RURAL TRANSPORTATION AND ITS EFFECTS ON STAPLE FOOD PRODUCTION IN ITAOGBOLU

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Abstract:

The United Nation in its millennium declaration adopted the millennium Development Goals (MDGS) that seeks among other goals to reduce poverty especially in the less developed societies, Africa inclusive. Hunger is a complex crisis; to solve it we must address the interconnected challenges of agriculture and transportation. Transport development has a tremendous impact on economic activities. Poor road network, inadequate transport facilities and inefficient transportation system are the arrow head of low agricultural productivity and increase in price of agricultural products.

This paper investigates the effects of rural transportation on staple food production in Itaogbolu. The primary data were collected in two different stages, the reconnaissance survey and questionnaire administration. Six quarters were identified and twenty questionnaires were administered on each of the quarters, making a total of one hundred and twenty. Data from secondary sources were also adopted. The research has found out that rural transport has a significant negative impact on staple food production. It also reveals some of the problems of staple production, such as crop failure, pest and disease infestation. It was vivid from the research that the various types of staple crop produced includes; tubers, grains, fruits and vegetable. The study however recommended that government should embark on the provision of adequate transport facilities; giving of loans to interested farmers as well as provision of subsidy

of schemes.

Keywords: Rural transportation, Food production, Itaogbolu

Introduction

The Influence of rural transportation sector within the economy is highly considerable, not only in quantitative terms (tons transported) but also in economic terms such as: source of wealth, employment and support given to other economic activities. Improved transport networks create and stimulate positive synergy and enhance social cohesion and integration by given citizen access to some opportunities.

Ogunsanya (2002) defined rural transportation as a derived demand which serves to bridge the distance between origin and destination. In other words, transportation serves as a connector while distance is a major determinant of the intensity of relationship between various sets of phenomenon distributed in space of other sectors of the economy agriculture inclusive in space. Transportation has been a facilitator, aiding the development of other sectors of the economy, agriculture inclusive.

Agriculture is the most fundamental human activities including not only the cultivation of crops, but also the domestication of annual. According to Johnson, V.A. (1999), "but all the occupation by which gain is secured none is better than agriculture, none more profitable, none more delightful, none more becoming to a free man" Agriculture has always played a leading role in peoples lives all over the world especially, in Nigeria about 70% of the total population engaged in agriculture.

In Nigeria the bulk of food crops production takes place under the traditional system without the use of chemical powers (Oguntoyinbo, 1983). Holding are small and the main tools consists of hoes, cutlass, axes and knives. These characteristics and other farm practices have been passed down from one generation to another and they pose formidable obstacles in the way of modern agricultural modernization.

A smooth agricultural system, especially staple food production has a lot to do with transportation. Thus transport dictates the efficiency, effectiveness and hair generality services are rendered in any agricultural system.

Conceptual framework and relevant literature

The dominant mode of transportation in Nigeria rural space head porterage. This form of transport persists principally because of road inadequacy and the state of disrepair of the entire rural road networks, especially during the period of rains. It is also belief that all these here serious implication on the cost and volume of the product being moved on the network. (Wilson 2002).

Rural transportation contributes to a higher qualify of life and standard of living. Due to the fact that rural transport is easily affordable and accessible, it allows all citizens to use it, giving the same opportunity to each and everyone in term of mobility. It is therefore related to the well-being of the people in various settlements (Csaki and Tuck 2000). Mabogunje (1980), noted that transport plays a vital role in the development of a country and he dwelt much on rural transport. Therefore, the study on rural transport its impacts on the economy of a particular area cannot be over emphasized. In this view road transport improvement is becoming a means of achieving socio-economic and political functions of rural area in the country.

Many researches conducted in Nigeria and other sub-saharan African countries showed that transportation facilities should be improved (Adeniji, 1993). The dare need of transport at the grassroots in Nigeria relates mainly to providing a access to natural resources like minerals, agriculture, forestry etc. secondly for the provision of access route for the large population, to gain effective access to all economic activities and other services available at the rural and urban centre. Agriculture buoyancy, productivity and development are anchored by road network infrastructure, because poorly maintained roads militate against evacuation of farm product to the market. And also enhance hunger and scarcity. Economic benefits will accrue to areas that are linked with the good road network. Kelly,(2005). Charles (2000) identified food deficit areas, mostly in the eastern part of the country. The phenomena he attributed to over population, urbanization inefficient transportation and a development policy that emphasized cash or export crop production at the expense of food crops. Adeoye (2003), argued that the road programmes of distinct directorate of foods, road and rural infrastructure (DFRRI) was indeed so glorious and ambitious that several thousand kilometers of roads were constructed in order to open up remote areas. The politicization of the programme, poor planning, execution monitoring, and lack of

foresight immensely generated its downfall. By implication, other programmes that are aimed at improving productivity and well-being of the rural and urban dwellers were thwarted. In a nut-shell, the continued neglect of most areas, generates severe mobility problems which goes along way in a affecting and bastardizing the economic atmosphere of the inhabitants.

The study area and method

Itaogbolu is situated in Akure North Local Government area of Ondo State. It lies on the latitude 7^0 15 North of the equator and longitude 5^0 15 east of Greenwich meridian.Itaogbolu is 16km from Akure and 10km to Ikere-Ekiti. It is surrounded by many villages such as Igoba, Odudu, Ode, Igede, Agamo etc. it is bounded in the South by Akure, in the North by Ado-Ekiti, in the west by Igbore- Odo and in the East by Emure. It is situated on a plain land surrounded by few hills which are about 300 meters above sea level. Itaogbolu is in the humid tropical region of Nigeria, and enjoys abundant rainfall of over 1,500mm annually.

Itaogbolu is said to have a total population of 15, 671 according to statistics given by 1991 population census conducted in Nigeria. The people of Itaogbolu are mainly farmers planting crops like plantain, yams, cocoyams, cassava, maize and varieties of vegetables. Cash crops like cocoa, rubber, kolanut and oil palm are also grown.

The first stage in the collection of primary data necessitated reconnaissance survey of the study area. Second stage involves the administration of questionnaire. Six quarters were identified, namely; Oke-ore, Odo Oja, Irado and oke Ijigbo, Oke afa, Isimija. Twenty questionnaires were administered in each of the quarters making a total of one hundred and twenty. Some of the questions sought for include; means of transportation, effects of rural transportation on staple food production, Distance from houses to farms, types of crop planted by respondents and problems of staple food production. The questionnaires administered were all retrieved for the analysis.

Secondary data were also collected from various sources for instance; data on location and latitudinal extent were collected from Ondo State Ministry of works, while information on population figure of the study area was collected from Ondo State Independent electoral commission (ODIEC). Data on climate, relief economic activities of the study area were collected from. Various textbooks, journals and the internet.

Analysis and Discussion

Table1 Sex Distribution of the respondents

	uency	entage
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ale		
l		

Source: Field Survey, 2011

Table 1 shows that out of 120 (100%) respondents, 78(65%) are males while, 42(355) are females. It is obvious that most of the respondents are males.

Table 2 Age Distribution of the respondents

(years)	uency	entage
0		
0		
0		
0		
l		

Source: Field Survey, 2011

Table 2 shows the age distribution of the respondents. Out of 120(100%) respondents, 42(35%) are between 41 and 50 years, 35(29%) are between 31 and 40 years, while 18(15%) are between 51 and 60 years and 11(9%) above 60 years.

Table 3 Occupational Distribution

upation	uency	entage
ners		
ers		
lers		

ers		
l		

Source: Field Survey, 2011

Table 3 reveals that out of 120(100%) respondents, 85(71%) are farmers, 18(15%) are drivers, 10(8.3%) are traders, while 07(5.8%) opined others. Conclusively, most of the respondents are farmers.

Table 4 Means of Transportation of Respondents

sport means	uency	entage
-up		
k		
ers		
l		

Source: Field Survey, 2011

Table 4 depicts the means of transportation of the respondents, out 120 respondents, 42(35%) opined Taxi, 38(32%) opined truck, 30(25%) taxi, while 10(8%) agreed others.

Table 5 The Road Condition of the study area

l condition	uency	entage
ed		
rred		
oth		
y Smooth		
path		
l		

Source: Field Survey, 2011

Table 5 reveals that out of 120(100%) respondents, 52(43%) agreed that the roads are Untarred, 19(15.8%) believed the roads are smooth, while 25 (20.8%) respondents believed that the roads are fairly smooth.

Table 6 Distance of respondents from home to their farms

ance	uency	entages
n		
1km		
1.5km		
2.0km		
ve 2km		
l		

Source: Field Survey, 2011

It is obvious from table 6 that out of 120(100%) respondents, 50(41.2%) covered above 2km from home to their farms, 28 (23.3%) covered a distance of between 1.6 and 2.0 km from home to their farms while, 24(20%) covered between 1.1 and 1.5km, 13(10.8%) between 0.5 and 1km. Only 5(4.2%) respondents covered <1km from home to their farms.

The hypothesis which states that: there is no relationship between the means of transportation of respondents and distance traveled from home to their farms, was tested using the Pearson (product) moment Correlation statistical correlation techniques.

Table 7 summary of the Correlation between means of transportation and distance traveled

		)	) $\bar{}$	) $\bar{}$	)^2 $\bar{}$	)^2 $\bar{}$

$$r = \frac{\Sigma(x-\bar{x})(y-\bar{y})}{\sqrt{\Sigma (x-\bar{x})^2(y-\bar{y})^2}}$$

$$r = -\frac{472}{\sqrt{608 \times 584}}$$

$$r = \frac{-472}{\sqrt{355,072}}$$

$$r = \frac{-472}{\sqrt{595.9}} = -0.79$$

Table 7 shows the summary of the correlation between the means of transportation and distance. Thus the correlation between the means of transportation and distance traveled from home to farm by the respondents has a high inverse correlation. This signifies that to travel a longer distance between home and farms require a more capable and rugged vehicle, while to travel to non-distance farms requires the usage of less rugged vehicles like taxi and cabs. This is in support of the fact that the roads that characterized distance farm lands are rugged and devoid of asphalt and made of untarred roads. While, the roads that characterize the nearer farms are not far fetched from towns and are made up of tarred and fairly tarred roads.

In order to determine the influence of variation in the mode of transportation travel distance to farms, the coefficient of determination of the correlation coefficient got (r =-0-79) was determined using

$$C = r^2 = (-0.79)^2 \times 100$$

$$= 62\%$$

This shows that variation in the mode of transportation has 62% influences on distance to farms. In other to test the significance of the correlation coefficient between mode of transportation and distance traveled to farms. The correlation coefficient value got (-0.79) was subjected to t-test using the formula.

$$t = r \frac{\sqrt{n-2}}{\sqrt{1 - r^2}}$$

At 5% level of significance at n-2 degree of freedom as follow

$$t = 0.79 \frac{\sqrt{4-2}}{\sqrt{1 - 0.62}}$$

$$= \frac{0.79\sqrt{2}}{\sqrt{0.38}}$$

$$0.79 \times \frac{1.414}{0.6164} = \frac{1.1172}{0.6164} = 1.812$$

Calculated t = 1.812 while the tabulated t = 4.30, since the calculated t (1.812) is lesser that the tabulated t (4.30) we accept Ho and reject H_1 (Okoko, 2000).

This signifies that the inverse correlation between mode of transporting and distance to farms is significant.

Table 8 Types of crop plant mostly by the respondents

) types	uency	entage
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s		
etable		
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Source: Field Survey, 2011

Table 8 shows that out of 120 respondents, 68(56.7%) are involved in tubers planting, 26(21.7%) are involved in planting grains. 15(12.5%) respondents are engaged in fruit farming, while 11(9.2%) plants vegetable. Most of the farmers are involved in tuber planting.

Table 9 Effects of rural transport on staple food production.

cts	uency	entage
lage of agric products		
ease in price		
y in transporting		
ness/Stress in getting to various farms		
l		

Source: Field Survey, 2011

Table 9 shows that out of 120 respondents, 53 (44.2%) agreed that the effects of rural transport on staple food production is spoilage of agricultural products. Another 27(22.5%) believed that the effect is increase in price of agricultural products, while 25(20.8%) opined

lateness/stress in getting to various farms. Also, 15(12.5%) respondents opined delay in transporting agricultural products.

Table 10 Problems of staple food production

lems	uency	entage
failure		
and bad weather		
l tenure system		
and Disease		
rs		
l		

Source: Field Survey, 2011

Table 10 depicts the problems of staple food production. Out of 120(100%) respondents, 39(32.5%) opined crop failure, 36(30%) agreed pest and disease. Another 20(16.7%) believed that lend tenure is the problem of staple food production, while 7(5.8) %) opined others.

Table 11 Average daily cost of transport

age daily cost (in Naira)	uency	entage
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150		
200		
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Source: Field Survey, 2011.

Table 11 shows the average daily transportation cost of respondents to their various farms. Out of 120(100%) respondents, 53(44.2%) averagely spent above N200.00 on daily transport, while 25(20.5%) spent between N150 and N 200, 18(15%) respondents average daily transport cost is between N110 and N150.00, while 16(13.3%) spent between N50 and N100. Another 8 (6.7%) spent less than N50 on average daily basis

Conclusion and Recommendation

Transportation is no doubt one of the most important facilitator of economic development. Government that is interested in management and advancement of her society must ensure the transformation and significant overhauling of the transport sector. This is in order to meet the yearnings and demand of the teeming populace. Rural transportation is germane to all round development of any region; this is because the immense contribution of the rural area in term of provision of food clothing and shelter cannot be over emphasized.

The research has revealed the dominant problems of traditional agriculture and staple food production among which are; crop failure, land tenure system and prevalent of pest/diseases. This is detrimental to productivity in term of crop yield. Some of the effects of rural transport on staple food production includes; the spoilage of agricultural products, increase in price of agricultural commodities, delay in transporting agricultural products as well as stress in getting to various farms. It is therefore obvious that the rural transport sector needs urgent attention, in order to curtail or annihilate these negative effects.

The study has found out that there is an urgent need to improve the road condition as well as tripartite participation of state government, local government and private interest in transport sector. The government of the day should embark on rural road transformation, inform of road rehabilitation and adequate transport facilities provision. This will facilitate easy access to the various farm units; it will also enhance the timely and easy evacuation of agricultural products from various farms to the marketing centre. Thereby reducing spoilage of agricultural products and hence enhance increased productivity.

If food crop production is to be improved farmers in the study area must also be prepared to adopt certain agricultural innovation designed to raise yields with given inputs. Such innovation includes new cultivation methods and the use of fertilizer. Government has a lot to do in this regards, and this can be achieved through adoption of agricultural extension services, community farm and seed multiplication programme. It is also recommended that farmers should be encouraged through financial assistance inform of loan and subsidy schemes. Since the world population is increasing at geometric rate, increased food production should be a concern for all and sundry.

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