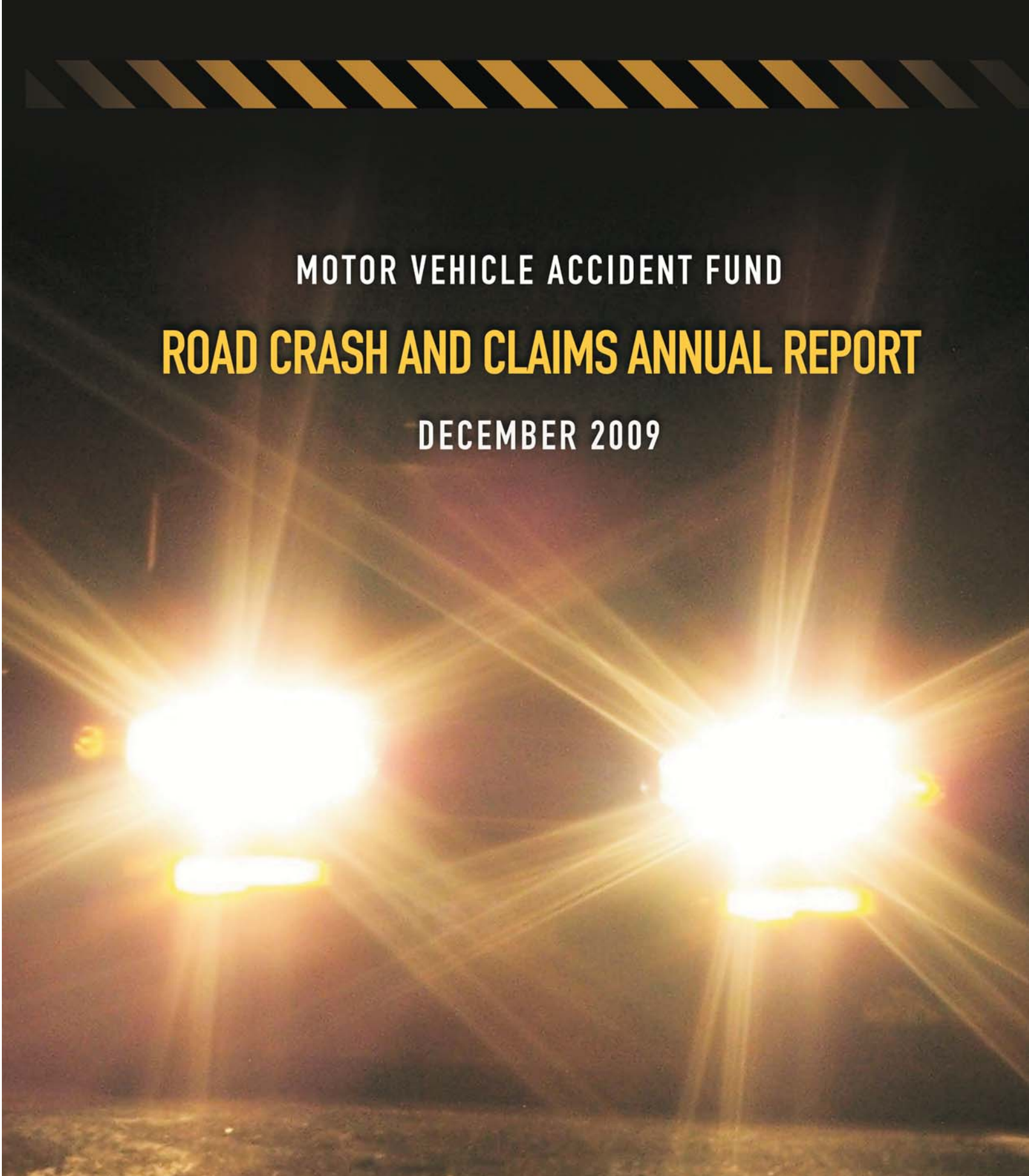


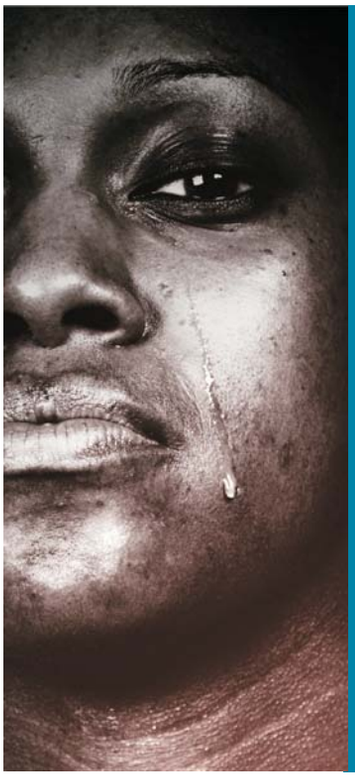
MOTOR VEHICLE ACCIDENT FUND

ROAD CRASH AND CLAIMS ANNUAL REPORT

DECEMBER 2009

KGATELOPELE

MVA FUND *lean on us*



Too Late for Tears

It only **TAKES A MOMENT** to **TAKE A LIFE** on the road.

That moment will **STAY WITH YOU FOREVER**.

Share the Road.
Go with Botho.

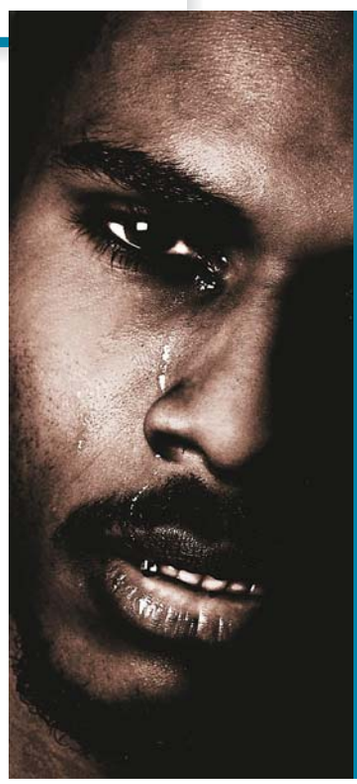
www.mvafund.bw

MVA FUND *lean on us*

Share the Road. Go with Botho.

Motor Vehicle Accident Fund is true to its mandate and is active and innovative in promoting road safety, taking every opportunity to put across the urgent message of responsible road use.

This ongoing public awareness effort takes many forms, including the use of powerful graphic material on advertisements, posters and banners.



I Didn't See Her

USING A CELLPHONE takes your **EYES OFF THE ROAD**.

Taking your eyes off the road **CAN KILL IN AN INSTANT**.

That moment will **NEVER LEAVE YOU.**

Share the Road.
Go with Botho.

www.mvafund.bw

MVA FUND *lean on us*

Motor Vehicle Accident Fund

ROAD CRASH AND CLAIMS

ANNUAL REPORT

DECEMBER 2009

Compiled by

Injury Prevention Department
MVA Fund House
Fairgrounds Office Park
Gaborone, Botswana

MARVIN MMUTLE
Chief Injury Prevention Officer

MVA FUND *lean on us*

Contents

SECTION 4 PEOPLE INVOLVED IN TRAFFIC CRASHES

SECTION 5 VEHICLES INVOLVED IN CRASHES

SECTION 6 MVA FUND CLAIMS ANALYSIS

Mission, Vision and Values

Mission

To enhance the quality of life by promoting road safety, compensating, rehabilitating and supporting those affected by road crashes.

Vision

Best Chance to Normal Life

Values

Customer focus

We provide support to our customers in order to heal the wounds inflicted by road crashes.

Integrity

We do business in a transparent way and treat everyone with respect.

Teamwork

Our environment provides opportunities for us to develop team spirit and work together to create more value for our customers.

Innovation

We continually improve what we do and how we do it.

MVA FUND *lean on us*

Foreword

This document – researched, prepared and published by Motor Vehicle Accident Fund – is the first of its kind to appear in Botswana. It addresses a very real and urgent need: to present clear and compelling statistical evidence of our nation's poor road safety record.

The MVA Fund Road Crash and Claims Report is another expression of the Fund's recognition of its responsibilities to reduce death and injury on the road. We carry out these responsibilities in many ways, in execution of the heavy mandate placed upon us by Government.

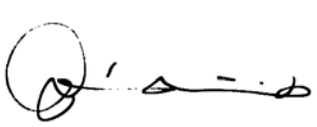
This Report goes to the root of the problem with detailed facts and figures that reflect a disturbing trend, and it is offered as a spur to all efforts that are taking place in the country to reverse this sad situation.

International experience shows conclusively that an increasing death rate is not an unavoidable consequence of increasing road motor transport. Moreover, research shows that substantial improvements in road safety can be achieved through concerted, sustained, evidence-based action. Therefore, mobilization of all sectors of society to offset the scale of current and escalating societal damage caused by road traffic injury is vital. Political priority for road safety action, coupled with adequate resources, can considerably improve Botswana's traffic safety landscape. The seriousness of the problem clearly warrants championing of road safety at higher levels.

The size of the challenge to bring road deaths and injuries under control needs to be widely understood by policy makers in all responsible departments and at all levels. There is pressing need for a greater awareness of the importance of analysing key problems; understanding new thinking on road safety, and a mindset shift from blaming the victim to focusing on all elements of the transport system. In addition, a recognition that Government action extends beyond setting legislative standards and norms, and also embraces system-wide evidence-based solutions to bring the problem under control, is crucial.

Botswana urgently needs a long-term, resource intensive process, backed by unwavering political and social will, to save lives and the misery and cost that road crashes cause. Developing public awareness of this pressing and largely avoidable problem, and creating a supportive climate for effective action, is a priority. This demands a nationwide awareness that the high levels of death and serious injury on our roads are wholly unacceptable, and a resolve to do something about it. The paramount goal of making our roads safer can be embraced by all sectors of the community and integrated into all national policies and practices.

MVA Fund presents its first Road Crash and Claims Report to the nation at large with the fervent hope that it will stimulate greater action – at the individual, community and national level – to meet the formidable challenges of road safety that confront us all.



Cross Kgosidiile
Chief Executive Officer
Motor Vehicle Accident Fund

Section 1 Background

1.1 ROAD SAFETY COUNTRY PROFILE

Road traffic crashes are among the leading causes of death and injury worldwide. Road traffic injuries account for a major share of all injuries globally. Traffic injuries kill 1.2 million people annually and injure about 50 million (WHO:2009). Although classed as a major public health problem by the World Health Organisation, road traffic crashes are still not regarded as a major problem by many countries.

Road traffic deaths and injuries impose a huge economic burden on developing economies, amounting to 1-2% of GDP in most countries (WHO:2009). The socio-economic impact is due to lack of advocacy, preventive programmes, and a holistic approach to road traffic crashes (WHO:2009). Prevention and management of traffic crashes is still a challenge to many developing nations, including Botswana.

Botswana loses more than 400 people to road crashes every year, with another 1 500 being seriously injured. More deaths and serious injuries occur in December than in any other month. Contributory factors include speed, drink driving, improper overtaking, tailgating, fatigue and total disregard of road laws and regulations.

These factors have impacted negatively on Botswana's traffic safety landscape, as shown in Table 1 and Figure 1. Table 1 shows a 28-year traffic safety trend and Figure 1 depicts Botswana's traffic safety performance in the SADC region. The trends show yearly increases in road crashes, casualties, vehicle numbers and population.

In a nutshell, there is a positive correlation between road crashes and human and vehicle population. Compared with other member states of SADC, Botswana's traffic safety record is not impressive. Botswana stood at 28.3 people killed per 100 000 population, faring better only than South Africa at 30.7 people killed per 100 000 population.

Table 1: Trends (1981–2009)

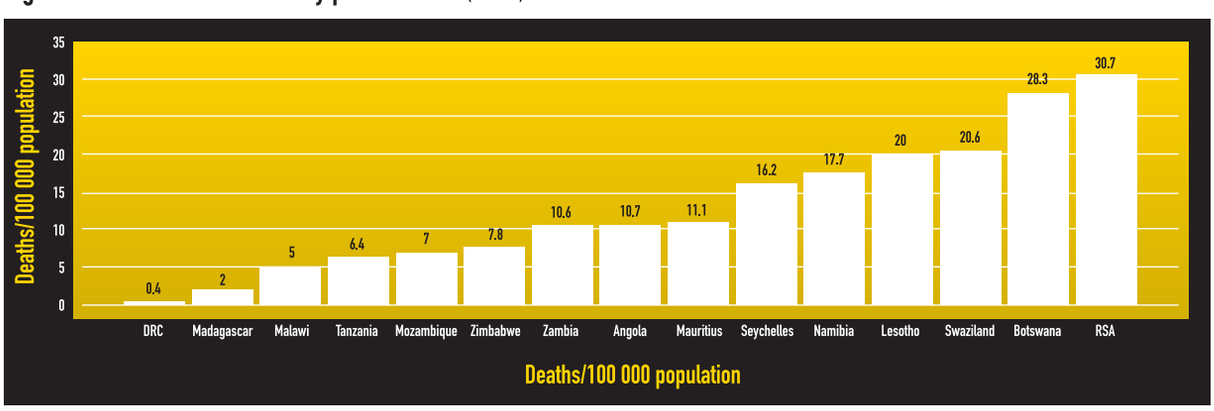
Year	Accidents	Casualities	Fatalities	Registered vehicles	Estimated population	Accidents/ 1000 vehicles	Casualties/ 1000 vehicles	Fatalities/ 10 000 vehicles	Fatalities/ 100 000 pop
1981	1715	940	93	34698	941027	49.4	27.1	26.8	9.9
1982	2648	1614	130	38451	975625	68.9	42.0	33.8	13.3
1983	2205	1251	176	42479	1011388	51.9	29.4	41.4	17.4
1984	3300	1799	168	47192	1048245	69.9	38.1	35.6	16.0
1985	3521	2369	198	51678	1086139	68.1	45.8	38.3	18.2
1986	4983	1448	182	55604	1125008	89.6	26.0	32.7	16.2
1987	4515	1746	191	57705	1164893	78.2	30.3	33.1	16.4
1988	5741	2923	262	64301	1205834	89.3	45.5	40.7	21.7
1989	6299	4136	295	70030	1247771	89.9	59.1	42.1	23.6
1990	7614	4845	314	80953	1290642	94.1	59.8	38.8	24.3
1991	8381	4871	349	83048	1326796	100.9	58.7	42.0	26.3
1992	9017	4909	368	90405	1378993	99.7	54.3	40.7	26.7
1993	9161	5136	379	94440	1424502	97.0	54.4	40.1	26.6
1994	9420	5171	352	108048	1458690	87.2	47.9	32.6	24.1
1995	9536	5247	410	117733	1493699	81.0	44.6	34.8	27.4
1996	10338	5457	338	128292	1529548	80.6	42.5	26.3	22.1
1997	11882	5956	411	133691	1546725	88.9	44.6	30.7	26.6
1998	14279	6887	453	139839	1598610	102.1	49.2	32.4	28.3
1999	16922	8049	494	149639	1603847	113.1	53.8	33.0	30.8
2000	16313	7790	529	154000	1642339	105.9	50.6	34.4	32.2
2001	17125	7945	526	166405	1680863	102.9	47.7	31.6	31.3

Table 1: Trends (1981–2009) continued

Year	Accidents	Casualities	Fatalities	Registered vehicles	Estimated population	Accidents/ 1000 vehicles	Casualties/ 1000 vehicles	Fatalities/ 1000 vehicles	Fatalities/ 1000 pop
2002	18610	8014	520	186865	1721204	99.6	42.9	27.8	30.2
2003	18329	7969	557	204228	1762512	89.7	39	27.3	31.6
2004	18136	7840	532	225182	1715355	80.5	34.8	23.6	31
2005	17522	7069	450	246681	1727372	71	28.7	18.2	26.1
2006	17035	6952	429	267117	1739556	63.8	26	16.1	24.7
2007	19487	7639	497	293755	1756651	66.3	26	16.9	28.3
2008	20415	8160	455	329270	1776283	62	24.8	13.8	25.6
2009	20000	7970	475	359223	1798372	55.7	22.2	13.2	26.4

Based on escalating road traffic crashes and their resultant casualties, MVA Fund felt duty bound to address road safety as its mandate rather than as its corporate social responsibility. This led to the Fund being mandated by legislation to promote traffic safety throughout the country, in terms of the Motor Vehicle Accident Fund Act of 2007.

Figure 1: SADC bloc traffic safety performance (2007)



It is this gloomy picture that led to MVA Fund being charged with the responsibility of promoting traffic safety through the implementation of the MVA Fund Act of 2007.

1.2 MOTOR VEHICLE ACCIDENT FUND BUSINESS

Motor Vehicle Accident Fund (MVA Fund) was established by an Act of Parliament in 1986 and started operating on 1 January 1987. The Fund was formed at short notice, its creation precipitated by the insurance industry's announcement of intended increases of third party premiums by up to 600 percent. These increases were necessitated by escalating road traffic crashes. Government was concerned that the resultant premiums would be out of reach for most motorists, hence the establishment of the Fund.

The Fund has undergone several changes over the years. The main intention of these changes was to better serve its customers and, more importantly, to broaden the Fund's coverage and its range of services to the general public. The Fund operates under the Motor Vehicle Accident Fund Act No.15 of 2007, which has reshaped its products and services. The new Act puts more emphasis on road safety and injury prevention as the main strategic intervention to save costs and enhance the quality of life of those hurt in road crashes. The Act also shifted the focus of the Fund from mainly compensating those affected by motor vehicle crashes to rehabilitating and supporting them, so helping to return them to as near a normal life as possible. The Act also reserves the indemnification of negligent drivers, while not taking away the rights of drivers to sue for additional benefits.

MVA Fund is directed by the Act to promote road safety, and is doing this energetically and innovatively. The Injury Prevention Department was formed with the sole function of promoting road safety through concerted public education and research. Resources are limited and must be used

Section 1 Background (continued)

effectively, and the only way to ensure this is to integrate research and evaluation into all road safety programmes. The Fund is investing substantially in road safety promotion, with anticipated future benefits. This clearly demonstrates the Fund's major socio-economic role. Road safety also forms the basis of sustainability, as the Fund can continue to survive and operate only if the scale of road crashes is contained and progressively reduced.

1.3 SOCIO-ECONOMIC ROLE OF MVA FUND

In addition to its wide-ranging safety promotion activities, the role of MVA Fund is to help restore road crash victims to health and productivity and to re-integrate them back into society. The Fund pays for medical and related services and compensates the victims or their families for loss of income or support resulting from road crashes. The Fund also helps to pay funeral costs.

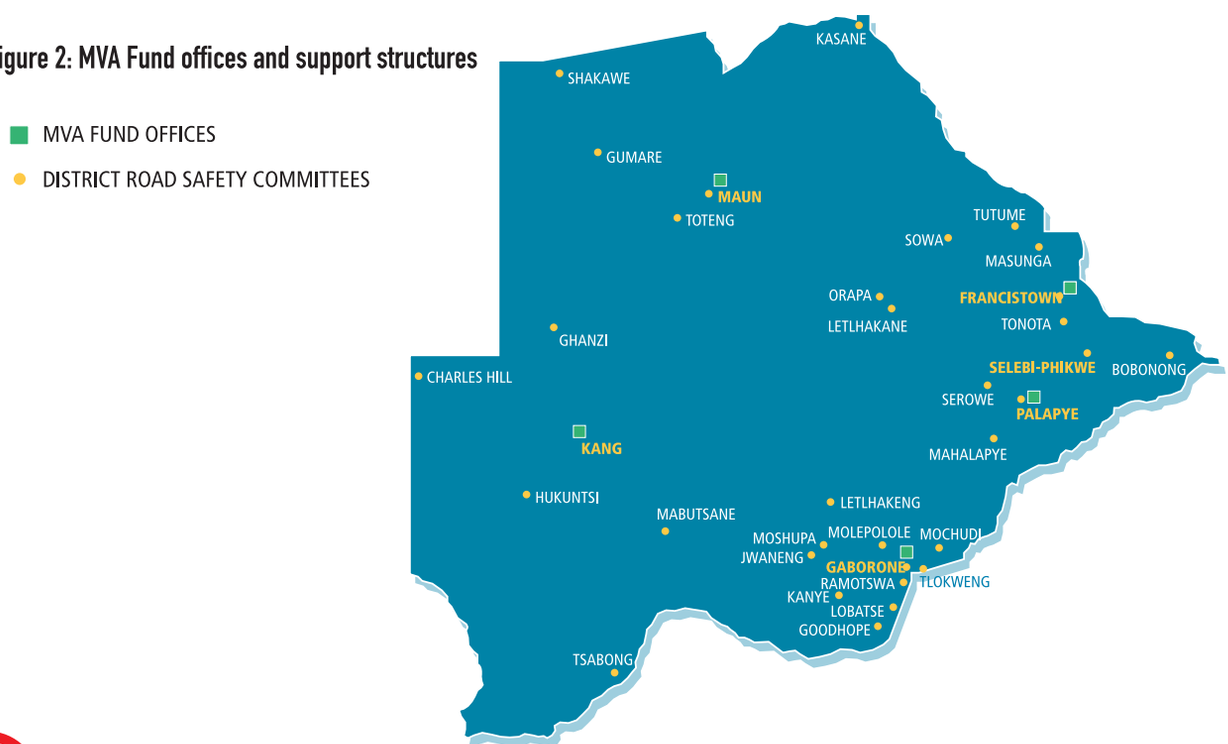
The Fund has introduced a return-to-work and return-to-independence programme, which helps to rehabilitate injured claimants and to help them enter or re-enter the workforce where possible. The success of these efforts depends on the degree of the injuries suffered and the rate of recovery. Rehabilitation is aimed at restoring the claimant's health and capabilities to a state where he or she is able to engage in activities of daily living and economic activities in order to gain independence.

MVA Fund has developed rapid response administrative systems to give injured crash victims prompt medical care and rehabilitation assistance, with the aim of avoiding recovery problems resulting from medical complications caused by delay. With this uppermost in mind, the Fund entered into a Memorandum of Agreement with local emergency medical service providers in 2009, to improve response times and treatment after road crashes. Prompt attendance by ambulance personnel and pre-hospital care reduces the risk of complications and improves the patient's chances of recovery.

1.4 GEOGRAPHIC FOOTPRINT OF THE FUND

To carry out its responsibilities and its socio-economic role, MVA Fund continues to take its services out to the people. The Fund presently has five offices – in Gaborone, Kang, Maun, Francistown and Palapye – strategically located in regions with high traffic volumes. To reduce the distance claimants have to travel to get services from the Fund, a sixth satellite office will be opened, in Selebi-Phikwe, in 2010. Figure 2 shows the MVA Fund presence and the offices of District Road Safety Committees, which are tasked with the promotion of road safety in the various Administrative Districts.

Figure 2: MVA Fund offices and support structures

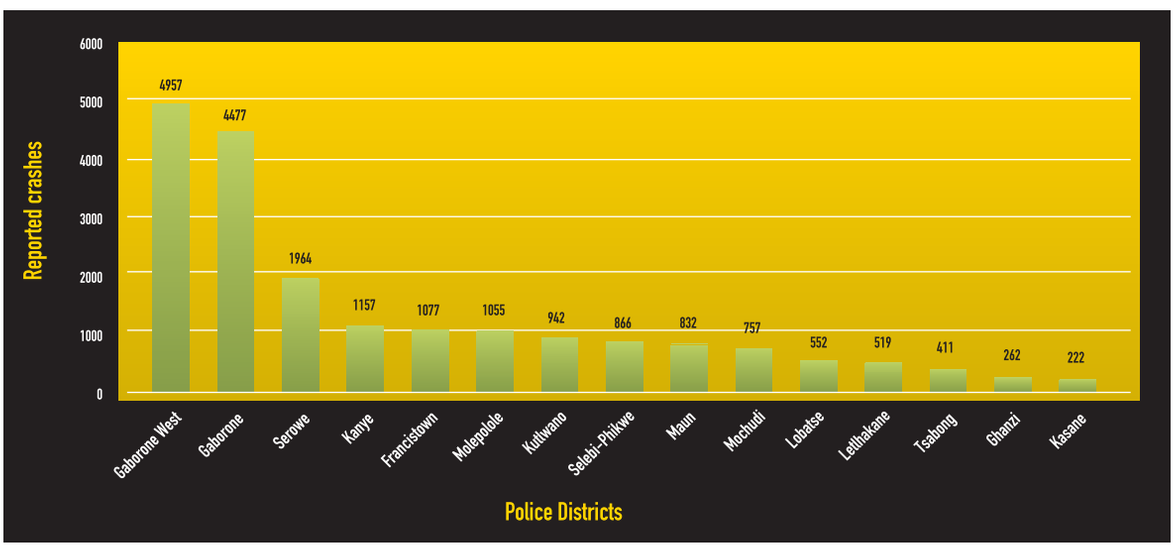


Section 2 Road Traffic Crashes by Police District

2.1 ROAD CRASHES BY POLICE DISTRICT

Statistics show that Gaborone West and Gaborone Police Districts accounted for 47.2% of all road crashes recorded in 2009. Serowe Police District is the third highest with 1 964 road crashes. Kasane, Ghanzi, Tsabong, Letlhakane and Lobatse Police Districts recorded low numbers of crashes. Figure 3 illustrates this scenario.

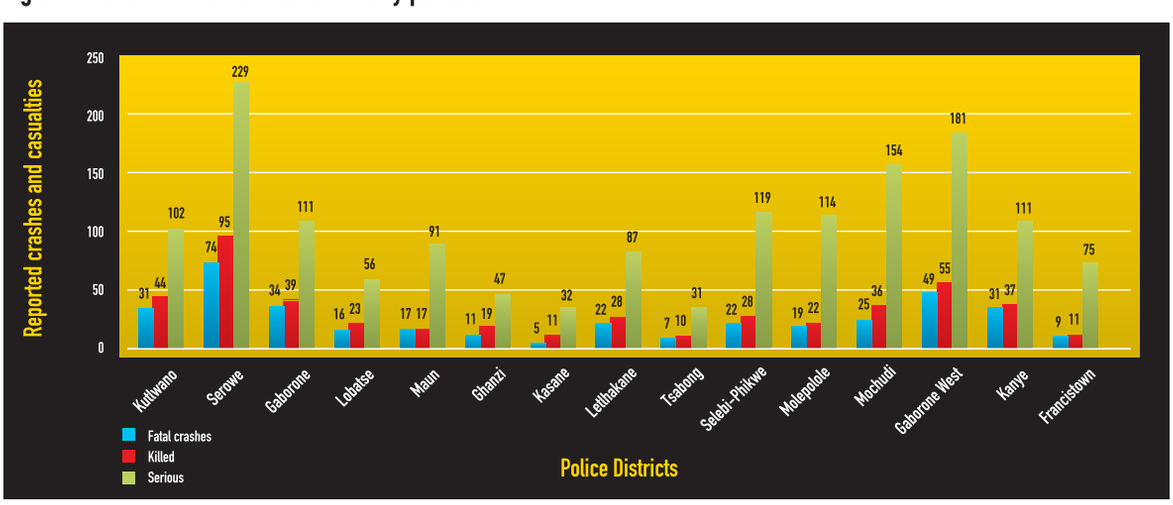
Figure 3: Total reported crashes by police districts



2.2 FATAL CRASHES AND CASUALTIES BY POLICE DISTRICT

Serowe Police District recorded the highest number of fatal crashes and deaths, followed by Gaborone West and Gaborone. In terms of total recorded crashes the two Police Districts of Gaborone are higher than Serowe. The greater number of road crashes and casualties in the Serowe Police District could be attributed to the fact that Serowe Police District consists of many Police Stations and that the high-volume traffic corridor passes through Serowe Police District. Police Districts with a low number of fatal crashes are Kasane, Tsabong and Ghanzi, but the number of fatalities is slightly higher than the number of fatal crashes, indicating that in these areas vehicle occupancy is slightly higher than in other areas.

Figure 4: Fatal crashes and casualties by police districts



Section 2 Road Traffic Crashes by Police District (continued)

2.3 ROAD CASUALTIES BY POLICE DISTRICT

The Police Districts of Kutlwano, Serowe, Gaborone, Mochudi, and Gaborone West accounted for 56.6% of fatalities and 50.5% of serious and 54.6% of minor injuries. Of those five Police Districts, Serowe recorded a significant number of road deaths. The Police Stations that recorded the most deaths in the Serowe Police District are Mahalapye (29 deaths), Palapye and Serowe (both 24).

Table 2: Casualties by Police Districts and Station, 2009

Police District	Police Station	Fatalities	Serious	Minor	Total
Kutlwano	Kutlwano	25	37	117	179
	Tatitown	12	36	167	215
	Matsiloje	6	27	136	169
	Tonota	1	2	25	28
	Sub total	**44**	**102**	**445**	**591**
Serowe	Mahalapye	29	88	202	319
	Palapye	24	45	270	339
	Serowe	24	46	216	286
	Machaneng	11	14	28	53
	Martindsrift	4	10	46	60
	Shoshong	2	12	54	68
	Maunatlala	1	14	40	55
	Sub total	**95**	**229**	**856**	**1180**
Gaborone	Broadhurst	23	64	276	363
	Tlokweng	9	20	124	153
	Central	4	14	149	167
	Borakanelo	3	13	97	113
	Sub total	**39**	**111**	**646**	**796**
Mochudi	Mochudi	27	91	251	369
	Dibete	7	54	134	195
	Sikwane	2	7	19	28
	Olifants	0	2	7	9
	Sub total	**36**	**154**	**411**	**601**
Gaborone West	Mogoditshane	23	77	366	466
	Gaborone West	12	45	285	342
	Ramotswa	9	28	89	126
	Naledi	8	21	102	131
	Sir Seretse Khama Airport	3	10	52	65
	Sub total	**55**	**181**	**894**	**1130**

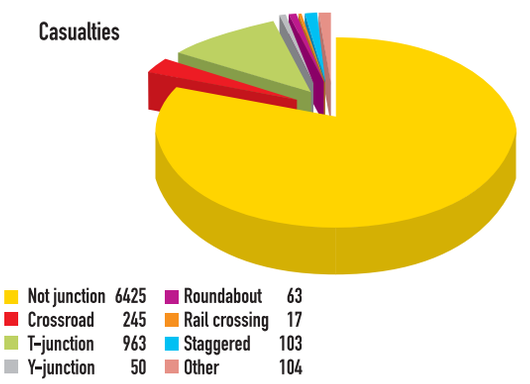
2.4 CASUALTIES BY JUNCTION TYPE

Sections of road without junctions accounted for 80.6% of casualties. In the same sections, 87.4% were killed, 86% received serious injuries and 78.6 % minor injuries. T-junctions accounted for 12% of the casualties. To put this into perspective, 13.4% of the road users received minor injuries at T-junctions, 8.5% were seriously injured and 7.8% were killed at T-junctions.

Table 3: Casualties by junction type

Junction type	Fatal	Serious	Minor	Total
Not junction	415	1327	4683	6425
Crossroad	6	31	208	245
T-junction	37	131	795	963
Y-junction	3	8	39	50
Roundabout	3	10	50	63
Rail crossing	3	4	10	17
Staggered	3	13	87	103
Other	5	16	83	104
Total	**475**	**1540**	**5954**	**7970**

Figure 5: Casualties by junction type



2.5 PROBABILITY OF INJURY BY POLICE DISTRICTS

Table 4 shows Police Districts by rank of risk of accident, death and injury. The emerging picture is that Gaborone Police District ranked highest, followed by Serowe and Francistown Police Districts. Serowe Police District recorded more fatalities and serious injuries than all the other Police Districts, pointing to differences in levels of risk in the Police Districts. The probability of injury figures show that Mochudi Police District has a high risk (20.3%) of injuries compared to other Police Districts. The other high injury risk Police Districts are Ghanzi, Kasane and Letlhakane, which recorded low numbers of total crashes. The Police Districts of Gaborone and Gaborone West have a high risk of road crashes. The probability of death is also high in Kasane, Letlhakane, Serowe, Mochudi and Kutlwano Police Districts.

Table 4: Police Districts by rank of risk of crash injury and death

Police District	Rank of risk of accident	Rank of Risk of death	Rank of risk of injury
Gaborone West	1	14	13
Gaborone	2	15	15
Serowe	3	6	4
Kanye	4	11	9
Francistown	5	13	14
Molepolole	6	7	11
Kutlwano	7	9	6
Selebi-Phikwe	8	5	8
Maun	9	8	12
Mochudi	10	1	5
Lobatse	11	10	7
Letlhakane	12	3	2
Tsabong	13	12	10
Ghanzi	14	2	1
Kasane	15	4	3

Section 2 Road Traffic Crashes by Police District (continued)

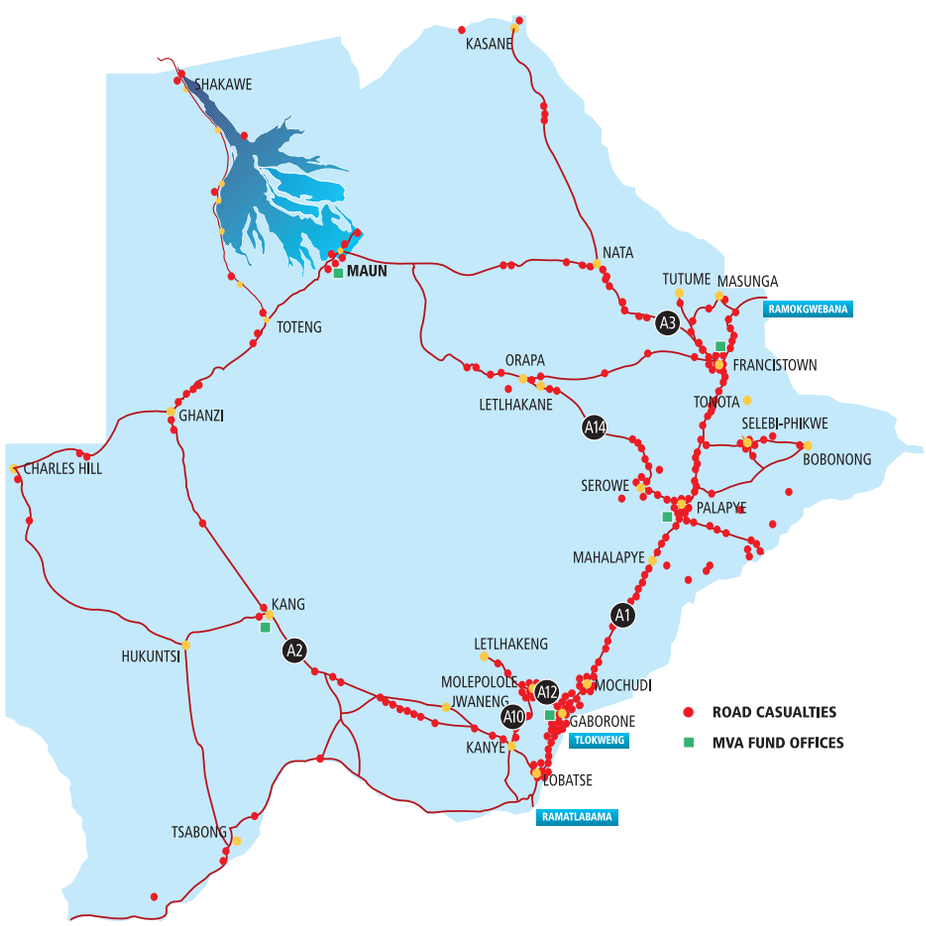
2.6 ROAD CRASHES BY CORRIDORS

Table 5 shows the distribution of crashes on main corridors in the country. The A1 corridor accounted for 47.7% of crashes on all corridors. Common collisions on the A1 corridor are rear-end, domestic animals, side and roll-overs. The proportion on head-on collisions along the A1 corridor is high when compared to other roads. Crashes common in the A2 corridor include collision with domestic animals, which accounted for 40.6% of all crashes.

The main problem in the A3 corridor is domestic animals, while collision with wild animals, rear-end and side collisions are high in the A10 corridor. The distribution of collisions along the main corridors shows that collisions with domestic animals are highly prevalent on the A1, A2 and A3. Head-on collisions are highly prevalent on the A1 followed by the A12. Rear-end crashes are common on the A1 and A12, and roll-overs are particularly prevalent on the A1. The pedestrian problem is more pronounced on the A12 and A1.

Table 5: Collision type by corridor

Road section	Rear-end	Side	Head-on	Hit pedestrian	Wild animal	Domestic animal	Obstacle on road	Obstacle off road	Roll-over	Other	Total
A1	256	211	36	38	18	230	18	37	138	128	1110
A2	28	19	6	23	21	119	3	9	36	29	293
A3	17	31	7	7	5	92	1	6	34	11	211
A10	84	59	7	19	0	77	1	8	27	39	321
A12	141	123	11	39	0	29	2	6	11	29	391



Section 3 Time and Environment

3.1 ROAD CRASHES BY HOUR OF DAY

This section focuses on road crashes and casualties by hour, day of the week, month, and light conditions.

Of the 20 000 crashes in 2009, 67.1% occurred between the hours of 6am and 10pm, with a peak between 6pm and 8pm. The peak period 6pm-8pm accounted for 13.2% of the total number of crashes, 12.7% of damage to property crashes, 14% of minor crashes, 17.4% of serious crashes and 15.9% of fatal crashes.

Table 6: Road crashes by hour of day

Time	Fatal	Serious	Minor	Damage only	Total
0000 - 0200	28	47	155	544	774
0201 - 0400	19	26	113	349	507
0401 - 0600	27	30	123	432	612
0601 - 0800	25	92	324	1426	1867
0801 - 1000	20	40	191	1252	1503
1001 - 1200	20	63	282	1616	1981
1201 - 1400	24	74	282	1712	2092
1401 - 1600	42	84	331	1694	2151
1601 - 1800	41	118	500	1817	2476
1801 - 2000	59	156	480	1951	2646
2001 - 2200	37	101	316	1629	2083
2201 - 2300	30	66	230	982	1308
Total	**372**	**897**	**3327**	**15404**	**20000**

3.2 ROAD CRASHES BY DAY OF WEEK

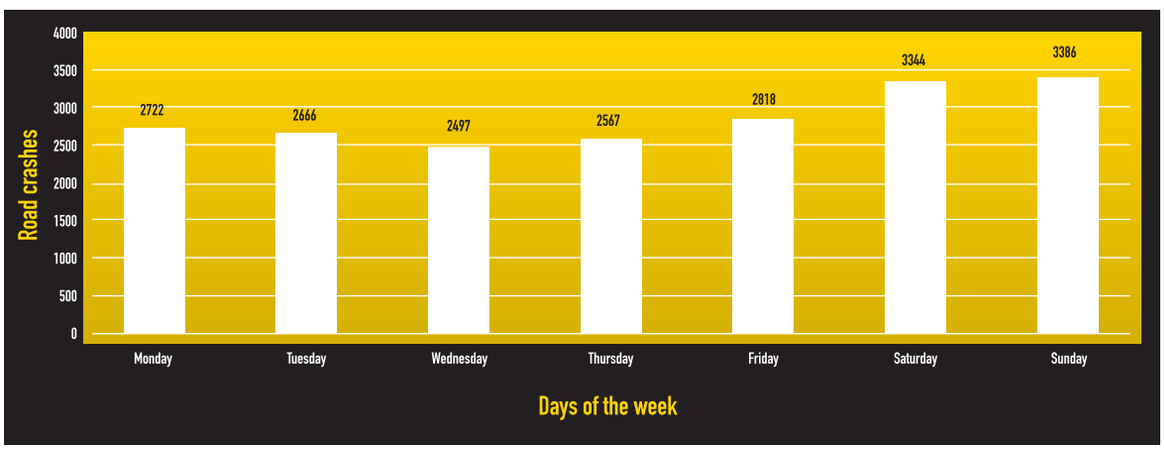
Looking at an average of 2 857 crashes per day of the week, it is clear that above-average days are Thursday, Friday and Saturday. Factors that could be attributed to the higher number of crashes over the weekend are: increased travel leading to fatigue, consumption of alcohol, speed and careless driving.

Table 7: Road crashes by day of the week

Sunday	77	151	522	1972	2722
Monday	42	94	399	2131	2666
Tuesday	31	81	328	2057	2497
Wednesday	32	95	433	2007	2567
Thursday	49	107	458	2204	2818
Friday	73	163	543	2565	3344
Saturday	68	206	644	2468	3386
Total	**372**	**897**	**3327**	**15404**	**20000**

Section 3 Time and Environment (continued)

Figure 6: Road crashes by day of the week



3.3 ROAD CRASHES BY MONTH

Table 8 shows crash severity by month. The distribution shows that on average 1 667 road crashes were recorded each month. January, February, March and May recorded above average. An average of 75 serious crashes were recorded each month, with January, February, March, May and December recording above average. On average, 31 fatal crashes were recorded each month, with March, April, August, September, and December recording above average.

Table 8: Road crashes by month

Month	Fatal	Serious	Minor	Damage only	Total
January	19	76	270	1427	1792
February	28	76	314	1367	1785
March	36	95	371	1483	1985
April	36	75	269	1193	1573
May	31	91	303	1348	1773
June	24	73	263	1276	1636
July	28	65	270	1249	1612
August	33	68	240	1265	1606
September	33	64	285	1161	1543
October	34	69	250	1189	1542
November	25	66	255	1299	1645
December	45	79	237	1147	1508
Total	**372**	**897**	**3327**	**15404**	**20000**

3.4 ROAD CRASHES BY LIGHT CONDITIONS

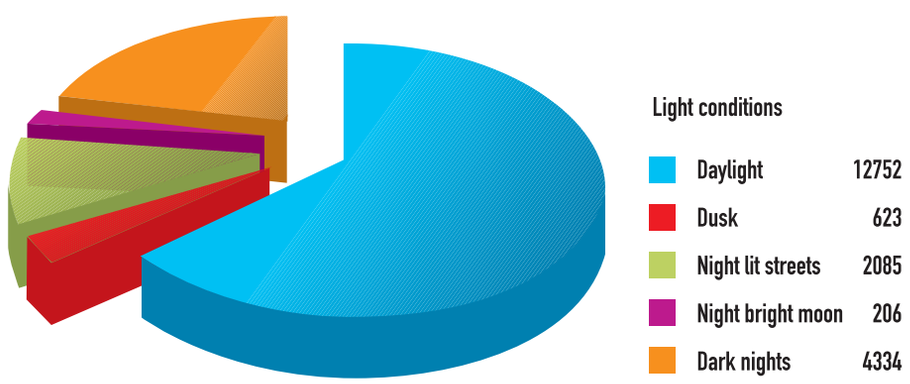
Table 9 and Figure 10 show that 63.8% of crashes occurred in daylight, 3% at dusk, 10.4% on lit streets at night, 1.03% on moonlit nights and 21.7% on unlit roads on dark nights. Most travel clearly takes place in daylight, and there is a significant amount of traffic on the roads at night.

3.4 ROAD CRASHES BY LIGHT CONDITIONS (continued)

Table 9: Road crash type by light conditions

Time	Fatal	Serious	Minor	Damage only	Total
Daylight	184	515	2026	10027	12752
Dusk	14	29	115	465	623
Night street lit	20	89	343	1633	2085
Night bright moon	8	13	40	145	206
Dark	146	251	803	3134	4334
Total	**372**	**897**	**3327**	**15404**	**20000**

Figure 7: Road crash by road conditions



3.5 LIGHT CONDITIONS BY COLLISION TYPE

Table 10 shows that rear-end collisions are common during daylight, when 72.8% of such crashes took place, followed by night-lit streets at 12.8% and dark nights at 11.5%. Head-on collisions were most frequent during daylight at 65% and on dark nights at 19.4%. Most collisions with domestic animals took place at night (64%) because of reduced visibility.

Table 10: Light conditions by collision type

COLLISION TYPE	LIGHT CONDITIONS					
	Day light	Dusk	Night street Lit	Night bright moon	Dark	Total
Rear-end	3295	106	577	24	521	4523
Side	3379	110	575	30	598	4692
Head-on	375	15	70	5	112	577
Hit pedestrian	990	49	146	12	266	1463
Wild animal	112	18	8	1	113	252
Domestic animal	562	101	77	71	1443	2254
Obstacle on road	486	59	81	10	178	814
Obstacle off road	729	43	126	10	292	1200
Roll-over	1434	100	180	25	437	2176
Other	1380	22	248	18	381	2049
Total	**12742**	**623**	**2085**	**206**	**4341**	**20000**

Section 3 Time and Environment (continued)

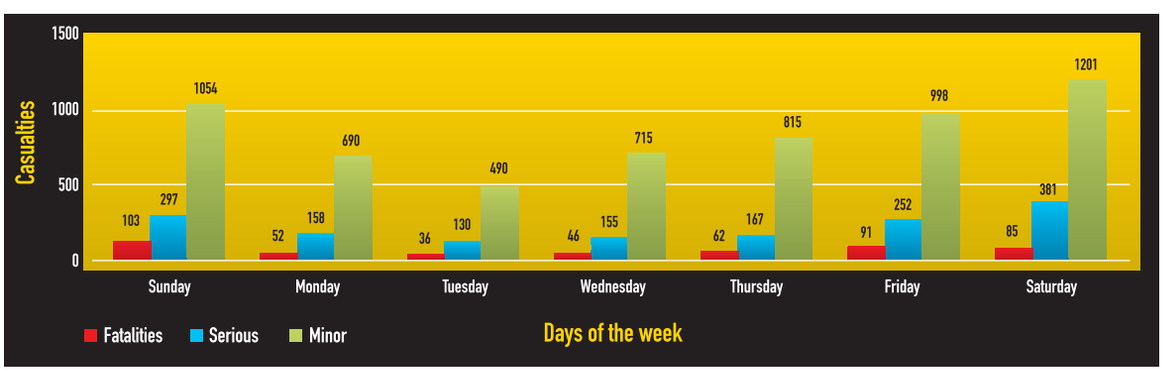
3.6 CASUALTIES BY DAY OF WEEK

On average, 1 138 casualties were recorded on each day of the week, with Sunday, Friday and Saturday above average. An average of 220 people were seriously injured on each day of the week, again with Sunday, Friday and Saturday above average. An average of 68 people were killed each day of the week, with the same three days above average.

Table 11: Casualties by day of the week

Day of the Week	Fatalities	Serious	Minor
Sunday	103	297	1046
Monday	52	158	690
Tuesday	36	130	490
Wednesday	46	155	715
Thursday	62	167	815
Friday	91	252	998
Saturday	85	381	1201

Figure 8: Casualties by day of the week



3.7 CASUALTIES BY HOUR OF DAY

Of the 475 people killed by road crashes, 15.8% lost their lives in or after crashes taking place between 6pm and 8pm. An average of 39.6 people died per two-hour time breakdown, with the following breakdowns recording above average: 6pm-8pm (189% above average), 2pm-4pm (141% above average), 4pm-6pm (121% above average) and 8pm-10pm (113.6% above average). Clearly, using the road between midday and midnight is risky and calls for extra vigilance.

Table 12: Casualties by time of day

Time	Fatalities	Serious	Minor	Total
0000 - 0200	37	91	317	445
0201 - 0400	19	42	198	259
0401 - 0600	36	75	258	369
0601 - 0800	32	132	579	743
0801 - 1000	26	83	317	426
1001 - 1200	29	91	498	618
1201 - 1400	34	120	497	651
1401 - 1600	56	165	617	838
1601 - 1800	48	220	850	1118
1801 - 2000	75	238	857	1170
2001 - 2200	45	164	583	792
2201 - 2400	38	119	384	541
Total	**475**	**1540**	**5955**	**7970**

Section 4 People involved in traffic crashes

4.1 ALL CASUALTIES BY AGE AND GENDER

Men between the ages of 21 and 55 accounted for 59.6% of total fatalities, and women in the same age group for 15.8%. Table 13 shows that the age group 16-40 is the hardest hit, followed by the 41-55 and 1-15 age groups. This is in line with Botswana's population, in which those of productive age predominate. It is to be expected that this predominance will be reflected in the crash casualties – which of course makes it essential to target those age groups in road safety strategies.

Table 13: Casualties by age and gender

	MALE				FEMALE			
Age Group	Fatalities	Serious	Minor	Total	Fatalities	Serious	Minor	Total
0 - 5	11	30	99	140	7	20	67	94
6 - 9	7	43	147	197	6	40	122	168
10-15	2	43	132	177	4	28	111	143
16 - 20	12	65	268	345	13	57	255	325
21 - 25	46	187	710	943	17	78	340	435
26 - 30	74	203	856	1133	16	86	364	466
31 - 35	59	152	611	822	8	66	229	303
36 - 40	39	98	391	528	6	44	163	213
41 - 45	25	58	234	317	11	37	134	182
46 - 50	18	40	185	243	8	16	97	121
51 - 55	22	33	113	168	9	19	52	80
56 - 60	15	35	77	127	2	12	37	51
61 - 65	9	13	55	77	5	10	28	43
66 - 70	2	6	22	30	4	3	13	20
71 - 75	5	4	14	23	0	2	3	5
76 - 80	7	3	13	23	3	3	7	13
81 - 85	1	3	2	6	2	1	1	4
86 - 90	0	0	1	1	0	2	0	3
91 - 95	0	0	1	1	0	0	0	0
Total	**354**	**1016**	**3931**	**5301**	**121**	**524**	**2023**	**2669**

4.2 FATALITIES BY AGE GROUPS

Of the 150 drivers who died in road crashes, 65% were aged between 25 and 44. Of the 211 passengers killed in road crashes, 71% were between the ages of 20 and 44, and of the 114 pedestrians killed, 12% were children up to the age of 4. Children aged up to14 accounted for 24.6% of the pedestrian deaths, indicating that they are at high risk. These figures point strongly to the need for road safety promotion efforts among children to be stepped up, with visits to schools, the formation of clubs, the production of special safety literature, and advocating the inclusion of traffic safety as a school subject rather than integrating it with other subjects as is presently the case.

Section 4 People involved in traffic crashes (continued)

Table 14: Fatalities by road user category and age

Age group	Driver	Passenger	Pedestrian	Total
0-4	0	3	14	17
6-9	0	0	9	9
10-15	0	6	5	11
16-19	1	8	7	16
20-24	11	28	8	47
25-29	30	56	12	98
30-34	24	31	7	62
35-39	30	21	10	61
40-44	14	14	6	34
45-49	7	11	8	26
50-54	13	10	11	34
55-59	6	8	3	17
60-64	4	7	5	16
65-69	3	4	1	8
70-74	2	1	2	5
75-79	4	3	3	10
80+	1	0	3	4
Total	**150**	**211**	**114**	**475**

4.3 ROAD USER BY CLASS OF SEVERITY

Of the 7 970 casualties reported, passengers accounted for 48%, drivers for 32% and pedestrians for 20%. Passengers accounted for 53% of the serious injuries, drivers for 25% and pedestrians for 22%. Passengers accounted for 44% of the fatalities, drivers for 32% and pedestrians for 24%. Because passengers make up a substantial part of total road casualties, the MVA Fund research unit is looking into ways of addressing this particular issue.

Table 15: Casualties by road user category and class of severity

Road user class	Fatalities	Serious	Minor	Total
Drivers	150	388	2026	2564
Passengers	211	809	2777	3797
Pedestrians	114	343	1152	1609
Total	**475**	**1540**	**5955**	**7970**

4.4 DRIVER CASUALTIES BY AGE AND GENDER

Men aged 21 to 50 make up most road casualties. The hardest hit age groups are 21-25, 26-30, 31-35 and 36-40 with a peak in the age group 26-30. There are far fewer women in the casualty figures. This calls for targeted traffic safety measures, to ensure that the messages and interventions are directed most effectively.

Table 16: Driver casualties by age and gender

Age group	Male	Female	Total
06-10	3	0	3
11-15	16	1	17
16 - 20	44	3	47
21 - 25	306	21	327
26 - 30	542	69	611
31 - 35	481	63	544
36 - 40	303	59	362
41 - 45	177	47	224
46 - 50	145	25	170
51 - 55	89	14	103
56 - 60	66	11	77
61 - 65	43	5	48
66 - 70	11	0	11
71 - 75	9	0	9
76 - 80	9	0	9
81 - 85	2	0	2
Total	**2245**	**318**	**2564**

4.5 ROAD CRASHES BY POSSIBLE CAUSE – DRIVERS ONLY

Causes of driver involvement in road crashes include: losing control of the vehicle (which could be attributed to speed), drinking and driving, unlicensed driving (hence low levels of competency), reversing negligently or incorrectly, tailgating and speeding. MVA Fund's public education campaigns give appropriate weight to all these factors.

Table 17: Causes of traffic crashes – drivers only

Cause of crash	Total
Any other negligence	8164
Following too close from behind	1886
Reversing negligently	1548
Losing control	1280
Failing to comply with traffic sign or signal	671
Unlicensed driver	629
Influence of drink or drugs	422
Speeding	398
Overtaking improperly	345
Turning without care	272
U-turning	103

Cause of crash	Total
Fatigued or asleep	60
Swerving to the left/right carelessly	47
Cyclist error	46
Dazzled by oncoming traffic lights	29
Overloading	18
Pulling off the road without care	13
Stopping suddenly	9
Negligence of Public Service Vehicle driver	8
Driver hampered by passenger, animal or luggage in vehicle	6
Physical defective	6
Negligently opening vehicle door	5

Section 4 People involved in traffic crashes (continued)

4.6 PASSENGER CASUALTIES BY AGE AND GENDER

Table 18 shows that passenger casualties are more less the same among men and women, with men slightly higher.

Table 18: Passenger casualties by age

Age group	Male	Female	Total
01 - 05	51	48	99
06 - 10	61	61	122
11 - 15	93	77	170
16 - 20	223	203	426
21 - 25	508	324	832
26 - 30	465	325	790
31 - 35	261	194	455
36 - 40	165	124	289
41 - 45	104	100	204
46 - 50	69	71	140
51 - 55	53	57	110
56 - 60	41	27	68
61 - 65	22	26	48
66 - 70	10	11	21
71 - 75	7	0	7
76 - 80	6	7	13
81 - 85	3	2	5
91 - 95	1	0	1
Total	**2143**	**1657**	**3800**

4.7 POSSIBLE CAUSES OF PASSENGER INVOLVEMENT IN ROAD CRASHES

The incidence of passengers falling from vehicles is high and this could be attributed to the use of open vehicles. The high involvement of passengers in road crashes is mainly due to their negligence.

Table 19: Possible causes of passenger involvement in road crashes

Causes	Total
Passenger negligence	52
Passenger falling from a vehicle	30
Passenger boarding or alighting without care	12
Passenger stealing a ride	8
Passenger under influence of drinks or drugs	1

4.8 PEDESTRIAN CASUALTIES BY AGE AND GENDER

Table 20 shows the distribution of pedestrians involved in road crashes, and that more males are involved; of the 3 800 reported pedestrian casualties 2 143 were males. Most of these casualties are in the 16-45 age group for both sexes.

Table 20: Pedestrian casualties by age

Age group	Male	Female	Total
01-05	89	46	135
06-10	133	107	240
11-15	68	65	133
16 - 20	78	119	197
21 - 25	129	90	219
26 - 30	127	72	199
31 - 35	80	46	126
36 - 40	60	30	90
41 - 45	36	35	71
46 - 50	29	25	54
51 - 55	26	9	35
56 - 60	20	13	33
61 - 65	12	12	24
66 - 70	9	9	18
71 - 75	7	5	12
76 - 80	8	6	14
81 - 85	1	2	3
86 - 90	1	2	3
Total	**913**	**693**	**1606**

4.9 POSSIBLE CAUSES OF PEDESTRIAN CASUALTIES

Collisions with pedestrians are mainly due to pedestrians crossing the road without due care. The use of public roads by pedestrians after drinking is also prevalent. Heightened education for motorists and for pedestrians on the use of designated crossing points, and respect for one another on the road, is called for. Table 21 shows possible causes of pedestrian casualties.

Table 21: Possible causes of pedestrian casualties

Causes	Total
Crossing without care	302
Any other negligence	131
Under influence of drinks or drugs	28
Walking or standing on road	23
Playing on road	19
Slipping or falling when crossing	7
Holding on to a vehicle	4
Sudden illness	1
Sleeping on the road	1

Section 4 People involved in traffic crashes (continued)

4.10 USE OF SEATBELT BY DRIVERS

The percentage of drivers using seatbelts stood at 84.0%, and those not doing so was 13.5%. Seatbelt use was high among the age groups 21-25, 26-30, 31-40 and 41-50 with more than 75% reported usage. The number of drivers not using seatbelts was highest in the under-30 age group. Initiatives to encourage the use of seatbelts should be targeted at young people. Taken as a whole, the use of seatbelts by drivers is quite significant and shows a general awareness of the benefits of doing so.

Table 22: Drivers by seatbelt use

Age group	Unknown	Worn	Not worn	Total
06-10	0	1	2	3
11-15	9	2	6	17
16 - 20	7	20	20	47
21 - 25	8	254	65	327
26 - 30	9	522	79	610
31 - 35	7	474	63	544
36 - 40	6	320	36	362
41 - 45	2	201	21	224
46 - 50	4	150	16	170
51 - 55	2	87	14	103
56 - 60	6	62	9	77
61 - 65	1	38	9	48
66 - 70	3	6	2	11
71 - 75	0	8	1	9
76 - 80	1	7	1	9
81 - 85	1	0	1	2
91 - 95	0	0	0	0
Total	**66**	**2152**	**345**	**2563**

4.11 USE OF SEATBELT BY PASSENGERS

Despite the fact that passengers are highly represented in road casualties, figures show that the use of seatbelts by passengers is quite high. It should be noted that many older passenger vehicles do not have belts fitted on the back seat.

Table 22: Passengers by seatbelt use

Age group	Unknown	Worn	Not worn	Total
01 - 05	0	83	16	99
06 - 10	6	103	13	122
11 - 15	9	129	32	170
16 - 20	5	367	54	426
21 - 25	7	700	125	832
26 - 30	10	672	108	790
31 - 35	3	407	45	455
36 - 40	0	243	46	289
41 - 45	1	186	17	204
46 - 50	2	123	15	140
51 - 55	2	92	16	110
56 - 60	3	57	8	68
61 - 65	1	41	6	48
66 - 70	0	19	2	21
71 - 75	0	6	1	7
76 - 80	0	11	2	13
81 - 85	1	3	1	5
91 - 95	0	1	0	1
Total	**50**	**3243**	**507**	**3800**

Section 5 Vehicles involved in traffic crashes

5.1 VEHICLE TYPE BY CLASS OF CRASH

Cars and pick-up trucks are the vehicle types most involved in crashes, and this is to be expected as they make up the majority of vehicles on the road. The Department of Road Transport Vehicle Registration and Licensing system gave the number of registered cars in the country at the end of 2009 as 175 439. The involvement of cars in crashes is proportional to the total vehicle population. Least involved in crashes are tractors, motorcycles and animal-drawn vehicles.

Table 24: Vehicle by class of collision

Vehicle type	Fatal	Serious	Minor	Damage only	Total
Bicycle	10	17	83	79	189
Motor cycle/moped	4	8	49	54	115
Car	190	450	1974	11680	14294
Taxi	5	17	98	231	351
4-wheel drive	41	93	347	2157	2638
Pick-up	124	289	1015	6470	7898
Light duty vehicle	28	55	185	799	1067
Lorry	23	46	184	1208	1461
Lorry with trailer	25	21	60	408	514
Mini-bus	24	73	271	938	1306
Bus	6	8	36	175	225
Tractor	6	7	11	30	54
Animal drawn	5	17	45	58	125
Other	14	46	148	1255	1463
Total	**505**	**1147**	**4506**	**25542**	**31700**

5.2 VEHICLE MANOEUVRE

Most (21 459) vehicles involved in crashes were travelling forward, and of these 2 193 were involved in crashes while turning to the right. Crashes while reversing, and being hit while parked off the road, were also common.

Table 25: Crashes by vehicle manoeuvre

Vehicle manoeuvres	Fatal	Serious	Minor	Damage only	Total
Going straight	429	907	3482	16641	21459
Turning right	17	59	319	1798	2193
Turning left	3	15	106	860	984
Crossing stream	4	7	27	101	139
Overtaking	18	41	110	292	461
U-turning	1	10	34	110	155
Merging	1	1	5	76	83
Diverging	1	2	11	137	151
Reversing	3	10	84	1578	1675
Sudden start	0	2	11	64	77
Sudden stop	1	2	16	113	132
Parked off road	8	22	47	1358	1435
Parked on road	1	3	16	187	207
Other	18	66	238	2227	2549
Total	**505**	**1147**	**4506**	**25542**	**31700**

Section 6 MVA Fund claims analysis

6.1 CLAIMS LODGED WITH MVA FUND (1987–2009)

Those who become casualties in road crashes are able to lodge claims for assistance from MVA Fund. The total number of claims so made from the inception of the Fund in 1987 to the end of 2009 was 37 845. This is 26.3% of all casualties recorded in the country during the same period. Between 2008 and 2009 the number of claimants increased by 15. Claims lodged with the Fund and the total number of casualties recorded show no significant change between 2008 and 2009.

The lowest number of claims lodged with the Fund was in 1987, representing only 3.1% of the total reported casualties in that year. The highest number of claims lodged was in 2006, representing 41.1% of national casualties recorded during the year. Figure 14 shows that the number of claims lodged has been increasing from 1987 to date. In 2009 a total of 3 217 claims were lodged with the Fund, being 40.4% of the 7 970 casualties recorded during the. Figure 13 and Table 26 illustrate the position.

Figure 9: Claims lodged with MVA Fund and total casualties (1987–2009)

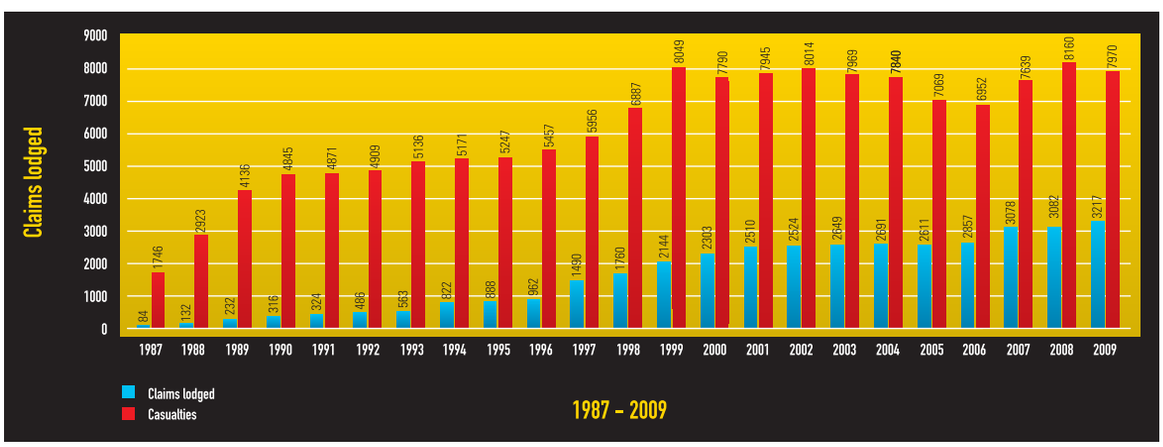


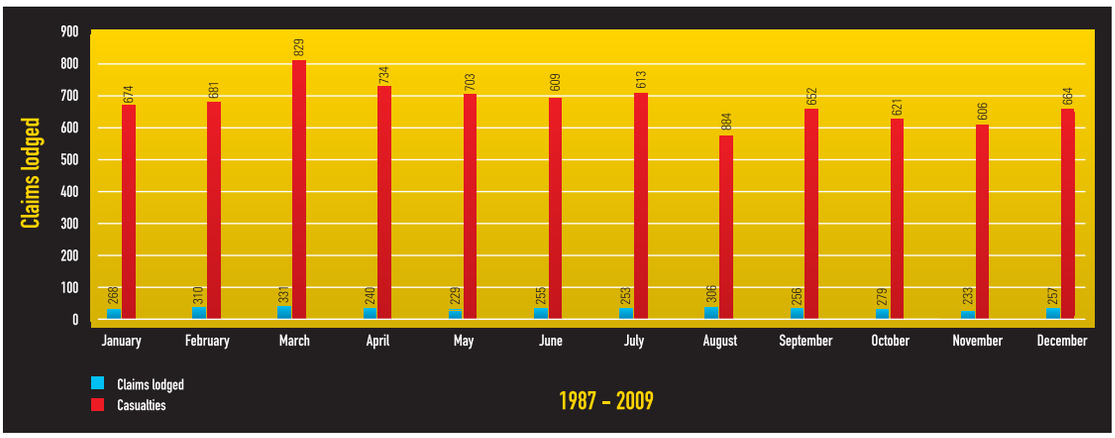
Table 26: Total claims lodged with MVA Fund by office lodged (2009)

MVA Fund Office	Frequency	Percent
Gaborone	1313	40.8
Francistown	1120	34.8
Palapye	474	14.7
Maun	270	8.4
Kang	40	1.2
Total	**3217**	**100**

6.2 MONTHLY CLAIMS LODGED WITH MVA FUND

The Fund received 3 217 claims in 2009, at a monthly rate of between 229 and 331. The lowest number of claimants (229) was in June and the highest (331) in March. There was a big difference in the number of claims in March (331) and June (240), with April-July being about constant, picking up in August and dropping in September.

Figure 10: Monthly claims lodged with the Fund



6.3 CLAIMANTS BY REGION

Table 27 shows the distribution of claims lodged with the Fund in 2009. Gaborone region received the highest number with 883 claims (27.4%) followed by Francistown with 440 (13.7%). The distribution of claimants follows the same pattern as total recorded crashes by Police Districts. Botswana Police Service statistics show that Gaborone Region recorded the highest number of crashes during the year. Kasane, Ghanzi, Tsabong and Letlhakane regions had the lowest number of claimants with the Fund during the year and they also experienced the lowest number of recorded crashes.

Table 27: Claimants by region (2009)

Region	Frequency	Percent
Gaborone	883	27.4
Francistown	434	13.7
Kanye	187	5.8
Molepolole	188	5.7
Maun	182	5.7
Selebi Phikwe	157	4.8
Lobatse	149	4.6
Mochudi	129	4
Serowe	127	3.9
Palaye	184	5.7
Mahalapye	154	4.8
Tutume	99	3.1
Ramotswa	58	1.8
Tsabong	77	2.4
Letlhakane	94	2.9
Ghanzi	43	1.3
Kasane	27	0.8
Foreign claimants	45	1.4
Total	**3217**	**100**

Section 7 MVA Fund initiatives

During 2009 MVA Fund undertook initiatives in many parts of the country aimed at improving traffic safety. These included roadside educational campaigns, awareness campaigns in the rural areas, road safety youth clubs and corporate presentations. The Fund spent P7 006 831 carrying out these activities.

The Fund participated in all the national roadside educational campaigns mounted over public holidays by the Department of Road Transport and Safety, and also organised its own safety mini-campaigns. The campaigns aimed to sensitise the public, especially drivers, on the urgent need for responsible road behaviour.

The Fund also introduced a programme to encourage and help fund the formation of road safety youth clubs. If children are taught road safety they are more likely to go on to be better drivers and responsible road users. Developing safety-conscious young people is a sound investment in the future.

The Fund also made extensive use of the electronic and print media to put across the message of road safety.

The Drive to Live Pledge encourages drivers to make a personal commitment to road safety.

DRIVE TO LIVE, the joint initiative by MVA Fund and Shell Oil Botswana, captured the country's attention and is an ongoing feature of the national road safety promotion effort. It typifies the Fund's energetic engagement with like-minded stakeholders in the public and private sectors to save lives on the road.
Here, MVA Fund Chief Executive Officer Cross Kgosidiile (right) and Shell Oil Botswana Country Chairman Boitumelo Sekwababe, seal the safety deal after signing a memorandum of understanding between their organisations – 'In expression of our mutual concern, and in declaration of our resolve to take joint action in a concerted effort to reduce death and injury on our roads'.

Taking the message to the workplace

Driving is dangerous. For those whose job it is to drive, it is doubly dangerous.

A study by the international Journal of Occupational and Environmental Health has shown that in Botswana over 1 000 work-related road accidents resulting in more than three days absence from work are reported every year, with about 60 deaths.

In Gaborone District road crashes account for about 80 percent of all work-related fatalities, the majority of victims being government employees. The study shows that most accidents occur in places of employment not regulated by any legislation enforcing occupational safety and health.

Driving for a living is a highly hazardous activity, involving far greater risks than in virtually any other occupation or activity in daily life. It follows that high mileage working drivers risk being involved in crashes much more than do drivers who do not drive for a living.

It is against this alarming backdrop that MVA Fund introduced its Road Safety at the Workplace programme. This important initiative takes the safety message direct to the workplace with an education campaign targeting companies and organisations in the private and public sectors to raise road safety awareness among staff – with particular emphasis on those who drive as part of their jobs.

In addition to the tragic loss of life and disability inflicted by road crashes, the cumulative costs to the nation are high and cut across all sectors of the economy. They include compensation and rehabilitation, damage to property, insurance claims, workers' compensation claims, administrative costs in respect of police and other investigations, and loss of productivity.

Many people killed or disabled in road crashes are skilled and educated, and their loss seriously threatens the development of the country. Their absence not only diminishes society but represents the loss of the substantial investment by the State in their education and training, as well as impacting on productivity across the board.

MVA Fund's Road Safety at the Workplace campaign goes to the heart of the matter by addressing itself direct to private companies, parastatals, Government departments, NGOs and the media.

The campaign aims to:

- encourage employers to integrate road safety into their health and safety programmes
- encourage commitment to road safety by senior management
- reduce the risk of drivers being involved in road crashes
- ensure that drivers adopt a safe driving attitude, while also being aware of such issues as wear and tear, fuel economy and environmental considerations
- coordinate a network of employers and champions of road safety, to promote responsible use of the road and so reduce deaths and injuries caused by vehicles used for business purposes.

Key areas include:

- management commitment to road safety
- vehicle maintenance
- incident reporting
- employee consultation
- penalties for breaching organisational rules or road laws
- induction programmes
- incentives and disincentives
- best fleet selection
- work scheduling.

Section 7 MVA Fund initiatives (continued)

Safety clubs in schools, to teach tomorrow's drivers

The clubs are a vital complement to the traffic safety education that takes place in the classroom.

Motor Vehicle Accident Fund is a strong advocate of Traffic Safety Clubs in schools, and has drawn up detailed guidelines to encourage and help schools to set up and run the clubs for the benefit of their children and the local community.

The clubs are seen as a vital complement to the traffic safety education that takes place in the classroom as part of the Botswana school curriculum. Traffic safety is taught in the lower and upper primary schools, but is not included in the syllabus of the secondary and senior secondary schools, where it is left largely to the teachers' discretion.

Traffic Safety Clubs will help bridge this gap and ensure that the critical subject is part of the learning experience of the child throughout the school years.

work alone cannot teach critical skills such as crossing the road, which is a huge problem in Botswana, with many pedestrian deaths. Practical training is the most effective way of developing awareness, skills and judgment among young children. The Safety Clubs will do this by exposing them to real traffic situations in a controlled and safe way, so preparing them to deal with different situations at each stage of their increasingly independent use of the road, and later as adults and drivers.

In short, Traffic Safety Club programmes will provide our children with the skills and knowledge necessary to build a lifetime of responsible road use, with lasting benefits to themselves and to society.

BE SAFE, BE SEEN. Walking to school is a daily hazard for children, who are the most vulnerable road users. Crossing the road is a huge problem in Botswana, with many pedestrian deaths.

The Department of Road Transport and Safety Children's Traffic School has given thousands of youngsters hands-on safety experience to take with them into adulthood. MVA Fund supports this vital activity.

Schools can set up and develop their own Traffic Safety Clubs by:

- putting up and maintaining a prominent road safety board
- running school traffic safety competitions
- giving class and assembly presentations on road safety topics
- giving presentations on MVA Fund products and services
- promoting safe walking to school – 'Be Safe, Be Seen'
- staging awareness rallies.

Club activities can include sponsored essays, debates, 'Park Smart' campaigns, in-car safety campaigns, road safety plays, safer footpaths, pupil patrols, school travel plans, and walk-to-school campaigns.

MVA Fund encourages the setting up of Traffic Safety Clubs and makes itself available to advise any school that is interested in taking this very important step for its children and its community.

The risks of driving – from alcohol to road rage

Comprehensive Road Risk Policy is good advice for all.

MVA Fund has drawn up a comprehensive Road Risk Policy report which it is happy to share with public and private sector bodies to reduce death and injury on the road.

The document provides valuable guidance and direction to the keepers and users of company vehicles and to employees who use private vehicles for business purposes. But the same safety advice applies equally to all drivers – whether they are at the wheel of a heavy vehicle on the open road or just going to work or the shops.

The MVA Fund Road Risk Policy covers these topics in detail:

- Driving licences
- Vehicle maintenance
- Planning the journey
- Fatigue
- Speed
- Driver training
- Alcohol and drugs
- Breakdowns – windscreen and puncture situations
- Crash situations
- Road rage
- Mobile phone use
- Theft, break-in and security
- Hazards
- Eyesight
- Medical fitness
- Responsibility

The document is an eye-opener and is essential reading for all who have responsibility for driving and operating commercial and private vehicles.

Heavy vehicles are a particular hazard in a country that relies to a large degree on road haulage.

Section 7 MVA Fund initiatives (continued)

The safety message goes up for all to see

Motor Vehicle Accident Fund is energetic and innovative in carrying out its responsibilities to promote road safety. The Fund acts in many ways to heighten public awareness of the urgent need to reduce the very high rate of death and injury suffered on the road.

Among these initiatives is a programme to brand bus terminals in different parts of the country with powerful safety messages to encourage drivers and passengers to use the road safely.

Section 8 MVA Fund 2010 traffic safety road map

The year 2009 did not see much improvement on previous years. In light of this, MVA Fund will in 2010 increase its investment in road safety by implementing new initiatives such as the Occupational Road Risk Programme, the Community Road Safety Grant Scheme, strengthening the efforts of the Botswana Police Service (Traffic Branch), and equipping buses with alcohol detectors (breathalyzers) as a move to curb drink driving. In addition, the Fund will procure five fully equipped ambulances for Princess Marina and Nyangabwe referral hospitals.

Currently the Department of Road Transport and Safety faces the very serious problem of people driving without licences. This highly disturbing situation has come about because of the processing backlog caused by lack of equipment and personnel. The Department is also experiencing problems due to its manual systems of issuing passenger permits and drivers' licences, resulting in people fraudulently obtaining licences and passenger transport permits.

In a concerted move to tackle the problem, MVA Fund will provide a large consignment of computer equipment to automate the Department's systems and so hopefully close the loopholes that lead to licence and permit fraud.

The Fund's position is that collective effort is essential to improve road safety, and synergies such as that between itself and DRTS, and other stakeholders, should be energetically promoted to obtain better results.

JOINING HANDS FOR SAFER ROADS

The MVA Fund Community Road Safety Grant Scheme is a farsighted initiative to encourage and empower local communities to take action to improve road safety.

Local community group projects eligible for this funding include:

- Programmes that will reduce road crashes in a particular area.
- Initiatives targeting drinking and driving, speeding and fatigue.
- Projects to improve the safety of particular groups such as children, the disabled and the elderly.
- Youth and school road safety clubs.

Several organisations have taken up the Fundís invitation to submit proposals for finance to implement their own schemes in their own areas.

REFERENCES AND USEFUL SITES

- Elvik R, Vaa T. The handbook of road safety measures. Amsterdam 2004.
- Country classification: Classification of Economies Washington DC, World Bank Group, 2007.
- Motor Vehicle Accident Fund website.
- Central Statistics Office: Transport statistics Annual Report 2008.
- World Health Organisation Global Status on Road Safety 2009.
- Central Statistics Office: 2001 Population and Housing Census and Population projections.

Annexure

Figure 1: Vehicles registered by stations

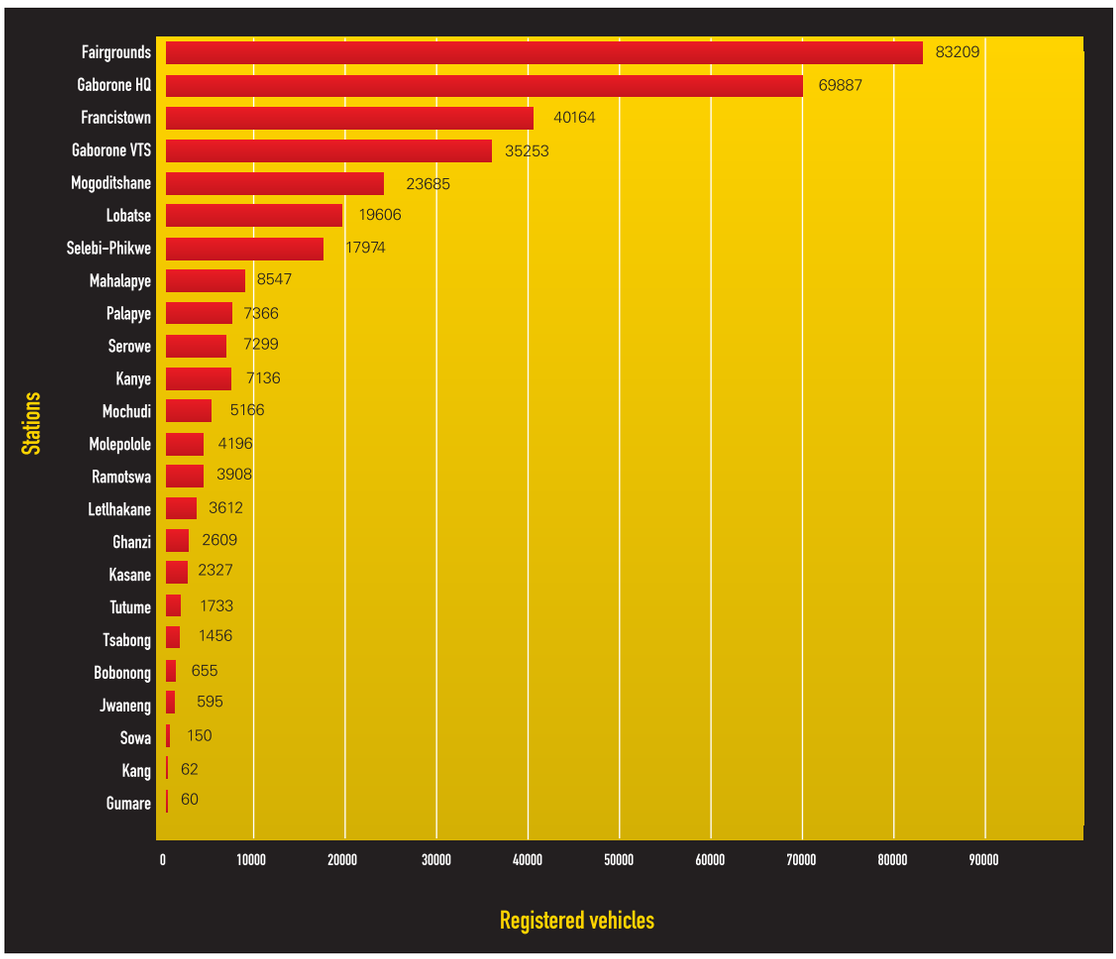


Table 1: Number of registered vehicles by DRTS offices

STATION	YEAR										
	1995–2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Gaborone HQ	42971	2365	1997	2398	4164	3624	2364	2820	4000	3184	**69887**
Gaborone VTS	8082	2303	2188	1376	2510	4302	2742	3089	4265	4396	**35253**
Fairgrounds	22570	5260	7990	6868	6696	5443	5856	7521	8819	6186	**83209**
Kanye	6227	76	93	82	86	106	93	106	112	155	**7136**
Palapye	3289	172	288	265	467	563	374	549	590	809	**7366**
Maun	5525	741	918	776	958	763	470	671	896	863	**12581**
Lobatse	7343	1072	1444	1229	1087	1209	925	1069	1844	2384	**19606**
Mahalapye	4708	534	493	483	428	339	220	365	509	468	**8547**
Tsabong	911	66	160	97	54	38	15	27	41	49	**1458**
Kasane	1180	106	155	120	97	68	70	129	167	235	**2327**
Molepolole	3329	68	115	92	89	64	49	64	145	181	**4196**
Selebi-Phikwe	9271	855	1 021	741	1309	1113	724	896	1000	1044	**17974**
Letlhakane	2663	78	146	108	92	127	69	78	119	132	**3612**
Serowe	4117	449	515	418	386	269	184	237	378	346	**7299**
Ramotswa	2179	120	83	44	69	104	91	128	365	725	**3908**
Mochudi	4035	111	143	119	133	112	74	64	108	267	**5166**
Francistown	18197	2145	2418	1890	2113	2167	1890	2834	3913	2597	**40164**
Ghanzi	1529	107	180	163	90	77	62	88	134	179	**1080**
Tutume	953	60	22	23	21	23	35	74	333	189	**1733**
Bobonong	514	31	11	14	8	11	2	9	32	23	**655**
Jwaneng	46	47	55	46	86	69	50	54	70	72	**595**
Gumare	0	0	14	2	1	4	0	14	8	19	**62**
Kang	0	0	11	9	10	11	7	3	4	5	**60**
Mogoditshane	0	0	0	0	0	893	4064	5753	7603	5372	**23685**
Sowa	0	0	0	0	0	0	6	11	60	73	**150**
TOTAL	**149639**	**16766**	**20460**	**17363**	**20954**	**21499**	**20436**	**26653**	**35515**	**29953**	**359238**

Table 2: Car crash severity by Police District and Police Station

Police District	Police station	Fatal	Serious	Minor	Total
Lobatse					
	Lobatse	7	14	85	106
	Ramatlabama	6	13	21	40
	Woodhall	4	17	71	92
	Goodhope	6	12	27	45
	Sub total	**23**	**56**	**204**	**283**

Annexure (continued)

Table 2: Car crash severity by Police District and Police Station (continued)

Police District	Police station	Fatal	Serious	Minor	Total
Maun					
	Gweta	2	20	32	54
	Maun	6	39	181	226
	Sehitwa	4	12	52	68
	Seronga	1	5	22	28
	Shakawe	3	7	23	33
	Gumare	1	8	42	51
	Sub total	**9**	**32**	**139**	**180**
Ghanzi					
	Ghanzi	15	29	63	107
	Kalkfontein	2	3	14	19
	Charleshill	1	9	11	21
	Nojane	1	6	36	43
	Sub total	**19**	**47**	**124**	**190**
Kasane					
	Kasane	1	3	17	21
	Kachikau	1	2	3	6
	Pandamatenga	9	27	33	69
	Sub total	**11**	**32**	**53**	**96**
Letlhakane					
	Dukwi	5	18	23	46
	Letlhakane	9	28	53	90
	Nata	3	8	46	57
	Orapa	7	14	51	72
	Rakops	4	15	20	39
	Sua Pan	0	4	9	13
	Sub total	**14**	**41**	**126**	**181**
Tsabong					
	Bokspits	0	1	8	9
	Kang	3	11	28	42
	Tsabong	3	4	26	33
	Tshane	0	5	27	32
	Werda	1	4	36	41
	Middlepits	3	6	13	22
	Sub total	**7**	**19**	**102**	**128**
Selebi-Phikwe					
	Bainsdrift	3	7	33	43
	Bobonong	1	9	38	48
	Botshabelo	7	30	56	93
	Selebi-Phikwe	6	34	138	178
	Semolale	0	0	10	10
	Serule	11	39	73	123
	Sub total	**24**	**103**	**277**	**404**

Police District	Police station	Fatal	Serious	Minor	Total
Molepolole					
	Letlhakeng	6	26	69	101
	Molepolole	9	33	296	338
	Thamaga	7	36	150	193
	Takatokwane	0	8	8	16
	Sojwe	0	11	25	36
	Sub total	**16**	**88**	**479**	**583**
Kanye					
	Sejelo	9	37	84	130
	Jwaneng	11	17	76	104
	Moshupa	8	21	80	109
	Pitsane Molopo	0	3	23	26
	Mabutsane	5	14	54	73
	Kanye	4	19	78	101
	Sub total	**17**	**57**	**235**	**309**
Francistown					
	Francistown	8	30	213	251
	Tshesebe	0	15	53	68
	Tutume	2	17	27	46
	Masunga	1	13	45	59
	Sub total	**11**	**75**	**338**	**424**

POLICE DISTRICTS AND THEIR POLICE STATIONS

Francistown Police District	Francistown, Matsiloje, Tatitown, Tonota, Tshesebe, Tutume, Masunga and Kutlwano
Letlhakane Police District	Dukwi, Letlhkane, Nata, Orapa, Rakops and Sua Pan
Serowe Police District	Machaneng, Mahalapye, Martinsdrift, Palapye, Serowe, Shoshong and Maunatlala
Tsabong Police District	Bokspits, Kang, Mabutsane,Tsabong, Tshane and Werda
Gaborone Police District	Broadhurst, Central, Urban, Borakanelo and Tlokweng
Selebi-Phikwe Police District	Bainesdrift, Bobonong, Botshabelo, Selebi Phikwe, Semolale and Mmadinare
Lobatse Police District	Goodhope, Lobatse, Ramotswa and Woodhall
Molepolole Police District	Letlhakeng, Molepolole and Thamaga
Maun Ploice District	Gweta, Maun, Sehithwa, Seronga, Shakawe and Gumare
Mochudi Police District	Dibete, Mochudi, Olifant's Drift and Sikwane
Gantsi Police District	Gantsi, Kalkfontein, Mamuno and Ncojane
Gaborone West Police District	Gaborone West, Naledi, Ramotswa, Sir Seretse Khama Airport and Mogoditshane
Kasane Police District	Kasane, Kavimba, Kazungula, Panadamatenga and Kasane Airport
Kanye Police District	Kanye, Jwaneng, Moshupa and Phitshane Molopo

Annexure (continued)

Table 3: Collisions by corridors

Road section	Rear-end	Side	Head-on	Hit pedestrian	Wild animal	Domestic animal	Obstacle on road	Obstacle off road	Roll-over	Other	Total
A1	256	211	36	38	18	230	18	37	138	128	1110
A12	141	123	11	39	0	29	2	6	11	29	391
A10	84	59	7	19	0	77	1	8	27	39	321
A2	28	19	6	23	21	119	3	9	36	29	293
A3	17	31	7	7	5	92	1	6	34	11	211
A14	11	8	0	3	2	22	1	5	13	10	75
A33	2	4	1	0	14	14	2	6	20	8	71
B140	3	1	1	0	2	34	5	2	8	7	63
A20	1	1	0	0	1	28	1	1	8	5	46
B111	7	10	0	6	1	7	0	2	3	4	40
A15	6	4	0	0	4	10	1	2	4	7	38
B145	2	5	1	5	0	14	0	0	5	5	37
A35	3	7	1	1	4	10	1	3	2	3	35
A30	2	4	2	1	2	6	0	2	9	1	29
B120	3	9	1	1	0	7	0	3	3	0	27
B202	5	4	1	1	0	6	1	1	3	2	24
A16	6	4	1	1	1	2	0	2	3	0	20
B101	0	5	0	1	0	7	0	1	2	2	18
B112	1	4	0	1	1	9	0	0	1	1	18
B130	2	2	0	0	0	5	2	1	1	3	16
B211	0	1	0	1	0	4	1	1	5	3	16
B214	1	2	0	0	0	4	0	1	6	1	15
B300	4	0	0	0	0	4	1	1	5	0	15
B157	1	0	2	2	0	6	0	0	2	2	15
B162	0	1	0	0	0	8	0	2	1	3	15
B102	0	1	0	1	1	8	0	0	3	0	14
B135	1	4	2	1	0	1	0	1	1	2	13
B141	0	0	0	0	0	6	0	2	2	3	13
A11	4	6	0	1	0	0	0	0	1	0	12
B146	0	1	1	1	0	3	0	0	5	1	12
B150	1	0	1	0	0	7	0	1	1	1	12
B151	0	0	0	0	0	7	2	1	0	1	11
B210	2	0	0	1	1	4	1	0	1	0	10
B122	0	2	0	0	0	3	0	0	0	2	7
B147	0	2	0	0	0	3	0	0	1	1	7
B148	0	1	0	0	0	4	1	0	1	0	7
B152	1	0	1	0	0	3	0	1	0	0	6
B123	0	0	0	1	0	2	0	0	0	1	4
B105	2	1	0	0	0	0	0	0	1	0	4
B334	0	0	0	0	0	0	0	1	3	0	4

Road section	Rear-end	Side	Head-on	Hit pedestrian	Wild animal	Domestic animal	Obstacle on road	Obstacle off road	Roll-over	Other	Total
A31	0	0	0	1	0	0	0	1	0	0	2
A13	0	1	0	0	0	0	0	0	0	0	1
A141	0	0	0	0	0	0	0	0	0	1	1
A151	0	0	0	0	0	1	0	0	0	0	1
B142	0	0	0	0	0	0	0	0	0	1	1
B303	0	0	0	0	0	1	0	0	0	0	1
B310	2	0	0	1	0	0	0	0	0	0	3
B303	0	0	0	0	0	1	0	0	0	0	1
B355	0	0	0	0	0	1	0	0	0	0	1
Total	**599**	**538**	**83**	**159**	**79**	**809**	**45**	**110**	**370**	**317**	**3109**

Table 4: Contributory factors

Cause of crash		Total
Driver	Any other negligence	8164
	Following too close from behind	1886
	Reversing negligently	1548
	Losing control	1280
	Failing to comply with traffic sign or signal	671
	Unlicensed driver	629
	Influence of drinks or drugs	422
	Excessive speed	398
	Overtaking improperly	345
	Turning without care	272
	U-turning	103
	Fatigued or asleep	60
	Swerving to the left/right carelessly	47
	Cyclist error	46
	Dazzled by oncoming traffic lights	29
	Overloading	18
	Pulling off the road without care	13
	Stopping suddenly	9
	Negligence of PSV driver	8
	Physical defective	6
	Driver hampered by passenger, animal or luggage in vehicle	6
	Negligently opening vehicle door	5
Pedestrian	Crossing without care	302
	Any other negligence	131
	Under influence of drinks or drugs	28
	Walking or standing on road	23

Cause of crash		Total
Pedestrian	Playing on road	19
	Slipping or falling when crossing	7
	Holding on to a vehicle	4
	Sudden illness	1
	Sleeping on the road	1
Passenger	Passenger any other negligence	52
	Passenger falling from a vehicle	30
	Passenger boarding or alighting without care	12
	Passenger stealing a ride	8
	Passenger under influence of drinks or drugs	1
Animal	Cattle on road	2008
	Other animal on road	265
	Dog on road	178
	Animal in vehicle	3
Obstruction	Other obstructions	111
	Collision with vehicle already involved in an accident	5
	Stationary vehicle dangerously placed	2
Vehicle defect	Tyre burst	259
	Other defects	242
	Unattended vehicle running away	40
Road	Road surface type	166
	Roads pot holes	81
Weather	Weather heavy rain	21
	Weather other weather factors	18
	Weather strong wind	9
Cellphone	Using cellphone while driving	5
Total		**20000**

Annexure (continued)

Table 5: Causes of crashes by severity

CAUSES	CRASH SEVERITY				
	Fatal	Serious	Minor	Damage only	Total
Driver or cyclist error	283	665	2448	12572	15968
Pedestrian error	27	94	362	33	516
Passenger error	10	22	46	25	103
Animals	28	53	266	2107	2454
Obstructions	0	1	11	106	118
Vehicle defects	20	51	142	328	541
Roads	1	11	46	189	247
Weather	1	0	5	42	48
Use of cellphone	2	0	1	2	5
Total	**372**	**897**	**3327**	**15404**	**20000**

CAUSES	PERCENTAGE				
	Fatal	Serious	Minor	Damage only	Total
Driver or cyclist error	1.4	3.3	12.3	62.8	79.8
Pedestrian error	0.1	0.5	1.8	0.2	2.6
Passenger error	0.1	0.1	0.2	0.1	0.5
Animals	0.1	0.3	1.3	10.5	12.3
Obstructions	0	0	0.1	0.5	0.6
Vehicle defects	0.1	0.3	0.7	1.6	2.7
Roads	0	0.1	0.2	0.9	1.2
Weather	0	0	0	0.2	0.2
Use of cellphone	0	0	0	0	0
Total	**1.9**	**4.5**	**16.7**	**77**	**100**

Table 6: Casualty by road surface condition and crash type

SURFACE CONDITION		CASUALTY CLASS			
	Collision Type	Driver	Passenger	Pedestrian	Total
Dry	Roll over	541	1134	24	1699
	Hit pedestrian	35	27	1379	1441
	Side	493	545	24	1062
	Rear-end	339	407	12	758
	Obstacle off road	243	378	1	622
	Head-on	206	292	6	504
	Domestic animal	210	283	1	494
	Other	155	263	39	457
	Obstacle on road	84	88	3	175
	Wild animal	16	25	6	47
	Sub total	**2322**	**3442**	**1495**	**7259**

Table 6: Casualty by road surface condition and crash type (continued)

SURFACE CONDITION		CASUALTY CLASS			
	Collision Type	Driver	Passenger	Pedestrian	Total
Wet	Roll-over	54	82	1	137
	Rear-end	27	60	0	87
	Side	41	36	2	79
	Hit pedestrian	2	0	70	72
	Head-on	17	33	1	51
	Obstacle off road	19	32	0	51
	Domestic animal	20	27	0	47
	Obstacle on road	7	21	0	28
	Other	8	18	2	28
	Wild animal	2	1	0	3
	Sub total	**197**	**310**	**76**	**583**
Sandy	Roll-over	11	16	1	28
	Hit pedestrian	2	0	22	24
	Head on	10	11	0	21
	Other	3	6	2	11
	Obstacle off road	4	5	1	10
	Side	1	2	0	3
	Obstacle on road	1	2	0	3
	Rear-end	1	1	0	2
	Domestic animal	2	0	0	2
	Sub total	**35**	**43**	**26**	**104**
Other	Hit pedestrian	0	0	9	9
	Roll-over	2	1	0	3
	Other	2	1	0	3
	Rear-end	2	0	0	2
	Side	0	2	0	2
	Obstacle off road	1	1	0	2
	Domestic animal	1	0	0	1
	Obstacle on road	1	0	1	**2**
	Sub total	**9**	**5**	**9**	**24**
	Total	**2563**	**3800**	**1606**	**7970**

CLAIMANTS BY VILLAGES

Figure 2: Gaborone Region claimants by villages

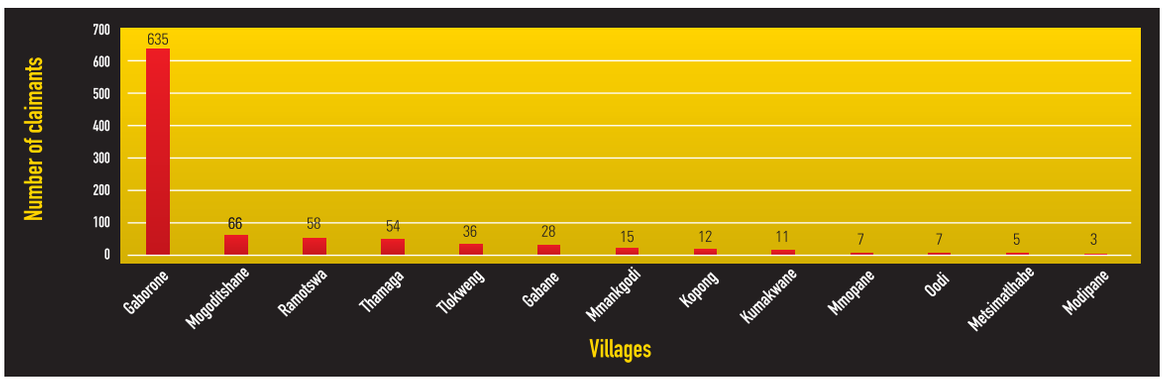


Figure 3: Francistown Region claimants by villages

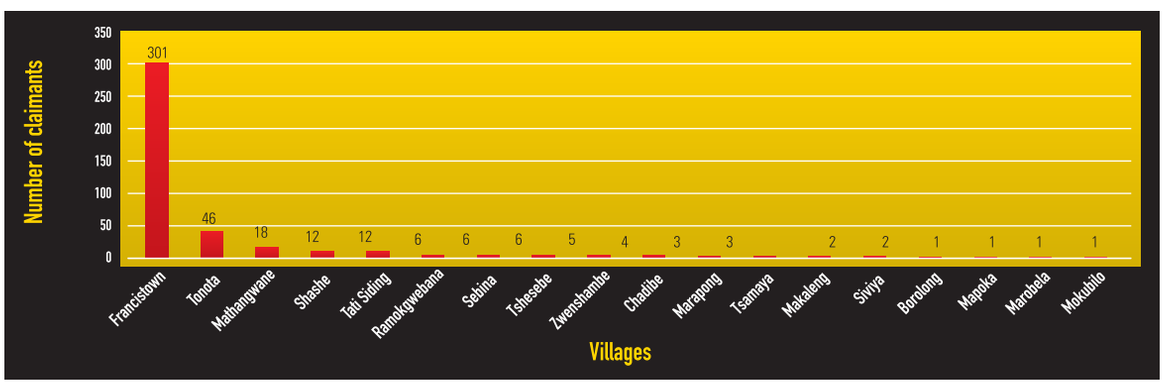


Figure 4: Kanye Region claimants by villages

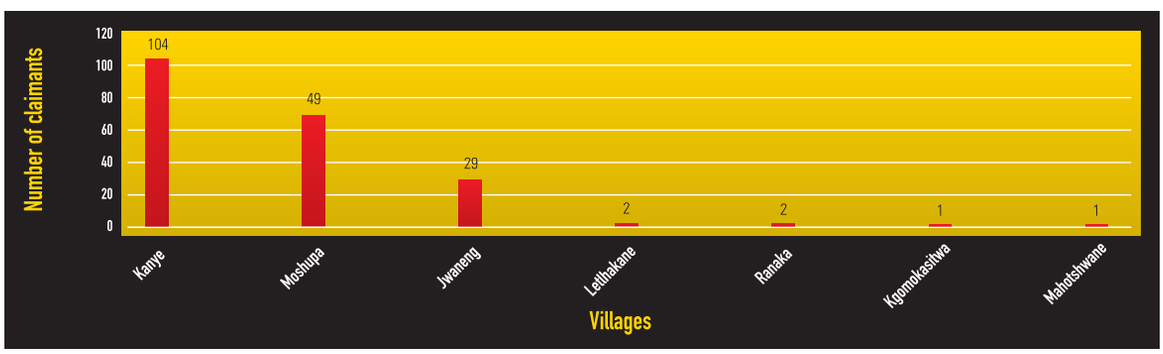


Figure 5: Molepolole Region claimants by villages

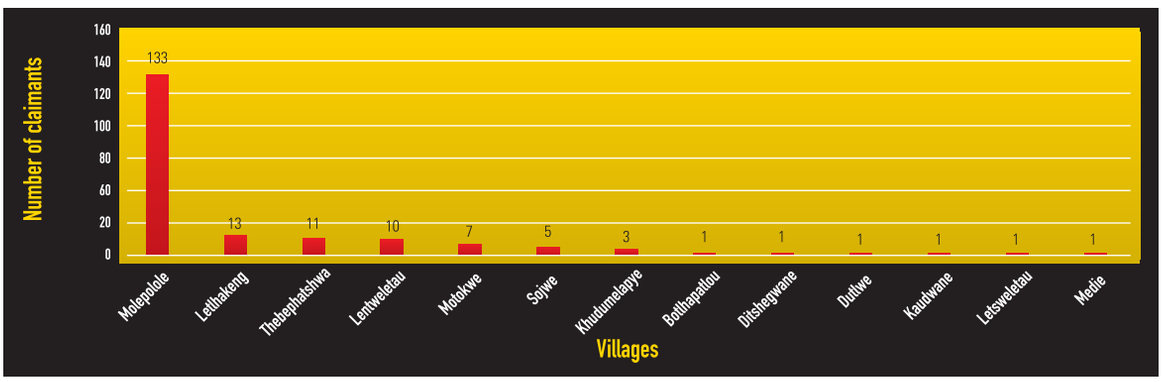


Figure 6: Maun Region claimants by villages

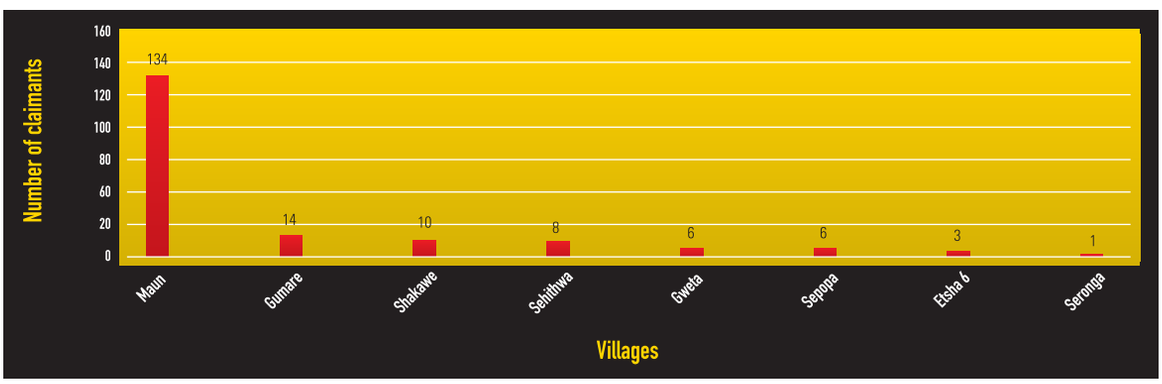
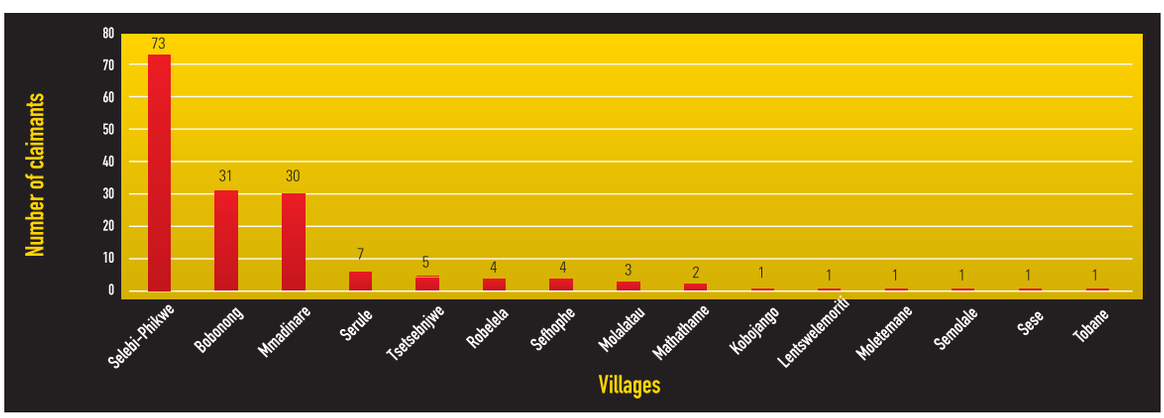


Figure 7: Selebi-Phikwe Region claimants by villages



CLAIMANTS BY VILLAGES (continued)

Figure 8: Lobatse Region claimants by villages

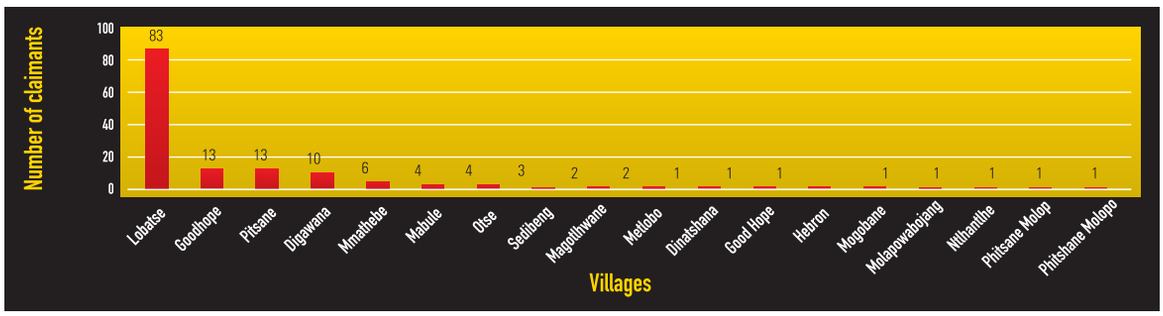


Figure 9: Mochudi Region claimants by villages

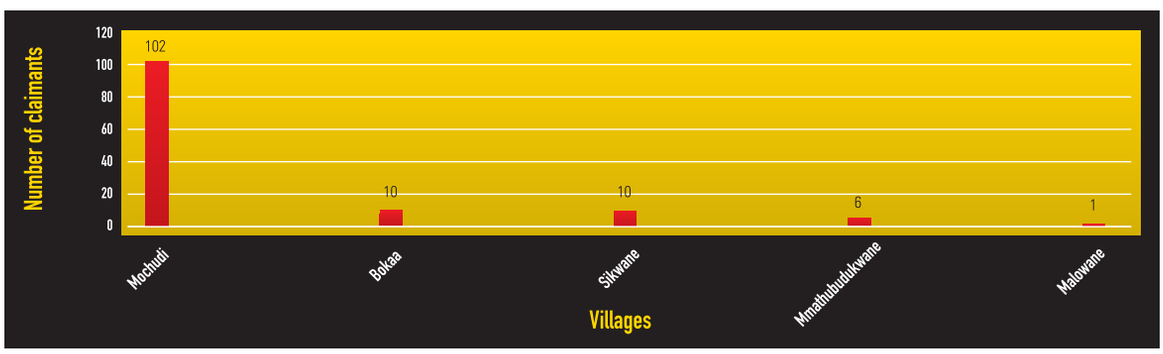


Figure 10: Serowe Region claimants by villages

Table 11: Palapye Region claimants by villages

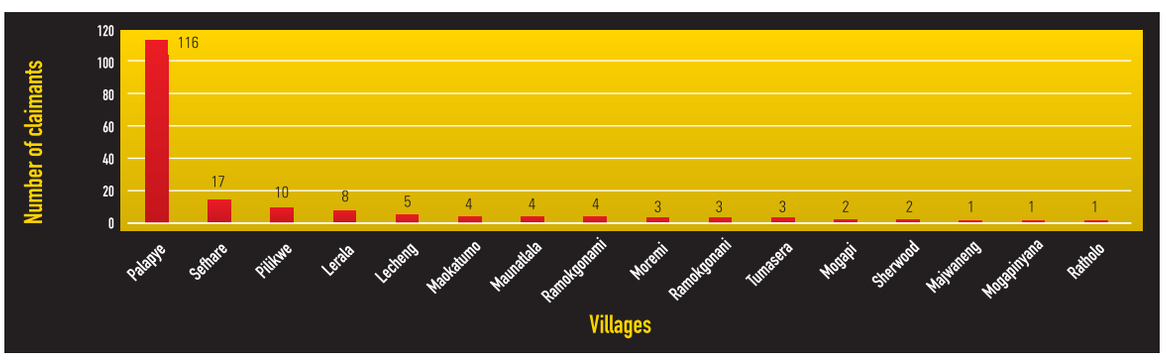


Figure 12: Mahalapye Region claimants by villages

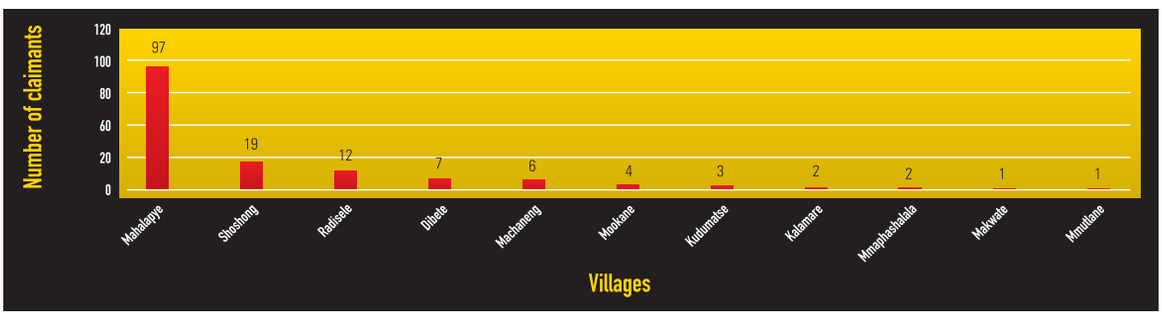


Figure 13: Tutume Region claimants by villages

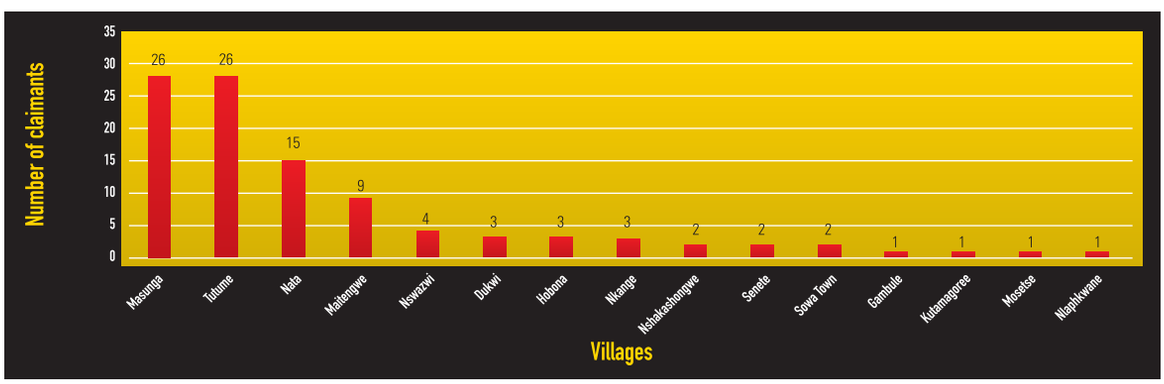


Figure 14: Tsabong Region claimants by villages

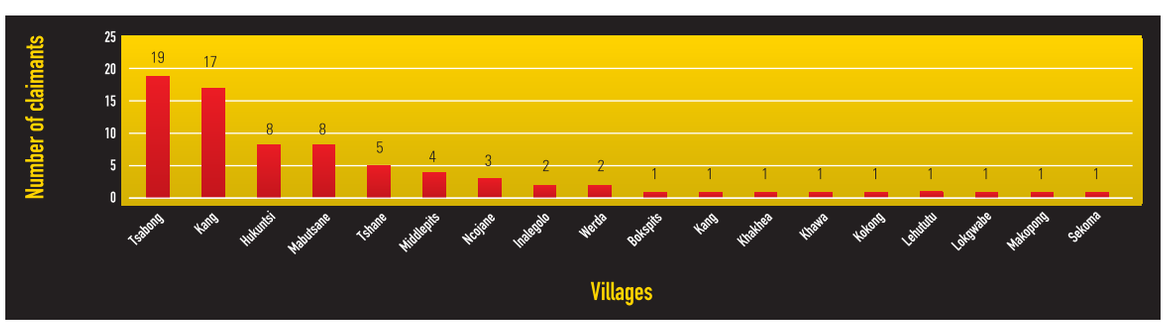
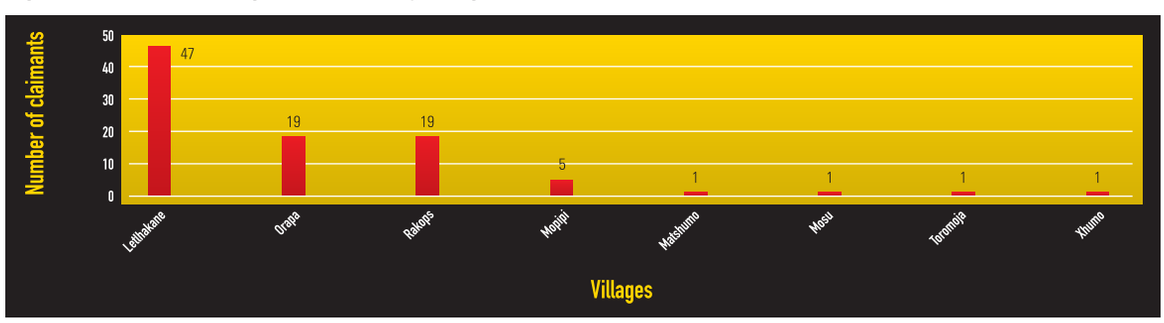


Figure 15: Letlhakane Region claimants by villages



CLAIMANTS BY VILLAGES (continued)

Figure 16: Ghanzi Region claimants by villages

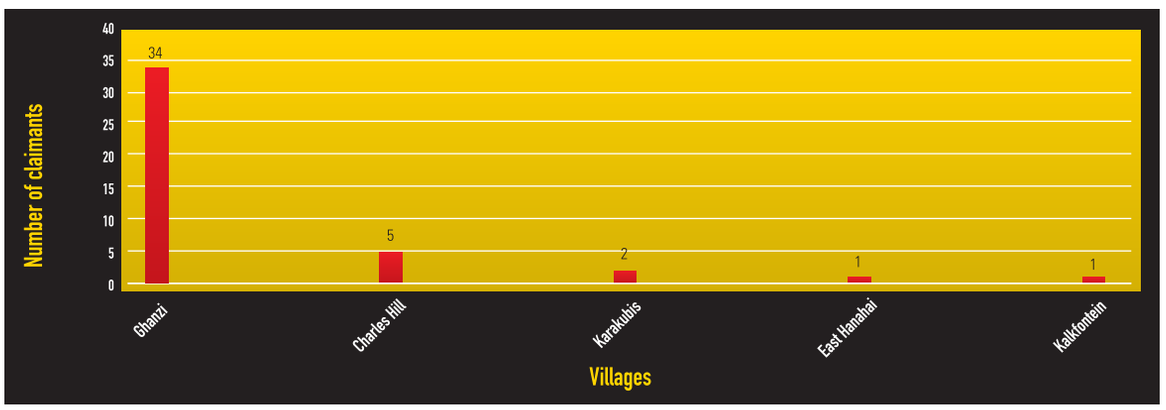


Figure 17: Kasane Region claimants by villages

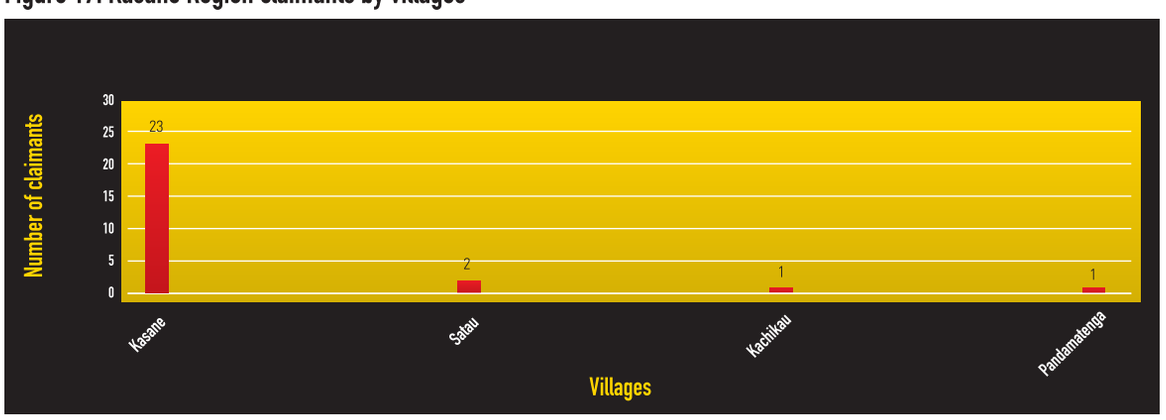
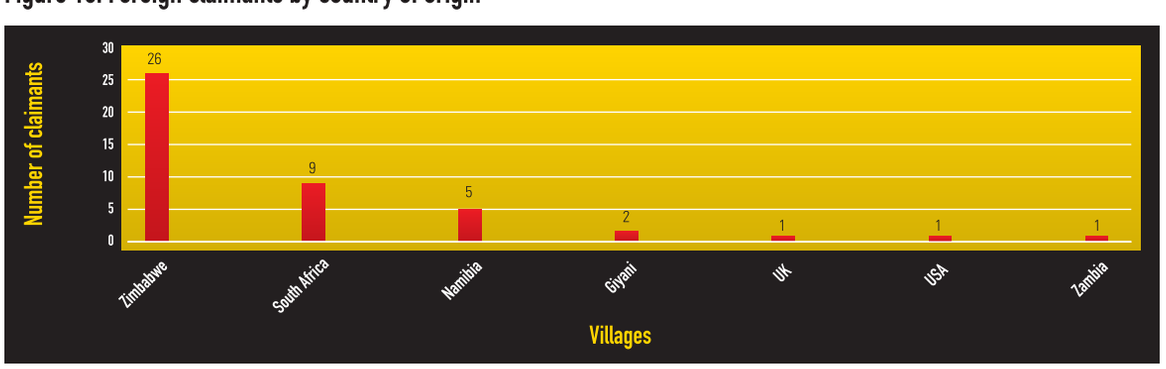


Figure 18: Foreign claimants by country of origin



Wise Up!

It's not smart to **SPEED**, **DRINK and DRIVE** or **USE A CELLPHONE** while driving.

You could **KILL SOMEBODY.**

Share the Road.
Go with Botho.

www.mvafund.bw

MVA FUND *lean on us*

Watch Your Step

As a **PEDESTRIAN** you are in the **GREATEST DANGER** on the road.

You have no protection. You will be **KILLED** or **BADLY INJURED** if you are knocked down.

BE EXTRA CAREFUL.

Walk Wise.
Walk Safe.

www.mvafund.bw

MVA FUND *lean on us*

ROAD SAFETY

COMPENSATION

REHABILITATION

SUPPORT

Gaborone MVA Fund House, Plot 50367, Fairgrounds Office Park. Tel: 3188533 Fax: 3188124
Francistown Ngilichi House, Plot 306/7, Meriting Complex. Tel: 2410670 Fax: 2410700
Maun Plot 1196, Shop D2, Engen Centre. Tel: 6861788 Fax: 6862021
Kang Plot 659, Gamonyemana Ward. Tel\fax: 6517124/1
Palapye House No. PA8MQ1/G, BHC Offices. Tel: 4921022 Fax: 4921024

Toll free 0800 600 739
Email: mvafund@mvafund.bw
Website: www.mvafund.bw

MVA FUND *lean on us*