- Official bureaucracy
- Government machinery
- The state of Nigeria roads

PRODUCTIVITY MEASURE

Productivity in a bus transport company can be measured. In the case of ABC Transport, it could be viewed from the positive activities of the staff which promote the volume of production in the industry at an acceptable minimum cost of production. Such volume of production can be measured in its equivalent value of the total revenue generated from the service rendered. Specifically productivity of the entire operation of a transport company can be measured using

The operating ratio i.e. $\frac{\text{Revenue}}{\text{Expenditure}}$

For Total productivity: $\frac{\text{Total Output}}{\text{Total Input}}$

The formula for the calculation of operating ratio is

$$DP = \frac{\text{Output of CP / Input of BP}}{\text{Output of BP / Input of CP}}$$

DP=Dynamic productivity
CP=Current Period
BP=Base Period.

Other measure of productivity includes availability rate, accident rate, breakdown rate, scheduled adherence cancelled trips and missed trip, etc.

In conclusion therefore, staff delegation when carried out creates room for motivation of staff which in turn affects the productivity of the organization in positive manner.

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Part 5

ROAD TRANSPORT OPERATIONS

CHAPTER TEN:

ROAD TRANSPORTATION SYSTEM IN NIGERIA: PROBLEMS AND PROSPECTS

INTRODUCTION

In the total supply chain management, transport plays a crucial role. Transportation, therefore, is not just an intermediate good between production and consumption but a major variable in any government's agenda for equitable economic growth. It is a key infrastructure necessary for the people to lift themselves out of poverty which consequently permits the development of business and wealth creation. These functions informed the conclusion that any nation that is immobile is underdeveloped.

In performing the above roles, different modes of transportation are used namely, rail, road, water, air and pipelines. In this chapter, we shall concentrate on the road transportation system in Nigeria, by considering its problems and the potential for future development. The road transportation system is the primary and an indispensable mode of transport, since it is the mode that is highly flexible which:

(i) integrates urban and rural roads;
(ii) facilitates local, regional and international movement of goods and people;
(iii) provides interconnectivity between modes; and
(iv) enhances social and economic development. (Ogunsanya, 2007)

Indeed, the road transport is the most important mode of movement in Nigeria. It accounts for more than 90 percent of the country's goods and passengers movements. Road transportation system is a major user of scarce resources, vehicles and their parts, fuel and skilled labour (Transport Policy, 1993).

Road transport development in Nigeria predated the amalgamation in 1814 Road development followed rail development in 1898. Early road developments in Nigeria began in 1903 and 1904 in Calabar and Zengeru (Onokamaiya, 1980). In 1906, the first road in the modern sense started from the railway head in Ibadan to Oyo. By 1914, a total of 3,200kms of roads were constructed. By 1960, we had about 65,000kms. By 1972 it was about 95,000kms 2001, about 193,000kms were available. In 2005 about 200,000kms of road were constructed. This translates to about 1.4km of roads to 1,000 population. This ratio is poor when compared with 10.54 km of roads per 1000 persons in high income countries. Consequently, Nigeria is left behind Botswana and South Africa. It is also pertinent to note that most of these roads are in poor conditions especially during the rainy seasons since they are characterized with potholes, broken pavement and are poorly lighted. However, road network development is a major achievement of the government of Nigeria since 1970s. It also attracted about 72% of total government allocation to the transport sector (Ibe, 2003).

The institutional framework shows that the entire road networks are managed by the Federal Ministry of Works now under the Ministry of Transportation. The state governments manage state roads and the remaining roads are managed by the local government areas including footpaths that are maintained by the local communities. The Federal Road Safety Commission is responsible for the road safety issues while the Vehicles Inspectors (VIOs) maintain standards for use of vehicles.

In terms of fleet size, the capacity of the total registered vehicles in Nigeria has been on the increase over the years. Although there were signs of decrease in fleet size during the 1990s. This has however increased in the 21st century. It was about 357,708 in 1980, 607,536 in 1984, 466,875 in 1988, 302,572 in 1990, and

6,438,818 and 7,000,000 in 2005 and 2008 respectively. This shows an appreciable increase over the period especially in the 21st century. This number consists of motorcycles, (okadas), taxis, "kabukabus" and mini-buses. The adapted big buses, such as the molues, modern buses some of which are air conditioned, trucks, lorries and articulated vehicles for freight transportation. In spite of the increase, however, Nigeria is still classified as a low motorized nation still at the early stage of vehicle ownership. Nigeria has an average of about 50 cars per 1000 population as against 500 cars for every 1000 people in the industrialized countries. The average for low income countries is 30 cars per 1000 people (UNDP, 1994). The implication of the above is that large proportion of the population lacked access to convenient means of transportation. Consequently, they have to depend on public means of transportation which is costly, erratic, unpredictable and uncoordinated and highly most unsafe.

We therefore need to organize the public transportation system in this country by investing in high capacity vehicles, embarked on efficient public transportation by organizing and regulating the road transport sector. This is about the only sector in this country that is not regulated. The numerous private operators need to be organized into groups through the formation of business combines or cooperatives. Through this process their activities would be coordinated and regulated. This process will transform into efficient transportation services that would be available, accessible and predictable. In this way, road transportation industry will not be an all comers affairs. The road transportation as presently provided in Nigeria is dominated by private commercial operators who provide the capacities while the government provides the permanent way. In the recent past government has ventured into public transportation provision. This was formalized in 1988 with the establishment of the defunct

Federal Urban Mass Transit Programme. Some state governments still own state transit companies that operate skeletal services. However, the present civilian administrations in some states have embarked on the provision of mass transit services through the provision of buses that are now operated on public/private partnership basis. Examples can be found in Imo State and Cross River State. The Federal Capital Territory is also experimenting with the red and yellow buses. The recent Bus Rapid Transit of Lagos State is an experiment that needs to be copied by some urban centres in this country with high population. This BRT surely is a model that would remove a lot of private cars on the road thereby relieving the present chaotic congested cities and the attendant problems associated with congestion. We should equally note that there are no specific legal restrictions on entry into the road transport industry in Nigeria. This presents conditions in which the road transportation system operates in the process of rendering both freight and passengers services to the people. The challenges that confront the road transport industry is how to move over 140 million people (2006 Census) and over 1.2 billion tones of cargos at an efficient level.

PROBLEMS OF ROAD TRANSPORTATION IN NIGERIA

One of the problems that confront the road transportation industry in Nigeria is the issue of safety. Road safety refers to the reduction of road risk and crashes. The need to reduce road risk in Nigeria led to the establishment of Road Safety Commission in 1988. Since 1896 when the first motor vehicle crash/accident claimed its first life – a pedestrian and a driver a year later (World Disaster Report, 1988) road crashes have been increasing in high proportion over the years. This increase is now a source of worry to both the individuals and the governments world over. This worry has increased since road traffic accidents have been

predicted to be the 3rd killer disease in the year 2000 by the International Federation of Red Cross and Red Crescent Societies (IFRCS). Also road traffic death is predicted to increase by some 80% in developing countries by 2020 if adequate means are not taken (WHO, World Health Day Report, April 2004). In addition, it has been estimated that about 50 million people are injured and 12 million die every year from road traffic crashes. All these crashes have implication on the socio-economic costs which is very high on developing economies. Road crashes claim about US$100 million, a figure that is double the total official aid and loans received in the developing countries. In the case of Nigeria, the comparative international statistics on road fatality rate indicates that Nigeria tops the list with 26 deaths per 100,000 population as against 6 deaths, 7 deaths, 10 deaths and 16 deaths per 100,000 population in U.K., Sweden, Canada and U.S.A., respectively. (See Table 1).

Table 1: International Comparative Statistics on Road Fatality Rates

S/N	Country	Traffic Fatality Rates Per 100,000 Population
1.	*Nigeria	26
2.	U.S.A	16
3.	France	15
4.	Austria	14
5.	Ireland	11
6.	Canada	10
7	Japan	8
8.	Sweden	7
9.	Norway	7
10	U.K.	6

Source: Todd Litmana: 2006 Safe Roads
*Computed by Ibe C.C (2007).

Specifically, the figure for road crash records in Nigeria between 1996 – 2006 show that a total of 173,558 cases of road crashes

were recorded. Of this, 49,686 were fatal, 73,289 persons were killed, 216,309 persons were injured, and the total casualty was 294,514 persons within a period of 12 years. This is serious when considered against the background of the socio-economic implication of these crashes on the economy when considered from the point of view of man hours lost to attend the burial ceremonies, medication, hospital bills, grief and trauma associated with such crashes.

Table 2:Road Crash Records Between 1996-2006 (Nigeria)

Year	Fatal	Serious	Minor	Total Cars	No. Killed	No. Injured	Total Casualties
1996	4,790	6,964	4,688	16,442	6,564	15,290	21,654
1997	4,800	7,701	4,987	17,488	6,560	10,786	17,286
1998	4,757	7,081	4,300	16,138	6,538	17,341	23,879
1999	4,621	6,888	4,356	15,865	6,795	17,728	24,523
2000	5,287	6,820	4,499	16,606	8,473	20,677	29,150
2001	6,966	8,185	5,379	20,530	9,946	23,249	33,195
2002	4,029	7,190	3,325	14,544	7,407	22,112	29,519
2003	3,910	7,882	2,572	14,364	6,452	18,116	24,568
2004	3,275	6,984	4,051	14,274	5,351	16,897	22,248
2005	2,299	4,143	2,620	9,062	4,519	15,779	20,298
2006	2,600	5,550	964	9,114	4,944	17,390	22,334
2007	2,352	4,822	1,960	9,132	4,916	20,944	25,860

Sources: Nigeria Police/Federal Road Safety Commission, 2007.

The challenge to reduce the number of road crashes in Nigeria is a problem that confronts all the stakeholders. Remember that road safety is everybody's business. The road safety commission needs to be assisted to effectively patrol about 200,000 kilometers of roads in Nigeria. Presently, the Commission covers only about 30% of the total road crashes on daily basis. In order to achieve the new target of accident reduction on the Nigeria roads by some 25%,

50% and 75% by 2011, 2015 and 2020 respectively, the Commission would require about 1,814 vehicles more. (Chidoka, 2008).

In addition, they need to carry out researches that would enable them to come out with evidence based policies on safety matters. This involves huge capital. Government alone may not cope with these expectations given the numerous demands on the available resources. Consequently, insurance companies, corporate organizations and individuals could come in to help reduce road crashes in this country by assisting the Federal Road Safety Commission through donation of material resources such as vehicles and equipment.

In addition to the issue of safety, we also have the case of the use of rickety, unroadworthy vehicles on our roads. The use of such vehicles compromises safety. The Vehicle Inspection Officers (VIOs) should be empowered to carry out their duties of inspecting vehicles periodically, 6 months for commercial vehicles and one year for private vehicles. The present practice of renewing the road worthiness certificates without subjecting the vehicles to physical inspection is not good. The practice of routine renewal must stop to give way to real inspection. In this case, the VIOs must be adequately trained both in quantity and quality and equipped with the up to date State of the Art facilities for inspection including laboratories.

Through this process most vehicles on our roads will be of road worthy. In doing this, they must comply strictly with the stipulated standards under the construction and use of vehicles. Most additional constructions fitted by the owners must be removed for the convenience of the commuters. This practice will not only ensure safety but would be capable of ensuring that unnecessary brakedowns are reduced.
Section 73 of the 2004 National Road Traffic Regulations made it mandatory to examine both commercial and private vehicles.

Inspected road worthy vehicles must be differentiated with special stickers on the windscreens. Corruption inherent in the present process must now be eliminated.

Another problem inherent in the road transport sector is the high cost of vehicles, spare parts and Tyre problems that are associated with increased demand. For instance, a 30-tonne trailer was sold for N2m in 1994; in 2005 the same vehicle is sold for N12m. This represents a 500% increase over the period. Also a Mercedes Benz bus that sold for N19m, in 2001, presently the same vehicle is sold for N30m.

This represents 58% increase over the period. The increase in the cost of vehicles has resulted in the use of aged fleet by operators. Consequently, operators must now cope with the use of second hand vehicles which are very expensive to maintain. The effect is high down time in the workshop and low vehicle availability for operations. This results in delayed delivery, disappointments, frustration, complaints and loss of patronage.

The high cost of vehicles has resulted in the preference of used vehicles to new ones as shown by the national truck importation statistics below. The figure shows that out of a total of 88,452 trucks imported into the country for the period 2000 to 2005, some 70,19041 were used trucks while only 17618 are new ones.

Table 3:National Truck Importation Statistics

Year	Used Trucks	New Trucks
2000	9,732	1,874
2001	16,386	2,537
2002	14,048	3,541
2003	12,965	2,935
2004	10,299	2,329
2005	7,474	4,402
Total	**70, 904**	**17, 618**

Source: Annamco, 2007

This has implication on service cost as illustrated in table 4.
Model: Mercedes Benz Actros 3340.
Kilometer Coverage per Month/14,000kms

Table 4:Service Cost Comparism of Truck Age

Cost in Naira	1 Year	5 Years	10 Years
Service cost per km	3.8	5	9.8
Repair cost per km	6.2	8	16
Total Maintenance per km	10	13	25.8
Maintenance cost per month	140,000	182,000	361,200
Maintenance cost per year	1,680,000	2,184,000	4,334,400

Sources: Frank Nneji (2007)

The figure from table 4 shows that maintenance cost of aged fleet is higher than that of new fleet. Consequently, operators incur high maintenance cost by using second hand vehicles and spare parts. In addition to the high cost of vehicles is the high cost of petrol and diesel. Meanwhile there is no alternative to the use of petrol products in powering vehicles used for transportation. This means that operators may not respond or withheld the purchase of these products when the prices are increased. It means then that operators are held captive to the consumption of these products if they must operate. Over the years, operators in the transport sector have had to contend with these rather frequent increases. These increases have been used to increase price of other goods since operators must transfer the incidence to consumers if they must remain in business. Table 5 below illustrates the price change in petrol products since 1990.

Table 5: Movement of Petrol Price 1990-2005

Year	Price/Liter	Consumption (metric tones)
1990	0.6	3,302,808.0
1991	0.7	3,380,049.0
1992	0.7	3,969,275,9
1993	3.24	3,336,215.0
1994	11.00	3,015,634.0
1995	11.00	2,735,700.3
1996	11.00	3,454,327.3
1997	11.00	4,461,348.0
1998	11.00	2,782,112.0
1999	20.00	4,475,565.0
2000	22.00	4,475,565.0
2001	30.00	4,475,565.0
2002	42.00	5,397,577.4
2003	49.00	6,556,615.5
2004	55.00	6,585,614
2005	65.00	7,308,099.2

Source: DPR -Department of Petroleum Resource Lagos

Analysis of table 5 reveals the trend of petroi price changes over the period 1990-2005. It further reveals that while prices have increased by 10,733 present since 1990, consumption has increased by only 121 percent. From this the price elasticity of demand for PMS is 0.011. The logical condition therefore is that the demand for petrol in Nigeria is highly inelastic. This means that the consumption of petrol is highly unresponsive to changes in pump price. This is why Petroleum Products Pricing Regulation Committee continuous to increase pump price without a corresponding decrease in the quantity sold. The question on the lips of the operators now is can this situation remain? We have to think for alternative by investing in technology that will at least be economical in fuel consumption. We could equally get involved in alternative technology for the operation of vehicles. We therefore should fund researchers in this direction. After all necessity is the mother of invention.

There is also the problem of poor Road Network. Most roads in Nigeria are in a state of disrepair especially during the rainy season. This is the situation in spite of the efforts of the Federal Road Maintenance Agency (FERMA). The effect of the result of accumulated delayed maintenance over the years has been alleged to be the problem. The proportion of Nigerian roads in poor condition increased from 239% in 1985 to more than 230% in 1991. Poor road conditions results in lost of time and money. It also results in delayed delivery since the vehicles cannot maintain an average speed of 55km/hr that maximizes fuel efficiency. Indeed, the generalized cost of travel and goods delivery by the industrial establishments in terms of increased journey time and cost of transportation.

In addition, there is also an increase in the cost of maintaining the vehicles. Maintenance cost of vehicles tends to be very high due to poor conditions of road infrastructure. Bad road conditions result in high maintenance cost of equipment. This includes the

material cost, labour cost and down time cost of vehicles. Vehicle parts most frequently affected include clutch and clutch plate–related problems, breaking systems, gas related problems, suspension system and engine. The down time of the vehicles in the workshop reduce availability and the utilization rate of vehicles.

We also have the problem of integrated transportation system in Nigeria. The road transport system is working in isolation of the other transport modes. Goods meant for rail is now carried by road due to the collapse of an integrated transportation system. The railway is almost in a comatose situation. This has brought pressure on the road leading to frequent collapse of segments of the road networks before the anticipated economic life. Intermodalism in transportation need to be promoted in Nigeria but cannot happen when the railway system is not efficient and functional.

There is also the problem of near complete absence of well organized end coordinated road transportation system. The road transportation system in Nigeria need to be organized, streamlined, regulated and coordinated. There should be a central body to organize the activities of all the unions and groups presently operating in the road transport sector so as to form a synergy for growth and development of the sector. What we now have is the existence of different groups such as the luxury buses owner association, National Union of Road Transport Workers Union, National Association of Transport Owners (NATO), the cooperatives and so on. These different groups and associations need to be streamlined, coordinated and regulated. The problem associated with this fragmentation is one of the greatest challenges of the road transport sector in Nigeria.
There is also the case of lack of education and skill in the sector. Most operatives lacked the requisite education and skills needed

to operate the road transport service of the type that we need now for sustainable development of the road transport sector. With the exception of few well organized transport establishments, such as ABC Transport Plc, others in the private sector that dominate the services in the road transport mode lack the skills and education for both safety and the general operation. The technical crew also needs to improve on their skills for efficiency in service delivery. On a happy note, there are now institutions of higher learning that offer courses in transportation studies. The products of these institutions such as Federal University of Technology, Owerri, Nigeria Institute of Transport Technology, Zaria, Ogun State University Agor Iwoye and Bell University Otta, etc. are only few examples.

Another problem that confronts road transportation is the case of multiple taxes and security agencies on the road. This is a serious problem because the menace of the various local government task forces, the security agencies on the road who extort money from operators on the road affects operation. Their action increases the cost of operation in addition to increasing journey time due to delays.

Presently there seems to be no collaboration between the research institutions and the road transport sector. The road transport sector is an area that requires a lot of researchers. Operators therefore, need to collaborate with researchers in this area in order to find solutions to some of the problems that confront road transport operation in Nigeria. In addition, operators of road transport in Nigeria need to make input to manufacturers of vehicles they use in the type and nature, conditions of vehicles they need. This is a problem that stakeholders should look into on the possibility of how to make input on what they need.

The revolution in information technology and its adoption in the road transport sector is another problem. Information technology is highly applied and used in the transport sector. Yet in Nigeria, only very few companies now use information technology in its operation. We have to move with trend before we are left behind. E-commence has a lot to do in transport, information gathering, data collection, ticketing, ordering and tracking of vehicles i.e. monitoring are now done electronically. Consequently, operators in road transportation should now adopt information and communication technology in their daily operations. This is where the future lies for sustainable road transport development.

There is also the problem of congestion and the menace of the use of motorcycle as a means of public transportation. In spite of the fact that this is very risky, accident prone, it equally competes with vehicles on the available space. The number of motorcycles now is on the increase. It is about 54% of all the motorized traffic on the road. They need to be controlled and regulated. This will help to reduce congestion.

PROSPECTS OF ROAD TRANSPORTATION IN NIGERIA

In spite of the numerous challenges in the road transport system in Nigeria, the future for road transport is very high. In the first place, Nigeria has the population that is capable of sustaining any improved and modernize road transportation system. The over 140 million population must be moved. The first option choice of movement is the road sector because of its flexibility. Consequently, the prospects of road transportation system lies in the ability to organize a well developed road transport system that is efficient, accessible and safe. In this case, the sector needs to be reformed, organized, regulated and coordinated. Through this process we would be able to bequeath a sustainable road

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transportation system to the next generation.

To achieve this, the issue of critical shortage in the relevant manpower that operates the road transportation should be tackled. This requires reorientation of both the operators and the professionals in the development of capacity needed for an efficient road transport of the type that we need. We therefore, need education; we need to educate and train the operatives, the drivers, the technicians and indeed the general public on the issue of safety. Safety education is needed. Once this is achieved the prospect for road transport is high since risk will then be reduced. We therefore need to commit both resources and effort to train and retrain the operatives in the road transport sector.

In addition, to the above, we advocate the establishment of effective and efficient rapid response system for search and rescue operation in the case of emergency. We advocate the adoption of information and communication technology. This will pave way for seamless and predictable road transport. Besides, it will help in planning, timetable order processing, inventory control and ticketing information generated through this process will help in tracking, monitoring and control of road transport since it promises to provide real time information.

The prospects of road transport in Nigeria will further be enhanced if the iron and steel plants and industries are functioning well. This will pave way for the establishment of motor manufacturing industries that would assemble these vehicles locally. The present situation where most of the local assembly plants are producing below capacity is not the best. They should be encouraged through the reduction in tariff which will invariably reduce the cost of imported vehicles. A reduction in the cost of imported vehicles would encourage operators to go

for new vehicles which will enhance efficiency.

CONCLUSION

We have seen that the road transport industry in Nigeria accounts for more than 75% of total movements in the country. In spite of this fact, it is faced with numerous challenges that exerted pressure on the system by impacting negatively through accidents, delayed delivery and loss of time. We also observed that the road transport is costly erratic and unorganized. These negative aspects constitute challenges that must be tackled for the sustainable road transport system in Nigeria.

To stop this trend, and participate in the global competition, organized, developed, adequate and effective and efficient road transportation should be the hallmark. All hands therefore should be on deck.

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CHAPTER ELEVEN
COMMERCIAL DRIVING IN THE 21ST CENTURY PROBLEMS AND CHALLENGES

INTRODUCTION

To drive according to Oxford Advanced Learner's Dictionary of Current English (1984) is to operate, direct the course of a bus, motorcar or other vehicle. It entails controlling and directing the carrying unit. Driving on the other hand is the act of operating and or controlling of vehicles by a person - the driver who drives the vehicle.

There are two types of drivers. First is one, who drives himself not for reward or commercial reasons - the private driver. Second is, one who drives for reward i.e. for commercial reasons. He drives as a professional and earns his living from it. He is engaged in the act of carrying people and goods from the origin to destination. It is the later, commercial driving that is of importance to us. How does he perceive his duties, his environment and his motoring? How has he faired all these years? What are his challenges? Are there ways of overcoming these challenges? The answer to the above questions will form the basis for this chapter "Commercial Driving in the 21st century: Problems and Challenges".

COMMERCIAL DRIVING AND TRAFFIC PROBLEM

Commercial driving is that aspect of the transportation that is undertaken as a full profession that is involved in the day to day carriage of persons and goods from origin to destination. This therefore means that commercial driving occupies a position in the activation of human activities. It is one of the indispensible catalysts for activating and stimulating the tempo of economic, social, political and strategic development in any socio-economic system; hence we say that whenever the transport sector sneezes all other sectors are observed to catch cold in the same severity with degree of sneezing. This means that commercial

drivers play important roles in the economic development of any society. They contribute significantly to the value and utility of goods and maintains the principles of safe arrival. When a journey terminates, midway, through accident by our actions or omissions, we have violated one of the cardinal principles of transport operation. This we do at times especially during the peak period of operation when there are pressures to satisfy our numerous customers. To manage with the resources available, operators that are commercial drivers tend to over stretch themselves either by increasing the speed in order to turn around or continue driving day in day out in order to maximize profit.

In the process of trying to achieve this, errors occur leading to accident. This error to my mind could be minimized, both during and after the peak period, in order to remain in business and keep driving. To achieve this, the driver's skill must be improved upon through driver's education in order to remain a good driver. Accidents take place because of errors in judgement by the driver caused by underestimation of the total demands of good driving and overestimation of own capacities and capabilities on the wheels. Therefore, for a good driver to be successful, he must always make a correct estimate of his abilities, and a correct estimate of driving requirements. Failure to do these may result in reckless driving and violation of traffic laws which include the following: speed violation, overtaking, alcohol/drug influence, road obstruction, tyre violation, lights/sign violation and use of mechanically deficient vehicles, etc. These offences are punishable by the Road Safety Commission. Through payment of various fines.

From the above, we could see that the traffic problem is a driver's problem. This is because the basic problem of traffic is how to move millions of vehicles, through our streets and roads smoothly, rapidly and safely. You the driver, can either compete

The three basic components of traffic are the road, the vehicle and the driver. You, the driver will determine to the greatest degree how safe traffic will be. We are all aware that the road doesn't move, and the vehicles move only when moved by the driver. Therefore, the driver is the key figure in traffic. How a driver moves, interact with other traffic will help to decrease competition and increase cooperation. It is the driver that plans the trip. He therefore must allow sufficient time for expected delays and to permit smooth driving to the destination. If a driver is ill, he must stop driving because of physical difficulties since this threatens safety.

Indeed, all of us, drivers, pedestrians, riders of any wheeled vehicle and Okada riders make up the traffic problem. However, we tend to blame roads, vehicles, laws most often. Although these variables may contribute to accidents, they cannot contribute until we first do something wrong.

We can conclude this section by saying that the three basic elements in accidents are road defects, vehicle defects, human faults, errors and violations. The commercial driver does this through wrong attitude, lack of skills, lack of knowledge and physical deficiencies. This is why a large proportion of the burden of blames of road traffic accidents is placed on drivers.

However, each and everyone of us can change this situation by becoming trained drivers in order to avoid blames. The more trained drivers we have, the more safety there will be, and the more enjoyable travelling will be. Drivers therefore need to know more about their environment through driver education.

CHARACTERISTICS OF A GOOD DRIVER

You can agree with me that there are some drivers that have driven for years without an accident. Record like the above cannot be attributed simply to luck. These accident-free drivers

have some qualities. Thus, a good driver knows what he is doing. He knows himself, the law, the rules of the road, his vehicle and the nature and dangers in traffic. He keeps knows his eyes, his mind and his complete attention on his driving. He tries to avoid any distractions. Above all he is disciplined and is sufficiently knowledgeable and trained in the ruled of drive.

He sees the entire traffic picture, while his mind registers the signs, signals and traffic movement ahead. Drivers steadily keeping in pace with prevailing speeds of traffic and trying to go faster or slower than the mass traffic adjust his driving and speed to time of the day and night, to weather and to seasons. He learns that the best way to keep out accident is not to get into them.

He makes his decisions and moves before he gets into trouble. He slows down or stops until potentially dangerous traffic situations clear. Above all he Most of all, respects the rights of other drivers, showing the same courtesy to them than he expects in return. The possession of the above qualities by any driver new or old present, the best chances of enjoyable, safe driving experience.

In addition to the above, there are personal qualities of a good driver; these are the physical conditions of the driver. These physical conditions are necessary because today's' traffic demands much more than the ability to start, turn, brake and stop a vehicle. This is so because the number and speed of vehicles require knowledge, skills and judgement of a high order. The rules which society adopts to regulate individual activities are of special importance when applied to driving characters and social responsibilities, as well as driving ability, shown up at the wheel. Learning how to adopt driving to various types of street and road situations as well as how to meet emergency situations is the hall mark of good drivers. Learning how to adopt driving to various types of street and road situations as well as how to meet

emergency situations is the hall mark of good drivers.

The physical and mental conditions of a driver is important since it enables a driver to access and be free from many different situations and conditions of the road, that requires not only a trained mind and continual alertness, but also a body capable of responding efficiently to the many "messages" received from the mind. These situations may call for instantaneous action in a powerful, speedy vehicle. Your physical responses must be right the first time. In many instances, drivers will not have a second chance. The situations that a driver may encounter may include but not limited to the following: slippery road surface, a long monotony of straight road vehicles approaching, passing, crossing or entering the road on which you are driving, pedestrians or Okada's sudden stops of the vehicle, sudden rainfall and mechanical failures, etc. The ability of a driver in meeting these ever changing traffic situations depends not only upon knowledge, skill and good attitudes, but also upon your vision which sees what is ahead, your mind which receives these messages, analyses them, makes a decision and transmits the proper orders to the body. And the muscular system which carries out these order. To function properly and be able to meet the different road traffic conditions, there must be efficient coordination between the mind and the body, and the body must be able to make the proper movements. In this way, each part of the body is important in the contribution and successful performance to the physical attributes of a good driver. Therefore, every part of the body should be kept in to shape at all times.

The good physical condition of a driver will therefore help him to acquire the six basic requirements for drivers. Otherwise called the essentials for driving. They are control of both self and vehicle,

responsibility, anticipation, recognition, compensation and courtesy.

PROBLEMS OF COMMERCIAL DRIVER

One of the major problems that confronts commercial driver in Nigeria in the 21st century is the need for safety on the wheels. This brings about the issue of road traffic accident to the fore. In order to appreciate the need for safety on the wheels and its implication for commercial driving, a look at accident records in Nigeria briefly will help to make us appreciate more the need for drivers education and the challenges that confront the 21st century commercial driver in Nigeria.

Available statistics show that between 1960 and April, 2002, about 258,505 deaths have been recorded through road traffic accidents. Analysis shows that fatal cases till December 2001 were 56, 818, serious cases were 77,443 while minor cases were put at 112,711with about 796,538 persons sustaining injury (FRSC 2002). Further analysis show that the trend of road traffic accident has been upward and downwards since 1960. The highest rate of accident took place between 1980 lo 1989. During this period, a total of 247,963 persons were injured. Following closely to this was the 1970-1979 period when a total of 276,136 accident cases were recorded.

During this period too, a total of 57, 136 persons were killed while 209, 088 persons got injured. The highest cases of accidents during this period was recorded in 1976 with a total of 40,881 cases, 1982 had 37,098 accident cases with a total of 11, 382 persons killed, while about 28,539 persons were injured. However, the lowest rate of road traffic accident was recorded in 1977. It has a total of 9,034 cases while 1960 recorded the lowest death through road traffic accident. This period recorded 14,430 accident cases with only 1,083 persons killed and 10,216 persons injured. The creation of Federal Road Safely Corp in 1988 has

influenced a downward trend in road accident cases in Nigeria. This period recorded about 25,792 cases of road traffic accidents, which claimed about 9,077 lives. The period 2000 - 2002 witnessed a total of about 17,164 persons killed by road traffic accidents in Nigeria.

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The lesson we can draw from the above statistics is that we have lost a lot of persons who are in their prime age that would have contributed to economic growth. Also money is lost to hospital bills, police and vehicle inspection officers and administrative charges. All the above have implication on the survival and growth of organisations, companies and even individuals through the depletion of assets, boycott of services by customers, loss of revenue and growth and eventual collapse in some cases. We also have emotional grief on the part of the people who lose their dear ones in road traffic accident. These accidents take place because of errors in judgement caused by underestimation of the total demands of good driving and overestimation of own capacities and capabilities on the wheels. This is a serious issue which we must think about as commercial drivers.

Another problem confronting commercial driving in the present day is the issue of multiple taxes imposed by the various governments and their agencies, the National Union of Road Transport Workers (NURTW) and the high cost of vehicles and spare parts, incessant increase in fuel prices and the implication of deregulation of the downstream oil sectors.

Other issues include bad roads, crimes on the road, increasing traffic congestion, etc. Others include unfriendly operating

environmental conditions, wrong perception of the commercial drivers' status in the society, declining revenue accruing to the commercial driver and above all, technical changes in the vehicles as a result of the revolution in computer technology and its application to road transport vehicles. Other problems include poor customer services and lack of trust among commercial drivers. All these are serious issues and problems which confront a 21st century commercial driver, which he must find answers to since they constitute themselves to serious challenges and a threat to his survival and existence as a professional in the transport sector of our economy.

CHALLENGES FACING THE 21ST CENTURY COMMERCIAL DRIVER

The 21st Century commercial driver in Nigeria is faced with a lot of challenges. One of such challenges is how to reduce the rate of accidents on Nigeria roads. Accident, as we have observed, occurs due to human error caused by wrong judgement and wrong perception of self and estimates of self capacity and capabilities on the wheels. How to reduce accident by avoiding conflict on the use of road space is therefore a serious challenge. As a first step, the commercial driver should imbue with discipline on how to use the road space to avoid conflicts. He will do this through driver education. This will enable him to upgrade his knowledge and skill, have full understanding of the rules and regulation that guide the use of road space, obey traffic laws, obey speed limits, plan his journey, avoid alcohol while driving, have enough rest to avoid fatigue and maintain his vehicle.

Acquisition of the necessary skills above will enable the commercial driver to be skilful and avoid unnecessary and costly mistakes thereby improving on his judgement which will reduce human error.

The improvement in driver education, no doubt, will enable the 21st Century driver to change the public perception of him which presently is very low. He has to be neat, courteous and respectful while performing his duties. The 21st Century driver must change

some of his negative attitudes to work and develop mutual trust among themselves and to that extent elicits the trust of his customers.

Another challenge that confronts the 21st Century commercial driver is the issue of high vehicle cost, high cost of spare parts and the deregulation of the downstream petroleum sector with its attendant increases in the pump price of petrol and other products. This will affect his total earnings and the standard of living. He must therefore adequately maintain his vehicle in order to operate at the most efficient level of fuel consumption. He must equally be thinking of how to participate in the privatization of the oil sector. Please don't ask me how the money will come. With discipline and trust among yourselves you could form business combines and pull resources together. Your union could do something if the will is there. Also reduce excessive load on the vehicle to prolong its life span. Ability to avoid overloading in itself is a serious challenge which could provide the solution. The 21st Century commercial driver should think of professionalization in order to attract enough remuneration to himself.

In conclusion, the commercial driver of the 21st Century has influence for safety. This influence concerns your future as a driver. This means that everything has to be paid for- owning a vehicle, obtaining a drivers' licence, having a system of controls to aid us to drive safely, all these are what we enjoy. And they must be paid for, not only in money alone, but also through your performance as a good driver. To the greatest extent, you control the vehicle and hold your own future in your hands. Therefore, choosing the road to responsibility, maturity, the determination to be your best every moment on the road, and acceptance of the price you must pay for the privilege, these are the real challenges which are the best assurances of your future as a driver. It really does depend on you.

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Part 6

LEGAL ISSUES IN ROAD TRANSPORT

CHAPTER TWELVE:

LEGAL ASPECT OF ROAD TRANSPORT

Transportation is that economic activity that this involved in the carriage of person/goods from the point of origin to destination. The essence of transportation however is to add value to goods /services by changing there location. This value added is what the economist called place utility. Thus, transport creates place utility to goods/services.

In carrying out transport business, the operator does not operate in a vacuum. He operates within a given environment, interacts with people, makes use of the public roads and operates within certain guidelines, rules and regulations. The essence of these rules and regulations in the road transport operation is to ensure safety, reduce undo competition and exploitation, protection of the operator, the consumer of the services and the environment within which the business takes place.

In a way, the rules and regulations clearly specify the rights and duties of transport undertaking. These rights and duties might be adhered to by transport undertakings, either by the owner themselves or their agents, other wise they run flow of the law.

In the normal operation- of transport service there exist a contract between the operator or his agent and the consumer of the service. In a way there is not offer and acceptance of the offer. Consideration and intention to create legal relationship especially when the carrier is a common carrier. Once this consideration exists, both parties have willingly entered into a contract. According to Professor I. E. Sagay, Contract is defined as an agreement which the will to enforce or recognize as affecting the legal rights and duties of the parties. It can also be defined as an

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agreement between two or more parties which is intended to have legal consequence. Consequently, a contract is a legally binding agreement. This agreement results from an exchange of promise or assets by the parties involved. These assets may be expressed words or by conduct.

In the transport undertakings like A.B.C. Transport Ltd, for example, the duties of carries relate mainly to their duties and obligations towards the users of their services (passenger or freight) based on the contract of carriage which they have agreed. The owner or manager of a transport undertaking however, has obligations to other groups with whom he comes into contact in the course of business. This will include his own employee, and persons who lawfully or sometimes unlawfully, use his premises or who are near him when he is conducting his business.

VICARIOUS LIABILITY

As Station Managers of A.B.C. Transport, your action/ decision are liable to the organisation under vicarious liability, for instance once a passenger by land transport uses the service of A.B.C. at each station, he usually though not always, does so under the terms of a contract of carriage which he makes with the company. The consideration for the contract which the passenger gives is the fare he paid and receipts issued.

On the other hand, once a station manager issues a free pass to passenger whether staff or relations, no fare (consideration is paid), the company is not liable under vicarious liability because the passenger is regarded as a gratuitous passenger and there is no contract of carriage. The importance of contract where there is one is that there will be an implied condition that the carrier will carry his passengers to their destination safely. He assumes liability, therefore for their safety and is not contract. In Britain,

the operator of road passenger services is prevented from making any such execution by section 1: 151 of the Road Traffic Act 1960 (British). This was repeated in the unfair contract terms act of 1977.

If therefore, a passenger by road who is a fare paying passenger is injured or killed during his journey, he or his executor has a right of action for damage against the carrier or his servants have caused the accident by their negligence or wilful misconduct. The right of action will arise because the carrier has breached the contract by failing to comply with the implied term to carry his passengers safely.

THE LEGAL ASPECT OF ROAD TRANSPORT IS THE MOTOR VEHICLE ITSELF

On purchase of a vehicle for transport business, there are certain obligations expected from the operator. It is compulsory that the operator must first register the vehicle with the appropriate registration number. He must obtain the vehicle license and the road worthiness certificate by the payment of appropriate fees at the appropriate motor licensing office within the state. In addition, he must renew the vehicle license and the vehicle roadworthiness at the expirations which the vehicle documents. All these are some of the legal obligations which the operator of a road transport business must comply with; otherwise the law of the land will catch up with him.

THE CONTRACT OF CARRIAGE

The right and liability between a consignor and a consignee of goods on one hand and a carrier on the other hand are normally based on a contract of carriage. An offer to carry is made by the carrier which is accepted by the consignor. The need not necessarily be an express contract but the fact that the carrier accepts the goods for carriage in the normal course of business

implies the making of a contract. The promise by the sender (consignor) to pay the carriers charges is the consideration, which he gives to support the contract. It is however, necessary to observe here that apart from the obligation to deliver the goods safety, as a result of a contract of carriage, the carrier will also have a duty under common law, as bailee of the goods entrusted to him, to take reasonable care of them.

MOTOR VEHICLE INSURANCE

Motor vehicle insurance was the only class of insurance made compulsory under in Nigeria legal system until recently when the workmen's compensation Act of 1990 extended the principle to this class of insurance. By the Motor Vehicles (Third Party Insurance) Act, it is compulsory for all motor vehicles owners to insure their vehicles against third party risk i.e. to insure against the risk of liability for death or bodily injury. The Act further provides that it is unlawful to use or permit any person to use a motor vehicle unless there is enforced, in relation to the use of that vehicle by such person, persons or such other person as the case may be. Such a policy or insurance or such a security.

It is important that a policy must be issued by an approved insurer and that it must be one which insures such person or classes of persons in respect of death or bodily injury to any person caused by or arising out of the use of the motor vehicle covered by the policy.

Significantly, this provision is restricted to death or bodily harm occasioned to third parties. It does not extend to damages to the insurer's property or vehicle or to injury to his person. However, in practice, the insured can extend the scope of the risks covered by the policy by taking out a comprehensive policy. This comprehensive policy covers not only death or bodily injury to

ıird parties, but also covers loss or damage to the property of the ser of the vehicle, his vehicle, medical expenses as well as the ehicle or property of third parties.

ccording to Rainsbeck (1973) the only way to avoid all risks in ansportation is never to travel. But we know that we must travel, ıd off course it is obvious that risks on the highways cannot be ɔmpletely eliminated. It is therefore apparent that at least such sks can be kept at the lowest possible level. Efforts at reducing ighway accidents in most countries are often made through ɔrmulation and implementation of appropriate road safety olicies. These policies are into formal document in Nigeria under ıe Nigerian Highway codes.

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on the part of the sender that the goods are fit to be carded.

If this is not the case he must declare the fact to be the carrier to enable him to take precautions, if this is possible, to make them safe, if the sender omits to declare that goods are dangerous and they cause damage, he will be held liable whether or not he was aware that they are dangerous.

CARRIAGE OF LIVESTOCK

The carriage of animals presents the carrier with problem quite different from those which arise in the carriage of general merchandise and other commodities. These stern chiefly from the fact,

(a) That an animal is likely to be injured by its own actions during transit even when the carrier has taken reasonable steps to guard against this,

(b) The fact That since it is difficult for the carrier to know the true value of an animal, he may be deceived by the owner of the animal by making a claim in excess of the true injury or loss .

To guard against these two eventualities, the practice grew up for carriers to declaim liability when loss arose due to "inherent vice" of the animal and to place a limit on the amount for which they would accept liability that is. so much for each type of animal unless the sender gave them the opportunity of insuring the animal by declaring its value when this was greater than the limit set by the carrier.

Part 7

TRANSPORT SAFETY

CHAPTER THIRTEEN:

FUNDAMENTAL REQUIREMENTS FOR TRANSPORT SAFETY MANAGEMENT

INTRODUCTION

Transportation is not only the critical element for the movement of both people and good but also bedrocks of economic and social progress, which is now a necessary mechanism for people to lift themselves out of poverty. Transportation is no longer seen as an intermediate good between production and distribution, but a major variable in any government agenda for equitable economic growth. Consequently, it is seen as a major component of the infrastructure base that permits the development of business and wealth creation. In performing the above roles, transportation exerts enormous influence on people and society. Among the influences which has devastating impacts is the case of accidents in all modes of the transport that claim lives cause injury and damage properties. In this way accidents therefore violates one of the cardinal principles of transport that is safe arrival.

On the one hand, safety which is defined as the condition of being protected against physical, financial, political, occupational, psychological or other type of consequences of failure, damage, error, accident, harm, or any other event (Wikipedia) seems to be undermined whenever accidents occur. For instance, in road traffic accident, which ranked the world's ninth killer in 1998, has now been predicted to become the third leading source of death by the year 2020 by the International Federation of Red Cross and Red Crescent Societies (IFRCS). A more worrisome situation is that over 70 percent of these global accidents and deaths occur in the developing world, our dear country Nigeria inclusive.

Also the predicted road transport fatalities among world regions show that Sub-Saharan African has 80% of change in accidents

between 2000 to 2020. In addition,the Federal Road Safety report shows that 106, 870 people lost their lives and 291,280 people were injured through road transport accidents between 1990 and 2004. (FRSC 2005).

In the aviation sector, Nigeria is rated category- which means that it is not rated by the International Aviation Safety Assessment (IASA) by 2006. This assessment is based on 42 cases of fatal air accidents, which claimed 1,379 persons in Nigeria from November 23rd, 1944 to 29th October, 2006. (Wikipedia, 2006). The last four accidents that claimed about 334 people are still fresh in our memory. In the maritime sector, safety is also being compromised. For instance, the Institute of London Underwriter's records show that a total of 25 ships were lost worldwide in 1995 alone.

This amounts to 693, 000 gross registered tonnage insured for US $520,000,000, excluding pollution claims and cost of clean up and claims on death and injury. In the pipeline, we are living witnesses to the wanton lost of both human and material resources due to vandalization and explosions. In all these accident cases in the transport sector, human error has been figured as the most culprits among other factors. In the road mode, human error accounts for about 85%. while aviation maritime sectors record 54% and 60% respectively. Seaway 1999 analysis reveal that three out of five major accidents in maritime sector are directly related to human error.

It is estimated that road crashes cost alone approximately 1-3% of a country's annual gross national product (GNP). These are resources that are limited in developing countries and which would have been used to provide infrastructure that are in short supply. World bodies like the World Bank, World Health Organization, therefore, insist that government must see their transport safety intervention as an investment, and not a cost.

It is in the realization of the wanton destruction of lives and

properties through accidents that governments all over the world including voluntary agencies have come up with deliberate efforts to stem this tide of destruction in all the modes of transport.

WHAT ARE THE CAUSES OF RISK IN TRANSPORT?

The causes of accidents in transport can be located on the tripod stand of man-machine- environment, i.e., perception- decision-action or control. Therefore three elements: man-machine-environment combine to increase risk in transport that compromise safety which results in accidents.

Human faults, which manifest in error of judgment, which results in wrong attitude, lack of skills and knowledge, and physical deficiencies are some of the causes of traffic accidents. Other factors include poor infrastructure, malfunctioning of equipment and poor communication while cut across all modes of transport.

Also low awareness, low commitment and weather conditions and sabotage are other causes.

WHAT ARE THE FUNDAMENTAL REQUIREMENTS FOR TRANSPORT SAFETY MANAGEMENT?

The negative impact of transport accidents on the economy indicates that safety is a serious challenge that confronts every government that requires proactive strategies that would address the causes before they occur.

Thus the fundamental requirements for transport safety management include the following:

Enactment of appropriate laws and establishment of the institution for the enforcement . This means that there would be appropriate policy frameworks for safety management. The need for appropriate framework gave rise to the establishment of the National Emergency Management Agency (NEMA) in Nigeria to co-ordinate all national emergencies as declared by the

government.

These include land, air and sea. Other specialized agencies include the establishment of the Federal Road Safety Commission for road traffic accident matters, the Nigeria Air Space Management Agency (NAMA) for accident matters in the aviation industry and the Nigeria maritime administration and safety agency for maritime accident management.

- There is also the requirement of the existence of a positive safety culture. Safety culture in transport would be inculcated in the people through education. This should be a part of the curriculum development and a compulsory subject at all levels. This action will arouse the safety consciousness of the people on safety matters and therefore a requirement in the insurance of licenses, certificate, etc.

- Communication is another requirement for safety management in transport. People need to know the different signs, directions and regulations. It also includes some of the adverse effects and risks involved when safety is compromised. The use of various media is helpful in these aspects. The use of communication equipment such as radios of different types, telephone, Global Maritime Distress Safety Services (GMDSS) etc. must be available and functional.

- Adequate, efficient and functional infrastructure provision is another requirement for transport safety management. In this case, modern, up-to-date infrastructure such as well paved roads, smooth runways, lighting system, traffic Engineering system, functional traffic light, adequate and proper channelization of traffic, adequate landing systems, etc are some of the basic requirements that enhance transport safety.

- In addition to the above is the installation of functional equipment on the roads, airports and seaports.

- Education and training that lead to acquisition of the requisite

skills needed to operate some of the equipment in the transport industry is another requirement for transport management.

- Safety audit is another requirement for transport safety management. There should be a checklist of the facilities for safety. These facilities must be checked always on scheduled time that must be strictly adhered to. This action would ensure that every equipment or requirement for safety is in place.
- In the case of the maritime sector, proper standard of maritime safety on board and prevention of pollution from ships, which cover not only the ships themselves but also the personnel manning them should be maintained. The same situations apply to the aviation sector.
- Also, safety management must be seen as an integral strategic aspect of transport business management. This is based on high priority attached by any company to safety. This is so because accident has a direct impact on any organization involved in transport business, since the public are likely to boycott the service in the event of accident at least in the short run.
- In the maritime and aviation sectors, the domestication of international conventions and legislation (both primary and subsidiary). with the implementation of it is necessary requirements for safety management in these sectors.

Effective transport Safety management depends on the capabilities of the country concerned. These capabilities are shown in funding, equipment procurement, manpower development and training, efficient judiciary and the performance of the institution in charge of transport administrations such as the Road Safety Commissions, Vehicles Inspection Officers, National Maritime and Safety Administration Agency, the Federal Ministry of Transport, Civil Aviation Authorities and Airspace Management Authority. Federal Ministry of healthy and the Federal Ministry of Finance etc.

Consequently, a demonstrable top-level commitment to an effective formal safety management system in transport must exist. In this case, every level of management must be given safety accountability charter; the contribution of all staff in the enforcing organizations and indeed every citizen must be emphasized.

WHAT NEXT FOR SAFETY MANAGEMENT IN TRANSPORT?

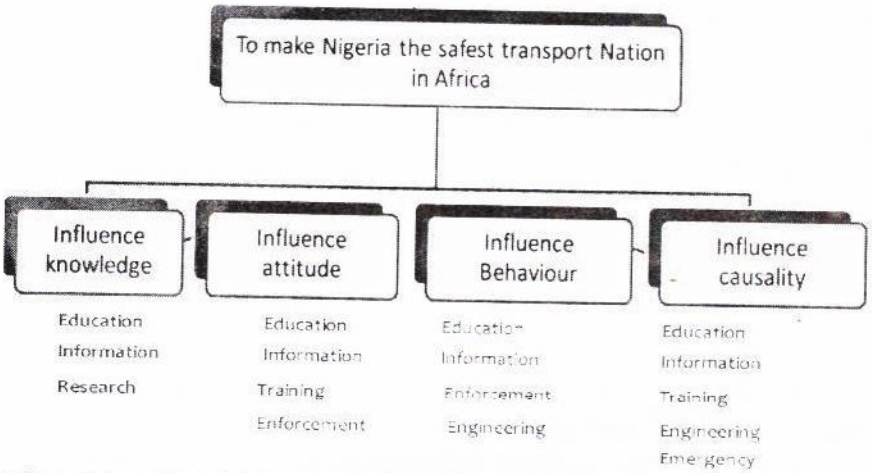
Efficient and safe transport management entails a lot of commitment and proactive strategies.

The first strategy is to embark on the evaluation of the current safety measures. This strategy would involve the auditing of all the institutions and agencies involved in the transport safety management. This auditing will help to evaluate and determine the following:

(a) the level of funding of the institutions and agencies,
(b) the state of the equipment, manpower level and skill,
(c) the extent of research carried out on the causes of accident,
(d) the level of compliance with the national and international regulations,
(e) the level of collaboration among the relevant agencies both national and international,
(f) the active commitment and support from the Federal and State Governments including local governments,
(g) the level of awareness creation on safety matters and programmes,
(h) the targets set for risk reduction,
(i) the sources of funding available for the agencies,
(j) the action plan to improve skill, efficiency, and enforcement,
(k) the involvement of all stakeholders on safety matters,

Transport safety management, therefore, should aim at reducing

THE VISION AND THE ROAD MAP TO REALISE IT



Adopted from Nodel John Appiah (2007)
Road Safety Practices and Experiences in Africa. The Ghana Model.

transit accident risks by embarking on processes that would influence knowledge, attitude, behaviour and casualty. Major requirements in these areas include education, information, research, enforcement, training, engineering and emergency responses. This requires the active participation of all.

CONCLUSION

It is our hope that efficient and safe transport system management in Nigeria is possible if the decision makers politicians and stakeholders are made to understand the various dimensions and magnitude of transport safety problems; which have various dimensions by taking into account the enormous health, social and economic implication of transport accidents and the impact on the Gross Notional Product (GNP). On this note, we therefore recommend the development of a comprehensive national transport policy that would incorporate safety measures in all the modes of transport.

There should also be a periodic auditing of the safety compliance

of all organizations involved in transport operation. In addition there is need to identify and harness sources of all financial resources from both public and private sectors including civil society for the promotion of safety culture.

Besides all agencies, ministries and parastatals involved in safety matters in transport should collaborate for joint actions in order to avoid duplication. This measure has become necessary since there is need to involve everybody because safety is every body's business.

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CHAPTER FOURTEEN

SAFETY ON THE WHEEL DURING AND AFTER THE PEAK PERIOD.

INTRODUCTION

Safety according to the Oxford Advanced learners Dictionary (1984) means freedom from danger, that is do nothing that might endanger the life of other people. In transport operation, one of the guiding principles is the principle of safe arrival. This means that the contract of carriage we entered into with our passengers entails that they must be carried safely from origin to destinations. When the journey terminates midway through accident by our acts of omission or commission, we have violated one of the cardinal principles of transport operation. This we do at times especially during the peak periods of operation when there are pressure to satisfy the numerous customers due to insufficient capacity since we are technically restricted at least in the short run. To manage with the resources available, operators' especially operating crew tend to over stretch themselves either by increasing the speed in order to turn around or continue driving day and night in order to maximize profit. In the process of trying to achieve this, errors occur leading to accident. However, these errors can be minimized, both during and after peak period in order to remain in business and keeping driving. To achieve this, the drivers' skill must be improved upon through drivers' education.

To be able to understand the need for safety on the wheels, a look at accident records in Nigeria I belief will help to make us appreciate more the need for drivers' education. Available statistics show that between 1960 and April 2002 about 258,505 deaths have been recorded through road traffic accident. A further analysis shows that fatal cases till December 2001 were 56,

818, serious cases were 77,443 minor cases were put at 112,711 while about 796, 538 persons were injured. (Ohadorma, 2002).

Available records show that the trend of road traffic accident has been upward and downwards since 1960. The highest rate of accident took place between 1980 to 1989 when a total of 294, 168 accidents occurred, which killed about 92, 690 persons while 247, 963 were injured. This was followed closely by the 1970 -1979 period when a total of 276,136 accident cases were recorded. During this period, 57,136 persons were killed while 209,088 persons got injured. The highest cases of accident during this period were recorded in 1976 with a total of 40,881 cases, Fatal accident case recorded in 1982 was 11,382 persons killed in 37, 094 accidents while about 28,539 persons were injured. However, the lowest rate of road traffic accident was recorded in 1977. It has a total of 9,034 cases while 1960 recorded the lowest death through road traffic accident. This period recorded 14,430 accident cases with only 1,083 persons killed and 10,216 persons injured. The creation of Federal Road Safety Corp in 1988 has witnessed a downward trend in road accident cases in Nigeria. This period recorded 25,792 cases of road traffic accident, which claimed about 9,077 lives. The period (2000 - 2002) witnessed a total of about 17,164 persons killed by road traffic accident.

The lesson we can draw from the above statistic is that we have lost a lot of persons who are in the primer age that would have contributed to economic growth. In addition, properties are lost through damage to goods and vehicles. Also, money is lost to hospital bills, police and vehicle inspection offices and administrative charges. All the above have implication on the survival and growth of organizations and companies through depletion of assets, boycott of services by customers, loss of revenue and growth and eventual collapse in some cases. The

losses recorded by transport companies through traffic accidents informed the institution of non - accident bonus for drivers who had no accident during an operating period.

These accidents took place because of errors in judgement by the driver caused by underestimation of the total demands of good driving and over estimation of own capacities and capabilities on the wheels. Therefore, for a good driver to be successful, he must always make a correct estimate of his abilities, and a correct estimate of driving requirements. Failure to do these results in reckless driving and violation of traffic laws which include the following: speed violation, overtaking alcohol/drug influence, road obstruction, tyre violation, lights / sign violation and use of mechanically deficient vehicles, etc.

THE BASIC ELEMENT IN ACCIDENTS

We should note that the traffic problem is a driver problem. This is because the basic problem of traffic is how to move millions of vehicles, through our streets and roads smoothly, rapidly and safety. You the driver can either compete for space at times with other drivers which leads to conflicts just like the ones we see everyday at round about and traffic junctions, or you can cooperate to secure the maximum safe use of streets and high ways for all drivers.

This means that, there are three basic components of traffic namely the road, the vehicle and the driver. You, the driver, will determine to the greatest degree how safe traffic will be. We know that roads don't move, and the vehicles move only when we want them to move. Therefore, the driver is the key figure in traffic. How a driver moves, interact with other traffic and help to decrease competition and increase cooperation. Remember it is the driver that plans the trips with sufficient time to allow for

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expected delays and to permit smooth driving to your destination. (Idle time planning). If a driver is sick he stops driving because of physical difficulties since this threaten safety.

Indeed, all of us, drivers, pedestrians, riders of any wheeled vehicle and Okada riders make up the traffic problem. However, we tend to blame roads, vehicles, laws most often; but while they may contribute to accidents, they cannot contribute until we first do something wrong.

Therefore, the three basic elements in accident are road defects, vehicle defects and human faults, errors and violation. Through wrong attitude, lack of skills, lack of knowledge and physical deficiencies. This places heavy burden of the blames of road traffic accident on drivers. However, each and everyone of us can charge this situation by becoming trained drivers. The more trained drivers we have the more safety there will be, and the more enjoyment. Drivers therefore need to know much about their environment.

WHY TRAFFIC ACCIDENTS?

(I) It has been agreed by safety experts that there are basic differences between good drivers and poor drivers. These differences lie in four areas namely knowledge, skill, attitude, and judgement.

(ii) The good driver, for example, knows when he should drive well; he develops and practises the essential skills; he has mature attitude toward the responsibilities of driving; and he displays good judgement in meeting the different situations he will face as a driver.

(iii) On the other hand poor drivers show weakness in one or more of these factors. For instance, they do not know the law governing vehicle operation, the rules of the road; the level of their own driven ability, the safe maintenance of their vehicles; and the quality of their judgements. Out of these basic weaknesses come the practices and violation which lead to accidents.

Although every violation does not lead to an accident, repeated violations increases the probability of accidents.

WHY DRIVING AND TRAFFIC SAFETY?

Driver and traffic safety education have the same purpose as education in any other field of learning. In particular, it makes a driver to study and practise to be a safe and successful driver in moving traffic. In short, driver education, with your active interest, study, and participation performs the following roles:

- Provides knowledge about good driving and safe practices, and knowledge of the law, rules of the road, and traffic problem.
- Helps you to acquire the necessary skills, and aid you to develop good judgement that will make and keep you a satisfactory driver.
- Helps you to see that your driving should be treated seriously, to learn not to take dangerous chances, to demonstrate excellent performance but to learn how to master your vehicle.
- Keeps you from causing serious accident by expert driving.
- Helps you to, avoid a lifetime anguish and regret.
- Shows you that a vehicle skillfully driven with an awareness of its capacities, and a driver knowing his capacities and limitations will make possible many years of enjoyable accident free driving. By making available the

traffic accident records of all age groups, it teaches you that you must continue to learn to be a good driver all through your life. You can never relax, since it is in a moment that attention is diverted, judgement weakens, and skill falls that drivers get into trouble. The moment you believe that there is nothing to learn as a driver is the moment that you are in danger.

- Driver improvement is a life preserving discipline. Refresher courses in driving are in fact as essential as in any other field of learning, in fact, it is, since the stake can be life or death.

CHARACTERISTICS OF A GOOD DRIVER

There are cases where some drivers have driven for years without an accident. Record like the above cannot be attributed simply to luck. These accident free drivers have some qualities. Thus, a good driver, knows what he is doing, knows the law, the rules of the road, himself, his vehicle and the nature of and dangers in traffic, knows his eyes, his mind and his complete attention on his driving. He tries to keep any distractions out of his mind.

He sees the entire traffic picture, while his mind registers the signs, signals, and traffic movement ahead. Drivers steadily, keeping in pace with prevailing speeds of traffic, and trying to go faster or slower than the mass of traffic, adjusts his driving and speed to time of day and night, to weather and to seasons.

Learns that the best way to keep out of accidents is not to get into them. He makes his decisions and moves before he gets into trouble .He slows down or stops until potentially dangerous traffic situations clear.

Above all, respect the rights of other drivers, show them courtesy

more than they expect from you.

The possession of the above qualities by any driver, new or old, presents the best chances of enjoyable, safe driving experience.

YOU - THE DRIVER

This deals with your personal qualities, the physical condition of the driver. This is because driving in today's traffic demands much more than the ability to start, turn, and brake stop a vehicle. The number and speed of vehicles require knowledge, skills, and judgement of a high order. The rules which society adopts to regulate individual activities are of special importance when applied to driving characters and social responsibility, as well as driving ability, show up at the wheel. Learning how to adopt driving to various types of street and road situations, as well as how to meet emergency situations, is the hallmark of the good drivers.

The importance of physical condition is to enable a driver to be free from many different situations and conditions on the road that require not only a trained mind and continual alertness, but a body capable of responding efficiently to the many 'messages' received from the mind. These situations may call for instantaneous action, and in a powerful, speedy vehicle, your physical responses must be right the first time. In many instances, driver will not have a second chance. Such situations that a driver is likely to encounter include slippery road surface, a long monotony of straight road, vehicles approaching, passing, crossing or entering the road on which you are driving, pedestrians, 'okada's' sudden stops of other vehicle, sudden rainfall, etc.

The ability in meeting these ever changing traffic situations depends not only upon knowledge, skill and good attitudes, but also upon your vision which sees what is ahead, your mind, which

receives these messages, analyzes them, makes a decision and transmits the proper 'orders' to the body. And the muscular system for carrying out these orders.

To function properly in meeting different road traffic conditions there must be efficient coordination between the mind and the body, and the body must be able to make the proper movements. Therefore, each part of the body is important to successful performance and contributes to the physical attributes of a good driver, hence, they should be kept in top shape at all times. The physician can help to evaluate your capacities and limitations and determine the following:

(1) Whether you have the physical and mental ability to handle a vehicle safely.
(2) Whether you are subject to extreme fatigue;
(3) Whether a serious visual or hearing limitation exists;
(4) Whether you have a physical or mental disorder likely to cause confusion, or sudden loss of consciousness while driving;
(5) Whether you may suffer a temporary impairment of physical, mental or functional capacity due to drugs, infection, or certain kinds of medical treatment.

You, therefore, owe it to yourself and society to maintain the most desirable physical condition given the cost of the vehicle trusted to your care as a driver and the number and type of people carried. Also, today's traffic with the number of vehicles, their speeds and the different decisions which are demanded, require highly competent drivers, physically and mentally fit to drive. Who knows by your performance and your example, you can help set the standards for today's driving.

ESSENTIAL FOR DRIVING

There are six fundamental characteristics or basic requirements for drivers. They are, control both self and vehicle, responsibility, anticipation, recognition, compensation and courtesy.

AUTOMOBILE ACCIDDENT PREVENTION FACTORS UNDER THE IMMEDIATE CONTROL OF A DRIVER

Vehicle accident prevention factors under the immediate control of a driver are divided into two namely; those near to him which includes, the driver judgement, driver skill, driver knowledge, the driver attitude, physical conditions of the driver, speed and time. Those that are far from him include: road condition, whether, other drivers and pedestrian, traffic flow controls, education in schools and colleges, coordination and analysis of accident records, support from an informed public, road design, vehicle design, research legislation, enforcement and motor vehicle administration.

DRIVER'S INFLUENCE FOR SAFETY

This concerns your future as a driver. This means that everything has to be paid for, owning a vehicle, licensing, having a system of controls to aid us to drive safely, all these are what we enjoy. And they must be paid for, not only in money alone, but in something else - excellence as driver. To the greatest extent, you control the vehicle and hold your own future in your hands.

Choosing the road to responsibility, maturity, the determination to be your best every moment on the road, and acceptance of the price you must pay for the privilege, these are the best assurances of your future as a driver. It really does depend on you.

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CHAPTER FIFTEEN
SAFETY IN THE AVIATION INDUSTRY OF NIGERIA: THE WAY FORWARD

INTRODUCTION

The aviation industry in Nigeria is a sub-sector of the transport industry. The transport sector generally is an industry that we hardily hear something about until something extra ordinary takes place.

When this takes place, it invariably results in the violation of the principle of safe arrival which every operator has undertaken to uphold. Again, when this extra ordinary incidence or mishap happens it equally reminds us of a sector that has been forgotten, yet this sector is so important that whenever it sneezes all other sectors catch cold more than the degree of the severity of the of sneezing. Consequently, accidents in the transportation (all modes) unfortunately is one of such cases and their impact on the society is always devastating and traumatic. It is on this note that this chapter; safety is the aviation industry in Nigeria: The way forward has become very topical given the accidents in the aviation sector in the last two years that claimed the life of many Nigerians including innocent school children, our dear future leaders.

THE NIGERIA AVIATION INDUSTRY

Nigeria with a population of over 140 million has about 36 Airports and airstrips. Five of these Airports are international while the others is in the domestic category. The deregulation of the domestic airline industry witnessed private sector initiatives/partcipation within the Nigeria civil aviation industry. Presently, there are over 29 airlines plying the domestic routes in different service categories ranging from charter cargo services, oil support services, charter passenger service and scheduled passenger service.

The deregulation of the aviation sector has led to intense

competition among the airline operators in the industry. In spite of this competition, the share of domestic freight of the air transport in Nigeria is low. Its contribution is only 1.5% of the transport sector domestic cargo estimated at 60 tons as at 2004. The passenger traffic however has witnessed some significant increase especially among the five busiest airports namely Murtala Mohamumed Airport (domestic wing), Lagos for domestic airlines only, Nnamdi Azikiwe Airport, Abuja, Port Harcourt Airport, Mallam Aminu kano Airport, Kano and Kaduna Airport. It is hoped that the reforms in the economy in addition to some significant improvement in the income would affect the aviation, industry positively.

The audit of the private airline in Nigeria by NCAA by April 2003 shows that only 29 airlines out of a total of 34 were cleared and were able to retain their Air Operator Certificates (AOC). The Nigeria Airspace is being managed by the Nigerian Airspace Management Agency (NAMA). This agency has the mandate to regulate air traffic control, visual and non - visual aids, aeronautical telecommunication services, and secure safety, efficiency and regularity of air navigation.

The Question now is: How has the Nigeria Aviation industry faired in the last two years? The answer to this question will readily remind us the state of things. The last few years, have witnessed four major air accidents in Nigeria, namely a Boeing 737 on Lagos - Abuja run, Bellview flight 210, crashed on October 22, 2005, seven weeks later, DC-9 owned by Sosoliso Airline crashed in Port Harcourt on 10th December, 2005 the high school children returning home for Christmas were killed and the ADC Boeing 737 enroute to Sokoto that crashed some minutes after take off in Abuja on 29th October, 2006. Taken together, the three accidents killed more than 320 people and September, 17, 2006, Dornier DO 228 Nigerian Air force crashed. These accidents have called to

question, the level of safety, on the Nigerian airspace. All these are taking place in spite of the fact that in comparison with other modes, air has a far lower risk of death per passenger mile than road. It however remains significantly less safe than, rail.

The implication of the above for policy is that operators have violated the very principle of safe arrival made to their customers.

What therefore is Air Safety? Air safety is a broad term encompassing the theory, investigation and categorization of flight failures, and the prevention of such failures through appropriate regulation, as well as through education and training. Air safety can also be applied in the context of campaign that informs the public as to the safety of air travel. No matter the speed and economy of any mode of transport. If it is not perceived and demonstrated as safe, it will find few customers and unless something serious occurs perhaps through price reduction to make profit, the transport mode will fail and fade from scene. I hope the aviation industry is not tending towards this phenomenon. It is perhaps on the realization of this danger that the two major air craft manufacturers still co-exist on the implementation of aviation safety for over one hundred years now. Consequently, the Boeing of the United State of America and the European Air bus have placed emphasis on the use of aviation safety equipment, which is now a large industry of its own, and have therefore made safety a major selling point. In other words, they realized that a poor safety record in the aviation industry is a threat to corporate survival. In this way they came up with some major safety devices now required in commercial aircraft to include among others the following.

(a) Evacuation Slides: Aid rapid passengers exist from aircraft in an emergency situation.

(b) Advanced avionics: Computerized auto-recovery and alert systems.

(c) Turbine Engine durability improvements and finally
(d) Landing gear that can be lowered even after loss of power and hydraulics. I wonder if any aircraft used in Nigeria are fitted with these devices.

Whenever safety is compromised, accidents occurs. However, aviation accident is an occurrence on board an aircraft resulting in injury or death to one or more persons. The United States National Transportation safety Board defines aviation accident as an occurrence associated with the operation of aircraft which takes place between the times any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury or in which the aircraft receives substantial damage. An aviation incident on the other hand is an occurrence other than an accident associated with the operation of an air craft, which affects or could affect the safety of operations. Other countries including Nigeria adopt similar approach, although there are minor variations, such as to the extent of aviation related operations on the ground, covered, as well as with respect to the thresholds beyond which an injury is considered serious or the damage is considered substantial. For instance, a hull- loss accident is one where the damage to the plane is such that it must be written off, or in which the plane is totally destroyed.

Air accident as we all know tend to make national and even international news. It is always breaking news. This is because in major airline accidents, hundreds of passengers may be affected like the three examples above. These people are mainly important people of their prime age. Consequently, it attracts family members at the airports at either end of the flights who are ready for interviews and providing pictures of anguish on television news hence the tasks before the industry becomes plain.

In the light of the above, the entire industry and the government bodies who regulate and support this safe, but also demonstrate that it is the safest mode of transportation available. This is the task that confronts all stakeholders in the aviation industry in Nigeria, aviation accidents occur at the take off and landing stages of the journey mainly; An analysis of air mishap at the Port Harcourt international Airport between 1988 and 2005 confirms this. See table 12.

TABLE 12: ANALYSIS OF AIR MISHAPS IN PORT-HARCOURT INT'L AIRPORT 1988-2005

Sin	Nature of mishap	Fatality	No of passengers	Dates of occurrence	Time	Phase
1	Incident	0	23	1st Oct. 1998	11.25pm	Landing
2	11	0	33	7th Sept, 1989	2.30pm	11
3	11	0	8	16th Sept, 1991	3.35am	11
4	11	0	13	25th Nov, 1992	4.20am	11
5	11	0	58	17th Dec. 1996	1.15am	11
6		0	5	5th Sept, 1998	4.30am	Approach
7	JJ	0	19	7th Sept, 1999	4.30am	Landing
8	Accident	1	13	27 Nov. 2004	1.5am	Approach
9	Incident	0	78	27th March 2002	3.15am	Standing
10	11	0	196	6TH July, 2005	4.20am	Runway
11	11	106	111	10th Dec, 2005	11 :30am	Landing

Source: Port Harcourt International Airport

WHAT ARE THE CAUSES OF AIR ACCIDENTS

Results have shown that approximately 80 percent of all aviation accidents occur shortly before, after, or during take off or landing, and are typically the results of human error and/or unregarded technical problems within an air craft, mid-flight disasters are rare but not entirely uncommon, example include the 1999 Lockerbie incident, mid-air collisions in 2002C berlingen cases of purportedly

mistaken identity where civilian air craft were short by military (Compare Korean Air flight 007).

In spite of the above cases, an accident survey of 2,147 air craft accidents from 1950 through 2004 showed that the causes of air accident's are as follows:

45% pilot errors
33% undetermined or missing in the record
13% mechanical failure
7% weather
5% Sabotage
4% other human error (air traffic control, error, improper loading of air craft, improper maintenance, fuel contamination, language mis communications etc
1% other cause:

It should be noted, however, that this survey excluded military, private and charter aircraft. In another survey by Boeing company to determine the primary cause of airline hull loss accidents among the world wide commercial jet fleet from 1990 through 2005, the following factors are found to be responsible. They are:

Flight Crew error	55%
Airplane	17%
Weather	13%
Miscellaneous others	7%
Air traffic control	5%
Maintenance	3%

This study included 183 accidents with known causes for 134 of them while the causes of the remaining 49 were unknown or awaiting final reports. Other similar previous studies by Boeing showed higher rates of errors by the flight crew. ***The figures are:***

70% for 1988-1997
67% for 1990-1999
66% for 1992-2001
62% for 1994-2003

56% for 1995-2004

Having identified some of the causes of air craft accidents in Nigeria, **what are the ways forward to prevent such occurrence in future?** The way forward I believe should be located within the personnel - the right type of personnel should be recruited in the aviation sector. The recruitment should be based on merit rather than other consideration. A follow up to the above is the right education and training that would be capable of impacting the desired attitude and knowledge that would lead to the emergence of good leadership quality in the aviation sector. This leadership would be capable of taking the right decision for the benefit, growth and development of the industry. This process would usher in professionalization of the industry.

Also funding for air craft acquisition both for new or fairly used air craft must be increased. Improved funding in the sector would lead to airport facility improvement which would lead to technical progress that would be capable of witnessing the emergence of good leadership with proper orientation and the right management skills that will impact positively on the staffs Air port facility improvement which includes equipment acquisition for take off and landing such equipment include Instrumental Landing System (ILS) Non Directional beacon (NOB), Very High Frequency Omni-directional Range (VOR), Radar Beacon, etc.

Others include maintenance of equipment and regular calibration ailments, proper services of equipment including aircrafts, to make them functional. Acquisition of fire fighting equipment and servicing of same. Proper Design of airspace for the separation of the landing and taking off route. This will help both the control tower and the pilot. Good weather forecast by the metrologies department. Proper monitoring by the regulatory authorities to ensure that the check list for safety including adherence to the

regulations guiding manpower utilization by the operating companies is maintained. This will ensure adequate rest for both the pilots and crews including the aircraft.

Adequate, functional search and rescue process must be put in place. This must be at alert 24 hours . This has not been taking place in Nigeria aviation industry. This team must be enabled with the right equipment and must comprise men and women who are highly motivated.

CONCLUSION:

The air transport is still the safest means of transportation world over; we must ensure that this is achieved in Nigeria by using the right equipment, air craft and personnel equipped with the right education and training capable of taking the right decision for the benefit of all if we must avert air disaster in Nigeria. In this way, we will make the Nigeria airspace safe, Thereby reducing to the barest minimum the aviation accidents in Nigeria.

CHAPTER SIXTEEN

SEARCH AND RESCUE CO-ORDINATION

INTRODUCTION

In transport services, accidents are bound to take place. Once it occurs, it behoves on those around to save lives and property. To embark on this mission presuppose that certain actions must be taken. One such action is the search and rescue measures during emergency situations. However, search and rescue activities must be well coordinated for it to be efficient since it involve the services of many, people, organizations, equipment and materials. Indeed, the vast member and variety of equipment needed or a comprehensive and successful Search and Rescue (SAR) contingency requires that attention must be placed on the following:

(a) Massive, clear and well integrated communication,
(b) Complementary deployment or use of systems and equipment and
(c) Universal response to emergencies.

To perform the above functions demand that actions must be planned and effectively implemented in a well-coordinated manner. The need to succeed in emergency situation necessitated search and rescue coordination.

WHAT IS SEARCH AND RESCUE COORDINATION

Search and rescue comprises the search for and the provision of aid to persons, ships, aircraft and vehicles, which are feared to be in distress or imminent danger (Biu, 2003). Coordination on the other hand is the act of making parts or groups of people work together in an efficient and organized way. (Oxford Advanced learner's dictionary, 2001).

Search and rescue coordination therefore deals with an efficient and organized way in which services and/or help are rendered to people, ships, aircraft vehicle etc that are in distress or imminent danger. Consequently, the activities of search and rescue system which is an efficient rescues and life saving mechanism that serves as an effective tool that can minimize loss of life and injury when accidents in transportation occurs and attendant effects on the environment must be coordinated effectively in order to achieve results. In doing this, the instrument and infrastructure for an efficient SAR system must be made clear. This is the essence of SAR coordination in periods of emergencies.

In Nigeria, the National Emergency Management Agency (NEMA) coordinates all national disaster declared by the government and these include emergencies in land, Air and sea. NEMA headquarters is in Abuja. National maritime Administration and safety agency (NIMASA) coordinates search and rescue at sea and inland waterways. The Nigeria air space management agency handles aviation search and rescue matters.

The Federal Road Safety Commission takes care of the land transport matters. Other agencies include the Civil Defence Corp, which has designated officers in charge of emergency issues. The navy, air force and army all participate to save life during emergencies situations. These agencies area coordinated under NEMA during emergencies.

WHY SEARCH AND RESCUE COORDINATION?

Once an emergency situation arises through the alerting systems that are activated during distress situations. Note this is where effective communication devices such as GMDSS, Nigcom stat-l and telephone and other communication devices are very important. Search and rescue will commence immediately by NEMA which appoints an officer to take charge as a coordinator.

When a coordinator is appointed, he draws a plan of action of activities which must be supported, organized and provided during the emergency.
All agencies involved must support and endorse action plan of the coordinator. The coordinator assesses the strength and weakness of the agencies to ensure that they have the capacity to execute the task of SAR otherwise he solicits for immediate support from individuals or private organizations that have such equipment and facilities needed to efficiently executive the plan of action.

Indeed, the search and rescue coordination involves the following functions:

1. Establish efficient communication system. This communication will ensure efficient control between the coordinator and the unit operation at the scene on the incident, the government, the communication media and any other person or agency involved. This will avoid conflicting reports on the location, time, and actual operation. All alerting positions are therefore activated and a channel establish between the coordinating organizations, coordinator and all concerned.

2. SAR coordination involves identification of resources and recruitment of qualified rescue manpower. In addition, identification of the necessary equipment and other facilities required will be embarked upon such equipment include heavy moving equipment for lifting, crane, bulldozers, helicopter, ropes etc.

3. Also the SAR coordination involves the assignment of responsibilities to personnel involved in the search and rescue operation, security personnel, health personnel, rescue personnel etc assigned to their different functions

with field officers who report to the SAR coordinators on the periodic activities of each personnel involved in the operation.

4. In addition, SAR coordination involved deployment of equipments to the scene. The inventory of all equipment are taken and properly handed over to an appropriate and designated officers involved in the SAR of operation.

5. It is also the duty of the SAR coordinator to monitor the performance of the operation through the field competent personnel deployed at the scene. The monitoring and the feedback from it enables the SAR coordinator to determine next line of action, mobilization of further resources, apply for assistance and redeployment of resources both men and materials.

   This feedback helps to determine the level of success or otherwise in the rescue mission. The detailed information from the field helps the coordinator to take informed decision and take corrective actions/measures to facilitate effectiveness of the operation.

6. Finally, it is the duty of the search and rescues coordinator to liaise between the scene and relevant government agencies and the government during the process depending on the magnitude of the accident that necessitates the search and rescues measures.

REQUIREMENT FOR SEARCH AND RESCUE OPERATION THAT NEED TO BE COORDINATED

The following are the requirements for operation. :

a. Communication
b. Organization
c. Facilities
d. Emergency care
e. Documentation

Research and rescues coordination activities involves five stages namely,

1. Awareness stage
2. Initial stage
3. Planning Stage
4. Operation stage
5. Conclusion stage

In order to ensure the safety of person and property on land, sea, and air during emergency and to avoid the confusion that would ensure the agencies concerned works independently and to be able pull resources of men and materials, a coordinator is appointed to coordinate the above stages.

INSTRUMENTS FOR EFFICIENT SEARCH AND RESCUES COORDINATION

For search and rescue measure to be efficient there are certain instruments and facilities that must be place in order to create a congenial environment for good coordination. They are:

1. Good legal framework
2. Planning with defined responsibilities
3. Organization
4. Good and efficient communication network
5. Coordination centers
6. Sub-coordination centers with facilities
7. Well-trained personnel for rapid response.

The above instruments and facilitates will make co-ordination easy and efficient since SAR is an integral part of disaster management. It is therefore necessary for co-ordination of all activities, personnel and equipment. SAR co-ordination will help to mobilize effectively upon notification of a disaster and the

subsequent co-ordination of the rapid response and conduct of rescue operation that would run minimize losses and save life and property.

Search and rescue co-ordination therefore is the life wire of any disaster management and its success lies on the coordinator and how he manages the resources available to him during search and rescue operation.

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Research and rescues coordination activities involves five stages namely,

1. Awareness stage
2. Initial stage
3. Planning Stage
4. Operation stage
5. Conclusion stage

In order to ensure the safety of person and property on land, sea, and air during emergency and to avoid the confusion that would ensure the agencies concerned works independently and to be able pull resources of men and materials, a coordinator is appointed to coordinate the above stages.

INSTRUMENTS FOR EFFICIENT SEARCH AND RESCUES COORDINATION

For search and rescue measure to be efficient there are certain instruments and facilities that must be place in order to create a congenial environment for good coordination. They are:

1. Good legal framework
2. Planning with defined responsibilities
3. Organization
4. Good and efficient communication network
5. Coordination centers
6. Sub-coordination centers with facilities
7. Well-trained personnel for rapid response.

The above instruments and facilitates will make co-ordination easy and efficient since SAR is an integral part of disaster management. It is therefore necessary for co-ordination of all activities, personnel and equipment. SAR co-ordination will help to mobilize effectively upon notification of a disaster and the

subsequent co-ordination of the rapid response and conduct of rescue operation that would run minimize losses and save life and property.

Search and rescue co-ordination therefore is the life wire of any disaster management and its success lies on the coordinator and how he manages the resources available to him during search and rescue operation.

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Part 8

MARITIME TRANSPORT OPERATIONS

CHAPTER SEVENTEEN:
PORTS IN THE NATIONAL ECONOMY

INTRODUCTION

It is tempting to begin a discussion of ports in the National Economy with the general but more fundamental issues of the state of economic development of the country.

However we shall begin by asking ourselves this question? How would Nigeria be if there were no seaports? The answer is simple. We would have been landlocked period, and the cost of imports and exports of goods in and from Nigeria would have been high.

Ports as we know from the above are a gateway. It is an interface between the land and the sea. It acts as a linkage in the chain of transport by doing this, we conclude that a port is a place of contact between land and maritime space, hence it provides services to both hinterland and maritime organisation.

Consequently, a port is a not where ocean and inland transport lines meet and intertwine. By doing this, the primary function of transferring goods and people from ocean vessels to land or to inland carries and vice versa is achieved.

In performing the above roles, ports are not acting in isolation it does this in response to the economic activities of the country. It acts as a catalyst that quickens the peace of development of nation, hence the huge investment in the development of ports in Nigeria.

Right from its inception, during the colonial days that witnessed the formalized economic and political relationship between Nigeria and the colonial power-Britain,. the role of ports in

national development manifested then. First it was around the seaports of Apapa and Port Harcourt that the economic activities and the investments in private ports by the colonial administrations clearly points out the role of seaports in the development of their immediate communities and Nigeria. It is worthy of note that the first commercial rail lines in Nigeria were built to connect the seaports of Lagos and Port Harcourt to their hinterland. These lines extended to Nguru and Kano in the North. Equally linked to the seaport were the national highways. Their investments were not made in error; they were designed to open the hinterland to the seaports for exports. It is in the light of the above that we say that Nigeria seaports act as crucial economic elements because of its dominant role in the country's international trade. Our seaports have since inception accounted for over 60 percent by volume and 70 percent by value of the total import and export of the country. These figures no doubt have steadily risen over the years as the seaports grow in size, modernize their plants and equipment, in addition to the acquisition of sophisticated technology that will ensure improved and efficient delivery of services.

In addition, the seaports have continued to contribute significantly to the economies of the cities and geographical location (immediate hinterland in which they are situated) the growth of Lagos, Port-Harcourt, Calabar, Warri and Sapele are attributed largely to the presence of ports within those towns.

The investment in the Export processing Zone (EPZ) at Calabar is modern impetus to expert-based industrial promotion. The EPZ is designed to exploit the vast potentials and opportunities opened to Nigeria because of its role as the vanguard of trade within the sub region. The location of the premier EPZ in the port city of Calabar is not by accident rather it is a deliberate economic policy,

which marries the industrial growth with port facilities as the gateway to the nation economy.

Furthermore, the ports have continued to play role in the landing of industrial equipment, machinery and plants needed for the full achievement of Nigeria's aspirations of rapid socio-economic transformation as well as diversification and consolidation of our industrial base. Since Nigeria is a developing country, it therefore depends mostly on the developed industrialized nations for the acquisition of much needed industrial machinery, plants, transport and equipment as inputs in the import substitution industries. Consider the heavy machinery inputs of Aluminium smelter company Ikot Abasi, the fertilizer company at Onne, the heavy industrial requirement of the oil companies and other subsidiary companies, the construction companies, etc. As well as other consumer, goods, required by the people and these items inevitably have to pass through the ports in terms of our international export, import trade. If Nigeria had been a land locked country with out ports, these items would have been imported through other country's ports. This would have increased the cost of these items.

Another crucial role played by the nation's seaports towards the development of the nation can be seem from its handling of all imports of all defence orders, which as you are aware' require special handling. The nation armed forces depend on our seaports for its huge tonnage of orders. Furthermore, on the normal business front where governments involved in specific development projects the seaports have not been found wanting in the successful execution of the projects. Consider the various water projects scattered every where in the country, the various electricity projects, the various road and bridges, housing states, industrial areas. All the equipment used in the execution of these

projects almost pass through the nations seaports. Another important contribution of ports to the national development comes in terms of employment, income earrings and spending which is manifested in the existence of complementary commercial activities such as stevedoring and shore handing concerns, shipping, customs administration, banking and insurance services. These various commercial activates which are directly based on the ports, generate their own employment, income and spending which vitalise the economy around the ports and by extension the entire economy since all these activities will have some multiplier effects on the economy. In absolute terms in 1979, the ports provided employment directly and indirectly for over 0.5 million people and generate over N2 billion indirect incomes.

In addition, in the years 1983, 1984 and 1985 the seaports generated over 1234 million, 1122 million, and 1444 million naira respectively in the equivalent direct dollar income for the nation.

About this time also, the seaports provided jobs for 10,000 people directly and indirectly. From 1986, the seaports continued to generate offshore revenue through their pricing policies and have been contributing directly an average of 60 million dollars per annum to nation's balance of payments account (NPA hand book 1985).

It is pertinent at this point to note that to date, in spite of the fluctuation observed in the levels of import--export into the country, continuous global recession, biting and seemingly crippling national economic policies intended to achieve stability, the contribution of ports to the nations' economy have continued to reflect an upward movement. It is against this background that we say that the nation's ports as a gateway to the nation's economy plays major role as a foreign exchange earner.

This, again, is another contribution of ports to the development of the nation. In view of the above, we can succinctly say that the nation seaports have contributed immensely to the success of shipping, the national railway network, road transport, inland terminal operations.

Ports also equally serve to stabilize the economy through foreign exchange earnings and contribution to the finances of activities of insurance, banking and commerce in general. Based on the above, we conclude that seaports provide one of the vital links with the outside world. The export and import of goods for the most part take place through the nations seaports. Ports activities therefore facilitate foreign exchange earnings from exports and access to capital. It provides intermediate inputs and even raw materials which cannot be obtained locally and also creates, values, in addition to employment opportunities.

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CHAPTER EIGHTEEN
MARITIME AND SHIPPING TRENDS

INTRODUCTION

An attempt to begin a discussion on the maritime and shipping trends is tempting in that it tends to make one to begin a survey of the state of the economic development of the countries which is a more fundamental issue especially as it relates to the developing countries. A more fundamental issue in developing countries is that of economic underdevelopment. The common problem of development is that of dependency on developed countries.

The countries have the common problem of being dependent economies with exports that are mainly agricultural products except some oil producing countries like Nigeria. In spite of the exception, most developing countries face the problems of object poverty, little growth in national income, under utilization of natural resources, deteriorating commodity prices, low technology development and severe balance of payment problems. The international debt situation of most developing countries is very high thus, further compounding the problems of economic growth and development. In short, this pattern of international economic relation is an obstacle to economic development in the developing countries. This pattern has therefore dictated the trend of maritime and shipping growth in these countries. Each country trend shows the actual situation of the country since its participation on international trade largely depends on the economic realities.

Maritime and Shipping trends is nothing but a long-run increase or decrease in the series of maritime and shipping activities. The trend of maritime and shipping will depict the pattern of trade, the nationality of registration of vessels or ownership and control although the pattern of ship registration can be deceiving

because it has shown a remarkable change over the years because of the existence of open registry or flags of convenience and more so shipping companies cross national borders for shipping, personnel and even management. In addition to the use of longterm basic agreement which have extended from the original areas of tankers and dry bulk carriers.

Table 1.1 illustrates most vividly, the breakdown of the nominal patterns of nation ownership and an idea of long-run trends in maritime and shipping activities in some selected countries for the period 1950-1977. It shows the two yards ticks, which are used to measure the trend namely: gross register ton (grt) and the dead-weight ton (dwt). From Table I.1, before the Second World War Liberia had a negligible merchant marine. The rise to pre-eminence of Liberia is the most outstanding case of registration under a flag of convenience.

TABLE 6: Leading Maritime Fleets 1950-1977

Country	1950 DWT (Millions.	1965 DWT (Millions)	1977 DWT Millions)	1977 NOOF SHIPS
Liberia	0.5	29.9	151.2	2,582
Japan	2.1	17.4	66'2	5413
United Kingdom	23.8	29.2	50.6	1.972
Norway	8.3	23.6	48.8	1536
Greece	2.1	10.1	45.7	2.844
Panama	4.8	6.5	28.8	2350
U.S.A	46.7	33.0	21.0	1.197
(Reserve action)	24.8	(19.1)		
France	3.9	7.0	19.5	515
USSR	1.3	8.2	18.6	2,532
Italy	4.0	8.4	17.5	1.084
West Germany	0.3	8.3	14.9	1.47
Other	22.9	49.8	138.1	12,72
World Total	120.7	231.4	620.9	36.22

Source: Stubbs et al 1980 page 160

Figures for 1 July 1950 and 1965 ; 1977 Figures for 1 January .Active and reserve fleets. From Table 6 also you could notice that the British and U S merchant marines have declined in the relative shares having occupied first and second positions respectively in 1939 while Norway and Greek fleets showed an increase which was attributed to enterprising and efficient management. In addition, a look at Table 7 below will equally reveal the trend in world merchant fleet in terms of its composition according to the nature of vessels that comprise it in 1977. General cargo comprise of 21,911 vessels out of the world 36,119 while oil tanker and ore/bulk ship took second and third positions respectively. However, in terms of the total dead weight, oil tanker took the first position i.e. 53.4% of the total world fleet in 1977 followed by ore/bulk and general cargo's ships on second and third position respectively (see Table 7)

Table 7 World Merchant Fleet By Type Of Ship, 1 January, 1977

Type	Number	Grt (millions)	Dirt (millions)	Average DWT per ship	Type DWT as of total weight
General Cargo	21,911	76.2	106.1	4842	17.1
Oil tanker	7,084	473.1	331.6	46,810	53.4
Ore.bulk	3,685	70.5	119.2	32,347	19.2
Ferry	986	4.0	1.4	4,057c	0.2
Other dry Cargo	511	3.9	2.4	4,697	0.4
Liquid Gas Carrier	474	8.9	4.1	8,650	0.7
Cellular Container	467	7.1	6.8	14,561	1.1
Combination Carrier	436	25.4	46.3	106,193	57.5
Chemical Carrier	433	1.4	2.3	5,312	0.4
Passenaer	132	1.7	0.6	12879c	0.1
Total	36119	365.2	620.8	17,188	100.1

Source: General Council Of British Shipping As Adopted By Stubles P.165. Etal1980. Notes: (A) Exclude Vessels Below 10,000 Grt. (B) Exclude Vessels Below 10,000 Grt.

Here the important trend in the maritime and shipping is the tendency towards large vessels as a result of technological innovations and the need to achieve economies of scale and reduction in average cost per ton. Thus in 1977, we had few general cargo ship of more than 25,000 dwt although ship of 14,000 dwt are common. Tanker as we know vary widely in size since their network of distribution calls for some relatively small vessel, however, in 1977 there were 329 super tankers of 250,000 dwt or more and 68 of more than 30,000 dwt. Cellular container ship range inside from 10,000 dwt to over 40,000 dwt.

Another important trend over the past two decades is the growth of international seaborne trade, which has exceeded that of world domestic product. The major purchasing blocs of North America and Western Europe dominate the distribution of cargo with an increase in growth of trade of some other areas. This is as a result of high growth rate recorded in these regions especially Asian countries.

Recent development in maritime trade pattern has shown a more refined breakdown as provided by Lawrence (1972) where he divided the world into fifteen trading regions. He found that 21 % of general cargoes were once interregional, and another 10 % were relatively short hauls between adjacent regions general cargo voyages averaged 3500 miles for dry bulk cargo and 4,200 miles for oil.

According to Shelly (1990) the preliminary estimates of the volume of international sea borne trade in 1988 was 3.67bn tones showing an increase of 4% higher than similar estimates in 1987

and 40% higher than in 1970. In the same estimates, world tonnage rose from 326 in dwt, in 1970 to 627. 9m dwt in 1988. This again shows an increase of more than 90%. The growth in world tonnage showed significant regional variations for the first time, it indicated that the tonnage of fleets of the developed market economy countries decreased by 2 percent accounting for 65% of world shipping in 1970 but also decrease by 32.8% in 1988. This is a declining trend for the developed economies.

On the other hand, the tonnage registered with open-registry countries showed an increase. It moved up from 70.3m dwt in 1970 to 220 in dwt. In 1988, it moved from 21.65 to 355. The real growth look place in the developing countries. Its share of world trade rose from a mere 20.5m dwt in 1970 to 131.2m dwt in 1988.thus moving from 6.3% of the world total to 20.9%. The growth showed an annual growth rate of some 6m dwt, an increase surpassed only by the open registry countries' category. A further analysis showed that, within the developing country category Asia's dominance grew. It has over half of the total at the beginning of the period and 2/3 by the end South America's share reduced although the size of its fleet tripled in terms of tonnage.

Africa's share equally increased. It moved up from 1.l m dwt i.e. 0.3% of the world total in 1970 to 7.7m dwt in 1988. Thus having 1.2% of the world total and 5.9% of the developing country total. African's accelerated growth took place in 1970-1980; the region achieved the 1.1 % of world tonnage mark by 1980 and 1.2% by 1985. This achievement by Africa however was not sustained .by 1988, African accounted for .only 0.1 % of the dead weight tonnage on order from shipbuilders, 40,000 dwt of over 35m dwt. In away, this amounted to a just 0.5% of the developing country tonnage on order, much lower than the region's share of the existing world fleet. This shows a proportionately greater reliance on second-hand vessels. Another important trend in the maritime and shipping sector is that while other countries such as South

America and Asia place order that cut across the range of vessels, African counties place the orders primarily on RoRo cargo ship with the rest in the miscellaneous categories.

Further analysis of African's fleet indicates marginal change between 1980 and 1988. This took place in spite of increase in the scale of Nigeria's oil export which constitutes some 9.5% of the West Africa sub region share of the global total in 1987. In the world tanker fleets share of developing African in 1988. This did not indicate an increase since 1980, the fleet share sadly declined in 1985.

In world ore and bulk carriers Africa's share rose by 500%. This showed an increase of only 0.4% having risen from 0.1 % to only 0.5% despite the contribution of west Africa, which contributed 7% of the world volume in 1987 and Africa alumina and phosphates accounting for 33.8% of the global export volume in 1977. In addition to Zambian and Zaire an copper.

Furthermore, African' share in general cargo ship recorded unimpressive but steadily increase from 2.3% to 2.8%. One pertinent point that has come out clearly is that African's share of world fleet has remained above 1 % mark in recent times while its share of total goods loaded and unloaded has been in the range of 7-8%. This is a clear indication of the dominance of overseas shipping companies in African. On the part of Nigeria, its carriers transport only about 15% of the country's seaborne traffic. In addition, over 60% of genuinely African ships are 15 or more years old. Further classifications of the export import matrices for seaborne trade in different categories of commodities vividly show that West African and wider African dependence on raw materials exports to the north (excluding Japan). The analysis show that in 1987, North and Western Europe and Mediterranean countries took 41 % of African is seaborne oil experts (by volume) while North America took some 51 %. For iron ore, 82% of Africa's export went to U.K. continental Europe and Mediterranean

countries while only 6% went to the U .S. the export trade in bauxite and alumina, Africa's exports was shared at 12%, 33% 51% to U. K. and continental Europe. US and other Europe respectively. Trade in phosphate rock showed that Morocco, a major trader exports about 2/3 to U.K. Continental Europe, the U.S. and 11 % to other Europe, Japan and Australia.

In terms of fleet size. Except Liberia, an open registry country, north African countries of Egypt, Libya and Algeria are the African's biggest fleets owners with our dear nation occupying 5th position in African and 5th in the world who knows what the situation is now especially in Nigeria.

Table 8: Some selected African countries fleet size 1989

Country	No. of Ship	Size of fleet	Dwt ranked	
	300grt and Over	dwt	In Africa	World
Nigeria	48	811,200	5	57
Angola	25	109,800	11	90
Cote d'Ivoire	9	91,700	11	94
Ghana	14	81.100	15	96
Cameroun	4	66,700	16	99
Senegal	6	16,800	23	116
Sierra Leone	5	4,700	27	131
Gambia	0	-	-	153

Source: West African April 1990 p71

From Table 8, we can see that Nigeria's total fleet of 48 in 1989 of 300 gross tonnes above recorded a total of 811,200 dwt. Oil tankers accounted for 54% of the dead weight which comprised of

13 of the 48 ships. General cargo ship followed with 46% dead weight and it has 31 of the ships, the remaining four is made up of 13 ferries and liquid gas carrier. We believe that the liquid gas must have increase because of the LNG products.

The general economic downturn had strong impact on shipping within the African continent. A comparative analysis of some African countries over a decade 1976 to the seaborne shipping showed on overall stagnation in shipping. This scenario no doubt continued in 1990's because African countries have not shown any sign of growth. It rather stagnated with wars and instability in government. This situation no doubt will have adverse effects on African countries contribution to total world shipping.

Table 9 Seaborne Shipping of Some Selected African Countries

SEABORNE **SHIPPING** **(THOUSANDS OF TONNES)**

	1979	1984	1986
Nigeria	*101220	69000	1310
	**500	14990	15832
Cote d'ivore	*na	4590	4610
Ghana	*2280	1377	1432
	**3100	3314	3422
Cameroon	*383	7687	9432
	**1360	3000	3192
Senegal	*2580	2348	2399
	**1636	2300	2491
Sierra Leone	*100	55	64
	**314	441	475
Gambia	*105	na	78*x
	**152	na	167*x

Source: ECA *Loaded **Unloaded

The general economic downturn had strong impact on shipping within the African continent. A comparative analysis of some African counties *over* a. decade 1976 to 1986 on Seaborne shipping showed an *overall* stagnation in shipping. This scenario on doubt continued in the 1990's because African country have not shown aggression.

Available figures for goods located and unloaded income selected African countries as shown in Table 9 depict an *overall* decline in shipping. It indicated that with the exception of Cameroon all other African states showed stagnation in shipping.

In terms of activities at the ports, measured by the number of ship calls over the period 1983-88, the busiest ports in West Africa were as follows, Abidjan (4,618) and Dakar (2,997). T he second division ports in the sub region include Douala (1,653 arrivals) it dropped from 3,398 in 1983 to 1,200 in other years. Pointe Nove (1,230), Apapa (1,088) and Lome (1,092) Apapa accounted for over one third of arrivals in Nigerian's nine major ports for the period 1983-86. The total arrivals in Nigerian ports for the year 1983 stood at 4,449 with a total net registered tonnage of 49,933,108. The 15 major ports of West and central Africa had an average total of over 15,000 arrivals per year in 1983. South Africa on the other had recorded a collective *average* of *over* 17,000 *visits* per year in its principal *seven* ports. In spite of these however, no of African port is include among the world's 1 to 40. This trend is serious in spite of African's contribution to the total volume of world trade.

The trend in shipping activities in Nigeria assumed the same down trend, just like other African counties. In 1981 for instance, the total number of vessels that arrived in Nigerian ports including crude oil terminals was 6,569 with a total net registered tonnage of 59,474,754. The total *arrivals* declined to 3,263 in 1984 with total

net registered tonnage of 48,229,438 and further to 2,824 in 1987 and 42,852,342 tonnages. It however increased marginal to 3,008 arrivals in 1990, 4,024 in 1992 and dropped again to 3943 in 19993. Table 10 illustrates this trend on ships arrival at the Nigeria ports over the period 1981 to 1992.

Table 10: Number of Vessels Entered At All Ports

Year	No of Vessels	Net registered tonnage
1981	6,569	59,474,754
1982	5,639	52,918,744
1983	4,449	49,933,108
1984	3,263	48,299,438
1985	3,493	50,462,293
1986	3,003	47,037,527
1987	2,824	42,852,343
1988	3,008	41,987,528
1990	3,640	49,975,964
1991	3,913	52,849,251
1992	4,024	54,706,316

Source: Nigerian Ports PLC Handbook 1995 page 25

The container revolution of the 1970's almost caught developing countries unawares. The opening of RoRo ports in 1975- registered Nigeria among the League of Nations involved in handling of container traffic of developing countries,- Consequently, Cote d'Ivoire ranked 2220 while Nigeria ranked 21 with about 160,000 tonnages of container traffic passing through

them. Accurate statistics on the levels of containerization of West Africa ports are not readily available. However the revolution has reached Cotonou.

Table 11: Cargo Throughput Handled at Nigerian Ports 1982 - 1992 (EXCLUSIVE OF CRUDE OIL TERMINALS)

Year	INWARD	OUTWARD
1982	200773797	253743
1983	16394509	234700
1984	12372417	2278685
1985	13453939	2947740
1986	9851059	2423520
1987	9288006	2249584
1988	8643628	3402088
1989	8757961	4616226
1990	9338801	68193380
1991	9754521	6819380
1992	12259042	6804168

SOURCE: NP Handbook 1985 p.34

Nigeria's principal trading partners include United Kingdom, United States of America, France, Germany, Japan, Italy, China, Yugoslavia, Belgium and Singapore. While Nigeria exports crude Oil and agricultural product to most of these countries she imports agricultural equipment machinery. Electronics, automobiles, aircraft, ocean going vessels and raw materials. The imbalance in favour of these countries stems from the fact that Nigeria is basically a consuming country. She imports more than she exports.

In the West African Sub-region Nigeria is making serious inroad. As a promoter and founder of ECOWAS, she is at the vanguard of trade within the sub-region. It is hoped that the full realization of the potentials of the Export Processing Zone (EPZ) in Calabar, Nigeria will be in a position to closing up her trade imbalance.

In conclusion, the trend of maritime and shipping activities is such that two things are observed.

While the contribution to the volume of trade of African State is on the increase, its participation in the mutual lifting of cargo in terms of tonnage is declining within. This in a way summarizes the state of economics of these developing countries. It equally shows how weak these developing countries are in managing their own fleets and the level of investments in merchant fleets. Head or tail, the developed economies of Europe and America still dictates the pace.

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