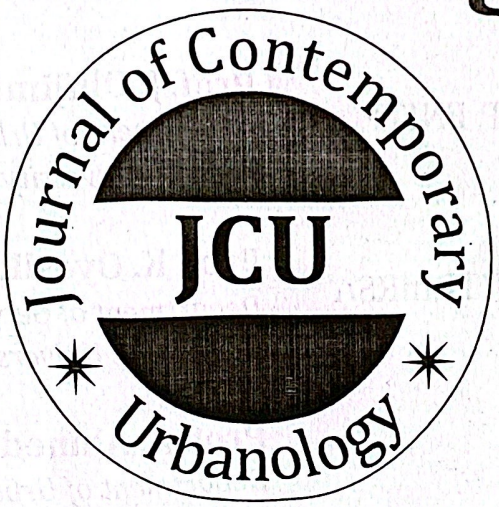
JOURNAL OF CONTEMPORARY URBANOLOGY
ISNN: 2315-8050
VOLUME 4, NO. 1 JUL. 2017 VOLUME 4, NO. 2 DEC. 2017

Journal of Contemporary Urbanology

A Peer Review Journal
Editorial Office:
Department of Urban and Regional Planning
Benue State University
P.M.B. 102119, Makurdi

Journal of Contemporary Urbanology



Volume 4, No.1, July, 2017
Volume 4, No.2, December 2017
ISSN: 2315-8050

A Peer Reviewed Journal

Editorial Office
Department of Urban and Regional Planning,
Benue State University, Makurdi, Nigeria.

Journal of Contemporary Urbanology

Volume 4, No.1, July, 2017
Volume 4, No.2, December, 2017 ISSN: 2315-8050

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Journal of Contemporary Urbanology

Volume 4, No.1, July, 2017
Volume 4, No.2, December, 2017 ISSN: 2315-8050

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DEPARTMENT OF URBAN AND REGIONAL PLANNING
BENUE STATE UNIVERSITY, PMB 102119, MAKURDI 970001, BNS, NIGERIA
Editor in Chief: Professor Timothy T. Gyuse, PhD, FNITP, RTP
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ISSN: 2315-8050

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You are invited to contribute articles in: either or two areas: empirical research into urban problems confronting cities from researchers in urban fields including but not limited to architecture, sociology, geography, economics, politics, archaeology, education, engineering as well as urban and regional planning.

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4. The title, name of author(s), address, and e-mail should be submitted on a separate cover page
5. An abstract of not more than 200 words should be submitted on a separate page along with keywords.
6. Articles should be formatted A4, double line spaced with only the left margin justified; font should be Time New Roman set at 12 points, minimum 1 inch margin all round.
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Journal of Contemporary
Urbanology

Volume 4, No. 2, December, 2017 ISSN: 2315-8050

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Journal of Contemporary Urbanology

An Appraisal of Road Traffic Crashes and Safety Measures along Ilesa / Akure Highway, Nigeria

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Abstract

The Ilesa-Akure highway is one of the very busy roads that are accident prone in Nigeria. This study analyzes the incidence of road traffic crashes. The focus is on the fatality, casualty and severity, as well as the perception of motorists on the causes of accidents and safety measures. Data were collected through direct observation of the road condition and stays questionnaire administered to randomly selected motorists, as well as from the records of the Federal Road Safety Corp (FRSC), Frequency counts, percentages and tabulations were used to present data focusing on accident record and computed fatality, casualty, and severity indexes for a period of 2011-2013. Also data on socio-economic characteristics of motorist and perception on causes and prevention of road traffic crashes was also presented. The study finds a high fatality rate of approximately one death per road traffic crash, and casualty rate of six persons per road accident. It is observed that traffic crashes are caused mainly by human factors on the part of motorists and road condition. As measures to reduce accidents on the road, the study recommends regular maintenance of the road, training and retraining of motorists, and enhanced capacity of the law enforcement agencies like FRSC, among others.

Keywords: *Road Traffic, Crashes, Safety, Highway, Ilesha / Akure*

Introduction

Reaching a destination is usually the main goal of driving. Mobility is an important phenomenon in daily life. It causes costs and involves accident risks. An accident is an unforeseen and unplanned event or circumstance, often with lack of intention. It usually implies a generally negative outcome which might have been avoided or prevented had circumstances leading to accident been recognized, and acted upon, prior to occurrence. It is anything which happens by chance, occurring unexpectedly (Odugbemi, 2010), and in most cases results in injury. One of the very important and indispensable human activities usually result in accident is road transportation. Road transportation provides benefits both to nations and to individuals by facilitating the movement of goods and people. It enables increased access to jobs, economic markets, education, recreation and health care which in turn have direct and positive impacts on the health of population (WHO, 2009). Road accident is an unexpected phenomenon that occurs as a result of the use or operation of vehicles including bicycles on the public highways and roads. It could be fatal resulting in deaths of the road users (drivers, passengers, or pedestrians), or minor when it is not severe enough to cause substantial hardship. While the question of the severity of accident is of serious concern in accident studies, all forms of road accidents, minor or severe, fatal or otherwise, are also described as road crashes.

It is incontrovertible that accidents would rarely give warning although reckless drivers should anticipate the consequences of their recklessness. Accidents do not just occur; they are basically brought about by human recklessness, carelessness or negligence. Even where the immediate cause of road accidents is attributed to mechanical factor, carefulness in the form of omission check and routine maintenance of the vehicle could avert an imminent accident. In the ancient Roman Empire, road transport owners in the 11th century must provide a slave who will carry a red flag to warn other road users that a motor car is coming and leave the road space to avoid possible road accidents (Jacobs, 2010). Today, a car has a faster speed and therefore there is need to incorporate gadgets like, the horn, braking system, traffic direction indicators, headlamps and brake-lights to avoid road accidents. In spite of introduction of all these measures, road accident is still a common phenomenon in most cities of the world, particularly in the developing world, including Nigeria. Accidents along Nigerian roads have greatly increased in the last decade. Economic activities are such that majority of urban dwellers heavily depend on road as the mode of transportation for the satisfaction of their basic social and economic needs (Omotoba, 2010). Therefore, road transportation in Nigerian urban centres is a vital economic activity, which must not be crippled by road accident. Aside crippling economic activities, increasing trend of road traffic accidents has a lot of implications for physical ability of the population and the attendant human capital development, and household livelihood.

This study therefore analyzes the occurrence and causes of accidents and their preventive measures along Ilesa-Akure Highway in Osun and Ondo States. It outlines and discusses the major causes of road accidents; identifies possible preventive measures useful in accident prevention or reduction.

The Problem

The problems of road transportation as a major subsystem used by the people of the third world have been a pressing issue on the mind of concerned stakeholders all over the world (World Bank, 1994). As observed by Aworemi, and Alawode (2009), in the third world countries, particularly African countries, however, there is an issue of low adherence to road safety rules which often results in accidents. Statistics indicate that over 90% of traffic accident situations in Nigeria can be attributed to drivers' errors (Aworemi and

Alawode, 2009).

Before the oil boom in Nigeria, road accidents were rather rare. The oil boom brought along with it rapid urbanization and increased car ownership which called for improved accessibility. Roads were therefore built without recourse to standard (Sherif, 2009). As the disposable income of people grew, vehicle ownership increased. All these developments, according to him (Sherif), were not matched with adequate measures and control.

Scholars in the area of road accidents have long recognized and addressed various aspects of this problem as typified by the works on accident data analysis, safety programme, planning and implementation, safety programme evaluation, lessons from developed countries, experiences in developing countries and insurance and legal aspects (Ikya, 1998). Human error is estimated to account for between 64% and 95% of all causes of traffic crashes in developing countries (Atubi, 2009).A high prevalence of old vehicles that often carry many more people than they are designed to carry, lack of safety belts and helmet use, poor road design and maintenance and the traffic mix on roads are other factors that contribute to the high rate of crashes in less developed countries (Atubi, 2012). How correct are these, and what is the situation along Ilesha-Akure highway?

The Ilesa-Akure highway is one of the roads that are accident prone, accidents occur on this road almost every day because of the high volume of traffic, which is as a result of the importance of the road. It is a trunk-A road which has consequently grown to be death trap for road users. Before a course of actions can be adopted to reduce the incidence and severity of road accidents, there is need for empirical investigation of such issues as traffic volume, frequency and severity of road crashes at different times, months or seasons, notorious spots, preventive measures in place and their effectiveness (if any), among other road-accident-related issues. This study is aimed at addressing some of these issues, especially those that have to do with severity and impact of road accidents and safety measures.

Literature Review

Causes and Models of Road Crashes

The major causes of road traffic accidents could be mechanical (vehicle), human and environmental related factors.

Vehicle Related Problem: According to Ovuwpri, Onibere and Asalor (2010), tyres, engines, braking system and light system are among vehicle subsystems which malfunction can cause road accidents. The vehicle itself is a component of the road traffic system. Consequently its reliability is negatively correlated with accident causation on the road network it plies. The reliability of the vehicle is itself the function of the condition of vehicle.

Environmental Related Issues: Some of the well-known factors which fall under this category include fog, sunrays, mist and rain, depending on the prevailing climate of the area, they could affect the life span of the road and lead to pot-holes. In this circumstance, the sun intensity and rainfall are the main issues. These, in no small measure, contribute greatly to the rate of road traffic accidents in Nigeria today, especially when roads are not designed or built with appropriate materials to withstand the effect of these climatic elements for a considerably long period of time. Recently, studies have demonstrated that the road is a major environmental factor in road accidents in Nigeria. In a study by Akinyemi (2009), for example, using data on geometric design information system, road surface and side conditions on seven two-lane rural roads in the country, it is found that rural roads in the country have low levels of design consistency, sight distance on and between geometric

features is insufficient for stopping and overtaking traffic. He then argues that their deficiencies are due largely to inadequate road design specification and maintenance. In a similar one, Ayanta (2009) shows that inadequate drainage could render the road a serious accident threat. Another aspect of the road factor is the general condition of the road itself. Issues of potholes, indiscriminate location of police check points and the reluctance of the appropriate authorities to continually improve on the condition of the roads are significant in road accidents.

Of much interest these days is the human factor, which is the main reason for many preventable road accidents, especially along major roads and highways of most (if not all) less planned urban centres of the developing country. Use of cell-phones while driving, defaulting of traffic rules, including over-speeding, use of expired tyres, among many other deviant behaviours of the motorists. The Federal Road Safety Corps (FRSC), for example, has attributed most road accidents in Nigeria to the use of cell phone because it causes distraction.

Of course, many concepts and models have been explored to explain traffic crash. For example, "the systems theory" is based on the concept of risks and man-environment adjustments and maladjustments (Muhlrad et al., 2005).The components of the theory are the environment, the means of transport and the behavior of man (Krug et al. 2000). In furtherance of this theory, a model for traffic accident as inspired by the ecological model of a disease was developed by Jorgenser and Abane (1999). The model is characterized by three main components, which include the environment, the vehicle and the behaviour of the population. The composition of vehicle includes age, technical conditions and safety equipment like fire extinguisher, and facilities like seat belts in a car. The physical environment is split further into different aspects such as daylight and climate; spatial conditions, settlement patterns, situation of areas of residence and working areas, principle of traffic separation, topography and road construction qualities. The environment comprises the road system and the wider physical and built up environment. The behaviours of the population include the characteristics such as age and sex ratio as well as attitudes and general traffic behaviour. Also included are driving behaviour, driving experience, driving style, risk compensation and risky driving relating to influence of alcohol and drugs.

Costs of Road Crashes

Road traffic crashes are one of the world's largest public health and injury prevention problems. This problem is so acute because in most cases, the victims are overwhelmingly healthy prior to the crashes. According to the World Health Organization (WHO, 2004), more than a million people are killed on the world's road each year. A report published by the WHO in2004 estimates that some 1.2million people are killed and 50million injured in traffic collisions on the roads around the world each year and is the leading cause of death among children 10-19years of age. The report also notes that the problem is most severe in developing countries and that simple prevention measures could halve the number of deaths (WHO, 2004). Road traffic accidents have physical, social, emotional and economic implications. The global economic cost of road traffic accident is estimated at $518 billion per year in 2003 and $100 billion of that occurring in poor developing countries (WHO, 2009). Nigeria loses about 80 billion naira annually to road accidents. Of all subjects that are involved in road traffic accidents in Nigeria, 29.1 percent suffer disability and 13.5 percent are unable to return to work (Labinjo et al, 2010, Atubi, 2012).In almost all countries in Africa, Asia and Latin America road traffic crashes have become one of the leading causes of death in older children and economically

active adults between the ages of 30 and 49 years (Murray et al, 1996; Jacobs et al, 2000 and Atubi, 2012). Studies have also shown that motor vehicle crashes are the leading cause of death in adolescents and young adults (Taket 1986; Mohan and Romer 1991; Smith and Barss, 1991; Feachem et al, 1992; Atubi and Onokala, 2009) and of the estimated 856,000 road deaths occurring annually worldwide, 74% are in developing countries (World Bank, 1990 and Atubi, 2000).

Supply and Maintenance of Traffic Facilities

Dramatic increases in the proportion and absolute number of traffic facilities have been witnessed in a number of developing countries. In both Nigeria (Oluwasanmi, 1993; Ezenwa, 1986; Atubi, 2009 and 2010) and Kenya (NRSC, 1992), for example, a fivefold increase in traffic related fatalities was observed over the last 30 years. African and Asian countries, with relatively low vehicle densities, are experiencing substantially higher fatality rates per 10,000 vehicles than the industrialized European and North American States (Jacobs and Sayer 1983, WHO, 1984). Hence, road accident is still a disturbing phenomenon in these developing countries, it occurs regularly at some flash points such as where there are sharp bends, potholes and at bad sections of the highways. At such points over speeding and other deviant attitudes of drivers are usually the cause of most of the accidents, which then result to fatal traffic accidents, especially at night (Atubi, 2009).

Study Area and Research Methodology

The Ilesa –Akure Highway (Figures 1 and 2) which constitutes the study area was constructed in 1965 as earth road and converted to asphaltic concrete in 1978. It serves as a major link from the southwest to the Northern and Eastern parts of the country. Expressed in the Universal Traverse Mercator (UTM) Coordinates of Zone 31 using Minnna datum, the highway is located within the Northings 080084mN and 0857239mN and Eastings 0693225mE and 0748163mE. The study corridor traverses two states and a number of settlements. Major communities along the road are Owena, IpetuIjesa, Ikeji-Arakeji, Igbara-Oke, Erin-Oke, Iloko-Ijesha,etc. The highway is located in the tropical climate region which experiences two seasons –the dry and wet seasons (Iloeje, 1981). The rainy season starts during the months of March/April and lasts till around October/November. The mean annual rainfall ranges between 1270 and 1525mm (Federal Survey, 1978). The relative humidity range is about 60% -85% from November to March, and about 80%-90% around August. The mean Temperature varies between 27"C and 31"C. According to the Federal Survey (1978), the area lies in the rain forest. The vegetation is dense and made up of broad leaved trees that are mostly evergreen.

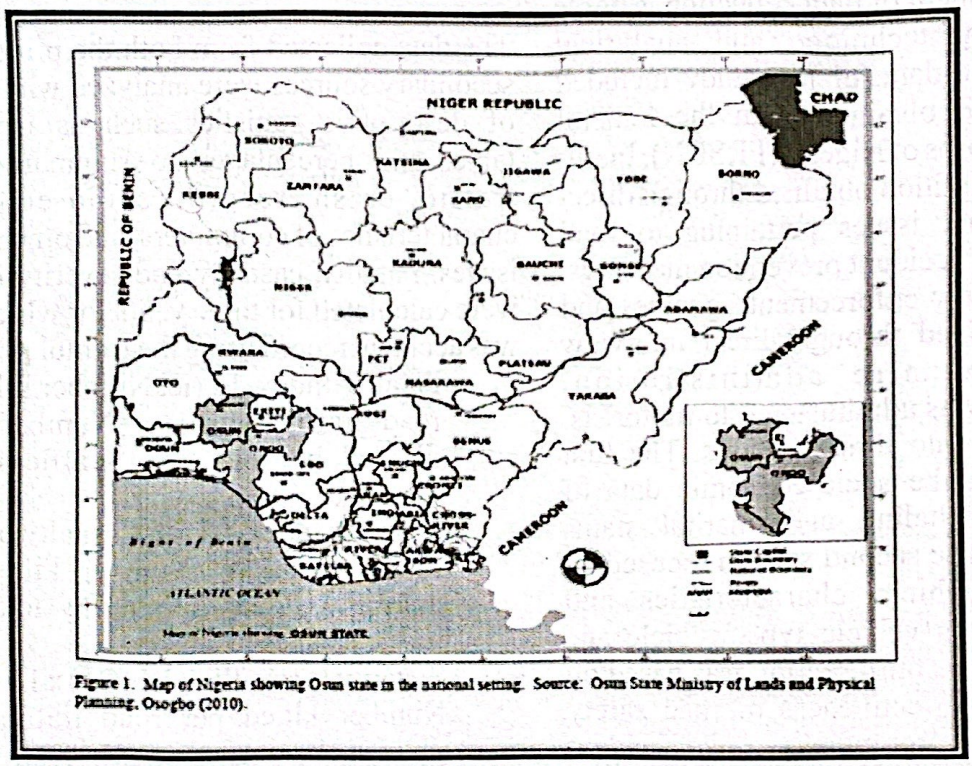


Figure 1. Map of Nigeria showing Osun state in the national setting. Source: Osun State Ministry of Lands and Physical Planning, Osogbo (2010).

Source: Adapted from Osun State Ministry of Lands and Physical Planning, Osogbo(2010)

Figure 1: Osun and Ondo States in the National Setting.

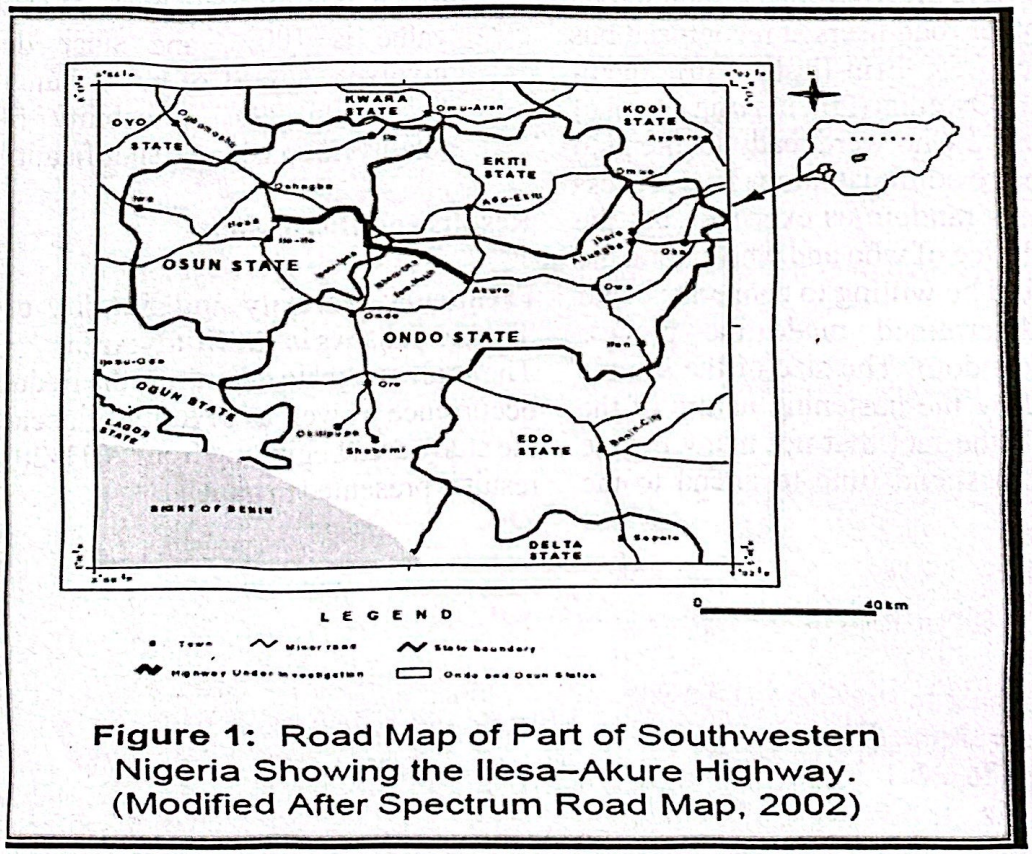


Figure 1: Road Map of Part of Southwestern Nigeria Showing the Ilesa–Akure Highway. (Modified After Spectrum Road Map, 2002)

Source: Adapted from Osun State Ministry of Lands and Physical Planning, Osogbo(2010)

Figure 2: Ilesha-Akure Highway in Osun and Ondo State

The methodology of this study described data sources, instrument of data collection, sample size, sampling technique and analytical techniques. The data for this study included accident record obtained from the Federal Road Safety Corps of Nigeria (FRSCN), Ipetu-Ijesha, road condition obtained through direct observation, and issues pertaining to road users' attitudes, accident prevention measures, and views of law enforcement agencies and motorists obtained through direct interview and questionnaire administration. Questionnaire was administered to motorists. It was divided into three sections. The first section was on the socio-economic data of respondents, including age, marital status among others. The second section focused on respondents' vehicle characteristics and condition such as vehicle type, vehicle age among others. The third section was based on road condition, effectiveness of road safety officials and their promptness at road accident scenes.

Respondents were drawn from the commercial drivers and other road users at recognized bus stops in Imo (25), Erin-Ijesha (30), Ipetu-Ijesha (15) and Owenna (20), making a total of ninety road users who were ready to attend to the questionnaire administration. This process might not be as random as expected, but the fact that the choice of who and who among the motorists would be willing to cooperate could not be predetermined made the process considerably random. The size of the sample was informed by the hastening nature of the road users and the fact that not many people were willing to spend time to attend to the questionnaire.

The data collected from both the primary and secondary sources were analyzed with the use of descriptive statistics such as frequency table, and percentages to summarize road traffic crash record, socio-economic characteristics of commuters, and other related issues. Fatality, casualty and severity indexes were calculated for three years for which there was accident record using the formulae

- Fatality Index, FI (ie. Number killed per road traffic crash) =Number killed divided by total road traffic crashes recorded
- Casualty Index, CI (ie. Casualty per road traffic crash) = (Number killed plus number injured) divided by total road traffic crashes recorded
- Severity Index, SI=(FI/CI)x100%ie. Number killed per road traffic crash divided by casualty per road traffic crash. In other words, it refers to the ratio between the number of people killed and the number of casualties. Its maximum value is 100%, and since death is involved, any SI of more than 1% (ie. Less than 99% probability of non-fatality) is considered significant.

Results and Discussions

Frequency, Severity and Fatality of Road Traffic Crashes in the Study Area

The study sought to determine the frequency of occurrence as well as severity of accidents in the study area beginning from 2011-2013. The result is presented in table 1.

Table 1: Quarterly Records of Road Traffic Crashes between March 2011 and December, 2013

Duration/Quarterly	Numbers of Accidents	Number Involved	Number Injured	Number Killed
Jan- March 2011	04	25	11	02
April - June 2011	06	44	30	06
July – September 2011	02	30	19	10
October - December 2011	09	90	66	07
Jan- March 2012	12	169	46	10
April - June 2012	08	68	35	02
July – September 2012	09	120	108	10
October December 2012	12	94	30	10
Jan- March 2013	13	108	52	16
April - June 2013	03	18	08	01
July – September 2013	12	83	34	06
October - December 2013	11	157	93	09

Table 1 shows the quarterly records of road traffic crashes between March 2011 and December 2013.It shows evidently the relationship between the number of people involved in road traffic crashes and the number of people injured during the road traffic crashes. In other words, number of people injured and that of those killed increases with frequency of accidents. Another interesting pattern observed here is that, apart from that of 2013, the frequency of accidents is observed to be highest in the last quarter of the year (October to December,) and lowest in the first quarter (January to April).**It is also observable that for an average road traffic crash not less than five people are injured (ie.532/101), while approximately one person dies in every road traffic crash (ie. 89/101) along the road. This is quite disturbing a scenario that requires adequate attention.**

For a more detailed analysis, the severity, casualty and fatality indexes for 2011, 2012, and 2013 respectively, as shown in Table3 are considered.

Table 2: Yearly Summary of Road Crashes, Fatality, Casualty and Severity Indexes (2011-2013)

Year	No Involved A	No of Accidents B	No Injured C	No Killed D	Casualty C+D= E	Fatality Index D/B= FI	Casualty Index E/B= CI	Severity Index (FI/CI)x 100% = SI
2011	189	21	126	25	151	1.19	7.19	17%
2012	451	41	219	32	251	0.78	6.12	13%
2013	366	39	187	32	219	0.82	5.62	15%
Total	**1006**	**101**	**532**	**89**	**621**	**0.88**	**6.15**	**14%**

Source: Adapted from FRSCN, Ijetu-Ijesha Division (2014), computation by authors (2015)

- The record of crashes involving vehicles in 2011 indicates a fatality index of 1.19, casualty index of 7.19, and a significant severity index of 17%. This implies that during the year, an average road crash attracted a death of at least one person, not less than seven people were involved as casualty, and 17% of the casualty were killed. This situation is unacceptably worrisome by any

standard.

- In 2012, the table shows a fatality index of 0.78, casualty index of 6.12, and a significant severity index of 13%. The implication of this is that during the year, an average road crash attracted a casualty magnitude involving not less than six people, at least two people dying in about three average crashes (ie 0.78x3 = 2.34), and 13% of people affected in accidents (casualty) were killed. The situation was a little better than that of 2011, though still alarming.
- In 2013, a fatality index of 0.82, casualty index of 5.62, and severity index of 15% were recorded. This means that during the year, an average road crash attracted less than, but approximately one death, with an approximately six people involved as casualty, and 15% of whom were killed.
- A critical look at the overall average shows a casualty index of 6.15 and severity index of 14%. This suggests that for the entire period of three years, an average road crash attracted a casualty involving not less than six people, 14% of whom were killed.
- Comparatively, one can observe higher fatality, casualty and severity indexes for 2011 than for 2012 and 2013; and steady decrease of casualty and severity indexes from 2011 to 2013. This may not be unconnected with regular training/workshops by the FRSCN to motorists, other enlightenment campaigns which were relatively intensified in the successive years.

The Socio-economic Characteristics of Motorists along Ilesa/Akure Highway

The analysis shows that 7.78% of the respondents are female while 92.2% are male. This to an extent infers that the number of male drivers plying the road under study is more than the number of female drivers. Also the marital status distribution indicates that 24.4% of the respondents are single, 65.5% are married while 2.2% are widows. An implication of this is that the married category tends to have a higher level of car ownership than the single. This in turn exposes them to road traffic crashes.13.3% of the respondents however have no formal education, 25.6% have primary education, 13.3% are secondary school leavers, while 32.2% have post-secondary school education. Mode of transportation distribution shows that 5.5% of the interviewed road users are motorcyclists, 33.3% use private cars, 55.5% make use of passenger buses while 5.5% make use of other modes of transportation. Occupation distribution of the respondents indicates that 27.8% are into teaching, 13.3% are into trading, 31.1% of respondents are students,12.2% are farmers while 28.9% belong to the category "others". Lastly, religion distribution of respondents shows that 26.7% of the interviewed drivers are Muslims,71.1% are Christians, while 2.2% practices traditional religion.

Table 3: Socio-economic characteristics of motorists

S/No	Socioeconomic Characteristics		Frequency	Percentage (%)
1.	Gender	Male	83	92.2
		Female	07	07.78
2	Marital Status	Single	22	24.4
		Married	59	65.5
		Divorced	-	-
		Widow	02	02.2
3	Education	No formal education	15	13.3
		Primary	23	25.6
		Secondary	12	13.3
		Tertiary	29	32.2
		Others	11	12.2
4	Mode of Transport	Motorcycle	05	05.5
		Tricycle	-	-
		Motor car	30	33.3
		Passenger Bus	50	55.5
		Others	05	05.5
5	Occupation	Teaching	25	27.8
		Trading	12	13.3
		Student	12	13.3
		Farming	05	05.6
		Others	36	40.0
6	Religion	Islam	24	26.7
		Christianity	64	71.1
		Traditional	02	02.2

Source: Authors' Field Work (2014/15)

Although, not all the observed socio-economic variables may be directly related to road crashes, a critical examination of education suggests that with only about 41% of the motorists have at least a secondary education, understanding and making use of traffic rules by a lion's share (of more than half) of the respondents, which cannot be guaranteed is a cause of concern.

Condition and Causes of Road Traffic Crashes along Ilesa/Akure Highway

The result of field observation shows that some parts of the Ilesa/Akure highway are not so good and may get worse with time if regular maintenance is not carried out. Some cracks, potholes and rough surfaces were observed along the road. The road is characterized by cracks, as well as potholes and depressions, which may not be quite visible from a considerable distance. The highway is about 70km long and it traverses Osun and Ondo states. When opinions of motorists were sought on the condition of the road, the result shows that 37.8% of the interviewees perceived the condition of the road as good, while 61.1% adjudged it to be fair. Their perception may be observed to be influenced by a mentality which has blurred their judgment of condition of road. For example, with regards to causes of road crashes, the survey also indicates that more than half of the respondents consider narrowness of the road as a major cause of road traffic crashes on Ilesa-Akure highway, while about 40%of them opine that the narrowness of the highway is a minor cause of road traffic crashes. On the other hand, 17.7% of the respondents observe the presence of heavy trucks on the road as the major cause of road traffic crashes, while

82.2% of the respondents consider the presence of heavy trucks on the highway as a minor cause of road traffic crashes.

In another development, the result shows that about 94% of respondents consider over speeding of drivers on this road as a major cause of road traffic crashes. 38respondents are of the opinion that poor maintenance of vehicles by drivers is the major cause of road traffic crashes on the road, while 52respondents said that it is a minor cause of road traffic crashes. It is also observed that 21.1% of the respondents consider presence of potholes as a major cause of road traffic crashes, while 67.7% of the respondents submit that the presence of potholes is a minor cause of road traffic crashes.

Over 95% of the respondents opine that inadequate road signs on the road are a major cause of road traffic crashes on Ilesa-Akure highway while 4.4% of the respondents see it as a minor cause of road traffic crashes. The results also show that more than half (55.6%) of the respondents see drunkenness of drivers on the road as a major cause of road traffic crashes. The result also indicates that all the respondents attribute the disobedience of traffic rules and regulations as the major cause of road traffic crashes on the Ilesa-Akure highway.

Adequacy and Effectiveness of Safety Measures in Place: Motorists' Perception

About 72.2% of the respondents have witnessed road traffic crashes on the road while 27.8% have not. Also 62.2% of the respondents have witnessed fatal road traffic crashes on the road. All the respondents describe the road signs ineffective. About 63.3% of the respondents consider the impact of the traffic law enforcement agencies, including FRSCN and Police, as considerable and positive in addressing the issue of traffic situation on the road, while 36.7% see it as negative. All the interviewees, however, submit that the measures of reducing road traffic crashes on the road should include provision of safety signs and signals, expansion of road and public enlightenment because they are of the belief that the factors will work together in order to achieve an accident free highway.

Table 4: Causes of Road Traffic crashes: Motorist Perception

S/N	Cause of Road Traffic Crashes		Frequency	Percentage
1	General Road Condition	Good	34	37.8
		Fair	55	61.1
		Worse	01	01.1
2	Narrowness of the road	Major	54	60.0
		Minor	36	40.0
3	Heavy Trucks	Major	16	17.7
		Minor	74	82.2
4	Over-speeding of Driver	Major	85	94.4
		Minor	15	06.6
5	Poor maintenance of Vehicle	Major	38	42.2
		Minor	52	57.8
6	Presence of port-holes	Major	19	21.1
		Minor	61	67.7
7	Inadequate road sign	Major	86	95.6
		Minor	04	04.4
8	Drunkeness of driver	Major	50	55.6
		Minor	40	44.4

Source: Authors' Field Work (2014/15)

Table 6: Adequacy/effectiveness of safety measures in place

S/n	Adequacy/Effectiveness of Safety Measures		Frequency	Percentage
1	Experience Road Traffic Crashes	Yes	65	72.2
		No	25	27.8
2	The last traffic crash witnessed	Fatal	56	62.2
		Not Fatal	34	38.8
3	Presence of Road Sign	Effective	00	00
		Ineffective	90	100
4	Impact of Traffic law Enforcement agencies:	Positive	57	63.3
		Negative	33	36.7

Source: Authors' Field Work (2014/15)

Conclusion and Recommendations

From the foregoing analysis one can conclude that there is a high incidence of road traffic crashes along the inter-state highway in most parts of the year, though more in the period between October and December, a period considered to be around the end-of-the-year festivities. It is observed, however, that this high incidence of road crashes is usually accompanied with high fatality, casualty and severity as measured by their respective indexes, which indicate a fatality rate of approximately one person per road crash and casualty rate of not less than six people per accident. This calls for urgent attention of the relevant agencies of government and other stakeholders.

However, one can conclude from the analysis of the causes of road traffic crashes that poor road condition and human factor of motorists are the major factors of road traffic crashes, though vehicular problems may also contribute to a considerable extent.

The efforts of law enforcement agents like FRSCN in ensuring safety on the road, which is recognized by motorists should also be intensified to ensure that one of the major human factors causing traffic crashes, disobeying traffic rules, is controlled more effectively and maximally. The use of seat-belts, air-bags and other protective and preventive measures should be enforced to reduce the observed fatality, casualty and severity issues. More so, traffic agencies should be well equipped and staffed to effectively handle their functions.

There should be regular enlightenment campaigns and workshops for motorists, both commercial drivers and private car users. The process should educate them not only on the existing traffic rules, but also on new traffic rules, change in speed limits, and certain expectations like regular maintenance, non-drunkenness, among others.

The deplorable road condition requires that government looks into rehabilitation of these roads. The roads should be equipped with good road furniture (road Signs) and other features that will enhance safety on the roads.

The road should be regularly maintained and kept in a good condition, come rain, come sunshine. The road should also be marked with reflective paints as night guide. Implicit in road maintenance is street lightening for nocturnal movement and safety in particular, for commuters and other road users along the road.

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