STRATEGIES FOR IMPR[illegible]RENDS FO[illegible]NTRA URBAN MASS TRANSIT OPERATION IN NIGERI[illegible]ASE STUDY OF KWARA STATE

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ABSTRACT

This paper examines the nature and conc[illegible]ions of the existing road network systems in Kwara S[illegible]t also discusses the public transportation needs an[illegible] operating agencies. It highlights the nature and causes of the transport problems.

Four factors namely the poor conditions of the roads, the vehicles, the Drivers/Mechanics and the Economy have been seen as factors responsible for the problems. These factors are discussed with reference to their magnitude, trends and severity. Solutions considered as appropriate to reduce the negative influence of these factors are proposed as strategies for improved performance. It is concluded that adopting these solutions would result to improvement in the level of safety, quality of vehicles, haulage capacity, level of pollution, economy of operation and commuter satisfaction.

1.0 INTRODUCTION

The transport business in Nigeria in general and Kwara State in particular has attracted various interest groups, government and transport unions. Notable among these are the Road Transport Workers Employers Association (RTWEA), The National Union of Road Transport Workers (NURTW), The Local Government Transport Agencies, The State Government Transport Agencies, The Federal Urban Mass Transit Agency (FUMTA), The Motorcycle Transport Association (Okada), The Private-Turn Commercial Vehicles Operators (Kabukabu), The Boat/Canoe Transport Owners in riverine areas and the Urban Rail Transit Programmes in selected locations linked by rail.

The major objectives of these groups are:

a. To provide gainful employment for its operators;
b. To provide reliable, safe and economical means of transport to its target population;
c. To provide cheaper alternative to the citizenry especially the low income earners;
d. To redress the decline in passenger vehicles on the roads because most of the unserviceable vehicles could not be replaced by their owners.

Critical assessment of the performance of these agencies in relation to these objectives reveals great short fall in key areas like safety, reliability, venture profitability and fare availability.

The guidelines presented for improvement in these areas are based on the type of road network and peculiar conditions operating in Kwara State. These guidelines though primarily designed for the state may be extended to the entire country with appropriate modification to suit local peculiarities.

2.0 NATURE AND EXTENT OF TRANSPORT PROBLEMS IN KWARA STATE

As a result of the low industrial nature, though abundant industrial opportunities exit, the transport problems in the state differs from those of other major cities like Lagos, Ibadan, Kano, Abuja, Port-Harcourt in terms of high demand for public transport and traffic congestion on existing roads (Ogunsanya, 1983). The major highlights of the problems are as follows:

a. Most of the drivers are not educated and are poorly trained. This result in absolute disregard for other road users and accidents on the roads;
b. Bad road conditions as a result of poor drainage and inadequate design and lack of regular maintenance;
c. Improperly maintained road-rail intersections wherever they exist and badly designed road inter-sections;

d. Absence of or inadequate traffic control measures;

e. High vehicle operating cost as a result of poor road conditions, poor and uncoordinated maintenance of vehicles, overloading and high overhead cost.

3.0 TRANSPORT NEEDS/AGENCIES

One of the indices of the transport needs in the state is provided by recorded monthly passenger trend for Kwara Express in 1989 (Banjo 1992) and 1997 (Table 1).

From 1991 the establishment of other transport agencies within the state (Table 2) led to decline in patronage of Kwara Express but a general increase in passenger haulage by other agencies. This is caused by decline in vehicle ownership due to economic down-turn. The above is in addition to National Union of Road Transport Workers (NURTW) and Transport Workers Employers Association (RTWEA) operating in Motor parks, Taxis, Kabukabu and Okada.

For the agencies in Table 2 reliable data on the number of vehicles in their fleet and present condition of vehicles is not available. However many of the vehicles are grounded. The main vehicle types are Mercedes Benz, Toyota and Peugeot. For other operators, assorted vehicles, some of which are not designed for public transport operations are included in their fleets. For these categories, appropriate regulations to control the standard of commercial vehicles should be enforced. This will improve the level of performance of these agencies and improve road safety.

4.0 THE ROADS

Like in most states in the federation, Kwara State has a combination of asphaltic, surface dressed flexible roads and the Earth (gravel) roads in different proportions. Rigid pavements and small element pavement's length is negligible. Fig. I presents the major road network. The major roads are owned by the Federal and the State Governments. The Federal Government roads totalling 1003km has 345km (34.4%), 271km (27.0%) and 387km (38.6%) of Asphaltic, surface dressed and earth surfaces respectively. The state government roads totalling 665km has 134km (20.2%) and 531km (78.8%) of paved and Earth roads respectively. The paved roads are mostly surface dressed (Adeoti, 1995). The surface conc[illegible]paved roads are bad and that of the e[illegible]errible especially during the wet season.

Recent upgrading of the roads by the defunct Petroleum Special Trust Fund (PTF) affected insignificant percentage concentrated in the State Capital. For a meaningful improvement in the status of the roads a massive, non-politicised road rehabilitation programme should be embarked on especially on the state roads.

5.0 [illegible] MAINTENANCE

While decrying the low quality of most road [illegible]s, a more serious problem is the bizarre level of maintenance of the roads.

Summarily road maintenance is meant to:

a. Preserve investment in roads by reducing the rate of deterioration and thus prolonging their life span.

b. Reduce Vehicle operating cost (VOC) through the provision of good running surfaces;

c. Improve transportation system operation and performance (level of service).

The maintenance culture is almost non-existence on most of the roads identified above. What is perhaps seen occasionally is special maintenance for special occasions, e. g. State visit by important dignitaries.

This type of maintenance cannot be substituted for Routine and periodic maintenance designed to achieve the above stated objectives. The reasons are:

a. They are not repetitive or regular

b. They are not carried out by a unique maintenance organization or system.

c. Specialized maintenance personnel are not usually employed.

d. For lack of reliable data maintenance needs are not adequately diagnosed.

Recent experiments like that of the Direct Labour Agency (DLA) of the Lagos State Government provides an example worthy of emulation. This unit should as a matter of urgency be established in the state, with arms in the local governments.

6.0 ROAD ASSESSMENT FO TRENDS FOR AND RE-DESIGN

Table 3 present the result of some location on the state's highway, co R OF dents of the University of Ilorin and Kwara olytechnic. The attendant losses and agonies stics of the frequent accidents, many of which t officially recorded, could be prevented, if the recommendations are implemented. Indeed government should, apart from implementing identified findings on c cal locations, initiate similar research for implementation.

7.0 THE DRIVERS

The driver issue should be taken with absolu seriousness as far as the vehicle handling and lives of the people are concerned. A report (Anastassiou 1990) show that more than 50% of the breakdowns and damages on buses are caused by the drivers. It is amazing that most drivers lack basic training and skills of driving.

Drivers to be allowed to drive on our highways especially commercial vehicles must be literate, competent and have at least a class E driving license. They should be tested psychologically and practically. As part of the requirements for a driving license, trainee drivers should be subjected to training on basic vehicle maintenance, traffic regulations, good driving habits and human relation. Thereafter, driving certificate should be issued to them. This therefore calls for the establishment of a driving Institute/School equipped for proper training. In addition, operational controls and monitoring through the recognized transport unions and agencies should be established.

8.0 THE VEHICLE/MECHANICS

There is the need to establish vehicle standard inclusive of vehicle type, capacity, design and road worthiness for commercial vehicles. The government should set up a functional vehicle standard regulating body.

Another very important issue is the maintenance of these vehicles and the mechanics. Like the drivers the mechanics can damage, reduce the life span and cause other havocs to the vehicle if not properly trained. Situations where the same mechanic profess to be capable of handling most brands of vehicles is not ideal. Mechanic's sheds for various vehicle brand should be established for mechanics by the local/state governments with inputs from the mechanics and relevant unions. Bad maintenance practices like the use of fake spare parts, mixing of pistons in the same engine, fitting used/bad injector nozzles into new short block etc should be seriously addressed. Mechanic's training and orientation through workshops, organized course in institutions of higher learning or Driving schools are suggested as a short and long term solution.

9.0 THE VEHICLE OPERATING COST, TRANSPORT FARES AND COST RECOVERY

The economic viability of transport services determines its quality and sustainability. This is determined by the cost recovery index obtained from vehicle operating cost and transport fares. The cost-recovery ratio of most private bus companies remained below I most of the time between 1988-95, (Adesanya 1995).

The Vehicle Operating Cost (VOC) elements include fuel and lubricant cost, maintenance and repair cost, tyres/tubes cost, vehicle replacement cost, wages, overhead cost and insurance cost. The vehicle replacement cost of J-5 Peugeot has increased from N60,000 in 1988 to N1.5 million in 1995, an increase of 2,361% (Bolade 1995). Petrol cost increased from N3.25 in 1993 to N11.00 in 1994 to N20 in 1999. Each of the components of the VOC recorded high percentage increase in the past 8 years.

Public sector employment recorded a salary increase of 17.1% in 1992, 93.7% in 1994 (Bolade 1995).

In 1991 Taxifare per drop increased from N3 to N5 and in 1998 from N5 to N10 within Ilorin town. The transport fare trend for Kwara Express between 1993 and 1999 is shown in table 4. These trend reveal that despite the high increase in vehicle operating cost, the corresponding low increase in public wages has kept the transport fares relatively low. This results in poor vehicle maintenance, operation of unserviceable vehicles, high rate of vehicles breakdowns, accidents and generally low level of service. Government intervention to reduce the cost of the elements in the vehicle operating cost and increase in the average income appears to be the only solution to this problem.

10.0 CONCLUSION

The operation of mass transit programme is one that attracts many investors into the state. The sector presently is not a preferred area of operation because of its greater complexity and difficulties in covering cost not to talk of making a profit.

The condition of most roads and the high vehicle operating cost are critical factors hindering their operation. In spite of their high operation cost, fares have remained relatively low as a result of the low average income and the economy. The result is the gradual withdrawal of these agencies, operation of unserviceable vehicles and low level of performance, safety and comfort.

To redress this trend there should be a continuous policy of encouraging private operators through the provision of good and safe road network and the reduction (subsidy) in the cost of vehicles' spare parts and petroleum products.

The increase in the rate of accidents through human factors can be reversed through education. The establishment of a multi-disciplinary driving school or Institute for drivers, mechanics and other related personnel is put forward as a remedy.

The issuing of new driving license to drivers should be tied to the acquisition of basic knowledge on traffic regulation, driving habits and vehicle maintenance in addition to driving skill.

The establishment of functional mechanics sheds for the mechanics through the government will improve skill in handling different brands of vehicles.

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TABLE 1: PASSENGER TRENDS FOR KWARA EXPRESS 1989 & 1997

	NUMBER OF PASSENGERS					
	INTERCITY		INTRACITY		TOTAL	
MONTH	1989	1997	1989	1997	1989	1997
JANUARY	129,450	11524	134,072	5510	263,522	17,034
FEBRUARY	64,107	10967	132,234	4124	201,331	15,091
MARCH	73,733	22134	107,824	6526	181,557	28,660
APRIL	70,676	28417	79,200	13376	149,876	41,793
MAY	69,798	38237	93,535	11668	163,333	49,905
JUNE	63,137	26,725	82,507	11821	145,644	38,546
JULY	82,939	8,984	103,871	14858	186,810	23,842
AUGUST	79,612	1,222	72,864	18467	152,476	19,689
SEPTEMBER	78,785	13,069	117,493	14766	196,279	27,835
OCTOBER	76,639	25,092	98,395	16397	175,034	41,489
NOVEMBER	74,749	11,746	96,492	15024	171,241	26,770
DECEMBER	85,024	12,578	89,755	16883	174,779	29,461
TOTAL	948,650	210,695	1,213,232	149420	2,161,802	360,115

SOURCES: F U M T P Monograph No. 3 (1990) & Kwara State Transport Corporation Ilorin (March 1998)

TABLE 2: DIFFERENT MASS TRANSIT SERVICES IN KWARA STATE

S/NO	MASS TRANSIT	LOADING POINT	ROUTES	VEHICLE TYPES
1	Kwara Express	Kwara State Transport Corporation Premises, Ajase-Ipo Road.	Ilorin - Kaima Ilorin - Kaduna-Kano Ilorin-Lagos Ilorin-Kabba-Lokoja Ilorin-Minna etc.	Mercedez benz, Buses Toyota Buses Peugeot-J5 Peugeot 504 Saloon Peugeot Station Wagon
2	Local Government transit Services	L. G. A. Headquarters	L. G. A. Headquarters - Ilorin Ilorin-L. G. A. Headquarters	Toyota Buses Mercedez Benz Buses
3	UNILORIN Transport Services	UNILORIN Campuses, Challenge Ministry of Works junctions	Inter-Campus Challenge-Main Campus	Mercedez Benz lorry Mercedez Benz Buses
4	Halibod Express	AP Petrol Station Murtala Road Ilorin	Ilorin - Kano Ilorin - Abuja Ilorin - Kaduna Ilorin - Minna	Toyota Buses Mercedez Benz Buses
5	Oluwanisola Express	Unipetrol Murtala Road Ilorin	Ilorin - Jos Ilorin - Kaduna Ilorin - Kafancha	Toyota Buses
6	Oluwatoyin Express	Offa Garage Ilorin	Ilorin - Kabba Ilorin - Lokoja	Toyota Buses Nissan Buses
7	Composite Mass transit services	Maraba, Murtala Road Ilorin	Ilorin - Kaduna Ilorin - Jos	Toyota Buses Urban Buses
8	Morning Star Express	Pakata Road Oja-Oba Ilorin	Ilorin - Kaduna Ilorin - Kano	Toyota Buses Peugeot 504 Salon
9	Ola Express	National Petrol Station, Murtala Road Ilorin.	Ilorin - Abuja Ilorin - Kaduna Ilorin - Jos	Peugeot Station Wagons, Toyota Buses

SOURCES: FIELD SURVEY 1998

TABLE 3: IDENTIFIED CRITICAL LOCATIONS AND RECOMMENDED REMEDIES.

	LOCATION	SHORTCOMING	RECOMMENDED REMEDY
1	Rail-road crossings	Frequent decay of wooden ties and settlement	1. Frequent maintenance 2. Asphaltic concrete Substitute for wooden ties
2	Jebba-Fate road Junction	Frequent accident	Provision of interchange Trumpet type
3	Murtala-Challenge Junction	Frequent accidents & vehicle skidding	Traffic management scheme Channelization
4	Offa road-Lajorin road Junction	Frequent vehicle head-on collision.	Traffic management Scheme
5	Ganmo Town	Vehicle-pedestrian Conflict, street trading	Market relocation. Traffic management
6	Omupo Town	Vehicle Skidding Sharp bend.	1. Re-construction of sharp bend 2. Traffic management scheme
7	Unity Road bridge	Frequent flooding	Drainage Re-design and Re-construction
8	Tipper Garage University Road Junction	Frequent accidents	Speed control measures

Sources: Project Reports & field Surveys

TABLE 4: TRENDS IN TRANSPORT FARE INCREASE ON VARIOUS ROUTES FOR KWARA EXPRESS

ROUTE / YEAR	TRANSPORT FARES (N)		
ROUTE / YEAR	1993	1995	1999 (JUNE)
Ilorin - Kaduna	350	450	400
Ilorin - Kano	450	600	600
Ilorin - Abuja	450	600	500
Ilorin - Jos	-	600	600
Ilorin - Minna	250	350	300
Ilorin - Lagos	200	300	250
Ilorin - Kabba	200	300	300
Ilorin - Lokoja	300	400	350
Ilorin - Ayangba	-	400	400
Ilorin - Okeode	40	80	60
Ilorin - Lafiagi	80	120	100
Ilorin - Shao	10	10	10
Ilorin - Oro Agor	-	120	100
Ilorin - Omu-Aran	40	70	50
Ilorin - Ilofa	20	30	30
Ilorin - Kaiama	200	300	300

SOURCE: KWARA STATE TRANSPORT CORPORATION (KWARA EXPRESS)

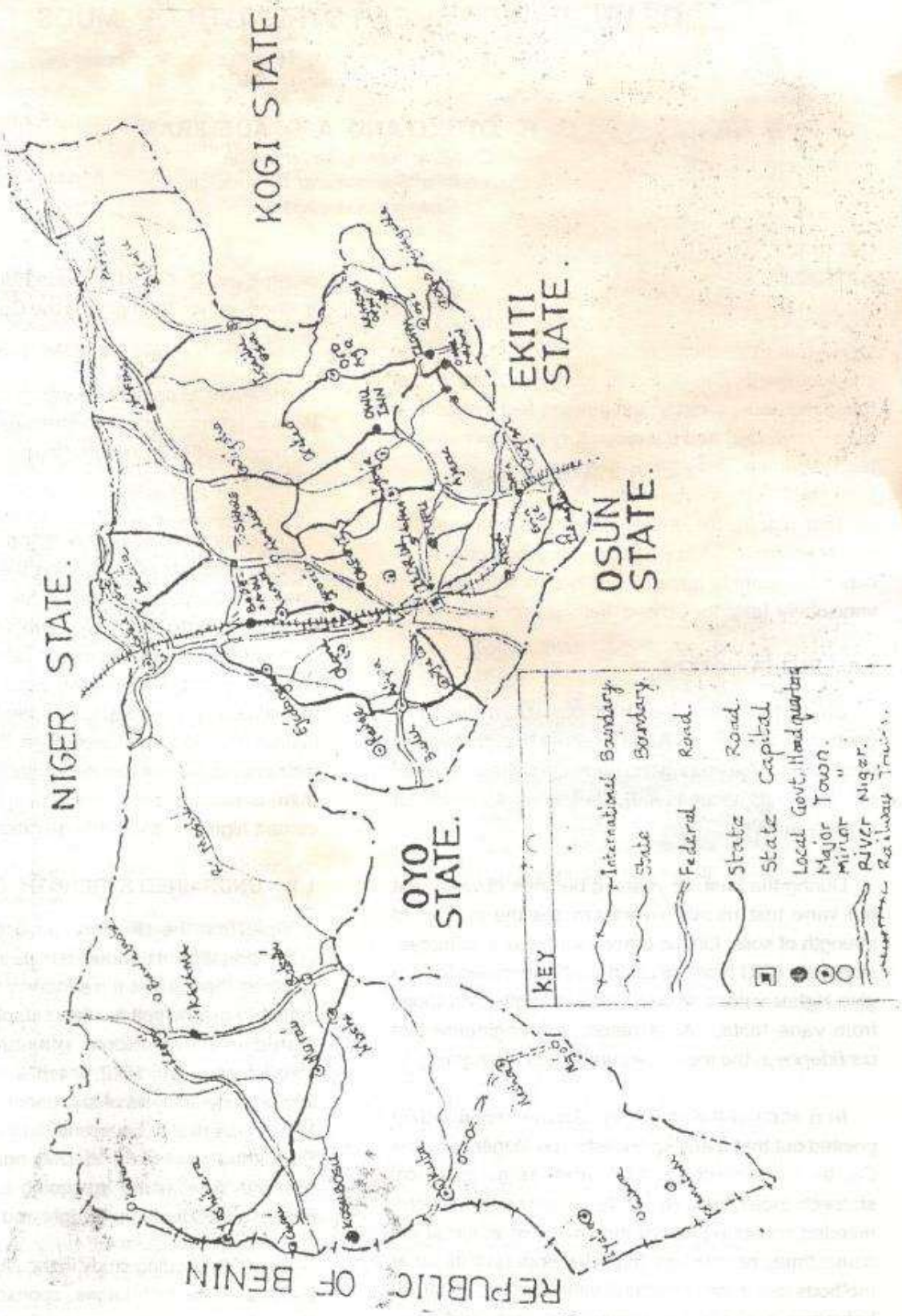

FIG 1: ROAD MAP OF KWARA STATE.