012 and 2013 there were a total of 8490 and 9266 road traffic accidents in the country and heavy motor vehicles contributed about 10 percent of all road accidents.

As a response to the scourge of road calamities the United Nations General Assembly also proclaimed the period 2011-2020 as the **Decade of Action for Road Safety** with a view to decrease the level of road fatalities across the globe.

The backdrop to this Commission of Enquiry is the unusual traffic disaster that occurred along Malagwane Hill on the MR3 Highway between Mbabane and Manzini on 29<sup>th</sup> April 2014. It is my honour to present this report which outlines strategic game changers that need to be implemented in order to make our roads an accident disaster free zone. I believe that the report will also shed light and bring relief to the nation's unanswered questions and controversy surrounding the accident of the 29TH April.

In light of her aspirations to become a First World country by 2022, Swaziland has a duty to implement effective mitigation measures against the effects of road accidents. I therefore believe that this report will also aid the Swaziland Government's policy responses for mitigating traffic disasters and also help accelerate implementation of His Majesty's prerogatives on road safety.

On behalf of all road users, I therefore encourage the Government of Swaziland to strengthen and accelerate implementation of its noble mission "to provide a climate and infrastructure that will progressively improve the quality and security of life of the people of Swaziland."

Lorraine Hlophe (Mrs)

Chairperson



#### **ACKNOWLEDGEMENTS**

The Commission extends its heartfelt gratitude to His Excellency the Right Honorable Prime Minister Dr. Barnabas Sibusiso Dlamini for entrusting us with this important national assignment. The Commission also appreciates the support it received from the Deputy Prime Minister and Cabinet Ministers, particularly for releasing their officials to give evidence before the Commission.

The Commission further appreciates the support and facilitation received from the office of the Secretary to Cabinet, the Principal Secretary and Under Secretary in the Prime Minister's Office. We further wish to extend our greatest appreciation to the Director of the Swaziland Information and Broadcasting Services (SBIS) and his Deputy for their generosity in availing recording equipment and support staff throughout investigation.

Further recognition goes to the Principal Secretary and staff of the Ministry of Commerce and Industry for providing us with space to hold our hearings and for all the warmth afforded us during our stay with them. We also appreciate the work of our support team for their passion and tireless efforts demonstrated throughout the investigation.

The Commission was greatly humbled by the members of the public who showed a great interest in its work and turned up in great numbers to either give oral evidence or present written submissions. Some witnesses came forward to testify even though they were still either in pain or trauma and others were still walking on crutches.

It is our sincere hope that this report will be the requisite game changer for road safety especially on the MR3 Highway.

(Chairperson)

(Member)

Mrs Lorraine Hlophe Rev Armstrong Dlamini Mr Joseph Madonsela (Member)

(Secretary)



# **LIST OF ACRONYMS**

**ABS** - Advanced Braking System

**ADT** - Average Daily Traffic

CTA - Central Transport Administration

**CCTV** - Closed Circuit Television

**EMS** - Emergency Medical Services

**K53** - Advanced Driving Curriculum

**HMV** - Heavy Motor Vehicles

ISO - International Standards Organization

**LED** - Light Emitting Diode

**MVA** - Motor Vehicle Accident (Fund)

**MOWPT** - Ministry of Public Works and Transport

SADC - Southern African Development Community

SWASA - Swaziland Standards Authority

**TVET** - Technical and Vocational Education and Training

**WHO** - World Health Organisation



#### **EXECUTIVE SUMMARY**

#### 1. Introduction

This report is part of the Swaziland Government's policy response for mitigating traffic disasters and also in compliance with His Majesty the King's prerogatives on road safety. The backdrop to this report is the unusual traffic disaster comprising of two accidents that occurred along Malagwane Hill on the MR3 Highway between Mbabane and Manzini on 29th April 2014. The catastrophic nature of this accident triggered a huge public outcry as well as conflicting accounts on the extent of loss of life and damage to property.

On the 20<sup>th</sup> May 2014 His Excellency the Right Honourable Prime Minister, Dr Sibusiso B. Dlamini promptly appointed a four-member Commission of Enquiry to investigate the causes and impacts of the accident and to broadly formulate measures to eliminate the risk of accidents and their impacts in the future. The Commission interviewed a total of sixty six (66) witnesses.

#### 2. Findings

#### 2.1 First Accident

On the 29<sup>th</sup> April 2014 at about 1500 hours at Mvutjini immediately past Malagwane Hill on the MR3 Highway a driver of a truck ferrying Iron Ore from Ngwenya Mine lost control of the truck and subsequently jumped out of the moving truck and landed on the concrete embankment on the opposite lane. The truck then navigated its way and later overturned at the foot of Malagwane spilling its cargo onto the opposite lane. The truck then blocked the fast lane to Manzini and traffic had to negotiate on the slow lane. The truck was not removed from the scene until after 1800 hours when another fatal accident had already occurred.

The truck in question was a Nissan UD Combination Truck, registered FSD 785 BH, owned and operated by Phinduvuke Transport and trading as "*Take A Chance*". It was contracted to SALGAOCAR Swaziland (Pty) Ltd to transport Iron Ore from Ngwenya Mine to Mpaka.

#### 2.2 Causes of the First Accident

The accident was caused by *inter alia* the following factors:

#### 2.2.1 Braking System Failure

This truck was found to be road unworthy by the Government Motor Vehicle Examiner due to a faulty braking mechanism. According to the inspection report the braking system of the truck was malfunctioning.

#### **2.2.2 Driver Incompetency**

The driver in question Mr. Sikhumbuzo Ceda Mkhonta had been driving this truck for only six months and had no previous experience in driving articulated trucks. Mr. Mkhonta further exercised poor judgment in abandoning a moving truck and had no compunction for its likely impact on other motorists.

#### 2.2.3 High Speed

Mr. Mkhonta claims that he was driving down Malagwane Hill on gear number five. Experts submit that this is not a suitable gear for a gradient like Malagwane when you are driving a vehicle carrying a thirty-six tonnes load. A lower gear would have been appropriate.



#### 2.2.4 Driver Fatigue

Evidence gathered by the Commission is that at the time of the accident, Mr. Mkhonta had worked for an extended period of about twenty three hours without a break. He admitted that he was sleepy, hungry and exhausted.

#### 2.3 Impact of First Accident

There was no loss of life from the first accident and the truck driver is the only person who was injured. The accident caused damage to property in respect of the truck, one light motor vehicle and road light masts.

#### 3. Nature of Second accident

On the evening of the 29<sup>th</sup> April 2014 at around 1800 hours at Mnyamatsini immediately before finishing Malagwane Hill a truck ferrying Coal from Mpumalanga in South Africa lost control and subsequently plunged into several stationery motor vehicles. The impact of the collisions resulted in a fire that ignited the truck and other motor vehicles. This truck was a Freightliner Argosy registered HFG421MP, operated by Chrisilda Transport.

### 3.1 Impact of the Second Accident

The Commission confirmed that there were three deceased persons as a result of the accident and about thirty motorists and pedestrians are reported to have been injured.

#### 3.2 Damage to Property

There was extensive damage to property. Many vehicles were burnt or damaged during the accident. The estimated cost of uncompensated damage (uninsured) vehicles is about **One Million Emalangeni**.

#### 3.3 Causes of the Second Accident

The Commission holds the view that the delay in salvaging the first truck was a major cause of the subsequent accident involving the second truck. During the first accident there was timely response by the Police Traffic Units from both Mbabane and Lobamba and this alertness helped to prevent accidents that could have been immediately caused by the Iron Ore and oil spill. However there was poor traffic control, coordination and emergency planning for the evening rush hour from Mbabane resulting in an unnecessary traffic jam. This traffic jam is what escalated the accident into the magnitude of a traffic disaster.

Nevertheless the Commission does concede that this was an unusual traffic disaster. Therefore specialized training in traffic disaster management is imperative for an improved response in future accidents. The Commission found that the main contributory factors to the accident were as follows:

- (a) There was a degree of negligence on the part of Phinduvuke Transport in that they delayed in salvaging their truck on time, resulting in the congestion that gave rise to the second accident.
- (b) Phinduvuke Transport is also blameworthy in that their truck had a poor service record and the truck was road unworthy.
- (c) Complacency on the part of the Mbabane Police Traffic Department, in that they failed to effectively alert motorists about the earlier accident that had occurred at Mvutjini immediately past the Malagwane Hill.



- (d) There was gross inefficiency on the part of the Mbabane Police Traffic Department in that they failed to use effective signaling in spite of poor visibility and high traffic density before the occurrence of the second accident.
- (e) The expected leadership of the Head of the Traffic Department in Mbabane, Traffic One, leaves a lot to be desired. During the course of both accidents the role of Traffic One was grossly obscure.
- (f) It also appears that there was a degree of laxity on the part of the driver of the second truck Wilson Magagula in that his vehicle was moving at a relatively high speed in a sharp descent that leads to a blind rise. Although Magagula's efforts to steer the truck from the slow to the fast lane was a shrewd effort, because there were less vehicles on the fast lane, however the weight of the truck and the speed in which it was moving worked against him.

#### 4. Measures to Mitigate the Extent of Damage Caused By the Accidents

#### 4.1 Assistance to Victims

The Motor Vehicle Accidents (Amendment) Act of 1991 stipulates that the total liability of the MVA Fund in respect of a motor vehicle accident shall not exceed the sum of one million Emalangeni. Therefore the victims of the accident of the 29TH April are collectively entitled to a lump sum payment of one million. In view of the One million ceiling set in terms of the MVA Act, the Commission recommends that severely injured victims that may require further treatment should be granted special consideration through the Phalala Fund.

#### 4.2 Compensation for Loss of Property

In the absence of a mandatory Third Party Insurance for motorists, there is no facility for compensating accident victims for the loss of property. The majority of motorists and victims, who lost their cars and valuables on 29<sup>th</sup> April, had no car and property insurance respectively.

The Commission recommends the immediate review and preparation of legislative amendments to the Motor Vehicle Accident Fund Act to introduce *Third Party Insurance* for all commercial vehicles. Third Party Insurance is part of the normal social security landscape of first world countries.

#### 5. Measures To Maximise Efficiency And Effectiveness Of Response

#### 5.1 Improving the Response Capability of the Royal Swaziland Police

It was found that one of the causes of the horrific accident of 29<sup>th</sup> April was the slow recovery of the first truck. This is partly due to the lack of equipment by the Police Service such as breakdowns and Jaws of Life. On the 29<sup>th</sup> April traffic officers depended on private breakdown vehicles to clear the wreckage. The Commission recommends the following measures to alleviate response limitations of the Police Service:

- (a) Provision of dedicated light duty, heavy duty and extra heavy duty recovery vehicles to clear accident scenes. In order to ensure sustainability and cost effectiveness this equipment should be procured on a lease basis on renewable intervals;
- (b) Procurement of a service helicopter for airborne surveillance, incident response and recovery;
- (c) Establishment of a Traffic Management System which includes static speed monitoring devices and Closed Circuit Television (CCTV) surveillance;



(d) Establishment of a Multidisciplinary Traffic Command Centre comprising of Fire and Emergency Services, Police Traffic Department and the Emergency Preparedness and Response Unit (Ministry of Health).

#### 6. Measures to Eliminate and Minimize Risks Of Accidents

There is an urgent need to review and clarify the Highway Management Function for the MR3 Road. At present the road's maintenance is under the purview of the Roads Department, however the department has no jurisdiction on road safety and traffic management.

#### 6.1 Infrastructure Safety

The Commission recommends the following measures to reduce the occurrence of accidents on the MR3 Highway;

- (a) A separate truck lanes in designated areas as well as extended road shoulders on specific points along the Malagwane MR3 Highway starting from Hospital Hill to the foot of Malagwane.
- (b) The Commission further recommends the installation of compulsory docking stations for heavy duty trucks in Motshane, Mangwaneni and near the old Swazi Inn.
- (c) It is recommended that arrestor beds should be introduced in the following locations along the MR3 Highway:
  - (i) Nkoyoyo
  - (ii) Swazi Inn (to be refurbished)
  - (iii) Bahai
  - (iv) Mnyamatsini
- (d) The density of traffic along the MR3 Highway and the regular occurrences of low visibility especially in poor weather make it imperative to install Advanced *safety signaling devices* such as *Electronic Notice Boards* to warn motorists of incidents on the highway.
- (e) The Commission recommends accelerated implementation of the grade separated junction (flyover bridge) at Bahai area.
- (f) Introduction of Radio Interrupting Traffic warnings.

#### 6.2 Review of the 1965 Road Traffic Act Regulations

The Road Traffic Act of 1965 was repealed in 2007 however the old regulations were saved and this is an anomaly especially in view of Swaziland's aspirations towards a first world status. It is recommended that appropriate review should be made to the Road Traffic Regulations of 1965 to accommodate *mass* and *dimension limits*. This will also facilitate a review of current archaic fines for offences such as overloading and breach of axle limits.

#### **6.3** Road Safety Management

In view of the huge volume of traffic on Swaziland roads, the current Road Safety function in the Ministry of Public Works and Transport is hugely inadequate. It merely exists as a unit under the Road Transportation Department and it does not have any operational autonomy and its budget is not sufficient. This is partly responsible for the fact that major roads such as Malagwane MR3 Highway only have fifty per cent of the necessary signage. Therefore urgent measures have to be taken to address the



institutional weaknesses of the Road Safety Council. The Commission further recommends that the Road Safety Council and the Roads Department should be merged.

#### 6.4 Proposed Roads Agency

The Commission supports recommendations for the implementation of a National Roads Agency and a Road Fund. Therefore support should be given to the Ministry of Public Works and Transport (MOPWT) to refine and resuscitate the Roads Agency and Roads Fund Bill (2011) and guide its passage through the legislative process.

#### 6.5 Regulation of Driving Schools and Instructor Training

It was found that there is no systematic framework for regulating driving schools and the work of driver instructors. At present the driving schools acquire their business permits from Ministry of Commerce without any input from the Road Transport Department. The Department also has no approval authority for the development of testing grounds, driving schools and instructor training.

It is recommended that the businesses licenses of Driving Schools and Training Instructors should be located within the mandate of the autonomous Road Safety Council. The Department should also take responsibility in standard setting and regulating:

- (a) Inspection and certification of testing facilities;
- (b) Training and certification of driving instructors;
- (c) Introduction and implementation of the K53 Driving License curriculum for drivers of public & commercial motor vehicles. The K53 syllabus includes modules on Modern Signage, Defensive Driving, oral test, written test, practical exam, medical fitness test and compulsory re-testing after five years.
- (d) Introduction of appropriate driver training & testing facility for Articulated Vehicles;
- (e) Introduction of higher license code for extra-heavy duty motor vehicles (HMVs).

# 7. Measures to Minimise & Monitor the Frequency of Movement of Trucks Down Malagwane Hill Freeway

Pending the construction of the proposed lane for HMV traffic, in the interim it is imperative to introduce a three pronged approach to Malagwane that includes:

- (a) Traffic Scheduling (at manageable intervals) of large fleets from single point of origin in order to decongest truck traffic at peak times;
- (b) Peak Time Re-Routing of HMV traffic;
- (c) Segregating truck traffic at designated docking bays to avoid long truck queues on the road.

However the implementation of these measures is contingent upon maintaining a delicate balance to ensure that trucks still retain the ability to meet "just-in-time" delivery schedules to avoid creating inefficiencies in the economy.



#### 8. Rehabilitation of Ngwenya-Matsapha Railway Line

The projected increase in vehicle population and increased volumes of freight makes Rail Transportation an indispensable component for a First World Transport Network.

#### 8.1 **Option One:**

As a result of its investigations, the Commission can confidently ascertain that the Ngwenya-Matsapha rail bed is still intact and can be cost effectively rehabilitated. An ongoing study by Swaziland railway has also confirmed the feasibility of rehabilitating the Ngwenya rail line<sup>1</sup>. The rail line will;

- help mitigate against increased heavy motor vehicle traffic on the MR3 Highway, (a)
- (b) it will further decongest HMV traffic on the MR3 Highway; and
- (c) protect the road from accelerated wear and damage thus increasing its longevity.

In view of the fact that it may take approximately two years to rehabilitate the Ngwenya rail line, this option requires the parallel implementation of heavy truck mitigation measures on Malagwane MR3 Highway. This specifically refers to Construction of a designated truck lane in designated areas down Malagwane Hill. Current studies have estimated the cost of rail rehabilitation to be approximately five hundred and fifty (550) million Emalangeni.

Estimated Distance: 74km Estimated Cost: E550 million<sup>2</sup>

#### 8.1.1 Challenge:

In the short term period, mining activity in the Ngwenya and adjacent areas may not yield the threshold of one and a half million tonnes per annum<sup>3</sup> which is the minimum tonnage of rail stock required to make the rail line economically viable.

#### 8.2 **Option Two:**

Should such investment in the railway not materialize in the short to medium term, option two proposes the construction of a dedicated road for heavy duty motor vehicles on the rail bed between Ngwenya and Matsapha. This road would act as an alternative truck route. It is suggested that this road could both be used for the bulk transportation of all non-edible goods entering Swaziland as well as for ferrying materials from the Ngwenya area mining belt.

#### 8.2.1 Viability

A key challenge to the feasibility of this road vis-à-vis a railway is the narrow width of the existing rail bed which is about five (5) metres whereas a single two way road with shoulder requires up to seven (7) metres. Therefore the construction of this road would absorb a lot of funds in widening the rail bed, extending culverts and constructing bypass passages around existing rail tunnels. Experts believe that the construction of this road can be achieved within one year. However cost estimates would have to be generated by a feasibility study.

<sup>&</sup>lt;sup>1</sup>Interview with Bhekithemba Dlamini. Civil Engineer, Swaziland Railways

<sup>&</sup>lt;sup>2</sup>Transport Masterplan (MOPWT)

<sup>&</sup>lt;sup>3</sup>Interview with Swaziland Railway.



Figure 1 below provides a summary of the strategic priorities that are imperative for improving road safety.

**Figure 1: Summary of Strategic Priorities** 





# **CHAPTER ONE**

#### 1. INTRODUCTION

This report is part of the Swaziland Government's policy response for mitigating traffic disasters and also in compliance with His Majesty's prerogatives on road safety. The backdrop to this report is the unusual traffic disaster that occurred along Malagwane Hill on the MR3 Highway between Mbabane and Manzini on 29<sup>th</sup> April 2014. The catastrophic nature of this accident triggered a huge public outcry as well as conflicting accounts on the extent of loss of life and damage to property.

On the 20<sup>th</sup> May 2014 His Excellency the Right Honourable Prime Minister, Dr Sibusiso B. Dlamini promptly appointed a four-member Commission of Enquiry to investigate the road accident of the 29th April 2014 along the MR3 Freeway at the foot of Malagwane Hill.

The Commission comprised of the following members:

(a) Mrs. Lorraine Hlophe
 (b) Mr. Joseph Madonsela
 (c) Rev. Armstrong Dlamini
 (d) Mr. Ndzingeko Dlamini

Chairperson

 Member
 Secretary

#### 2. TERMS OF REFERENCE

The terms of reference of the Commission were to:

- (a) Investigate each accident, the factors leading to each accident and the impact the accident had on life and property, and shall-
  - (i) Ascertain details of the first accident involving a truck containing iron ore which is understood to have crashed at the foot of the Malagwane Hill on the Manzini bound carriageway;
  - (ii) The time and nature of the accident;
  - (iii) The cause of the accident
  - (iv) The extent of damage to life and property
  - (v) Ascertain details of the second accident involving another truck carrying coal which is understood to have crashed into traffic descending Malagwane Hill on the Manzini bound carriageway;
  - (vi) The time and nature of the accident;
  - (vii) The cause;
  - (viii) The extent of damage to life and property.
- (b) Examine the measure taken by the emergency response services following notification of each of the two accidents and assess the efficiency of those measures;
- (c) Ascertain whether personal or mechanical negligence or other culpable action was responsible for either accident, and whether any individual or corporate entity may be considered liable for the accident;
- (d) Formulate measures to provide the best response, and how to mitigate the extent of any damage;
- (e) Formulate measures to eliminate or minimize the risk of accidents of this nature being repeated;
- (f) Formulate measures to maximise efficiency and effectiveness of response to such accidents in general;



- (g) Formulate measures which will minimise & closely monitor the frequency of movement of trucks down Malagwane hill freeway;
- (h) Prepare details of the measures necessary to effect immediate commencement of the rehabilitation of the Ngwenya-Matsapha railway;
- (i) Investigate and enquire into anything relating to any issue connected to the investigation or enquiry on any matter the Commission deems relevant.

#### 3. METHODOLOGY

The findings of the Commission were drawn from viva voce evidence of witnesses to the accident, oral presentations by relevant stakeholders and interested members of the public, written submissions by members of the public, site observations and through a review of technical documents.

The investigation was conducted from 11<sup>th</sup> June to 12<sup>th</sup> August 2014. The Commission held its hearings at the Ministry of Commerce and Industry Auditorium in Mbabane. The work of the Commission was extensively disseminated through the print and electronic media.

#### 3.1 Limitations

The main limitation of Commission was in respect of accessing witnesses on time. Despite a tight completion deadline, the Commission proceedings depended on the availability of witnesses. The Commission was also not able to access critical documents such as the Feasibility Study on the Ngwenya Railway Rehabilitation since the study is still ongoing. The Commission also had a challenge accessing the medical reports in respect of the deceased accident victims.

In view of the scope and complexity of the recommendations required from the Commission, a comparative study comprising of site visits would have enhanced the scale, clarity and quality of recommendations and their execution modalities to facilitate speedy implementation by line Ministries and Departments.

#### 4. BACKGROUND

#### 4.1 The Context of Road Safety in Swaziland

In Swaziland, the World Health Organization (WHO) estimates that road accidents cost E400 million per annum. In 2012 and 2013 there were a total of 8490 and 9266 road traffic accidents in the country and heavy motor vehicles contributed about 10 percent of all road accidents. Thus there were 783 and 870 accidents involving heavy motor vehicles in 2012 and 2013 respectively. In light of her aspirations to become a First World country by 2022, Swaziland has a duty to implement effective mitigation measures against the effects of road accidents.

In response to the increased severity of the impact of road accidents, the United Nations General Assembly proclaimed the period 2011-2020 as the Decade of Action for Road Safety, with a goal to stabilise and then reduce the forecast level of road traffic fatalities around the world by increasing

<sup>&</sup>lt;sup>1</sup>UN Resolution A/RES/64/255 of 10 May 2010



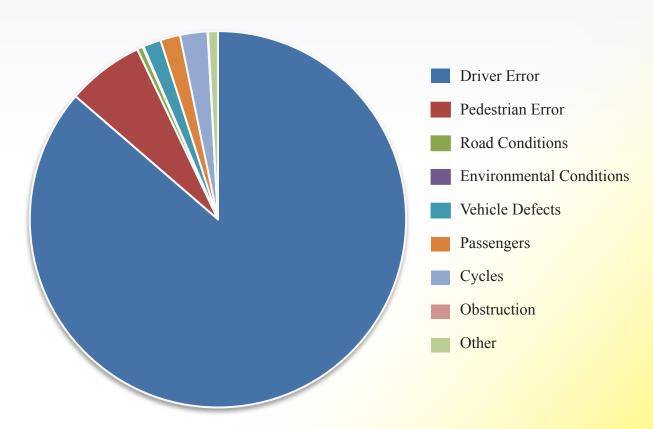
activities conducted at regional, national and global levels<sup>1</sup>. In spite of the fact that road crashes are preventable, the United Nations has projected that:

- (a) Annual deaths from road accidents are forecast to rise to 1.9 million by 2020;
- (b) Road accidents are the No.1 cause of death for young people worldwide;
- (c) By 2015 accidents will be the leading health burden for children over the age of five in developing countries;
- (d) The economic cost of accidents to developing countries is at least \$100 billion a year;
- (e) Injuries place immense burdens on hospitals and health systems.

### 4.2 Traffic Profile Along the MR3 Highway

Annual daily traffic on MR3 on the Mbabane-Matsapha-Traffic on the MR3 Mbabane-Manzini corridor exceeds 20,000. Public transport predominates, carry nearly 35,000 passengers daily on the Malagwane Hill. Traffic annual growth rates in urban areas are estimated at 4%.

#### Causes of Road Accidents in Swaziland





# **CHAPTER TWO**

## **FINDINGS**

#### 1. THE FIRST ACCIDENT

#### 1.1 Introduction

On the 29<sup>th</sup> April 2014 at about 1500 hours at Mvutjini immediately past Malagwane Hill on the MR3 Highway a driver of a truck ferrying Iron Ore from Ngwenya Mine lost control of the truck and subsequently jumped out of the moving truck and landed on the concrete embankment on the opposite lane. The truck then navigated its way and later overturned and spilled all its cargo onto the opposite lane, thus damaging one vehicle, an Isuzu Double Cab owned by Greta Peapes. When the truck capsized, the Iron Ore was sprayed over the vehicle moving in the opposite direction towards Mbabane and it was damaged on the front body and windshield.

The truck in question was a Nissan UD Combination Truck registered FSD 785 BH owned and operated by Phinduvuke Transport trading as "*Take A Chance* "contracted to SALGAOCAR to transport Iron Ore from Ngwenya Mine to Mpaka. The truck driven by Sikhumbuzo Ceda Mkhonta of Mpaka Area in the Lubombo Region. The truck was carrying thirty six (36) tonnes of Iron Ore Dumps and its total weight was estimated at 56 tonnes.

The truck then blocked the fast lane to Manzini and traffic had to negotiate on the slow lane. This is the first accident. This truck was not removed from the scene until after 1800 hours when another fatal accident had already occurred.

#### 1.2 Causes of the First Accident

After analysing all the evidence at its disposal the Commission concluded that a number of factors could be attributed to the first accident.

#### 1.2.1 Road Unworthiness Status

This truck was found to be road unworthy by the Government Motor Vehicle Examiner<sup>2</sup> because of the under listed reasons.

(a) Faulty Gear Box: The accident was partly caused by a faulty gearbox. The driver of this truck, Mr. Sikhumbuzo Ceda Mkhonta alleges that the truck automatically disengaged the fourth gear and went into neutral; as a result of which he could not engage the forth gear as he was trying to navigate the truck when going down Malagwane hill.

The Commission found that the driver was descending at fifth gear which is not the appropriate low speed gear. On realising that the vehicle was moving fast he tried to engage the fourth gear. However the truck could not engage the fourth gear and went into neutral. Mr. Mkhonta subsequently panicked and decided to jump off the moving truck.

<sup>&</sup>lt;sup>2</sup>Motor Vehicle Examiner's Report.



Evidence from Simanga Jwankie Operations Manager of Phinduvuke Transport, also confirmed that prior to this accident the truck had a mechanical fault affecting its gearbox.<sup>3</sup>

(b) **Braking System Failure:** The Senior Government Motor Vehicle Examiner inspected the truck after the accident and according to his findings; the braking system of the truck was malfunctioning and a Road Unworthiness Certificate was subsequently issued to "*Take A Chance Transport*" in respect of the vehicle in question.

#### 1.2.2 Driver Incompetency

The driver of this truck was found to be incompetent due to the following factors:-

- (a) **Lack of Experience:** The driver in question Mr. Sikhumbuzo Ceda Mkhonta had been driving this truck for only six months and had no previous experience in driving articulated trucks.
- (b) **Decision to Abandon the Truck:** Mr. Mkhonta decided to steer the truck towards the concrete median separating the Mbabane and Manzini lanes of the Highway in an effort to bring the truck to a stop. However his subsequent actions of abandoning the truck when it had slowed down led the Commission to conclude that this was a self-serving effort inspired by inexperience and undue panic.
- (c) **High Speed Gear:** Mr. Mkhonta claims that he was driving down Malagwane Hill on gear number five. Experts submit that this is not a suitable gear for a gradient like Malagwane when you are driving a vehicle carrying a thirty-six tonnes load. A lower gear would have been appropriate.
- (d) **Fatigue:** Evidence gathered by the Commission is that Mr. Mkhonta had assumed duty on the day preceding the accident, that is, on the 28<sup>th</sup> April 2014 at around 1500 hours. This was when he first took the truck for a test drive after the truck had had its gear box fixed. He then left Mpaka at around 1700 hours on 28<sup>th</sup> April 2014 and worked until the time of the accident which was on the 29<sup>th</sup> April 2014 at around 1500 hours. The extended hours inevitably affected his agility to drive the truck competently.

Mr. Mkhonta was therefore sleepy, hungry and exhausted and he also confirms that. Furthermore, Mr. Mkhonta's relieve driver on the day, Buhle Tsabedze, was not able to do so at all.

#### 1.3 Loss of Life in first Accident

There was no loss of life when the first truck overturned

#### 1.4 Injuries to Persons

There was only one person who was injured in respect to the first accident and that is Mr. Sikhumbuzo Ceda Mkhonta who was the driver of the first truck. He sustained injuries in the form of bruises on both legs. He was treated at the Mbabane Government Hospital and was discharged on the following day. However he submitted that he still experiences some pain in his right knee.

## 1.5 Damaged Property

An Isuzu double cab owned by one Greta Peapes registered LSD 425 AH was also damaged. Its windshield was damaged by the Iron Ore that was spilled by the "Take A Chance" truck as it overturned.



# Table 2.1 Lost/damaged property

Owner of Property	Name of Driver	Damaged Property	Value	Cost Damages	Compensation
Phindivuke Transport	Ceda Mkhonta	Nissan UD Horse and trailer	E750,000	E300,000	Insured
Marc Paepes	Marc Paepes	Isuzu KB Double Cab		E22,000	Insured
Government of Swaziland	Ceda Mkhonta	Road lights and masts	E70,000	E70,000	Not Insured

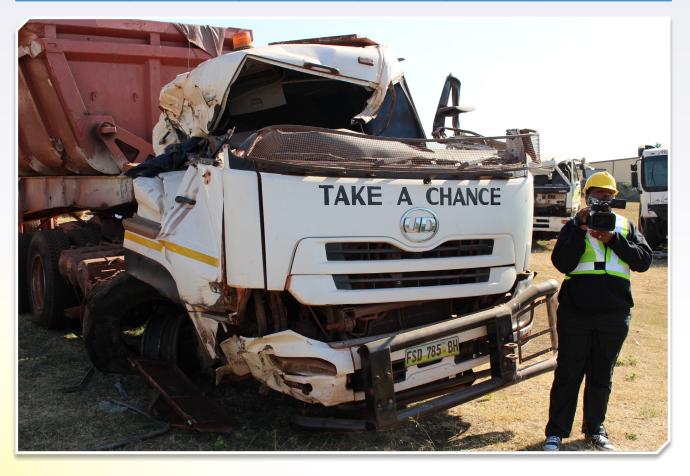


Figure 2.1: Phinduvuke "Take A Chance" Truck involved in the first accident

#### 1.6 Conclusion

# 1.6.1 Culpability of Mr. Sikhumbuzo Ceda Mkhonta

The Commission concludes that at the time Mr. Mkhonta abandoned the truck it was moving at a speed at which he could still control it. Mr. Mkhonta's claim that the truck was uncontrollable is therefore questionable.

"the truck was moving at an estimated speed of 50 km/h" 6

<sup>&</sup>lt;sup>6</sup>Esau Simelane



Further, it is very difficult to imagine how he survived being thrown under the suction force of a "fast" moving truck. This makes it very difficult to accept that the truck was moving at a very fast speed. The Commission therefore concludes that Mr. Mkhonta drove with negligence. Mr. Mkhonta's mitigation is that he was quite exhausted at the time of the accident as he had worked extended hours and the truck was also mechanically faulty.

#### 1.6.2 Supervision of Iron Ore Trucks

In an effort to enhance operational efficiency, the mine operator, SALGAOCAR Swaziland had outsourced the traffic management function to a company called *Double Lane Investments*. However the effectiveness of this company is questionable. The Commission found that none of the alleged 'traffic inspectors' were qualified for this responsibility; the transport management company *Double Lane Investments* was not competent in supervising traffic safety for the iron ore trucks. It is recommended that qualified technicians should be employed as traffic inspectors.

It appears that *Double Lane Investments* is not very effective in enforcing SALGAOCAR safety regulations for transporters. This is evidenced by the fact that some truck drivers (including Ceda Mkhonta) were found to be working for at least twelve hours a day and there is a need to review these hours. Transporters should consider a three shift system of eight hours each.

#### 2. THE SECOND ACCIDENT

#### 2.1 Introduction

On the evening of the 29<sup>th</sup> April 2014 at around 1800 hours at Mnyamatsini immediately before finishing Malagwane Hill a truck ferrying Coal from Mpumalanga in South Africa lost control subsequently and plunged into several stationery motor vehicles. The impact of the collisions resulted in a fire that ignited the truck and other motor vehicles. This truck was Freightliner Argosy registered HFG421MP, operated by Chrisilda Transport.

#### 2.2 Loss of lives

The Commission confirmed that there were three deceased persons as a result of the accident.

"I can dispute the claim that fifteen people died at the scene as I did not see any bodies and my boys would have witnessed that"

**Table 2.2 Loss of Lives** 

Name of Victim	Vehicle Registration	Cause of Death	Comment
Wilson Magagula	Freightliner Argosy	Suspected to be Burn	Expected to be
	Combination truck HFG 421 MP	wounds and choking	compensated by employer and MVA
Spencer Kunene	Toyota Hilux D4D LSD 919 AH	Suspected Head Injuries	Expected to be compensated by employer and MVA
Ntombenhle Mkhatjwa	Toyota Hilux D4D LSD 919 AH	Suspected Head Injuries	Expected to be compensated by employer and MVA

<sup>&</sup>lt;sup>7</sup>Nelson Dlamini, motorist





Figure 2.2 Wreckage of Chrisilda Truck that was driven by Wilson Magagula.



Figure 2.3 Wreckage of Toyota Hilux D4D that was driven by Spencer Kunene



# 2.3 Injuries to Persons

A number of people sustained injuries as result of second accident.

Table 2.3 Illustrating juries sustained by various peoples as result of second accident

NAME OF VICTIM	NATURE OF INJURY	PRESENT CONDITION	COMMENT
<ul><li>A) Mohammed Hassen Mansoor</li><li>B) Children aged three and six years old</li></ul>	A) Bruises B) Trauma	Bruises healed children are still under going trauma therapy	
Shazia (Wife to Mohammed Hassen Mansoor	Sustained concussion on her left leg	Recovered	
Themba Mbetsambulo Dlamini of Ezulwini	Bruises on right leg, neck and shoulder	Recovered	
Zanele Chunku Mabuza of Boyane	Injured on her leg	Recovered	She was pregnant but pregnancy was not disturbed
Sicelo Alison Dlamini Of Siphofaneni	Minor head injury and He was bleeding from his nostrils	Recovered	
Lwazi Welcome Mngometulu of Sithobelweni in the Lubombo Region	No Injuries		
Mbuso Steven Dube	Right Arm Sprained	Recovered	
Jabu Dukes Aubrey Shongwe of Motshane	Dislocated shoulder and was hospitalised at Mbabane Government Hospital for seven days	Still not completely healed still attending Physiotherapy and still experiences pain	Due to attend hospital on the 24 june 2014. Further appointment on the 21 August 2014
<ul><li>A) Nelson Bhutibhuti Bayabonga Dlamini</li><li>B) Mpendulo Mduduzi</li></ul>	<ul><li>A) He Suffered Body Injuries In The Form Of Bruises</li><li>B) Mpendulo suffered head</li></ul>	Bruises healed (find out if He still attends Physiotherapy) Recovered	
Matsebula	injuries and leg		
C) Thami Mfokeng	C) Mfoekeng sustained head injuries	Recovered	
D) Vusi Musa Mkhonta	D) Musa was coughing blood He sustained internal bleeding	Recovered	



NAME OF VICTIM	NATURE OF INJURY	PRESENT CONDITION	COMMENT
Simon Mandla Maziya	Back injuries and pain still there	Pain Still there due to hospital again 31 August 2014	
Zanele Takhona Siyaya [7631 6963] was with Sakhiseni Khumalo and Bakhwenyane Khumalo	Only She sustained cuts on the right hand resulting from broken glass	Recovered	
Nomphumelelo Magagula	She is the Sister to the deceased Mr Wilson Magagula, She was not on the scene but was emotionally affected by the demise of the deceased is still	She was advised to consider counselling but She has not attended any	
Philemon Sihlongonyane	This witness was a passenger in mini bus and He is working as a Security Guard. He sustained injuries in the right side of his head.  He further suffered from post trauma (see report of the 27/05/2014)	He now has a problem with his right hearing.	Still Undergoing Treatment
Marjorie Bethusile Mavuso	Traumatized	Still Traumatized	
Mlungisi Jabulani Dlamini	Sustained cuts on his face from broken window was stitched	Recovered	
Rachel Shongwe	Traumatized & Suffering From Back Pain	Still Traumatized	
Cebile Nomcebo Maureen Mkhatshwa	Leg Fracture Traumatised	Still Undergoing Treatment/ Physiotherapy Still Traumatized	
Sanele Mkhatshwa	Traumatised	Still Traumatized	



#### 2.4 Loss of Property

As a result of the fire that ensued after the crash, there was extensive damage to property, particularly motor vehicles. This was a particularly traumatic experience to motorists whose vehicles were not insured. The Commission is of the view that the accident was exacerbated by the fire because even vehicles that were not involved in the collision ended up catching fire.

"I saw the truck passing quickly with flames underneath. I then came out of my car and jumped over the wall dividing the highway lanes to stand on the side of the road. The truck was on fire and it lit the road as it came down. The fire lit the vehicles and my car also caught the fire and it was burnt completely."

"A truck sliding on its side came crashing down the hill and bumped on to my car from the back. A flame started as the truck exploded. I was about five meters from the truck when it exploded....I want compensation to buy my two cars which were not insured."

"All of a sudden I heard a bang on my car. The truck fell next to my car and it was burning at this time. I opened the door to come out of my car and as I did so I noticed that I was bleeding....I also noticed that my car was starting to burn. My car burnt completely...The Fire Department came when my car had completely burnt; it was after twenty minutes." <sup>10</sup>

My vehicle was not insured. I am no longer able to sell my goods as a farmer. I supply the Mbabane market vendors and Pick n' Pay with vegetables."<sup>11</sup>

"We were just processing the insurance when this occurred. We lost two weeks of production immediately after the accident...per month now I lose over E150, 000. My vehicle was written off." <sup>12</sup>

"Personally I would like to be compensated by whoever was responsible for the negligence of this accident. I am happy that Government initiated this Commission; it shows that Government cares about her people. The Nation is expectant." <sup>13</sup>

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<sup>&</sup>lt;sup>8</sup>Themba M. Dlamini, Motorist

<sup>&</sup>lt;sup>9</sup>Zanele Chunku Mabuza, Motorist

<sup>&</sup>lt;sup>10</sup>Sicelo Dlamini, Motorist

<sup>&</sup>lt;sup>11</sup>Lwazi Mngometulu, Motorist

<sup>&</sup>lt;sup>12</sup>Nelson Dlamini, Motorist

<sup>&</sup>lt;sup>13</sup>Vusi Ndlangamandla, Motorist



Name of Witness	Owner of Property	Damaged Property	Costs of damages	Compensation Status	Uncompensated Loss (E)
Mohammed     Hanson     Moonsoor	Mohammed Hanson Moonsoor	BMW 5 series sedan, FHL 911 MP Valuables (Wrist watches Cellphones Groceries)	E400,000 E164,000	Compensated by Insurance None	164,000
2. Themba M.Dlamini	Themba M. Dlamini	Nissan NP 200 utility van HSD 420 AH Valuables	E140, 000 E1,500	Compensated by Insurance None	E1,500
3. Zanele Chunku Mabuza	Zanele Chunku Mabuza	1. Corsa USD900AH, yellow in colour 2.Corsa van registered JSD 824AM. Valuables (Cash E500, Nokia S2 Handbag)	E35,000 E45,000 E2,970	None	E 82,970
4. Sicelo A. Dlamini	Sicelo A. Dlamini	1Toyota Van FSD 633 BH 2.Loss of earnings as studio engineer	E55,000 E10,000 per month	Not insured	E 85,000
5. Lwazi Welcome Mngometulu	Lwazi Welcome Mngometulu	1. Toyota Hilux HSD 250 AL	E90,000		
6. Mbuso Dube	Mbuso Dube	VWPolo registered BSD 990 BM.	E70,000		
7. Lolo		Vehicle Trailer QSD 954 BM	E 5,000		
8. Peter Smoor	Peter Smoor	KIA Seranto FSD 515AH	150 000	120 000	30 000 short fall
9. Jabu Jukes Aubrey Shongwe	Jabu Jukes Aubrey Shongwe	VW Golf with a sporting kit.  Cash	E 170, 000 E2,000	Not Insured	E 170,000 E2,000
10. Nelson B.B. Dlamini	Nelson B.B. Dlamini	Toyota Quantum Registered SD 942BH Blower Brush cutter loss of business	E330,563 E7,000 E9,800 E150,00	Not Insured Not Insured E9,800 E150,000	E 497,363
11. Saneliso Dlamini	Saneliso Dlamini	Toyota Quantum Registered PSD 411 AH.			
12.Vusi Makhubu	N.G Transport	Toyota Quantum Registered JSD 772 AH. Loss of earnings	Not provided		



Naı	me of Witness	Owner of Property	Damaged Property	Costs of Damages	Compensation Status	Uncompensated Loss (E)
13.	Vusi Ndlangamandla	Vusi Ndlangamandla	VW golf registered JSD 849 AM	E60.000	Not insured	E 60,000
14.	Zanele Takhona Siyaya	Zanele Takhona Siyaya	VW Jetta, LSD 354 BM	E100,000	Not insured	E100,000
15.	Tengetile Hlophe (Mrs) Ndlangamandla	Tengetile Hlophe (Mrs) Ndlangamandla	Toyota Yaris Registered DSD 285 PM.	E180,000	Not insured	
16.	SiphoVusie Mashaba	SiphoVusie Mashaba	Toyota conquest registered QSD 195 AM.	E 30,000	Not insured	
17.	Marjorie Bethusile Mavuso	Marjorie Bethusile Mavus	Hyundai accent registered NSD 453 AM	Not provided	Insured	
18.	Rachel Phindile Masuku- Shongwe	Rachel Phindile Masuku-Shongwe	Toyota corolla registered XSD 621 AM.	E51,000	Insured	
19.	Mphiwa Maseko	LOGICO LOGISTICS	Truck registered NSD 883 AL	Not provided	Insured	
20.	Spencer Kunene (deceased)	Unidentified	Toyota Hilux L.D.V LSD 919 AH	E150,000	Not confirmed	
21.	Doctor Samuel Simelane	Chrisilda Transport	Horse HFG 421 MP	E 2 million	Insured	

### 3. CAUSES OF THE SECOND ACCIDENT

The first truck overturned at around 15h00. It blocked the fast lane of the Manzini traffic lane at Myutjini immediately after finishing Malagwane. It spilled all its cargo on the fast lane of the Mbabane traffic blocking it all together. This truck was not salvaged until after the second accident which happened after 1800 hours. The delay in salvaging the truck was due to the fact that neither the Police, Fire and Emergency Services and Central Transport Administration (CTA) have salvage breakdown for large trucks. Therefore the Police depend on private breakdown services to remove heavy motor vehicles from the scene of accident.

"I called CTA but was informed that their breakdown was not serviceable and that in any case it cannot assist in the case of big trucks. I then called Allen Dlamini from Dolphin to provide a breakdown." 14

#### 3.1 Delay in Salvaging the First Truck

The commission holds the view that the delay in salvaging the first truck was a major cause of the subsequent accident involving the second truck. During the first accident there was timely response from the Police Traffic Units both from Mbabane and Lobamba and this alertness helped to prevent accidents that could have been immediately caused by the iron ore dust and oil spill.

1.

<sup>&</sup>lt;sup>14</sup>3131 Inspector Sunday Sabatha Dlamini



However there was poor traffic control, coordination and emergency planning for the evening rush hour from Mbabane resulting in an unnecessary traffic jam. This traffic jam is what escalated the accident into the magnitude of a traffic disaster. Nevertheless the Commission does concede that this was an unusual traffic disaster. Therefore specialized training in traffic disaster management is imperative for an improved response in future accidents.

#### 3.2 Negligence

The Commission found that the main contributory factors to the accident were as follows:-

(a) Complacency on the part of the Police Traffic Department, Mbabane in that they failed to effectively alert motorists about the earlier accident that had occurred at Mvutjini immediately past the Malagwane Hill.

"I did not see cones or Police officers indicating that there was an accident. For about fifteen minutes we drove slowly. I then heard a big bang at the back of my kombi. All the people that had been at the back seat were now resting on my shoulders...it all happened very quickly. My kombi was a write off and I was injured at the back and my back is still sore" 15.

"I feel if there had been police officers alerting motorists of the accident ahead, this accident would not have occurred. There were no cones on the road as well" 16

"I did not have any dealings with the police on the day in question. I did not see any police officers controlling traffic. I had left the office at around 6:15 pm" <sup>17</sup>

"The vehicles were stationery as it was bumper to bumper. .. I did not see a Police officer next to Kapola trying to slow us down and I did not see any cone on the road."  $^{18}$ 

- (b) There was gross inefficiency on the part of the Mbabane Police Traffic Department in that they failed to use visible signaling in spite of poor light and high traffic density before the occurrence of the second accident.
- (c) The Police failed to effectively assume control of the first accident scene in that they tolerated a delay in the removal of the iron ore that was spilt on the road.

<sup>&</sup>lt;sup>15</sup>Simon Mandla Maziya, Motorist.

<sup>&</sup>lt;sup>16</sup>Zanele Siyaya, Motoris

<sup>&</sup>lt;sup>17</sup>Peter Smoor, Motorist

<sup>&</sup>lt;sup>18</sup>Zanele Chunku Mbabuza, Motoris)



- (d) Generally there was poor coordination of the accident scene by the Mbabane Police Traffic Department. The Commission found that there was a blatant breach of the Disaster Management Policy in that the scene command function on the 29<sup>th</sup> of April was not escalated to a senior officer (Gold Commander) as per the dictates of the Policy. Both accidents were assigned to 4342 Constable Samkeliso Tevin Ndlangamandla as the investigating officer. This was in spite of the presence of other senior officers including 3131 Inspector Sunday Sabatha Dlamini at the scene of the accident.
- (e) The expected leadership of the Head of the Traffic Department in Mbabane, Traffic One, leaves a lot to be desired. During the course of both accidents the role of Traffic One was grossly obscure.
- (f) It also appears that there was a degree of laxity on the part of the driver of the second truck Wilson Magagula in that his vehicle was moving at a relatively high speed in a sharp descent that leads to a blind rise. Magagula's subsequent decision to steer the truck from the slow to the fast lane was a shrewd effort, because there were less vehicles on the fast lane, however the weight of the truck and the sheer density of the traffic worked against him.
- (g) There was a degree of negligence on the part of Phinduvuke Transport in that they delayed in salvaging their truck on time, resulting in the congestion that gave rise to the second accident.
- (h) Phinduvuke Transport is further blameworthy in that their truck had a poor service record and the truck was road unworthy. The company's culpability for poor service is further validated by the accident that occurred on the 2<sup>nd</sup> of July 2014 at Nkoyoyo. The truck in question had worn out tyres and faulty brakes (see Figures 2.5 and 2.5 below).

Figure 2.4 Phinduvuke Truck that overturned at Nkoyoyo in Mbabane on the 2<sup>nd</sup> July 2014





Figure: 2.5



(i) There was complacency on the part of the Mbabane Fire and Emergency Service in that they left the accident scene of the first truck before it was salvaged without a valid justification.

"We then returned to Mbabane hoping to be recalled later to clean the diesel when the truck had been removed" 19

6292 Constable Willfirm Zwide Maseko's asserted that he was stationed near the old KaPhola Guest House to warn motorists about the first accident ahead at Mvutjini near the foot of Malagwane. However this claim could not be corroborated by any independent witness other than his colleagues.

(j) The Commission believes that Constable Maseko was stationed somewhere near the alleged position at an earlier period but subsequently moved such that he was not in the same position when the second accident occurred. In any event the visibility of the officer was still insufficient since he was not aided by traffic cones and other signaling devices. Therefore the lack of outstanding signaling equipment/devices was one of the hazards leading to the accident.

<sup>&</sup>lt;sup>19</sup>Aubrey Sibiya – Leading Fireman Mbabane



# 4. RESCUE EFFORTS AND ACTS OF HEROISM FROM MEMBERS OF THE PUBLIC

In view of the magnitude of the accident and the subsequent road blockage which delayed the arrival of emergency services personnel, ordinary members of the public were obliged to fill the vacuum. Therefore there were notable acts of heroism and bravery where some motorists extended themselves and risked injury to save others. According to witnesses, Zenzele Ace Dlamini, Xolani Zwane and Nelson Dlamini played an instrumental role in the rescuing of motorists in the immediate aftermath of the accident.

"I rescued victims from the accident damaged cars with the assistance of Zenzele Ace Dlamini...I also heard the driver of the burning Chrisilda truck crying for help but the flames were overwhelming and we could not assist him" 20

"I redirected the traffic to the forest road to avoid more vehicles being burn.....I evacuated the other passengers from the burning cars... There were four ladies that were in a 'coma' and I was compelled to carry them on my back to safety by putting them on the Manzini-Mbabane lane" <sup>21</sup>

"The car started burning after the impact. I took my son who had been in front with me. I then tried to open my car's rear doors but they were jammed. I then broke the rear windscreen to pull out my wife and daughter. A gentleman who had been in a mini bus came to help us." <sup>22</sup>

"People smashed windows to remove those who were trapped in some vehicles. It seems there was no coordination of the rescue operations time"<sup>23</sup>

#### 5. RESPONSE FROM EMERGENCY SERVICES AND POLICE

The Emergency Medical Services from the Ministry of Health were notable for responding promptly despite challenges of a road closure and heavy traffic. However this level of speed was not reciprocated by the hospital casualty departments as some victims had to wait for long periods in unnecessary queues before receiving medical attention. It appears that there was no effective coordination between the Medical Rescue Services and hospital staff. Best practice suggests that hospital casualty units should be on standby with sufficient back up to respond to reported traffic disasters.

During the first accident there was timely response from the Police Traffic Units both from Mbabane and Lobamba and this alertness helped to prevent accidents that could have been caused by the iron ore and oil spill.

<sup>&</sup>lt;sup>20</sup>**Nelson B.B. Dlamini** (Motorist)

<sup>&</sup>lt;sup>21</sup>Zenzele Ace Dlamini (Motorist)

<sup>&</sup>lt;sup>22</sup>Dr Mohammed Hassen Monsoor" (Motorist).

<sup>&</sup>lt;sup>23</sup>Zanele Chunku Mabuza (Motorist)



# **CHAPTER THREE**

### RECOMMENDATIONS

# 1. MEASURES TO MITIGATE THE EXTENT OF DAMAGE CAUSED BY THE ACCIDENTS

#### 1.1 Assistance to Accident Victims

The Commission found that there was no coordinated assistance to the accident victims of the accident of 29<sup>th</sup> April 2014 in relation to:

- (a) Hospital Treatment and rehabilitation;
- (b) Post-accident trauma counseling;
- (c) Compensation for loss of Property;

Furthermore the absence of National Compensation Scheme and a Third Party Insurance scheme for motorists exacerbates the traumatic experiences of accident victims.

The Motor Vehicle Accidents (Amendment) Act of 1991<sup>24</sup> stipulates that the total liability of the MVA Fund in respect of a motor vehicle accident shall not exceed the sum of one million Emalangeni. Therefore the victims of the accident of the 29<sup>th</sup> April are collectively entitled to a lump sum payment of **One Million** Emalangeni and the MVA officials<sup>25</sup> have attested that the same will apply to those affected by the accidents of 29<sup>th</sup> April. However the victims have been approaching MVA on an individual initiative without a corresponding effort to address them in one forum by the Fund. It is imperative for the MVA Fund to mobilise all the victims and assist them collectively particularly because they are all entitled to share a lump sum payment together.

In view of the One million ceiling set in terms of the MVA Act, the Commission recommends that severe injury victims that need further treatment should be granted special consideration by the **Phalala Fund.** 

#### **1.2** Compensation for Loss of Property

In the absence of a mandatory Third Party Insurance for motorists, there is no facility for compensating accident victims for the loss of property. The majority of motorists and victims, who lost their cars and valuables on 29<sup>th</sup> April, had no car insurance and property insurance respectively. The Commission is also aware that some motorists had approached Chrisilda Transport for compensation which it could only fund from its own third party insurance in South Africa. However this amount may not be able to cover all the victims in this accident. Furthermore the Commission did not find Chrisilda Transport fully liable for the accident, even though its truck was a major contributor to the accident. The Commission recommends:-

<sup>&</sup>lt;sup>24</sup>Section 14

<sup>&</sup>lt;sup>25</sup>Interview with MVA CEO Helmon Vilakati on 24<sup>th</sup> July 2014, Mbabane.



- (a) **Option 1:** The immediate review and preparation of legislative amendments to the Motor Vehicle Accident Fund Act to introduce *Third Party Insurance for all commercial vehicles*. Third Party Insurance is part of the normal social security landscape of first world countries.
- (b) **Option 2:** As a transitional arrangement; to compensate helpless accident victims, the Government should consider mobilizing resources for a National Traffic Disaster Fund through the fuel levy. In terms of this option half (0.5) percent of the Fuel Levy would be set aside for the Traffic Disaster Fund and this fund should be re-insured to ensure its sustainability.

# 2. MEASURES TO MAXIMISE EFFICIENCY AND EFFECTIVENESS OF RESPONSE

#### 2.1 Accident Scene Management

It was found that on the 29<sup>th</sup> April, the Police Officers did not follow the stipulated Disaster Management Policy. According to this protocol, the Police operations in major accidents must be escalated to the most senior officer on the scene who then assumes the role of *Gold Commander*. (A Gold Commander is the designated incident Commander who is assigned to coordinate response operations in the scene of a major accident or disaster). The Policy also stipulates that a high ranking officer should lead the investigation of a major accident.<sup>26</sup>

None of the senior officers who arrived on the scene were able to assume the role of the Gold Commander. This discrepancy makes it difficult to refute allegations of Police complacency in the management of the accident scene on the 29<sup>th</sup> April. Such allegations also receive credence from the fact that the investigation was not assigned to a high ranking officer as per requirements of the Disaster Management Policy. There is therefore an urgent need for the Police Service to review and revamp its Incident Management Workflow; and this information should be disseminated to all officers as well as to the public respectively.

### 2.2 Improving the Response Capability of the Royal Swaziland Police Service

It was found that one of the causes of the horrific accident of 29<sup>th</sup> April was the slow recovery of the first truck. This is partly due to the lack of equipment by the Police Service such as breakdowns and Jaws of Life. On the 29<sup>th</sup> April traffic officers depended on private breakdown vehicles to clear the wreckage.

"At about 4:30pm...I was at Bethany when I got a call from my boss Allen Dlamini to go and tow a "Phinduvuke truck that had overturned at Malagwane. I then took the Breakdown truck and went to Mahhala to get fuel."<sup>27</sup>

This tends to extend the turnaround time for rescue and salvage operations at the scene of an accident. It is therefore imperative to improve the emergency response and salvage capability of the Police Service through:

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<sup>&</sup>lt;sup>26</sup>Interview with Isaac Magagula ESQ, National Commissioner of Police, 23<sup>rd</sup> July 2014, Mbabane.

<sup>&</sup>lt;sup>27</sup>Sanele Kunene – driver Dolphin Breakdown Services



- (a) Provision of dedicated light duty, heavy duty and extra heavy duty recovery vehicles to clear accident scenes (see Figure. 3.1). In order to ensure sustainability and cost effectiveness this equipment should be procured on a lease basis on renewable intervals.
- (b) Procurement of a *service helicopter* for airborne surveillance, incident response and recovery. Swaziland's development partners should be approached to assist in the procurement of this specialised craft and in training of a helicopter unit. The helicopter should be equipped with the necessary infra-red technology for visibility at night-time and during poor weather conditions.
- (c) Improved accident investigation techniques including a review of the current *Vehicle Inspection Report* template to include more variables in line with international standards of accident investigation and reporting. This will enhance the information that is generated by accident reports and cut down on liability disputes and reduce lengthy response times for MVA claims.
- (d) Increase the number of Motor Vehicle Inspectors and deploy at least two per region.
- (e) Explore a system to accredit expert motor vehicle inspectors to increase the number of inspectors and improve the frequency of inspections and road blocks.
- (f) Establishment of a Traffic Management System which includes static speed monitoring devices and Closed Circuit Television (CCTV) surveillance policing of road traffic.
- (g) Establishment of a multidisciplinary Traffic Command Centre comprising of Fire and Emergency Services, Police Traffic Department and the Emergency Preparedness and Response Unit (Ministry of Health).
- (h) Facilitate and approve Purchase of Breakdown and Salvage Services and Equipment for Police and Fire and Emergency Services;
- (i) Provide improved Road Signaling & Signage Equipment for emergency services and police
- (j) Provision of post-accident care through improved response times by emergency services. The response time of emergency services and the quality of the care play an important role in survivability of collisions. In many instances, prompt provision of combined emergency care and effective rescue of those trapped can save lives and reduce the incidence of short-term disability.
- (k) Enhance the rescue and medical capacity of emergency services by up scaling the provision of paramedic training for Fire and Emergency Services and Police to reduce the number of in-transit fatalities.



Figure 3.1 Extra Heavy Duty Tow Truck



#### 3. MEASURES TO ELIMINATE AND MINIMISE RISKS OF ACCIDENTS

There is an urgent need to review and clarify the Highway Management Function for the MR3 Road. At present the road's maintenance is under the purview of the Roads Department, however the department has no jurisdiction on road safety and traffic management. Furthermore the Roads Department has no framework for involvement in accident/incident management and mitigation.

#### 3.1 Infrastructure Safety

The Commission recommends the following measures to reduce the occurrence of accidents on the MR3 Highway;

(a) The Commission recommends the implementation of separate truck lanes in designated areas as well as extended road shoulders on specific points along the Malagwane MR3 Highway (e.g. Fig. 3.2). The truck lane should be barricaded on the side of motorway and with sufficient shoulders on its left starting from Mangwaneni to the foot of Malagwane.

Figure 3.2. Demarcated Lane





- (b) The Commission further recommends the installation of docking bays in Motshane, Mangwaneni and Swazi Inn etc.
- (c) It is recommended that compulsory docking stations and emergency arrestor beds should be introduced in the following locations along the MR3 Highway-
  - (i) Nkoyoyo
  - (ii) Swazi Inn (refurbish)
  - (iii) Bahai
  - (iv) Mnyamatsini

Figure 3.3 Arrestor Bed near Swazi Inn



- (d) The gradual roll out of Speed Limitation Devices to commercial vehicles is indispensable. Currently some transport operators are using such devices on a voluntary basis. But these must be made a mandatory requirement for the issuance of roadworthiness certificates.
- (e) The Commission recommends the development, and accelerated implementation of a National Road Safety Plan towards 2022.
- (f) The density of traffic along the MR3 Highway and the regular occurrences of low visibility especially in poor weather conditions make it imperative to install Advanced *safety signaling devices such as Electronic Notice Boards (LED)* to warn motorists of incidents on the highway and these notice boards should be synchronised with the Police Traffic Management Control Room to ensure that notices are posted authoritatively and on real time. However these systems can work efficiently if their installation is coupled with improvement in the Mobile Telecommunication Network along the highways and major traffic routes. The Commission found that on-board truck surveillance systems such as Fleet-board are compromised by poor network coverage along the Malagwane Hill.
- (g) The Commission recommends accelerated implementation of the *grade separated junction* at Bahai (Flyover Bridge).
- (h) Raising the level of the bridge at Mnyamatsini can help to enhance visibility, sight distance and help eliminate visual interference.
- (i) Improve skid resistance at Malagwane by resurfacing the road worn down by use, oil spills and other substances.
- (j) Introduce Radio Interrupting Traffic Warning.



#### 3.2 Review of 1965 Road Traffic Act Regulations

The Road Transport Department is responsible for the control of the vehicle overloading but has no enforcement capability. The Road Traffic Act of 1965 was repealed in 2007 however the old regulations were saved and this is an anomaly especially in view of Swaziland's aspirations towards a first world status.

It is recommended that an appropriate review should be made to the Road Traffic Regulations to accommodate *mass and dimension limits*. This will also facilitate a review of current archaic fines for offences such as overloading and breach of axle limits. By 2018, Swaziland intends migrating into an optimum safety dispensation in road traffic and this will include strict enforcement of mass and axle limits as well as the nationwide installation of weighbridges in strategic locations.

In view of the steep gradients on our roads and the increasing contribution of HMVs to unnecessary road accidents and fatalities; as well as the rapid depletion of road infrastructure by HMVs, it is recommended that Swaziland should reduce the allowable tonnage on heavy duty and extra heavy duty vehicles to an appropriate level in line with international standards.

#### 3.3 Road Safety Management

In view of the huge volume of traffic on Swaziland roads, the current Road Safety function in the Ministry of Public Works and Transport is hugely inadequate. Despite the fact that it is established by a separate statute, the Road Safety Council is almost an obscure entity. It merely exists as a unit under the Road Transportation Department and it does not have any operational autonomy and its budget is not sufficient. This is partly responsible for the fact that major roads such as Malagwane MR3 Highway only have 50 per cent of the necessary signage. The department is also hugely underfunded and its very limited activities depend on external donations primarily from the Sincephetelo MVA Fund. Other key challenges facing the Council include:

- (a) The Council has no active role in Accident Scene Management;
- (b) The Council cannot install road signs but can only make recommendations to the Roads Transportation Department;
- (c) The Council has no capacity to compile and collate road safety statistics as well as conduct road safety audits;
- (d) The Council has limited staff and relies on a few seconded officers to carry out its duties;
- (e) Council has no dedicated road safety inspectors and road safety auditors;

#### 3.4 Capacity Improvement for the Road Safety Council

The United Nations has declared 2011-2020 as the Decade of Action for Road Safety. However under its prevailing circumstances, the Council is not in a position to translate the United Nations action agenda into tangible results for Swaziland. Therefore urgent measures have to be taken to address the institutional weaknesses of the Road Safety Council.

In the interim the Commission recommends that the Road Safety Council and the Roads Department should be merged and their highway management activities consolidated in preparation for the institutional roll out a National Roads Agency. This would help eliminate the current piecemeal approach to road safety and also facilitate the mainstreaming of safety standards in roads design and maintenance. This will also ensure that there is a budget provision for road safety in every road construction project (i.e. 5%).



As part of the country's vision 2022 targets, the Council in collaboration with the Roads Department should formulate a National Road Safety Strategy in line with the International Standards Organization (ISO) Traffic Safety Management Standard ISO 39001.

## 3.5 Proposed Roads Agency

The Commission supports recommendations for the implementation of a National Roads Agency and a Road Fund. Therefore support should be given to the Ministry of Public Works and Transport (MOPWT) to refine and resuscitate the Roads Agency and Road Fund Bill 2011 and guide its passage through the legislative process.

The mandate of the Road Agency should include-

- (a) Road Infrastructure Development & Maintenance
- (b) Highway Management
- (c) Road Safety Management

## 3.6 Proposed Road Fund

The increasing demands placed on the Government for effective maintenance and management of infrastructure makes it imperative to speedily introduce a cost recovery mechanism for road development and management. The proposed Roads Fund is one of the vehicles that can be used towards realisation of this objective. The mandate of the Road Fund is to-

- (a) Collect road levies and user fees
- (b) Fund new road infrastructure

The implementation of road user fees has become an integral part of the landscape of modern economies. The Commission therefore recommends immediate review, approval and implementation of the Road Fund Bill 2011. The Bill should incorporate diverse funding regimes including fuel levies, insurance levies and user fees.

The Fuel Levy tolling approach is viewed as broad based and less administrative cost recovery mechanism. Best practice makes tolling viable if it is not used merely for levy extraction but to support a development area i.e. Corridor concept.

#### 3.7 Regulating Driving Schools and Instructor Training

It was found that there is no systematic framework for regulating driving schools and the work of driver instructors. At present the driving schools acquire their business permits from Ministry of Commerce without any input from the Road Transportation Department. The Department also has no approval authority for the development of testing grounds, driving schools and instructor training.

It is recommended that the businesses licenses of Driving Schools and Training Instructors should be located within the mandate of the autonomous Road Safety Council. The Department should also take responsibility in standard setting and regulating:-

- (a) Driving school curricula;
- (b) Examination and testing procedures;
- (c) Inspection and certification of testing facilities;
- (d) Training and certification of examiners;



- (e) Training and certification of driving instructors.
- (f) Introduction and implementation of the K53 Driving License curriculum for drivers of public (& commercial) motor vehicles. The K53 syllabus includes modules on Modern Signage, Defensive Driving, an oral test, a written test, practical exam, medical fitness test and compulsory re-testing after five years.
- (g) Introduction of appropriate driver training & testing facility for Articulated Vehicles;
- (h) As part of its funding regime, the Council should charge a levy on driving schools to recover its costs for driver certification and testing facilities;
- (i) Upscale Technical and Vocational Education Training (TVET) education to include Motor Vehicle Safety Qualification including graduated defensive driving certificates;
- (j) Introduction of higher license code for extra-HMVs.
- (k) Gradually introduce Swaziland Standards Authority (SWASA) standards to driver testing and vehicle certification system;
- (l) Implement SWASA standards on vehicle roadworthiness and quality of tyres namely:
- (m) SZNS 007:2012: this standard gives requirements for the examination and testing for roadworthiness of vehicles used on public roads;
- (n) ZNS SANS 1925-2005: uniform provisions concerning approval for the production of retreaded tyres.

It is recommended that the Council should train and certify its inspectors on the K53 curriculum through relevant institutions such as the Limpopo Provincial Government Traffic College. This will enable the department to roll out the curriculum to qualifying driving schools.

The Council should implement an accreditation system for qualifying driving schools and also carry out periodic safety audits. The Council should also facilitate the introduction of the K53 curriculum in Technical Vocational Colleges to ensure the development of a national road inspection cadre.

It is also recommended that the Council should invest in the development of national driver and vehicle testing facilities. Such investment will also help to contribute to the cost recovery and sustainability of the department through user fees and driving school levies.

#### 3.8 International Best Practice Measures

Swaziland is further encouraged to operationalise the following international best practices on road safety

- (a) Utilize 5 per cent of infrastructure investment for road safety;
- (b) Implement traffic safety management standard ISO 39001;
- (c) Promote road safety ownership and accountability;



- (d) Mainstream traffic education courses into school's curriculum at secondary education level since vocations such as driving, transport management and traffic management are inherent in the labour market;
- (e) Implement SADC protocol on Road Safety;
- (f) Implement SADC protocol on Roadworthiness and vehicle fitness certification;
- (g) Incorporate introduction of Intelligent Transport System;
- (h) Review vehicle life spans and standards in line with international/regional benchmarks;
- (i) Review roadworthiness inspection procedures;
- (j) Establishment of new public motor vehicle test certificate aligned to the objects of the SADC protocol.
- (k) It is recommended that Swaziland should sufficiently invest in programs related to the United Nations Decade of Action for Road Safety 2011-2020.

# 4. MEASURES TO MINIMISE & MONITOR THE FREQUENCY OF MOVEMENT OF TRUCKS DOWN MALAGWANE HILL FREEWAY

The Commission found that there was insufficient signage for trucks on the MR3 Highway especially on Malagwane Hill. The intensive installation of road signs and safety billboards is a prerequisite for the reduction of HMV accidents along the highway.

The Commission recommends the promotion and progressive prescription of the introduction and installation of vehicle tracking systems such as Fleet-board and Sea Track on HMVs and public vehicles to improve surveillance and facilitate accurate incident reporting. For effective surveillance, these tracking systems should be interfaced and synchronised with the Police Traffic Management and Monitoring System.

The Commission recommends Amendments to the Road Transport Regulations to make it mandatory for all commercial trucks and buses to install speed retarding devices such as retarders and exhaust brakes; Advanced Braking System (ABS) and other Intelligent Braking Systems on all new HMVs.

Pending the construction of the proposed lane for HMV traffic, in the interim it is imperative to introduce a three pronged approach to Malagwane that includes:-

- (a) Traffic Scheduling (at manageable intervals) of large fleets from single point of origin in order to decongest HMV traffic at peak times;
- (b) Peak Time Re-Routing of HMV traffic;
- (c) Segregate truck traffic at designated docking bays to avoid long truck queues on the road.

However the implementation of these measures is contingent upon maintaining a delicate balance to ensure that trucks still retain the ability to meet "just-in-time" delivery schedules to avoid creating



inefficiencies in the economy.

Old trucks, especially grey imports are some of the leading factors that account for road unworthiness in HMVs and public motor vehicles. Therefore it is necessary to review the life span of HMVs especially the grey imports. The maximum age of HMVs and public motor vehicles should be set at seven (7) years. The Government, through the Ministry responsible for Environment Affairs should explore the implementation of incentive schemes to encourage the disposal of old public motor vehicles.

## 4.1 Option 1: Rehabilitation of Ngwenya-Matsapha Railway Line

It is projected that freight transportation will increase drastically over the next decade and therefore bold mitigation measures ought to be effected immediately. The projected increase in vehicle population and increased volumes of freight makes Rail Transportation an indispensable component for a First World Transport Network in Swaziland.

Managing and regulating the high anticipated volumes of heavy motor vehicles on the MR3 Highway in support of activity in the Ngwenya and Hhohho mining belt is expected to be a huge challenge and therefore rail is a safe option for transporting increased mining products in the near future.

As a result of its investigations, the Commission can confidently ascertain that the Ngwenya-Matsapha rail bed is still intact and can cost effectively be rehabilitated. An ongoing study by Swaziland railway has also confirmed the feasibility of rehabilitating the Ngwenya rail line<sup>28</sup>

The rail line will:-

- (a) help mitigate against increased heavy motor vehicle traffic on the MR3 Highway;
- (b) it will further decongest traffic from the MR3 Highway; and
- (c) protect the road from accelerated wear and damage thus increasing its longevity.

  Current studies have estimated the cost of rail rehabilitation to be approximately five hundred and fifty (550) million Emalangeni for an estimated distance of seventy four kilometers.<sup>29</sup>

## 4.1.1 Opportunity

The rail line can bring immediate relief to traffic congestion on the MR3 Highway from Ngwenya to Manzini and also increase the turnaround time for transportation of ore and other minerals from source to harbour.

#### 4.1.2 Challenge

In the short term period, mining activity in the Ngwenya and adjacent areas may not yield the threshold of one and a half million tonnes per annum<sup>30</sup> which is the minimum tonnage of rail stock required to make the rail line economically viable.

<sup>&</sup>lt;sup>28</sup>Interview with Bhekithemba Dlamini. Civil Engineer, Swaziland Railways

<sup>&</sup>lt;sup>29</sup>Road Transport Master Plan

<sup>&</sup>lt;sup>30</sup>Interview with Swaziland Railway.



#### 4.1.3 Implementation

The Commission recommends the swift preparation of a loan bill to enable Swaziland Railways to mobilize the required funds for the rehabilitation of the Rail line. The funding should also accommodate the implementation of studies for impact mitigation along the rail route.

#### 4.1.4 Environmental Mitigating Measures

Environmental mitigation measures for rail rehabilitation should include:-

- (a) Adopting operating Standards for vehicle emissions, noise, controlling vehicle overloading, equipment and safety that are in line with the Southern African Development Community (SADC) Regional Infrastructure Development Master Plan's Transport Sector Plan (July 2012, Version 2.0);
- (b) Undertaking regular inspections of emissions, noise and road-worthiness compliance; and
- (c) Installation of reinforced and electrified fencing to protect wildlife and prevent poaching.
- (d) Installation of CCTV surveillance especially along the game park route.

## 4.1.5 Viability

The long term viability of the rail link to the Ngwenya and Northern mining area is further supported by the availability of large scale deposits and there is evidence of bulk Occurrences of Minerals' Commodities in the Ngwenya – North West of Swaziland Area<sup>31</sup> as shown in table 3.1 below.

## Table 3.1: Occurrence of Mineral Deposits in Ngwenya and Northern Area

- A. Ngwenya Area:
- (a) Current licence to Mine iron ore Dumps (Salgaocar Swaziland (Pty) Ltd project) Four Million Five Hundred Thousand (4,500,000) Metric Tonnes of iron ore= (4 years)
- (b) **Proposed Project to re-open the closed Ngwenya iron ore project** (Estimates from Various Applicants) Twenty One Million Five Hundred Thousand (21,500,000) Metric Tonnes of iron ore. (20 years)
- (c) Within the Ngwenya iron ore Lease Area (Estimates from Geological Bulletins) Ninety Six Million Two Hundred and Ninety Seven Thousand and Fifty (96,297,050) Metric Tonnes of iron ore.
- (d) **North of the Ngwenya iron ore Lease Area** (Estimates from Geological Bulletins)Sixty Seven Million Nine Hundred Thousand Five Hundred and Seven (67,900,507) Metric Tonnes of iron ore.
- B. Ngwenya area near border post:

(Estimates from the Department)

Five Million Five Hundred Thousand (5,500,000) Metric Tonnes of barytes.

#### C. Pigg's Peak and Havelock Area (4 Distinct Bodies):

(Estimates from Geological Bulletins)

Two Hundred and Ninety Three Million Five Hundred and Fifty Thousand (293,550,000) Metric Tonnes of iron ore.

## D. Hawane - Forbes Reef Area:

(Estimates from the Department)

<sup>&</sup>lt;sup>31</sup>Source: Department of Geological Survey & Mines



**4.1.6** Parallel Implementation of Heavy Truck Mitigation Measures on Malagwane MR3 Highway In view of the fact that it will take at approximately two years to rehabilitate the Ngwenya rail line, this option requires the *parallel implementation of heavy truck mitigation measures on Malagwane* MR3 Highway.

This specifically refers to:-

- (a) Construction of a designated emergency/truck lane in designated areas down Malagwane Hill;
- (b) Construction of arrestor bays and docking stations along the MR3 Highway;
- (c) Implementation of Road Safety improvements on the MR3 along Malagwane Hill including the medium term construction of a grade separated junction at Bahai area.

# 4.2 Option 2: Construction of an Alternative Truck Road on the Rail Bed between Ngwenya and Matsapha

According to rail experts, the feasibility of the Ngwenya railway rehabilitation project is subject to the resumption of large scale mining at Ngwenya and adjacent areas in the short to medium term with an output of at least one million tonnes per annum and this will be contingent on intensive injection of investment capital in the Ngwenya and Northern Area mines.

Should such investment not materialize in the short to medium term, option two proposes the construction of a dedicated road for heavy duty motor vehicles on the rail bed between Ngwenya and Matsapha. This road would act as an alternative truck route and help to decongest truck traffic along the MR3 Highway. It is suggested that this road could both be used for the bulk transportation of all nonedible goods entering Swaziland as well as for ferrying materials from the Ngwenya area mining belt. However a detailed feasibility study and environmental mitigation plan would have to be developed for the road. The environmental mitigation plan would especially help to limit the adverse impact on the Mlilwane Wildlife Sanctuary. Constructing this road on a design and build approach would also help mitigate the inefficiencies of an elaborate tendering cycle and procurement process.



Figure. 3.1 Showing an original rail bridge at Siphocosini



## 4.2.1 Viability

A key challenge to the feasibility of this road vis-à-vis a railway is the narrow width of the existing rail bed which is about five (5) metres whereas a single two way road with shoulder requires up to seven (7) metres. Therefore the construction of this road would absorb a lot of funds in widening the rail bed, extending culverts and constructing bypass passages around existing rail tunnels. Therefore this road can only be viable only if the Government were to discards plans to rehabilitate the railway. Experts believe that the construction of this road can be achieved within one year. However cost estimates would have to be generated by a feasibility study.

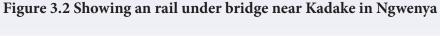
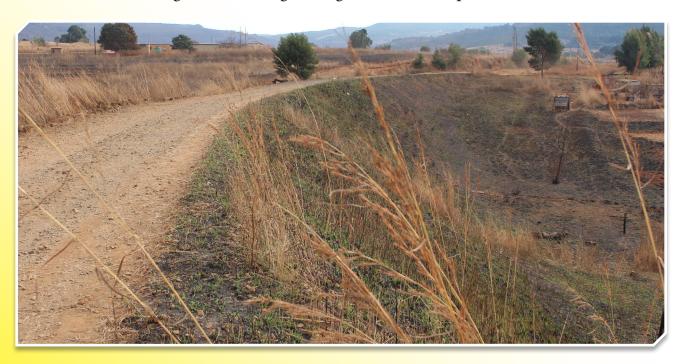




Figure 3.3 Showing the original rail bed at Siphocosini





## **CHAPTER FOUR**

## IMPLEMENTATION ARRANGEMENTS AND COSTING

The outcomes of the Commission's finding have been generated into a strategic implementation plan in order to translate the recommendations into tangible out comes by 2022. Thus the effective implementation of this report is subject to a multi-sectoral institutional framework comprising of Ministries, Departments and parastatals under the leadership of the Prime Minister's Office. The Commission further recommends the establishment of a coordinating body to regularly monitor the implementation of this plan.

It is the considered view of the Commission that this plan should be mainstreamed into government action programme for vision 2022 in line with country's aspiration for first world status. The matrix below outlines of the critical path activities for maximising excellence in road safety.

## **Implementation Plan Matrix**

**Table 4.1: Implementation Plan** 

ACTIVITY	OUTCOME	RESPONSIBLE AGENCY	ESTIMATED COST(E)
<b>Option 1.</b> Rehabilitate rail line from Ngwenya to Matsapha	Divert Ore Traffic from MR3	Swaziland Railway	550,000,000
Option 2. Construct Alternative Truck Route from Ngwenya on Rail Bed	Divert Truck Traffic from Malagwane and MR3 Mbabane to Manzini	Ministry of Public Works and Transport	Pending
Initiate enactment of the Roads Agency and Road Fund Bill	Implementation of Road Fund Levy and set up Roads Agency	MOPWT and Attorney General	1,000,000
Install truck weighbridges in Ngwenya and Matsapha	Regulate Vehicle Weights and Road Safety Council/ avoid overloading Roads Department		Pending Feasibility Study
Improve Road traffic Signs Along MR3	Improved Safety on MR3	Roads Department	3,000,000
Implement improvements along Malagwane (Mnyamatsini/Mvutjini)	Construct separated Truck Lane and increased Road Reserve to accommodate emergency vehicles	Roads Department	Pending Feasibility Study
Construct planned Bahai Interchange and resurface Malagwane Hill	Improved Safety of Malagwane	Roads Department	100,000,000
Install Truck Docking Stations at Nkoyoyo, Mangwaneni and Old Swazi Inn Area	tations at Nkoyoyo, Mangwaneni and Old Swazi		Pending Feasibility Study
Install Emergency Arrestor Beds in strategic place along MR3	Provides Emergency Run- off for out of control & faulty vehicles	Roads Department/Road Safety Council	Pending Feasibility Study



ACTIVITY	IVITY OUTCOME		ESTIMATED COST(E)
Procure Heavy Duty Breakdown Vehicles	Prompt salvage and recovery of trucks in accidents	Police, CTA	5,000,000
Implement Road Traffic Surveillance System	Real time traffic monitoring and Management	Road Safety Council/ Police	Pending Feasibility Study
Implement Integrated Incident Management System	Calls made on 999, 911 and other emergency numbers to be accessed by all emergency services	Prime Minister's Office	Pending Feasibility Study
Implement Driver Training & Testing Facility For Articulated Vehicles	Train HMV drivers using authentic equipment in professional environment	Ministry of Public Works & Transport	Pending Feasibility Study
Install Digital Traffic Signaling Devices/ Billboards along MR3	Improved safety awareness and real time notification to motorists through public media and electronic billboards	Ministry of Information Communication and Technology, Ministry of Public Works & Transport	Pending Feasibility Study
Increase road signage on Malagwane	Increase signage to stipulated 100% level	Ministry of Public Works and Transport	1,000,000
Review the MVA Act to include mandatory Third Party Insurance for Commercial Vehicles	Provision of Insurance cover for accident victims.	Ministry of Public Works & Transport	100,000
Review the MVA Act to include mandatory Third Party Insurance for Foreign Commercial Vehicles	Implementation of Mandatory Third Party Insurance for Foreign Commercial Vehicles	Ministry of Finance	100,000
Consider Roll-out of Passenger Liability Cover for Public and Commercial Vehicles	Review and implementation of Regulations for mandatory passenger liability cover for public and commercial vehicles	Ministry of Public Works and Transport	500,000
Review the 1965 Road Traffic Regulations to include mass and axle dimensions.	Regulation of mass (overloading) and axle compliance of HMV's	Ministry of Public Works & Transport	100,000
Procure Service Helicopter for Police & Emergency Services	To improve incident response capability for Police and Emergency Services	Police and Fire Service, Ministry of	
Supervise Compensation of Accident Victims	Assist to facilitate compensation of victims by MVA and the other liable parties and follow up on recovery (post-accident support) of injured victims.	Deputy Prime Minister's Office	100,000
Resource Mobilization for Report Implementation	To secure funding for report outputs, including follow up on PM's visit to Taiwan	Ministry of Economic Planning and Development	300,000
Recognition of Members of the public and officers for acts of heroism	Recommendation for conferment of honors to officers and members of the public who contributed to saving lives	Prime Minister's Office	100,000

#### A. LIST OF WITNESSES

- 1. H.RH Prince Tshekedi
- 2. Reverend Father David Goodday
- 3. Zenzele Ace Dlamini
- 4. Thulani C. Hlatjwako
- 5. Percy Simelane
- 6. Sanele F. Kunene
- 7. Mtsetfwa
- 8. Dumisa Dludlu
- 9. Sabatha Sunday Dlamini
- 10. Bongani Makhubu
- 11. Aubrey Sibiya
- 12. Monsoor Mohamed
- 13. Themba M. Dlamini
- 14. Zanele C. Mabuza
- 15. Sicelo A. Dlamini
- 16. Lwazi W. Mngometulu
- 17. Mbuso S. Dube
- 18. Peter Smoor
- 19. Duke Shongwe
- 20. Nelson B. Dlamini
- 21. Saneliso C. Dlamini
- 22. Simon M Mabuza
- 23. Vusi V. Ndlangamandla
- 24. Zanele T. Siyaya
- 25. Tengetile D. Hlophe
- 26. David N. Nhlengetfwa
- 27. Philmon M. Sihlongonyane
- 28. Xolani Zwane
- 29. Samkeliso B. Mabuza
- 30. Sipho V. Mashaba
- 31. Marjorie B. Mavuso
- 32. Mlungisi J. Dlamini
- 33. Phindile R. Masuku
- 34. Mr. Dludlu Sation Commander Lobamaba
- 35. Constable Willfirm Zwide Maseko
- 36. Inspector Sabatha Dlamini
- 37. Constable Samkeliso Tevin Ndlangamandla
- 38. Mphiwa M .Maseko
- 39. Cebile N. Mkhatjwa
- 40. Walter Bennett
- 41. Sanele G. Mkhatjwa
- 42. Thabani M. Zwane
- 43. Greata Paeps
- 44. Freedom Simelane
- 45. Sikhumbuzo C. Mkhonta
- 46. Doctor S. Simelane
- 47. Lindani J. Msibi
- 48. Mbongeni S. Mnisi



- 49. Jokoniya M. Shongwe
- 50. Esau M. Simelane
- 51. Smanga Jwankie
- 52. John Henwood
- 53. Honourable Johannes M. Shongwe
- 54. Dumisa E. Shabangu
- 55. Honourable Enock J.V. Dlamini
- 56. Mandlenkosi R. Kunene
- 57. Barnabas Mhlongo
- 58. Senator Menijeni Mahlalela
- 59. Dumisa Gwebu
- 60. Magwabane Mdluli
- 61. Vincent Dlamini
- 62. Sozabile Mkhabela
- 63. Stephenson Z.Ngubane
- 64. Helmon Vilakati
- 65. Makhosi Magongo
- 66. Dumisa Dlamini
- 67. Muzi Maphanga
- 68. Mbusomuni Mahlalela
- 69. Makhosini Mndawe
- 70. Martin Ferreira

#### **ORGANISATIONS**

- 71. Swaziland Railways
- 72. Sincephetelo Motor Vehicle Accidents Fund (MVA)
- 73. Swaziland Road Safety Council
- 74. Invatsi Constructions
- 75. Swaziland Interstate Kombi Associations
- 76. Ministry of Public Works and Transport (Roads Department)
- 77. Ministry of Natural Resources and Energy
- 78. Royal Swaziland Police
- 79. Swaziland Fire and Emergency Services
- 80. National Commissioner of Police
- 81. Chrisilda Transport
- 82. SALGAOCAR Swaziland
- 83. Phinduvuke Transport

#### **B.** LIST OF DOCUMENTS

- 1. SADC Protocol On Transport, Communications And Meteorology
- 2. Submission By SALGAOCAR Swaziland
- 3. United Nations, 2011. Global Plan For The Decade Of Action For Road Safety 2011-2020
- 4. SALGAOCAR Swaziland. Transport Agreement
- 5. Sincephetelo Motor Vehicle Accident Fund. Study On Causes Of Road Accidents Possible Solutions To The Problem

#### C. TRANSCRIPTS

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Volume 2

