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TABLE OF CONTENTS

IJBSS Volume 11 NO 1

Articles

IJBSS VOLUME 11 NO 2

Articles

Is the Carnage on Our Roads Justified?

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Abstract

The magnitude of carnage on Nigerian roads has become worrisome in recent times. Over the years, the number of people who have lost their lives in road accidents has been on the increase. For example, between 1960 and 2001, over 250,000 fatalites were recorded. Specifically in 1960, 1,083 people died through road traffic accidents. This figure jumped to 8,102 deaths in 2001, an increase of more than 600%. This could be described as a national "calamity ". Human error accounted for more than 80% of the cases. In the same vein, the pattern of fatality in some selected states in Nigeria between 1996-2000 showed that Lagos state on the average was responsible for more than 8% of the total road accident fatality in the country during the period of analysis. Whereas in terms of fatality rate and severity index, Lagos state came second and last respectively. Urgent and proactive steps are therefore needed to step down the level of carnage on Nigerian roads. Both the Nigerian Police and the Federal Road Safety commission (FRSC) should be reorganized and overhauled while health institutions should be strengthened. Government should as a matter of urgency establish Road Safety Research Institute charged with the sole responsibility of conducting research on safety measures.

Introduction

Road transport in Nigeria has witnessed significant development over the years. Since when the first motorable road was constructed in 1906, progress in road transport development has been on the increase. For example in 1951 the length of roads in Nigeria was 44,414km (Onakomaiya, 1981). However, by the end of year 2001the kilometrage of road has more than quadrapled (CBN 2002; Bala 2004 ; Ogunsanya 2004).

Presently, road transportation is still the dominant and most elaborate form of all the transport modes in Nigeria. The reasons are not far fetched. First, its flexibility as well as availability to rural population makes it to be the most patronized mode of transport. For instance, road transport carries over 80% of the total freight traffic per annum and more than 900,000 persons per day (Bolade and Ogunsanya, 1991). Second, the percentage share of investment on road transport out of all transport modes accounts on average for well over 60% in each of the National Development Plans since 1962 (FRN, 1981). Such expansion in road transport has contributed significantly to national development, although it has also led to increasing vehicular air pollution (Arosanyin, 1999) as a result of more vehicles and rising road traffic accidents (Arosanyin 2001, Oyeyemi 2002).

Jacobs and Astrop (1998) noted that since world's first road accident fatality that occurred in 1896, road traffic accidents have claimed an estimated 30million lives globally. Worldwide, about 1.2 million people are killed annually on the roads and up to 50 million more people are injured (WHO/WorldBank, 2004). Almost 70% of these figures occurred in the developing countries, which incidentally have the least numbers of vehicles per 1000 population in the world (Baguley 2001). This global pattern of road traffic accident and fatality is not different from the situation in Nigeria. Since the first road traffic accident that occurred in Lagos in 1906, the number of deaths and injuries caused by road traffic accidents has been staggering.

For example, in 1960 1,083 deaths and 10,216 injuries were recorded. Forty years later, these figures have jumped to 8,012 fatalities and 23,249 injuries respectively (Oyeyemi, 2003), an increase of more than 630% for fatalities and 120% for injuries. This could be described as a

national catastrophe.

This colossal waste of human resources is unacceptable and has become a source of concern to the government, policy makers and road safety researchers in particular as well as Nigerians in general. The question on the lips of every Nigerian is why this carnage on our roads? Can't we stem the rising trend? This is because of its implications on individual families as well as the consequences on the national economy. For example, the loss of a breadwinner to road accident can drive a family into perpetual poverty. Similarly, the grief, agony and suffering of the bereaved and the productive time wasted on burial and mourning is substantial. Besides, it costs the national economy between 1-2percent of its GNP (Jacobs et al 2000). The annual burden of economic costs of road traffic accidents globally is estimated at around US $518billion. In Nigeria, Arosanyin (2000) estimated the cost of road accident casualties to the Nigerian economy between 1970-1997 at #46 billion[1]. These costs are damaging especially for a country like Nigeria that is struggling with development.

This paper examines the trend, causes and effects of road carnage as well as the constraints to road traffic accident reduction in Nigeria. The paper is divided into six parts including this introduction. The second is on the trend and pattern of road accident fatalities in Nigeria. Part three highlights some of the causes of road accidents in Nigeria. The effects of road traffic accidents on Nigerian economy are discussed in part four. Part five looks at the constraints to road traffic accident reduction in Nigeria. While part six consists recommendations and conclusion.

Trend and pattern of Road Accident Fatalities in Nigeria

Road traffic accident fatality in Nigeria has been on the increase over the years. Oyeyemi (2003) showed that in 1960, 1,083 persons lost their lives in road traffic accidents. The figure rose to 1,918 deaths in 1965, 2,347 deaths in 1969 before jumping to 2,893 fatalities in 1970 as shown in figure 1. The continuous rise of fatality between 1965-1970 is not only surprising but also unwarranted given the fact that this was the period when the civil war was fought in Nigeria. One expects that the war would have constrained the movement of people and goods on the

roads thereby reducing the number of road accident cases and consequently road accident fatality.

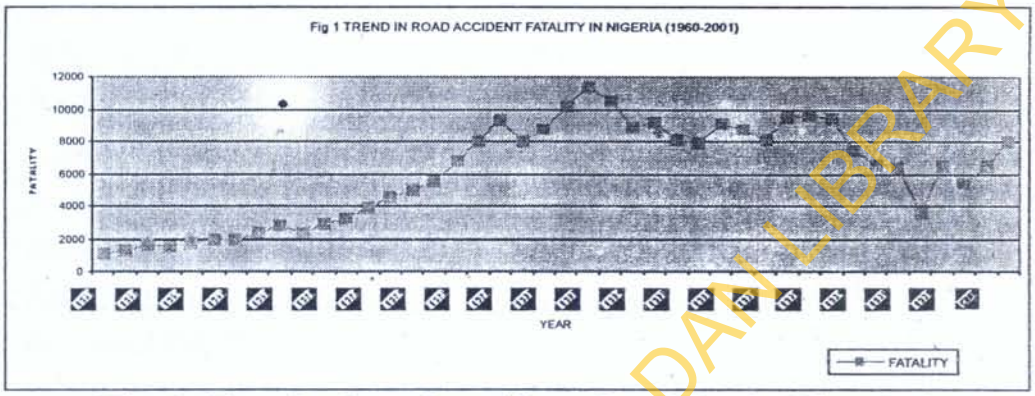

Fig 1: Trend of road accident fatalities in Nigeria between 1960-2001

The second decade (1971-1980) witnessed a steady rise in road accident fatality from 3,206 deaths in 1971 to 9,252 fatalities in 1978, the highest for the decade. This represents an increase of about 300% as shown in figure 1. This increase is expected. First, it was the period of oil boom in Nigeria, which was accompanied by economic prosperity and improvement in the livelihood of many people. Second, it was also the period when the minimum wage of the civil servants were increased . The increase in salaries and disposable income enhanced the purchasing power of many Nigerians which enabled them to buy more vehicles. Hence, an increase in both cases of road traffic accident and fatality. Kopith and Cropper (2003) noted that during the initial stages of development, as income grows and vehicle fleets increase, road accident fatalities worsen because little attention is paid to safety measures.

The rising trend of road accident fatality continued in the third decade (1981-1990) reaching an all time high of 11,382 fatalities in 1982. It decreased steadily to 8,834 deaths in 1984 and fluctuated between 1985-1989. The initial growth in fatality cases in this decade is expected because road accident fatality "benefited" from the progress

made in the 1970s. However, the decline in fatality cases right from the middle of the third decade to the end is not unconnected with the introduction of Structural Adjustment Programme (SAP) by the government of General Ibrahim Babangida. This economic policy affected the disposable income of many Nigerians. The economy was so badly hit by this policy to the extent that many people in the country could not meet their basic needs not to talk of buying vehicles. This reduction in vehicle purchase led to a decrease in the cases of road accident as well as their fatalities.

The fourth decade (1991-2001) witnessed a gradual decrease in road accident fatality from 9,620 deaths in 1992 to 6,364 fatality in 1996. The figure fell suddenly in 1997 to 3,616 deaths. It quickly rose again in 1998 and by year the 2001 fatality had risen to 8012 deaths. The reduction in road accident fatalities between 1992-1996 is expected because of the activities of Federal Road Safety Commission (FRSC). This Commission was established in 1988 and charged among other things with the responsibility of ensuring safety on our roads. However, the sudden fall of cases of road accident fatality, in 1977 to 3,616 deaths is both unscientific and against any logical reasoning. One suspects that is either the data for that year was based on guesswork or there was non-reporting and/or under-reporting of fatality data by some states.

However, the gradual increase since 1998 is not unconnected with the progress made in the economy in the last five years of democratic rule. The increase in minimum wage positively affected the wages and salaries of workers, which generated a lot of multiplier effect in the economy. In the same vein, the rise in capital expenditure of the government has also injected more money into the economy. All these factors have positively affected the purchasing power of many Nigerians. The result is more vehicles[1] and more cases of road accident and death. The usefulness of this analysis is that it shows the magnitude of road traffic problem in terms of deaths, which is very important if any significant reduction is to be made in road accident fatality in Nigeria. However, its usefulness is very limited when making comparisons.

A better index for the purpose of comparison is the fatality rate (fatality per population). It shows the impact of road traffic crashes on human population. The fatality rate can also be used for estimating the severity of crashes. The fatality rate between 1970-2000 as depicted in figure 2 shows a rising trend throughout the first decade (1970-1979). The second decade (1980-1989) witnessed a sharp rise in fatality rate that peaked in 1.66 in 1982 and started to decrease gradually. The fatality rate achieved initial stabilization in the early part of 1990s before witnessing a sharp decrease, reaching an all time low of 0.54 fatality rate in 1996. While the severity of fatality rate (impact on human population) tends to decrease, in actual fact the magnitude is on the increase. Therefore, in Nigeria, absolute figures of deaths might be a better analysis for local planning.

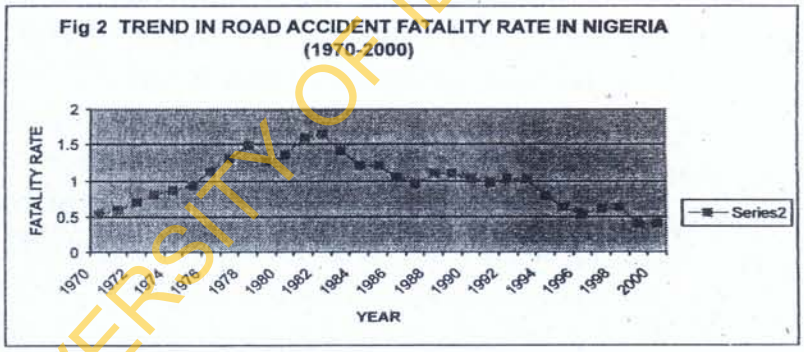

Fig 2: Trend of fatality rate in Nigeria between 1970-2000

Furthermore, the pattern of road accident fatalities in some states in Nigeria between 1996-2000 for which data is available is interesting. For the purpose of this analysis, six states were selected from each of the geopolitical zones in Nigeria; Lagos (South West); Kogi (North Central); Imo (South East); Rivers (South-South); Sokoto (North West); and Adamawa (North East). The percentage share of each state from road accident fatalities in Nigeria between 1996-2000 is shown in table 1 below.

States	1996	1997	1998	1999	2000	Av.
Lagos	5.9	15.5	8.9	6.6	5.2	8.4
Kogi	0.9	4.1	2.0	2.9	2.8	2.5
Imo	2.6	3.6	1.0	1.3	1.2	1.9
Rivers	2.2	4.6	2.4	1.8	1.4	2.5
Sokoto	0.4	3.9	1.2	1.5	0.6	1.5
Adamawa	1.3	1.9	1.8	7.2	6.3	3.7

Source: Computed by Author from Annual Abstract of Statistics 2001

The five-year analysis shows that Lagos State is responsible for 5.9% of the total road accident fatalities in Nigeria in 1996. Her share increased to 15.5% in 1997, decreased to 6.6% in 1999 and went further down to 5.2% in 2000. On the average, Lagos State alone accounted for more than 8% of the total road accident fatalities that occurred in Nigeria within the period of analysis. Whereas on the average the share of Kogi State was responsible for 2.5%, Imo 1.9%, Rivers 2.5%, Sokoto 1.5% and Adamawa 3.7%.The high level of fatality in Lagos state may not be unconnected with its huge population and bubbling economic activities. There are many industries, schools, health facilities as well as other quaternary services that act as traffic generators in the state. Therefore, the more movements take place, the higher the incidence of road traffic accidents and consequently road accident fatality.

The significance of this analysis is that the degree of urgency required for road safety measures differs from one state to another. For example, if Lagos State out of the 36 States in the federation (and the FCT) was responsible for more than 8% of the total road accident fatalities in the country between 1996-2000, then urgent and drastic measures must be put in place to reduce the percentage share of the state. In the same vein, the measures to be adopted must differ from state to state (or region to region) by taking into consideration the peculiarities of the people, their culture, traffic behaviour as well as their local environment. This is most glaring in the analysis of the fatality rate and severity index between 1996-2000 for the same selected states.

The pattern of fatality rate and severity index as depicted in Table 2 for the five year analysis presents a different picture (see table 2). The fatality rate (fatality per 10,000) for Lagos state rose from 0.58 in 1996 to 0.82 in 1998 but down to 0.63 in 2000. On the average, the fatality rate

for Lagos state for the period of analysis stood at 0.69. Whereas Kogi state , Imo, Rivers, Sokoto and Adamawa states had on the average fatality rate of 0.6.,0.35,0.27,0.15 and 0.97 respectively. The analysis showed that the impact of fatality on human population was highest in Adamawa state, but has a lower percentage of fatality (3.7%) when compared to Lagos state (8.4%).

Table 2: The Fatality Rate and Severity Index for Selected States between 1996-2000

States	Fatality Rate						Severity Index					
	1996	1997	1998	1999	2000	AV.	1996	1997	1998	1999	2000	AV.
Lagos	0.58	0.82	0.82	0.62	0.63	**0.69**	0.12	0.16	0.18	0.18	0.18	**0.16**
Kogi	0.24	0.58	0.51	0.76	0.89	**0.50**	0.27	0.51	1.0	0.94	0.84	**0.71**
Imo	0.58	0.44	0.23	0.19	0.33	**0.35**	0.64	1.06	0.33	0.48	0.66	**0.63**
Rivers	02.8	0.33	0.30	0.23	0.23	**0.27**	0.25	0.21	0.23	0.25	0.27	**0.24**
Sokoto	0.05	0.27	0.14	0.18	0.09	**0.15**	0.16	0.65	0.53	0.64	0.54	**0.50**
Adawama	0.36	0.27	0.45	1.8	2.0	**0.97**	0.72	0.58	0.25	0.74	0.98	**0.65**

Source : Author's computation.

Furthermore, another important indicator that shows the seriousness of road accident is the severity index that measures the number of persons killed per accident reported. The severity index for Lagos in 1996 stood at 0.12 (12 deaths per 100 accidents). The figure rose to 0.16 in 1997 and further up to 0.18 in 2000. In Kogi state, there were 27 deaths per 100 accidents (0.27) in 1996. Severity index rose to 1.0 (the highest for the year) in 1998 but down to 0.84 in 2000. Which means that in 1998 there was at least 1 death in every 1-road accident recorded in the state for the year. Similarly, severity index in Imo state rose from 0.64 in 1996 1.06 (the highest for the year) in 1997 but dropped to 0.66 in 2000. In Rivers state, severity index rose from 0.25 in 1996 to 0.27 in 2000. Adamawa recorded a severity index of 0.72 in 1996. It decreased to 0.58 in 1997 but rose again to 0.74 in 1999 and further up to 0.98 in 2000. Adamawa state had the highest severity index in1996 and 2000.

On the average, Kogi state had the highest severity index of 0.71 while

Lagos state had the lowest (0.16) for the five-year analysis. The high severity index in Kogi state could be because the state is close to the Federal Capital Territory (FCT) and at the same time provides through traffic (Gateway) to both North-bound and South-bound vehicles (luxurious buses, mini buses, wagons) that are always very fast and on high speed. When these vehicles are involved in road accident, the impact is usually very fatal. Whereas in most part of Lagos state, vehicles move in streams due to traffic congestion. Therefore, the impact of crash is usually very minimal in the event of any accident.

Moreover, the severity indices for Kogi, Imo, Sokoto and Adamawa states are higher that the average (0.48) for the six states put together. Three of these states are located in the northern part of the country. The implication is that it is more risky to travel in the North because the likelihood of being killed in a crash in higher in the North than in the south. In fact, it is four times more risky to travel in Kogi state than in Lagos state. In the final analysis, Lagos state may have the highest percentage of road accident fatality from the national figure between 1996-2000 when compared to other states, however, when other variables are included such as population (fatality rate) and accident cases (severity index), Lagos state was ranked 2nd and last respectively. It is therefore, important to know that while absolute figures of fatalities are essential in addressing the problem of road traffic accidents in the country, attention must also be paid to other measures that show the impact of fatality on population (fatality rate) and the seriousness of the accident (severity index).

Highlight of Some of the Causes of Road Traffic Accidents

The news of road traffic accident in Nigeria does not stir surprise any longer. What may be shocking, however, is the magnitude of the fatality. Everyday, Nigerian newspapers carry shocking headlines of road traffic accidents. For example, 30 lives lost in bus disaster; 72 people killed in ghastly bus crash; 16 perish in Akure auto crash etc. In fact, from "North to South, East to West, the common sight on our

highways is carnage upon carnage. Every hour the bodies of helpless Nigerians who are unfortunate victims of road traffic accidents litter our roads. Our hospitals are congested with the wounded ones who must have suffered various degrees of injuries ranging from broken skulls, bruised faces, strained joints to fractured limps and dislocated bones" (Ogunsanya, 2002). This excerpt shows that we live with road traffic accidents everyday.

A combination of factors has been found to be responsible for this unacceptable carnage on our roads. These factors include the inter play of human, vehicle, road and environment. The human factor is concerned with the driver behind the wheel. This has to do with his skill, competence, information intake and age, which is a determinant of his maturity. These and other general characteristics of the driver are important causes of road accident considering that about 85% of the road traffic accidents in Nigeria are caused by human error (Ogunsanya and Waziri 1991). Even within different states in the country the situation is the same. Mukoro (1986) observed that human errors accounted for 80% of road accidents in Kaduna State in 1985; 91.06% in Ogun State between 1980-1985 (Oduola ND); and 76% in Oyo State between 1980-1984 (Jegede, 1985). A recent study by Oyeyemi (2002) showed that out of the total of 248 road mishaps that occurred in the Federal Capital Territory (FCT) in 2001, human errors accounted for 86% of the cases. This confirms earlier studies that human error is the chief cause of road crashes in Nigeria. In the same manner, studies in other developing nations show a similar pattern (Jacobs and Palmer, 1996 ; Maunder and Pearce, 2000).

While human error may be the chief cause of road traffic accident in Nigeria the condition of the vehicle is also very important. This has to do with defects in the vehicle with respect to the steering and braking system, the elasticity of the tyres as well as inadequate maintenance. Ovuorie et al (1989) observed that tyres, engines, brake and lights are examples of vehicle parts, the malfunction of which can cause accidents. For example in 1999 in Nigeria, out of the total 6239 accidents examined, braked failure was responsible for about 15% of the total accidents recorded for that year (NITT, 2004). Furthermore, the condition of roads is another factor in road traffic accident causation in

Nigeria. For example, NITT (2004) found in Nigeria in 1999 that road defect alone was responsible for 12% of the total road accident recorded for that year.

In the same vein, the nature of the weather - whether rainy, foggy or cloudy is capable of creating visibility problem for the driver, which may result in road accidents. For instance, high environmental temperature can heats up the tyres and the road thereby reducing the firmness of the tyres on the road especially at a very high speed. NITT (2004), poor weather was responsible for 4% of the road accident causation in the country in 1999 (NITT, 2004). Some natural environmental hazards, such as winds, cyclones, snow and earthquakes as well as human environmental hazards such as road encroachment, animal crossing and roadside business aggravate the possibility of road accidents.

Effects of Road Traffic Accident on Nigerian Economy

The effect of road traffic accidents on the nation's economy can be measured by

YEAR	COST OF CASAULTY (#) (2)	% OF GDP (3)
1970	684,057,681	1.26
1971	758,221,714	1.15
1972	909,792,718	1.31
1973	1,047,045,927	1.42
1974	1,138,378,675	1.38
1975	1,259,620,211	1.57
1976	1,571,760,622	1.77
1977	1,825,564,000	1.89
1978	2,050,241,731	2.09
1979	1,737,997,643	1.90
1980	1,917,773,447	1.99
1981	2,330,297,705	3.31
1982	2,450,077,625	3.49
1983	2,153,606,198	3.24
1984	1,912,870,648	3.03
1985	1,989,559,198	2.88
1986	1,773,086,702	2.49
1987	1,661,586,784	2.34
1988	2,009,802,600	2.58
1989	2,005,525,122	2.40
1990	1,883,580,171	2.08
1991	1,864,395,291	1.97
1992	2,040,656,322	2.09
1993	2,085,455,008	2.08
1994	1,642,409,184	1.62
1995	1,308,610,836	1.26
1996	1,172,815,415	1.09
1997	1,428,630,008	1.29

Source: Column (2) : Arosanyin (2000) Column (3): Author's computation

comparing the cost of road accidents as a percentage of the GDP overtime. In this wise, Arosanyin estimates (Arosanyin, 2000) are used. The estimates are for casualties (fatalities and injuries) only and are based on Partial Human Capital Approach. This is presented in Table 3 .

It can be seen from the above that in all cases the cost of casualty is more than one percent of the GDP. In fact, it is more than 2 percent of the

GDP between 1985-1990 as well as in 1992 and 1993,and more than 3 percent between 1981-1984. On the average, the cost of casualty as a percentage of the GDP between the periods of analysis stood at 2.03 percent. The percentage will be higher than as reported in column 3 if other costs of road accidents such as vehicle damage, property loss, medical and psychological costs were included. Even at this level it is unacceptable given the global benchmark of 1% of GDP.

Constraints to Road Traffic Accident Reduction in Nigeria.

Various factors militate against effective road traffic reduction in Nigeria. It ranges from weak institution, poor funding to non/under reporting of traffic accident data.

There is no single institution in the country today that is responsible solely for conducting research into safety on our roads. The Nigeria Institute of Transport Technology (NITT) is not a transport research institute but an outfit that is run like any government civil service parastatals. In the same manner, the Federal Road Safety Commission (FRSC) has no semblance of a research institute rather it is an agency created for the purpose of enforcing traffic laws and responding to traffic emergencies. This is a departure from what we have in other countries where there are institutes established solely for the purpose of conducting research on safety measures. For example, the Transportation Research and Injury Prevention (India), Accident Research Units at Universities of Melbourne (Australia); Loughborough (England) and Hanover (Germany); Transport Research Laboratory (UK); The Dutch Institute for Road Safety Research and the National Centre for Injury Prevention (USA) have advanced research in safety measures over several decades. It is therefore imperative for Nigeria to follow the example of these countries by establishing road safety research institutes. O'Neill and Mohan (2002) noted that for any road safety counter measure to be effective it must be research based and scientifically evaluated.

In the same vein, inadequate funding has constrained the activities of both the Federal Road Safety Commission (FRSC) and the Nigeria Police. Both organizations are responsible for road accident data collection and dissemination. However, their performance has been

hampered over the years by inadequate funding and obsolete equipment. Oyeyemi (2002) identified inadequate funding and obsolete equipments among others as factors limiting the activities of Federal Road Safety Commission. Analyzing the FRSC serviceable vehicles, he noted that as at 2001 FRSC had 25 serviceable ambulances and 11 serviceable tow vans, that are expected to provide emergency response for about 120million people in the country. Even the Nigerian Institute of Transport Technology (NITT) that is expected to play a leading role in road transport research is not forthcoming. Its activities (if any) have been constrained by poor funding, inadequate professional personnel and official bureaucracy.

Moreover, inadequate and inconsistent traffic data is a major constraint to road traffic accident reduction in Nigeria. Data on the incidence, and types of crashes, detailed understanding of the circumstances that lead to crashes, and the knowledge of how injuries are caused are important for identifying interventions and for monitoring the effectiveness of the interventions. Most of these data in Nigeria are not available but where they are available they are grossly inadequate and inconsistent leading to under and non-reporting of road traffic deaths and injuries (see Arosanyin 2004 for more on road accident data problem in Nigeria).

Conclusion and Recommendations

Carnage is a common phenomenon on Nigerian roads. Road accidents occur everywhere, anytime and anyhow on our roads. Human error has been singled out as being responsible for over 80% of accident cases in the country. Other causes such as bad roads, malfunction of vehicles and poor weather are also becoming increasingly important. What is however worrisome nowadays is the magnitude of fatality that accompany road traffic accidents that we hear about and see everyday.

Road accident fatality in Nigeria has shown a steady increase over the years. Right from the year of independence in 1960 up till date the number of people who have lost their lives in road traffic accidents has been staggering. For example, between 1960-2001, more than 250.000 people have lost their lives through road accidents. Specifically in 1960 1,083 fatalities were recorded. However, the figure jumped to

8,012 fatalities in 2001, an increase of over 600%. With respect to injury, a little above 10,000 people were reportedly injured in 1960. By 2001 the figure had increased to 23,249. This phenomenal increase could be described as national 'calamity' or 'tragedy'.

In the same vein, the distribution of road accident fatality between 1996-2000 in selected states in Nigeria showed an interesting pattern. Lagos State on the average accounted for more than 8% of the road accident fatality in Nigeria within the period of analysis. While other states such as Kogi, Imo, Rivers, Sokoto and Adamawa on the average had 2.5%, 1.9%, 2.5%, 1.5% and 3.7% respectively. However, both fatality rate and severity index for these states within the period of analysis showed a different picture. On the average, Adamawa state had the highest fatality rate (0.97) while Kogi state with 0.71 led in severity index. It means that the impact of fatality was highest in Adamawa state while the chances of being killed when accident occurs was highest in Kogi state during this period. This spatio-temporal analysis does not only show the imperative of road safety measures in Nigeria, it has also brought to fore the states that require the most urgent attention. Moreover, inadequate funding and obsolete equipment are a major constraint to the activities of both the Nigerian Police and the Federal Road Safety Commission that are saddled with the responsibility of curbing the gloomy trend of road accident fatalities in Nigeria. Based on the above the following recommendations are made:-

Since human error is the most culpable in road accident causation in Nigeria, any measures aimed at reducing fatality must focus on human behaviour. Such efforts should combine both preventive measures with post-crash management practices. The preventive measures should include among others drivers' education, enforcement of seatbelts and helmets usage and awareness campaign on the dangers of over speeding and drunk driving. Both the Nigerian police and the FRSC must be overhauled and strengthened to ensure the functionality of the preventive measures. Government should make more funds

available to these organizations so that they would be able to recruit more cops and

Since road accidents can only be reduced and could not be stopped totally, it is therefore necessary to ask, what happens if road accident occurs? With the country lacking in emergency rescue operation and poor in health infrastructure and services, the answer is that the person will possibly die. Therefore the country needs effective emergency rescue operation on our roads to instantly attend to accident victims immediately accident occurs. ·Our health institutions (primary, secondary and tertiary) should be refurbished to be able to respond to emergency situation. They should be well staffed and provided with adequate drugs and up to date facilities. In addition, accident victims must have the privilege of being treated first before payments are made. Though the Federal Government has made open pronouncement of free medical services to accident victims and #50,000 fine for any hospital that rejects accident victims (from July 1,2005), but it is neither gazetted nor backed by law. The time has come for the pronouncement to have a legal backing

The government should as a matter of urgency establish national and regional road safety Institute, which should be staffed with trained professionals and be responsible for accident data surveillance and analysis, funding of road safety research activities; setting vehicle and road standards as well as developing appropriate traffic engineering approaches. This will be in line with what is operating in many developed countries in the world. Government can also enhance human resources development by running road safety programmes in transportation research department, which would be set up in selected universities and research institutes in Nigeria. Funding of these Research Department / Institutes should be directly from the office of the presidency. This will lessen the official bureaucracy that characterizes the release of funds in public sector in Nigeria. In

conclusion, if all these recommendations are taken seriously, it will drastically reduce the level of carnage on our roads and there would be no justification for the yearly increase in road accident fatalities in the country.

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