PROPOSALS FOR ENHANCING ROAD SAFETY IN NAMIBIA



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1. INTRODUCTION

- 1.1 On Friday 12 February 2016, 14 people were killed in a head-on collision involving a truck and a minibus on the road between Ondangwa and Oshivelo in northern Namibia. Responding to the accident on social media, Namibian President Hage Geingob likened Namibian roads to "theatres of horror" and called on everyone to adopt a more "caring attitude" when using transport networks in a public appeal to end the "carnage on our roads". While the President's language is strong, the problem of road safety in Namibia is very real.
- 1.2 Tragically, this accident is just one example of a road safety crisis facing Namibia today. The statistics are sobering. According to the National Road Safety Council (NRSC), Namibia's road injury fatality rate far exceeds the African continental average of 26.6 per 100 000 at 31 per 100 000.¹ One popular website even places the Namibian road fatality rate as high as 45 per 100 000, a figure that would award Namibia the unwelcomed title of most road injury fatalities per 100 000 in the world.² When compared to the European region's decreasing rate of 9.3 fatalities per 100 000 despite an increase in motorisation in that region the reality of the crisis facing Namibia seems stark.
- 1.3 While the issue of road safety in Namibia is undoubtedly cause for serious concern, it will be vital to the solution to recognise the potential channels for improvement available at regional, national, and international levels. With the appropriate will and effort the current trends can be altered. As examples from around the world testify, increasing motorisation is not necessarily incompatible with a reduction in road fatality.
- 1.4 The United Nations General Assembly resolution 64/255 of 2010 pursuant to the first Global Ministerial Conference on Road Safety held in Moscow in November 2009, at which Namibia was represented proclaimed the period 2011-2020 as the Decade of Action for Road Safety. The midway point through that decade is an appropriate time to consider the reasons why road safety in Namibia is such a persistent problem and to review the current proposals for reforming the road safety legal regime.
- 1.5 The legal regime governing road safety in Namibia is based in the Road Traffic and Transport Act 22 of 1999 (the Act) and it accompanying regulations. Relative to other African countries

¹ National Road Safety Council (NRSC), *Media Briefing on Road Safety issues*, 1 December 2015, available at: <u>http://www.nrsc.org.na/files/downloads/4dc_Media%20Briefing%20on%20Road%20Safety%20Issues%20(01%</u> <u>20December%202015).pdf</u>

² "Top 10 countries with most accidents", Wh?ch country, <u>http://www.whichcountry.co/top-10-countries-with-most-accidents/</u>, as of 23 May 2016; this figure is unattributed and unconfirmed.

this Act is a reasonably comprehensive statutory statement. However, Namibia's relatively high rates of road injury and fatality point to a need for innovation in the legislative framework alongside government action on education, strategic policies and more intensive law enforcement.

2. THE AFRICAN AND INTERNATIONAL PERSPECTIVE

- 2.1 The issue of road safety affects the entire African Region. Indeed more road accident fatalities are recorded in Africa than in any other world region. Across Africa, pedestrians, cyclists and motorcyclists are at particularly great risk on roads. While most African countries still lack of appropriate road safety policies which could protect the most vulnerable road users, others are yet to enact comprehensive laws regarding more general risk factors such as speed, drunk-driving, helmets on bicycles and motorcycles, seatbelts and child restraints. Furthermore, where comprehensive legal provisions are in place, poor enforcement measures invariably render the law ineffective.
- 2.2 The United Nations General Assembly Resolution 64/255, initiating the Decade of Action for Road Safety, followed publication by the World Health Organization (WHO) of the first Global Status Report on Road Safety. The report showed that while Africa remained the *least motorised* of six world regions it suffered the *highest rates of road traffic fatalities*; while the African Region possesses only 2% of the world's vehicles it contributes to 16% of total deaths by road traffic accidents globally (Figure 1).³ Nigeria and South Africa showed the highest rates of road traffic fatality, with 33.7 and 31.9 deaths per 100 000 respectively.



³ <u>http://www.who.int/violence_injury_prevention/road_safety_status/2009/en/index.html</u>

⁴ World Health Organization, *Road Safety in the WHO African Region, The Facts 2013,* <u>http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/factsheet_afro.pdf</u>



2.3 The economic costs of such high rates of fatality are significant. Across Africa, estimates of the total percentage of GDP lost as a result of road fatality range from 1% to 9%.⁶ Such high estimates are in large part due to the fact that 62% of persons killed on roads are young adults, typically between the ages of 15 and 44. The loss of such high numbers of adults of productive age bears a heavy price.

⁶ Ibid.



- 2.4 As already alluded to above, three factors in particular contribute to the African road safety deficit: failure to provide adequate policy initiatives, failure to enact comprehensive laws and failure to enforce enacted laws. According to the WHO, as of 2013, only one in four African countries (*not* including Namibia) had national policies to support investment in public transport and only 12 African countries (including Namibia) had implemented funded national strategies that set targets for the reduction of road deaths and injuries.⁸
- 2.5 Where policy initiatives have led to the enactment of legal rules, it is often the case that these legal provisions fall short of international recommendations or are inadequately enforced. In Africa, only 11 countries (*not* including Namibia) have implemented national speed limits in urban areas of 50km/h or less and allow local authorities to reduce the limit where they consider it appropriate to do so. Furthermore, WHO determined in 2013 that *no* African country had implemented comprehensive speed limit laws of 50km/h or less *with adequate enforcement measures*. In addition, *no* African country was found to have comprehensive drunk-driving laws with appropriate law enforcement.⁹ While 18 countries (including Namibia) were found to have appropriate seat belt laws, only six of them (*not* including Namibia) enforce such laws effectively.
- 2.6 Improvements in all three key factors effective strategic policy initiatives, statutory provisions and law enforcement is imperative road safety in African nations is to be adequately addressed. Lack of law enforcement, in particular, frustrates the effectiveness of laws in those countries that do have relatively comprehensive legal regimes already in place. According to WHO:

"Enforcement should be systematic and sustained, paying particular attention to the details of deterrence, the detection of offenses, and the handling of penalties. When

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

necessary resources are not deployed, including the staffing of relevant departments, the laws become a farce."¹⁰

- 2.7 There are some positive notes to be drawn from this generally dire picture. According to a 2014 World Bank report, the African region has an opportunity to learn from the experiences of other countries and 'leapfrog' certain obstacles. In particular, creating or strengthening the capacity of road safety agencies will be an important part of that process.¹¹
- 2.8 Addressing the African road safety crisis is imperative for much more than the preservation of lives otherwise lost unnecessarily. Indeed successfully addressing this issue would release resources that could be invested towards the promotion of social and economic enterprises. Improved road infrastructure and safety measures would expand access to jobs, education, and welfare, while connecting goods and services to markets. This is particularly pertinent in Africa where as many as 90% of people and goods are transported by roads.¹² The social and economic boost that could result from improved road safety conditions would be particularly welcome in low and middle-income countries, precisely because it is in those countries where the poorest members of society are the ones that suffer the greatest socio-economic impact of road accident fatality.

3. THE NAMIBIAN ROAD SAFETY DEFICIT

The road injury fatality rate in Namibia has been reported to be considerably higher than the 3.1 African continental average by more than four fatalities per 100 000.¹³ It is useful to consider this statistic in more concrete terms. An annual fatality rate of 31 per 100 000 in Namibia translates to between 600 and 700 people killed in road accidents in Namibia every year. According to the Namibia Statistics Agency, road accidents are one of the major causes of deaths in Namibia.¹⁴ And, in addition to the fatalities, close to 6000 people each year are injured in road accidents.¹⁵



¹⁰ Ibid.

¹¹ Tackling the Road Safety Crisis in Africa, 6 June 2014, World Bank website,

http://www.worldbank.org/en/news/feature/2014/06/06/tackling-the-road-safety-crisis-in-africa ¹² Ibid.

¹³ National Road Safety Council (NRSC), Media Briefing on Road Safety issues, 1 December 2015 http://www.nrsc.org.na/files/downloads/4dc_Media%20Briefing%20on%20Road%20Safety%20Issues%20(01% 20December%202015).pdf

¹⁴ Namibia Statistics Agency, *Namibia Social Statistics 2010-2014*,

http://cms.my.na/assets/documents/Namibia Social Statistics 2010 - 2014.pdf ¹⁵ Ibid.

¹⁶ Ibid.

Road accident injuries by age in Namibia, 2012-2013				
Injuries by age	Year 2012	Year 2013		
0 to 5	134	163		
6 to 10	224	238		
11 to 15	252	241		
16 to 20	395	398		
21 to 25	868	883		
26 to 30	814	935		
31 to 35	695	746		
36 to 40	555	578		
41 to 45	368	456		
46 to 50	304	343		
51 to 55	220	258		
56 to 60	157	174		
61 to 65	87	110		
66 to 70	57	82		
71+	58	87		
Unknown	464	153		
Total	5 652	5 845		

- 3.2 The costs of this high rate of road accidents extend far beyond the families and communities of those directly affected and are ultimately borne by wider society and government. Hundreds of millions of Namibian dollars are spent each year in the aftermath of road accidents and the total figure has been estimated to equate to a staggering 3% of annual GDP.¹⁸ This huge financial burden places avoidable strain on important public services, reducing the capacity of emergency, health, and welfare providers. The private sector is also affected. Because the majority of road deaths affect individuals between the ages of 21 and 45, employers can suffer a considerable loss of productivity while insurance companies are burdened with high payouts in compensation for lives lost.
- 3.3 Despite efforts by the police and Motor Vehicle Accident Fund (MVA) to improve road safety, road accidents in Namibia are increasing. In the three years to 2013, the number of recorded motor vehicle crashes causing injury or fatality increased from 2689 to 3484 (Figure 6).¹⁹ The vast majority of these accidents occurred in the relatively-densely populated Khomas region. Most of the recorded accidents in these years happened on Saturdays (Figure 7), with a disproportionate amount occurring during the holiday season.²⁰ Most of those crashes happened between 12 pm and 10 pm. It is important to recognise the utility of such information in shaping targeted policy initiatives in the future.

¹⁷ Ibid.

¹⁸ National Road Safety Council (NRSC), Media Briefing on Road Safety issues, 1 December 2015, <u>http://www.nrsc.org.na/files/downloads/4dc_Media%20Briefing%20on%20Road%20Safety%20Issues%20(01%20December%202015).pdf</u>

¹⁹ Namibia Statistics Agency, Namibia Social Statistics 2010-2014,

http://cms.my.na/assets/documents/Namibia_Social_Statistics_2010_-_2014.pdf²⁰ Tata





²¹ Ibid. ²² Ibid.



3.4 The steady increase of motor vehicle accidents in general has inevitably meant an increase in the number of injuries and fatalities sustained as a consequence. In the three years from 2010 recorded injuries resulting from road traffic accidents increased from 5125 to 5845.²⁴ Drivers of vehicles involved in road accidents do not comprise the category of person most affected. In fact, according to MVA figures it is passengers who suffer most as a consequence of road accidents, followed by drivers, followed by pedestrians.²⁵ This means you are more likely to suffer injury or fatality as a consequence of a road traffic accident as a passenger than you are as any other category of road user. The deviation is not slight, in fact it is considerable. In 2012 and 2013 passengers were by far the category of road user most affected by injury as a result of road accidents, with 3482 reported passenger injuries in 2013 compared with just 1359 reported driver injuries in the same year - presumably at least in part because vehicles can only accommodate multiple passengers but only one driver.

Injuries by road user in Namibia, 2012-2013				
Injuries by road user	2012	2013		
Cyclist	125	121		
Pedestrian	868	883		
Driver	1 284	1 359		
Passenger	3 278	3 482		
Unknown	97	0		
Total	5 652	5 845		

²⁶ Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

3.5 While figures from 2009 and 2015 show that males constituted the majority of road traffic fatalities, MVA figures for the first quarter of 2016 show that between January and March 2015, 1024 female injuries and 116 female fatalities were reported against 541 male injuries and 53 male fatalities (Figure 10).²⁷ However, it is not possible to draw conclusions on recent gender trends without more data.



4. THE NAMIBIAN PERSPECTIVE: THE CURRENT LEGAL REGIME

4.1. Road Traffic and Transport Act 22 of 1999

- 4.1.1 The current legal regime regulating road safety is set out in the Road Traffic and Transport Act 22 of 1999²⁹ and its pursuant regulations (the Regulations).³⁰ The substantive content of the legislation itself is reasonably comprehensive; the Regulations alone amount to more than 350 pages. However, endemic failure among certain road users to comply with the provisions of the Regulations combined with poor enforcement measures mean that a great deal more can be done to improve the safety of Namibian roads.
- 4.1.2 The Act establishes the Transportation Commission of Namibia, controls traffic on public roads and regulates the licensing of drivers and vehicles. As well as laying down the administrative arrangements relating to the registration of authorities, officers, and vehicles, the Act also outlines the conditions for determining the fitness of drivers (Chapter 4) and the fitness of vehicles (Chapter 5). Chapter 9 establishes criminal offences relating to reckless or negligent driving (section 80), inconsiderate driving (section 81), and driving under the influence of intoxicating substances (section 82).

²⁷ Ibid.

²⁸ Namibia Social Statistics, 2015/1016, Quarter 1,

http://cms.my.na/assets/documents/Namibia Statistical Abstract Report.pdf

²⁹ The original Act is contained in Government Notice 282, *Government Gazette 2251*, 24 December 1999, , available at <u>http://www.lac.org.na/laws/1999/2251.pdf</u>. An annotated version showing all amendments is available from the Parliament of Namibia or the Legal Assistance Centre.

³⁰ The original regulations are contained in Government Notice, *Government Gazette 2503*, 30 March 2001, available at <u>http://www.lac.org.na/laws/2001/2503.pdf</u>. An annotated version showing all amendments is available from the Parliament of Namibia or the Legal Assistance Centre.

- 4.1.3 The Regulations contain the details regarding how these provisions are to be administered. Chapter 4 of the regulations, relating to fitness of drivers, for example, covers provisions including the administration and registration of driving testing centres (Chapter 3 Part 1) and conditions for the provision of driving licenses. Chapter 5 similarly covers a broad range of regulations relating to the fitness of vehicles, including provisions on brakes (regulations 165-175), steering mechanisms (regulation 219), tyres (regulation 231), and seatbelts (regulation 232).
- 4.1.4 Other sections of the regulations deal more specifically with provisions concerning road use. Chapter 7, for example, sets out the rules relating to speed limits which range from 60 kilometres per hour in urban areas (regulation 323(1)(a)) to 120 kilometres per hour on tarred non-urban roads (regulation 323(1)(b)(ii)). There are further specific provisions relating to speed limits applicable to particular classes of vehicles including limits in relation to tyres (regulation 325) and braking capability (regulation 326). These speed limits are, by international standards, relatively high – meaning that failure to enforce them leads to dangerously-high speeds indeed.
- 4.1.5 Chapter 8 of Part 1 of the regulations contain further specific provisions relating to road use. Regulation 329 (2) prescribes the manner in which a vehicle may pass another vehicle moving in the same direction, while prohibitions on overtaking upon approach of a summit, a curve, or any other place where the drivers view may be restricted are contained in regulation 329(4). Other regulations prohibit driving on the shoulder of a public road (regulation 330); establish the correct manner in which to cross or enter a public road or traffic lane (regulation 331); and establish pedestrians' right of way at pedestrian crossings (regulation 350).
- 4.1.6 Regulation 369 establishes the commission of an offence in the event of failure to comply with the provisions of the regulations and prescribes a corresponding penalty. Regulation 369(1) imposes a fine of not more than N\$20 000 or a period of imprisonment not exceeding two years for a prescribed number of offences. The category of offences to which this penalty regime applies is largely technical, relating, for example, to vehicle dimensions and mass. A lower penalty of a fine not exceeding N\$4 000 or imprisonment for a period not exceeding one year applies to an offence constituting a breach of any other regulation (regulation 369(1)(b)).
- 4.1.7 In order to assess the effect of any law that law must be complied with to a critical degree; if nobody adheres to a law it is impossible to know how successful that law would be in achieving its intended purpose if everybody did adhere to it. The issue of compliance lies at the root of Namibian road safety law. It is difficult to assess, for example, the appropriateness of Namibian speed limit laws without considering the issue of enforcement and compliance. Only with a critical degree of compliance to road and traffic laws will analysis of relevant data have significance to the improvement of strategic initiatives. The issue of compliance is complex, involving many elements including cultural attitudes, education, and law enforcement.
- 4.1.8 Perhaps the Road Safety Management Bill signifies a step in the right direction. Rather than focus on substantive details, the authors of the Bill seem to appreciate the need to address the fundamental framework that regulates road traffic activity and the need for better integration of institutions that obtain information relevant to the patterns of road use. Much of what is put forward in the Bill complies with the spirit of the Decade of Action for Road Safety. The administrative reforms of road traffic regulation in Namibia that the Bill proposes is a necessary effort to change the conditions in which matters of road safety will be addressed in the years to come.

4.2 Namibian Road Safety Management Bill

- 4.2.1 The Namibian Road Safety Management Bill proposes a framework that aims to support positive responses to the Namibian road safety deficit. The Bill provides for the establishment of a funded Road Safety Agency and for the development and implementation of a national Road Safety Management Plan and an integrated Road Safety Management System. The Bill is arranged into three sections: the first lays down institutional provisions, the second contains operational provisions and the third covers legal procedures relating to the bodies established by the Bill.
- 4.2.2 Chapter 2 of the Bill focuses on institutional provisions. Section 2 of Chapter 2 establishes a Road Safety Agency, the objectives of which are outlined in section 3. The broadest objective of the proposed agency is to ensure the safety of all road users and that all necessary efforts are taken towards reducing traffic deaths and injuries (section 3(a)). The Agency is also responsible for the coordination of road safety programmes across government under section 3(b), and for promotion of a culture that places priority on road safety (section 3(s)). Under section 8 of the Bill, the chief executive officer must establish special committees for specific areas including education and promotion (section 8(1)(a)) and law enforcement (section 8(1)(c)). Agency duties, contained in section 9, notably include the duty to facilitate sufficient research to inform the development of the Road Safety Management Plan as established by section 10 (section 9(1)(f)), and various other duties relating to the attainment of statistical data and the manner in which it is processed.
- 4.2.3 The establishment of the Road Safety Management Plan is contained in the operational provisions in Chapter 3 (section 10). The Plan must include various sub-plans which include a road safety education plan (section 10(1)(a)), a road safety research and development plan (section 10(1)(c)), and a road traffic offence adjudication management plan (section 10(1)(e)). Furthermore, section 10(8)(c) establishes that the agency must identify and define the type of information and statistics to be collected in order to determine future strategic modifications of the plan. More generally, the Bill requires that the Plan must contain a common goal for Namibia, expressed in accordance with the road safety management standards in relation to fatalities, injuries and damages (s 10(9)(a)(i)). It must also indicate the cost to the economy of fatalities, injuries, and damages as a consequence of road traffic accidents (s 10(9)(b)). In addition, regionally-targeted initiatives are contained in the duty to establish goals for individual geographical areas as defined by the Road Safety Coordinating Committee $(s \ 10(9)(f))$. The Bill also attempts to establish a more integrated institutional network in order to improve administrative efficiency. Section 11 requires the Agency to establish and maintain an Integrated Road Safety Management System with the specific objectives of creating databases accessible by the Ministry of Justice (s 11(2)(b)), and the capacity to automate prosecutorial processes relating to road traffic offences (s 11(2)(c)).
- 4.2.4 It is understood that the Bill, which repels and replaces the National Road Safety Act 9 of 1972, is aimed primarily at institutional arrangements. However, the highest priority should surely be on practical measures that can improve road safety. Therefore in the following section, we put forward some specific proposals for law reform aimed at preventing road accidents and fatalities.

5. ROAD SAFETY PROPOSALS

5.1 Introduction

5.1.1 Namibia's record on road traffic safety is poor by any international standard. What follows are some specific suggestions that could be implemented relatively efficiently. Examples from around the world have shown that small changes can have a considerable effect on road user behaviour and the improvement of road safety. Where possible the following proposals have been presented in a manner that would complement the proposed Road Safety Management Plan.

5.2 Demerit system as penalty for road safety violations

- 5.2.1 Existing Regulation 369 establishes the penalties for violation of regulations. As already outlined above, there are two categories of penalties. The higher penalty threshold of a fine not exceeding N\$20 000 or a period of imprisonment for a period not exceeding two years applies to breaches of a prescribed list of technical provisions (regulation 369(1)), while the lower penalty threshold of a fine not exceeding N\$4 000 or a period of imprisonment not exceeding one year applies to breaches of any other provision within the regulations.
- 5.2.2 A point-based demerit system in addition to the current fine based system may be a better way to encourage compliance with the law. This refers to a system where specified road traffic offences result in cumulative demerits, or "points", allocated to drivers on conviction or payment of an admission of guilt fine. In some systems, subsequent time periods without any violations can result in the cancellation of some of these demerits. If the demerits exceed a specified number, the driving licence of the driver in question is suspended for a set time period. Fines and other penalties may be applied in addition to the demerits in respect of every offence, or after a certain number of points have been accumulated.
- 5.2.3 Demerit systems have many advantages. In particular, while fines discriminate against poorer offenders who will undoubtedly experience greater hardship in paying for their offences than richer offenders, a demerit point-based system has the advantage of targeting offenders indiscriminately. In other words, while richer offenders may be less inclined to comply with laws if the penalty is of relatively little inconvenience to them when weighed against the inconvenience of changing their driving habits, a point-based demerit system would apportion punishment for offences more fairly than is the case at present. Another advantage of a point-based system is that it would be easily tailored to address the particular patterns of offences that occur in Namibia. Most importantly, such a system removes drivers from the road if they consistently disrespect traffic laws, thus helping to prevent accidents.
- 5.2.4 A demerit system has been proposed for South Africa and may be implemented in 2016 as one of the first point-based systems in Africa. Perhaps this is an opportunity for Namibia to adopt a similar strategy that could be a fitting complementary component to the integrated Road Safety Management System proposed in the Bill. A brief outline of the South African system is appended to this report.

5.3 Seatbelts

- 5.3.1 The current law states that an adult must wear a seatbelt in a vehicle driven on public roads if that seat is fitted with a seatbelt (regulation 232(4)). A person may travel in a vehicle without a seatbelt if there is no available seatbelt to wear. Regulation 232(6)-(7) also give the driver a legal duty to ensure that every adult being conveyed in the vehicle complies with the seat belt regulations, and that every child seated on a seat of that motor vehicle uses an appropriate child restraint (if one is available in that vehicle) or, in the absence of a child restraint, wears a seatbelt (if an unoccupied seat fitted with a seatbelt is available). If no seat equipped with a seatbelt is available for a child, the driver must ensure that the child is seated on the rear seat (in vehicles which have rear seats). The penalty for not wearing a seatbelt is a fine not exceeding N\$4 000 or imprisonment for a period not exceeding one year or both such fine and such imprisonment (regulation 369(1)(b)). Drivers who neglect their duties in respect of seatbelts are subject to the same penalties.
- 5.3.2 Section 27(1)(d) of the Motor Vehicle Accident Fund Act 10 of 2007 provides that benefits for injury will be reduced by 25% when the injured person at the time of the accident neglected to use an available seat belt - providing a financial incentive for seat belt use which may not be well-known by members of the public.
- 5.3.3 A 2009 assessment of seat belt compliance in Namibia noted, "Wearing a seat belt is the single most effective technical road safety measure a car occupant can take... In Namibia, fatalities continue to increase... and it is suggested that a major contributory factor is the failure to wear a seat belt. When used, seat-belts have been found to reduce the risk of serious and fatal injury by between 40% and 65%." This study found that 98% of the respondents believed that it is beneficial to always wear a seat belt when travelling in a vehicle? - but only about 65% stated that they always wear a seat belt, and the study noted a comparison of these responses with actual observations of seat belt use suggested that compliance with the seat belt law was markedly overstated by respondents - and sometimes even half as much as respondents indicated. Interestingly, some 27% said that greater fines or proper enforcement of seat belt laws might compel them to wear a seat belt – and 28 stated that they would wear a seat belt if the vehicle they were traveling in was fully equipped with seat belts.³¹
- 5.3.4 Whether or not a vehicle will be fitted with a seatbelt will depend on whether that vehicle is required to be fitted with seatbelts in terms of any compulsory specification with regard to the manufacturing of motor vehicles (regulation 232(3)(a)). Given that many cars on the road in Namibia are older models which may not be fitted with front and rear seatbelts, initiatives such as government subsidization of seatbelt installation, particularly in taxis, could be considered.
- 5.3.5 Seatbelt regulation violations could be one of the many traffic offences targeted by a pointbased demerit system. Yet for such a system to be effective it would need to rely on effective monitoring and enforcement. Evidence from other countries suggested this can be done relatively easily and efficiently. In the Russian city of Ivanovo, for example, a police initiative to increase efforts to tell people to wear seatbelts combined with rigid enforcement saw an increase in compliance from 48% in 2011 to 74% in 2012.³² Police use of social media to

³¹ Mike Winnett, Global Road Safety Partnership Namibia, Seat Belt Wearing Baseline Attitudinal Assessment, Deliverable 2: Seat Belt Compliancy Study, 2009, https://mwinnett.files.wordpress.com/2011/04/situationalassessment-namibia.pdf 32 http://www.economist.com/news/international/21595031-rich-countries-have-cut-deaths-and-injuries-caused-

crashes-toll-growing?fsrc=explainsdig

spread the message in Ivanovo shows how a similarly efficient initiative could potentially bear rapid results in Namibia. As the 2009 seat belt compliance study concluded, "The key to success is appropriate campaigning coupled with sustained police enforcement."³³

5.4 Speeding

- 5.4.1 A standard speed limit of 60 kilometres per hour within urban areas is contained in regulation 323(1)(a); a speed limit of 100 kilometres per hour for non-tarred non-urban roads in regulation 323(1)(b)(i); and a standard speed limit of 120 kilometres per hour on tarred nonurban roads in regulation 323(1)(b)(ii). The penalty for breaching these limits is a fine not exceeding N\$4 000 or imprisonment for a period not exceeding one year or both such a fine and such imprisonment (regulation 369(1)(b)). As noted previously, these speed limits are relatively high in international terms.
- 5.4.2 The rate of occurrence of speeding offences could be particularly responsive to a point-based demerit system because it could be tailored to specific speed violation patterns. This would inevitably involve some infrastructural development in the form of the introduction of speed cameras and other useful speed detection devices. However these could be introduced gradually with the initial installations taking place on the most dangerous sections of road. The gradual yet steady introduction of speed detection devices combined with a comprehensive point-based system could be particularly effective in reducing speeding on Namibian roads.

5.5 Use of lights at all times

- 5.5.1 Regulation 178(4), added to the Regulations in July 2015, required that a person driving a motor vehicle during the day on a trunk road, main road and district road must switch on the head lamps on dipped beam or daytime running lights. The penalty for the failure to use daytime lights is a fine not exceeding N\$4 000 or imprisonment for a period not exceeding one year or both such a fine and such imprisonment (regulation 369(1)(b)). This regulation was amended in May 2016 to apply only to driving on public roads outside of an urban area.³⁴
- 5.5.2 This requirement should be an immediate and cost effective means of reducing road accidents. A study conducted in the US state of Minnesota over a seven-year period and citing several other Scandinavian examples suggested that the use of daytime headlights could indeed result in a significant reduction in the number of road accidents.³⁵ A requirement to use daytime vehicle lights was introduced in Sweden (the country with the safest roads in the world in 2016) in 1977 and a crash rate reduction rate from 9% to 21% has been reported.³⁶ Norway began to require installation of daytime running lights in all new cars in 1985 and three years later a 15% reduction for crashes involving more than one vehicle was reported.³⁷ Similarly, in Denmark, a statistically-significant 37% reduction in the rate of crashes involving a left turn has been reported since daytime running lights were required on all roads in 1990.³⁸

³³ Mike Winnett, Global Road Safety Partnership Namibia, Seat Belt Wearing Baseline Attitudinal Assessment, Deliverable 2: Seat Belt Compliancy Study, 2009, https://mwinnett.files.wordpress.com/2011/04/situationalassessment-namibia.pdf ³⁴ Government Notice 98, *Government Gazette 6016*, 26 May 2016.

³⁵ <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2850978/</u>

³⁶ K Andersson & G Nilsson (1981), "The effects on accidents of compulsory use of running lights during daylight in Sweden", Report 208A, National Road and Traffic Research Institute, Linköping.

³⁷ R Elvik, "The effects on accidents of compulsory use of daytime running lights for cars in Norway", 25(4): Accid Anal Prev. 1993 (August) at 383-98.

³⁸ LK Hansen (1993), "Daytime running lights in Denmark—evaluation of the safety effect", Danish Council of Road Safety Research, Copenhagen.

5.5.3 Despite the introduction of this requirement, it seems to be little-enforced and possibly not yet well-known by drivers. And yet a great advantage of this requirement is the ease with which it could be monitored. The new rule should be well-publicised. Then, given that it is an obvious violation, road traffic officers could easily detect non-compliant drivers and issue a citation accordingly.

5.6 Driving under the influence of alcohol

- 5.6.1 Under section 82 of the Act it is an offence to drive while under the influence of alcohol. A person who commits this offence is liable to a fine of up to N\$20 000 or to a period of imprisonment not exceeding five years or to both a fine and imprisonment (section 106(2) of the Act).
- 5.6.2 Due to strict policing in Sweden, less than 0.25% of drivers tested are over the alcohol limit. Stricter enforcement in Namibia at all times and not just in holiday periods could result in improved compliance. This could be done most efficiently by increasing the number of road officers monitoring drivers' alcohol levels at the times at which it is predicted that drivers are most likely to have been drinking, or during the times when most accidents occur.
- 5.6.3 As in the case of so many other offences, a point-based system could result in a significant reduction of drink-driving instances in Namibia. The gravity of this offence could also be reflected in a particularly high point score.

5.7 Cell phone use while driving

- 5.7.1 Regulation 342(1) prohibits driving on a public road while using a mobile telephone. The penalty for this offence is a fine not exceeding N\$4 000 or imprisonment for a period not exceeding one year or both such a fine and such imprisonment (regulation 369(1)(b)).
- 5.7.2 This appears to be another offence that demands much more rigorous policing, as offenders can be frequently observed. Stricter policing and the application of license points would likely have an effect on the commission of this offence. This should be an easy offence to monitor, making stricter policing relatively easy to implement.

5.8 Intersections

- 5.8.1 Anybody familiar with Namibian roads will testify that intersections, especially large and busy ones, are particularly hazardous places for road users. Traffic signals are ignored all too often. Failure to comply with road signs (including traffic lights) is an offence under sections 75(1) and 106(1) of the Act. An offender will be liable to a fine of up to N\$2 000 or imprisonment for a period of up to six months, or both a fine and imprisonment.
- 5.8.2 Due to the level of danger at road intersections in Chicago (USA), the Chicago Department of Transport implemented a system of traffic light cameras in 2003.³⁹ Intersections to have cameras installed were chosen based on their level of danger assessed by crash records. The most recent Chicago crash statistics show that between 2005 and 2013 crashes of all types had declined at intersections with cameras.⁴⁰ Dangerous right-angle crashes were down by 40% while crashes resulting in injuries were down by 11%.

³⁹ http://www.cityofchicago.org/city/en/depts/cdot/supp_info/red-light_cameraenforcement.html.

⁴⁰ Ibid.

- 5.8.3 A similar initiative could be implemented in Namibia and would be fully compatible with the proposal for a new information management system. An advantage of this initiative is that it could be introduced gradually, with the first camera installations selected for the most dangerous intersections. Data could then be collected and used to advance the initiative in stages.
- 5.8.4 The fine for disobeying a road signal is the lowest possible for an offence under the Act, at a maximum of N\$2 000. It is strongly suggested that the current penalty is disproportionate to the levels of danger at busy road intersections. Traffic light cameras at intersections could be an integral part of a new approach that incorporates a point-based system, a media campaign and new arrangements for managing information.

5.9 Fake licenses

- 5.9.1 Under section 31(1) of the Act, no person is permitted to drive a vehicle on public roads without a valid licence. It is also illegal for anyone to wilfully issue a driving licence contrary to the provisions of the Act (section 37(10)). A person who wilfully issues a driving licence contrary to the provisions of the Act will be liable to a fine of up to N\$4 000 or a period of imprisonment for a period not exceeding one year of both a fine and imprisonment (section 106(4) of the Act). A person who drives on a public road without a valid licence is liable to a fine of up to N\$2 000 or a period of imprisonment not exceeding six months or a fine and imprisonment. Both of these seem to be relatively modest penalties for what should be considered very serious offences.
- 5.9.2 Despite these provisions, corruption regarding driving licences is still present in Namibia. Fake licences are even offered for sale in the parking lot of one NaTIS office in Windhoek. It is imperative for the road safety project that drivers are appropriately qualified and the government's proposal for an integrated road safety management system should perhaps incorporate a review of the manner in which driving licences are authorised and monitored.
- 5.9.3 In addition to any fines imposed, driving without a valid licence should disqualify the person in question for acquiring a valid licence for a given time period.

5.10 Child restraints

5.10.1 A driver of a vehicle on a public road must make sure that a child seated in the vehicle uses an appropriate child restraint if one is available, or is secured with a seatbelt if there is an available seat with a seatbelt (regulation 232(6)). If there is no child restraint or available seat with a seatbelt the driver must ensure that the child is seated on a rear seat if a rear seat is available (regulation 232(7)). The penalty for failure to comply with these provisions is a fine of up to N\$4 000 or imprisonment for a period not exceeding one year or both a fine and a period or imprisonment. The 2009 study of seat belt use in Namibia (mentioned above) asked questions about child restraint, and found that few children under age 12 are placed in car seats or seat belts.⁴¹

⁴¹ Mike Winnett, Global Road Safety Partnership Namibia, *Seat Belt Wearing Baseline Attitudinal Assessment, Deliverable 2: Seat Belt Compliancy Study*, 2009, <u>https://mwinnett.files.wordpress.com/2011/04/situational-assessment-namibia.pdf</u>

Namibia Seat Belt Compliance Study, 2009 (excerpt)				
20. Do you have children under the age of 12? (Response total)	1067	Percentage Response		
1. Yes	532	49.9%		
2. No	535	50.1%		
 21. If yes, when travelling in a vehicle, your child is: (Response total) 1. always placed in a baby car seat, suitable for he child's weight and age 	673 37	Percentage Response		
2. always buckled up	144	21.4%		
3. placed on an adult's lap	142	21.1%		
4. in the back seat	292	43.4%		
5. in the front seat	19	2.8%		
	39	5.8%		

- 5.10.2 It is immediately apparent from the provisions on child restraints that restraints or seatbelts are only required to be used when they are available. This means that if they are not available there is no obligation to do anything other than to place the child on the rear seat of the vehicle. The nature of these provisions likely reduces the attention that breaches of them attract from law enforcement officers. It is suggested that this is not good enough, and insufficient to comply with Namibia's responsibility under the Convention on the Rights of the Child to protect the best interests of the child.
- 5.10.3 Cost-efficient child restraints are a feasible alternative to more expensive varieties. WHO published a report in 2011 on a low-technology child restraint developed at the University of Michigan.⁴³ The restraint was made with low-tech materials readily available in low- and middle-income countries and would require minimal capital investment as the manufacturing process does not rely on expensive techniques. This means the product could be fabricated easily in the country for which it is intended at low cost.
- 5.10.4 This example shows that it is possible to create an economical child restraint that could still have a considerable impact on the safety of children in vehicles. Perhaps a similar restraint could be subsidised and promoted by the Namibian government as part of a broader strategy to improve compliance with the provisions on safety for children in vehicles and, as a bonus, as a new income-generating opportunity. Subsidy for a low-cost yet effective child restraint coupled with better enforcement of the law might be a good combination of strategies to increase child safety on Namibian roads. Low and middle-income countries account for 93% of child road deaths. Perhaps this is an opportunity for Namibia to be at the forefront with an innovative solution.

⁴² Ibid.

⁴³ http://www.who.int/medical_devices/innovation/new_emerging_tech_7.pdf

5.11 Roadworthiness of vehicles

- 5.11.1 Section 58(1) of the Act states that no person shall operate a vehicle on a public road if that vehicle is not roadworthy. However, regulation 153 requires certification of roadworthiness of non-commercial vehicles only when ownership changes while busses, minibuses and various good vehicles are required to obtain a roadworthiness certification whenever a licence disk is issued. In other words, while all vehicles operated on public roads are required to be roadworthy (section 58(1) of the Act), only some vehicles require formal certification of roadworthiness. It seems reasonable to assume that the current legal regime leaves too much room for potentially-dangerous vehicle defects to go unnoticed. A new vehicle inspection program could improve the safety of vehicles on Namibian roads.
- 5.11.2 It is difficult to assess the precise relationship between vehicle inspection programs and the rate of road accidents. The United States Government Accountability Office (GAO) produced a report in 2015 on the potential effects of vehicle inspection programs on the rate of road accidents.⁴⁴ While the report found that inspection programs undoubtedly enhance vehicle safety, it also noted that the benefits and costs of such programs are difficult to quantify with certainty. In Pennsylvania, for example, more than 529,000 vehicles (20% of the state total) failed inspection and underwent repairs. However, national data showed that vehicle component failure is a factor in only 2 to 7% of road accidents. Because of this relatively small percentage, the GAO found it difficult to determine the relationship between inspections and crash rates. The report noted other difficulties of inspection programs, including lack of information regulating inspection criteria. Yet the study did find that inspections significantly improved vehicle safety.
- 5.11.3 It is therefore suggested that a comprehensive vehicle inspection program could be implemented in Namibia, for every vehicle used on public roads. Because of the necessary balance of costs and benefits, an introductory Namibian inspection programme could require vehicle inspection and certification of roadworthiness for every vehicle operated on a public road every five years. Namibia's relatively small population should mean that five-year inspections could be conducted fairly efficiently. The intervals of inspection could be gradually decreased until annual inspections were required.
- 5.11.4 Vehicle inspections could also cover other legal requirements that might be under monitored and enforced. Regulation 233(2), for example, requires that any operator of a vehicle on a public road must carry an emergency warning sign. This requirement is be one of many that could be monitored in a comprehensive vehicle inspection program.

5.12 Infrastructure

5.12.1 The infrastructure of road systems can affect safety in unexpected ways. Better roads are not necessarily safer roads, since prioritisation of speed over safety can have a negative impact on the conditions of safety for road users. For example, in 2008 a stretch of road near the St Mary's Mission Hospital near Nairobi in Kenya was upgraded, with almost all of the \$91 million budget spent on asphalt and next to nothing spent on safety.⁴⁵ A researcher at the St Mary's Mission Hospital estimates that two or three patients are re-admitted each week

⁴⁴ <u>http://www.gao.gov/assets/680/672131.pdf</u>

⁴⁵ http://www.economist.com/news/international/21595031-rich-countries-have-cut-deaths-and-injuries-causedcrashes-toll-growing?fsrc=explainsdig

following accidents on a 5km stretch of this upgraded road. Indeed, as Kavi Bhalla of the Johns Hopkins Centre for Global Health has said, development banks and donors can often make the situation worse by providing funds for new roads without sufficient planning for safety. Every year \$500 million is spent on new roads globally and according to the International Road Assessment Programme (IRAP) 1-3% of construction budgets would be enough to increase the safety of roads considerably.

- 5.12.2 Relatively low-cost infrastructural initiatives could make a significant improvement to the safety of Namibian roads. For example, IRAP has installed rumple strips on the hard shoulders in Mexico to alert drivers when they are veering from their lane. This is an inexpensive solution that could be particularly effective in Namibia where a significant proportion of crashes involve head-on collisions as a result of movement across traffic lanes.
- 5.12.3 Careful infrastructural planning that prioritises safety over speed has played a central role in Sweden's provision of the safest roads in the world. Low urban speed limits, pedestrian bridges and barriers that separate cars from bikes and oncoming traffic are some of the measures that have been implemented in Sweden. In addition, 1500 kilometres of 2+1 roads (roads with extra overtaking lanes) have been built, which means that fewer cars need to overtake on single carriageways.

6. CONCLUSION

- 6.1 According to a 2014 study conducted by the United Nations Economic Commission for Africa on the implementation of the African road safety action plan (2011-2020) Namibia scored below average in all categories.⁴⁶ The study employed an extensive range of criteria in order to gauge progress in the countries it assessed, placing particular emphasis on information and knowledge management with assessment criteria which asked whether the country had established a knowledge management portal; a national database; analysis and reporting systems; and data management capacities. The study found that 50% or more of the countries studied had done nothing to develop knowledge management portals on road safety issues in Africa. Half of those countries studied had also failed to meet targets of allocating at least 10% of road infrastructure investment on road safety and 5% of road maintenance resources on road safety.
- 6.2 Namibia's below average performance in every criteria category of this study represents its position under the Road Traffic and Transport Act 1999. Implementation of the provisions of the Road Safety Management Bill would go some way to improving the situation. In particular, the Bill's proposal for the establishment of a specialised funded Road Safety Agency, national Road Safety Management Plan, and integrated Road Safety Management System could create a framework within which meaningful assessment of specific problems can take place. In addition, the statutory obligation of the proposed Road Safety Agency to ensure the safety of all road users and the promotion of a culture that places priority on road safety highlights the recognition that wider society must also be engaged in this process.
- 6.3 The statutory duty of the Agency to facilitate research to inform the development of the Road Safety Management Plan is perhaps the most vital component of the proposals. The more that is known about the specific patterns of road accidents, the easier it will be to devise targeted

⁴⁶ https://www.unece.org/fileadmin/DAM/trans/doc/2014/wp1/ECE-TRANS-PRESENTATION-2014-7e.pdf

and efficient policy responses. Section 10(8)(c) goes as far as to establish that the Agency must identify and define the type of information and statistics to be collected in order to determine current and future levels of the components of the plan. If provisions such as these are implemented effectively the task of policy makers and legislators will be made considerably easier. Improved knowledge regarding the specific circumstances of road accidents should also enable delegation of authority to regional and local government. A desire for this is apparent in the Bill, section 10(9)(f), for example, calls for targeted initiatives in relation to specific geographical areas.

6.4 However, it is proposed that immediate improvements in the legal framework such as those outlined here could have an immediate impact on road safety, while other interventions are being studied and considered. Many of these measures would be inexpensive and would, in addition to enhancing road safety, provide data that could be utilised in furtherance of future road safety initiatives.

The main researcher on this project was Sam Forsyth, supervised and assisted by Dianne Hubbard.