



Research Paper

## Impact of Infrastructural Development on Food Security in Benue State of Nigeria – The Case of Agricultural Service Centres in Konshisha Local Government

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### ABSTRACT

This research investigated the state of rural agricultural production and how the infrastructure on ground has helped in improving agricultural sector. Konshisha Local Government which is one of the rural Local Governments areas in Benue State was chosen as the study area. The infrastructural facility that was assessed based on its relationship with agriculture was Agricultural Service Centres. Descriptive design was used while stratified sampling technique was employed as each ward was considered a stratum. Purposive sampling technique was also adopted based on homogeneity of the population. Key informant interview was conducted in the selected locality considering the respondents in-depth knowledge of the area. Data was collected using primary sources which were: researcher's personal interviews, observations and photographs were also used to support and further explain the observations. The theoretical framework used in this study was the integrated rural development strategy (IRDS). From the survey conducted, the available infrastructural facilities such as Agricultural Service Centres were all in very deplorable state, and therefore incapable of boosting agricultural productivity in the area. Therefore IRDS is suggested to government of Benue State in order to bring Konshisha Local Government Area out of this low agricultural production state.

**KEYWORDS:** Agriculture, service centres, infrastructure, rural development, food security.

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## I. INTRODUCTION

### 1.1 Infrastructural development

Infrastructural development of each nation, state or country is the foundation upon which all other aspects of development are built. Infrastructure refers to the basic systems and services that are necessary for a country or an organization. This, according to Olayide, Ogunsomola, Essang and Idachaba [1] is classified into two broad categories which are:

- i. Capital intensive infrastructure
- ii. Capital extensive infrastructure

Capital intensive are those infrastructural facilities characterized by high capital/output ratios such as transport facilities, irrigation structures, storage facilities, processing facilities, schools, clinics and hospitals.

Capital extensive refers to those infrastructural facilities characterized by much lower capital/output ratios such as agricultural research, agricultural extension and training, credit institutions, market institutions and agricultural statistics reporting services. These two categories are also sub divided into physical and social infrastructure. The physical infrastructure include road network, food security, water supply system, ports, electricity, market facilities and posts, (air and sea) while the social infrastructure are such as education, health, security.

The development of infrastructure in Nigeria can be traced back to the early 70s, during which the regime of General Yakubu Gowon embarked on the 3Rs programme which were Reconstruction, Reconciliation and Rehabilitation. This was meant to rejuvenate those areas that were affected by the civil war particularly the Eastern Nigeria. Infrastructural facilities though existed partly during the colonial era such as seaports, roads, railways, (transportation), telecommunication, all are argued to have existed to serve colonial masters' smooth

administration and facilitate the conveyance of agricultural raw materials from the colonies (Nigeria) inclusive to their metropolitan markets. These were not mainly meant for the benefit and development of the country Nigeria.

Agriculture on the other hand can be described to mean an economic activity or activities which are soil and climate driven. Agricultural activities are driven based on the availability of natural resources available to a particular area where such activities take place. Agriculture is the main stay of the rural societies in Nigeria and the world over. It is the oldest occupation as long as the history of man is concerned. Alanana [2] observed that, agriculture and its nature in the rural area is commonly peasantry and depends solely on the interplay of climatic forces such as rainfall, and sunshine to determine production. In this situation, the labor of the family is employed and is not commercialized or commoditized, where the labor of the family fails to accommodate the field challenge, the communal labor exchange (“Hyumbe”) is encouraged in enhancing improved productivity. As a result of dependence on the climate, the rural peasants carefully choose which season to plant and which to harvest their crops. In Tiv land these seasons are referred to as “Fam” (raining season) and “Nyom” (dry season) respectively.

Agricultural development and rural development as far as social science is concerned are almost synonymous. This is for the reason that, agriculture is the mainstay of rural societies and for these rural societies to attain development, agriculture has to first be improved or developed, this will encourage the rural people to accept government

Policies on rural development if such are agricultural based. Such will not be seen as alien to the rural people and as such will welcome them. This work is on the infrastructural development and agricultural productivity in Benue state with focus on the rural study area which is Konshisha local government. It is worth noting that the terms infrastructure and agriculture are twin forces that propel rural development therefore they may be used interchangeably in this work.

An area is said to be rural or a rural community when it is characterized by the following factors:

- i. Such communities are generally poor and economically underdeveloped.
- ii. Agriculture tends to be the major occupation of the people and the main source of income for the rural people example more than 75% of Nigerians live in rural areas and are engaged in farming activities.
- iii. Most of the people are peasant farmers who depend on farm lands bequeathed to them by the older generations, they also practice traditional agriculture; no sophisticated farm tools.
- iv. Most rural dwellers suffer from malnutrition, hunger and consequently diseases.
- v. There is also lack of infrastructural facilities such as agricultural service centres as well as communication.
- vi. Such communities are characterized by high level of unemployment.

Idachaba [3] opined that, rural development is the process by which the efforts of the people themselves are united with those of government authorities to improve the economic, social and cultural conditions of the rural communities to integrate these communities into the life of the nation and to enable them to contribute fully to the solution of national problem.

Rural development therefore means making a nation’s rural community better by assisting them to provide themselves with necessary infrastructural facilities such as adequate food supply, electricity, good roads, education, water supply, housing, health care facilities and industries, so that the members of those communities might enjoy what they cannot provide individually.

### **1.2 Importance of infrastructure on agricultural productivity**

The development plans of many less developed, primary producing nations are characterized by heavy expenditures on infrastructure. Olayide [4] further explained the importance of infrastructure in rural development under the following considerations.

- (i) There is a direct relationship between the building of roads and market facilities and expansion of agricultural production in less developed countries. Similarly, the construction of railways and port facilities aid the production and export of agricultural products such as cocoa, oil palm produce, groundnut and cotton.
- (ii) The establishment of research stations makes possible the development, adoption and testing of new seed varieties and contributes to the growth of agricultural production in the less developed countries. This is borne out of the experience of the Rice Institution in the Philippines, the Mexican Wheat Research Station and the Cocoa Research Institute of Nigeria.
- (iii) The provision of the infrastructure affects the location of agricultural specialization.
- (iv) Governments in less developed countries pay attention to the creation of infrastructural facilities partly due to the visibility of such projects as an evidence of government’s efforts in the support of rural economic growth.

Olayide [4] further explains the rural economy as a branch of science of statesmanship which deals with agriculture, rural enterprises and rural life as factors for nation building. This covers the role of crops, livestock, husbandry, forestry and fisheries in the economy and the respective patterns, problems and promises of these sub sectors of agricultural enterprises. It also surveys produce from the farm producers to the final consumers and analyses how efficient the distribution is under various forms of marketing structure, perfectly competitive, imperfectly competitive, cooperative and other various forms of state trading.

The attack started on rural development through the institution of marketing and commodity board. The aim was to help the farmers to sell their produce in the world market to the advantage of the farmers and also to cushion the effects of price fall in the world market. It is now known that not only were farmers grossly underpaid from their labor, but even the money got from their taxes and levies which supposed to be reversed to cushion the prices effect were diverted into other uses such as the construction of the prestigious cocoa house at Ibadan. This exploitative attitude of the urban elites towards the rural areas continued unabated. The consequences of all these are hunger and famine that have hunted the country forcing government to import the entire foodstuff that we needed. This made it more profitable to remain in cities even as unemployed than to be enslaved in the rural areas just to feed the nation [5].

They also observed that in 1970s, there was a renewed effort in what was called “rural development”. The main idea was actually a desperate effort to ensure adequate food supply for the nation; especially for the parasitic urbanites. This really served the needs of the cities through which the best and choicest food produced were carted away by the middle men who had bought them at ridiculously low prices from the original producers. The policy was still in practice and the implementation was exploitative as it only emphasized the enhancement of food and crop production. This has impoverished the rural areas and the condition of the rural inhabitants continued to be poorer and miserable. This is because, the project were not aimed at developing the rural people; and even where they happened to contribute to the development, such were secondary and distant.

To enhance rural development through agriculture, governments of various regimes employed some strategies aimed at developing the rural areas in Nigeria as can be discussed below.

### **1.3 The political profile of the area**

The local government area is politically divided into two major districts; Gaav and Ishangev-Tiev districts. It has a total of eleven council wards which seven (7) are from Gaav district and four (4) are from Ishangev-Tiev District accordingly. The local government currently has a democratically elected council comprising of the executive chairman who is also the accounting officer of the local government and the legislative council made up of the elected councilors from the eleven (11) wards of the local government. The local government also has a traditional area council which plays a very significant role in the smooth administration of the area. The traditional council is headed by a second class chief called the “Ter Ikyor” who is assisted by the district heads called “Utyomaorov” who are in turn assisted by clan heads called Mbatarev respectively.

### **1.4 The socio-economic profile of the people of the area**

Konshisha local government area is an agrarian area which is among the leading agricultural products producers in Benue State. The land is generally fertile and the local government thus leads in citrus production, low and up land rice, maize, guinea corn, groundnuts, beniseed while livestock like pigs, sheep, goats, and local poultry are abundant in production. The local government is also endowed with skilled craftsmanship which through their crude technology, the people produce hoes, spears, cutlasses, small hoes, bows and arrows which serve as their major instruments for farming and hunting.

Farming is the major occupation of the people of the area. Both roots and cereal crops are extensively cultivated for local consumption as well as for exchange. Apart from farming, the people of the area are also engaged in blacksmithing, hunting, small scale agro service industrialization and petty trading. Baskets, cloth weaving and pottery are also very important occupational activities which engage the people of the local government as off farm activities mostly during the dry season. Relatively, over 9000 inhabitants of the area are engaged in the services of Konshisha Local Government with about 90% being the indigenes of the area.

In the terms of public utilities development, the Benue State Government Public Utility Board (BSPUB) has for long ago constructed two PCI water works in the two major towns of the local government (Tse-Agberagba and Korinya). These are to provide potable drinking water for the inhabitants of the area. This notwithstanding, the two water systems are dysfunctional for many years now. Electrically the area is not hooked to public power supply, as such; Tse Agberagba and Korinya rely on the two acquired local government generating plants which are even no longer functioning. The state of electricity has being as described above until the last two years when the regime of Governor Suswam embarked on the rural electrification project. The effort has being applauded as some major towns in the area such as Awajir, Gungul, Tse-Agberagba, Wuese, Mbaakpur, Jov-Mbavaa and Korinya are now adequately hooked to public power supply. This distribution is

lopsided as it only favour the towns along the federal road side leaving behind those not close to the federal road yet marks the good days for Konshisha in the area of electricity.

In the area of health, there is one General hospital at the headquarters, and other clinics located in many parts of the local government though all are ill equipped with modern health facilities.

In the aspect of education, there are various centres of adult education scattered all over the local government, over 140 public primary schools, about 80 nursery and primary schools and about 23 secondary schools. Three of which are government secondary schools (GSS) namely, GSS Korinya, GSS Gungul and GSS Tse Agberagba. There is equally a National Teachers Institute (NTI) centre in the local government headquarters which awards Teacher Grade II certificate in the Nigeria Certificate in Education (NCE).

The local government is highly disadvantaged in the area of road network, the only towns that have easy access to the local government headquarters are those that are located along the federal road linking Benue State with Cross River in Konshisha local government the rest of the towns are located in the interior where access roads are lacking. This goes to the extent of hindering transportation during rainy season due to the abundant low lands found in the area. This seriously affects agricultural productivity within such areas since rainy season crops are not easily taken to the market whose sales would be recycled back to agriculture.

Industries are completely absent in the local government, this amounts to wastage in agricultural products whose local crude storage is not guaranteed. In the area of water supply, the major sources of water are streams and wells; this is a very serious problem in the local government as it rules out dry season farming and at the same time the engage people into covering reasonable distances in search of water during which much time is spend which otherwise would be devoted to off-farm activities. Recently there is a solar powered boreholes project going on within the local government but just like electricity and road, these are also situated among towns along the federal road.

### **1.5. Agriculture in Konshisha Local Government**

Agriculture in Konshisha Local Government is generally characterized as subsistence. This is due to the fact that, it is based on the use of local farm implements or tools such as hoes, axes, cutlasses and knives which are locally produced by black smiths. The labour for agriculture is also employed from family members. Communal labour comes in only when the family labour is insufficient to man the farms. This communal labour is generally known in Tiv culture as (hyumbe).

The season of farming in the area is limited to rainy season which usually starts from April and ends in November every year. This has limited the farmers to a single season farming. By this farmers usually select carefully the time to start planting their crops so as to meet up with the yearly climatic changes. The only dry season farm activity found within the area is the dry land clearing (Tsa u kombun) which is done in preparation for the early rain planting. This activity starts from the last days of January to the last days of March. There is also off-farm activities within this period such as local manufacturing of farm tools such as hoes, cutlasses, axes, diggers as well as weaving of basket made of palm fronds and some forest grasses.

Konshisha Local Government is abundantly blessed with a very fertile soil acceptable to almost all types of crops found within Benue State. The area is also known to be one of the major producers of yam, cassava, citrus, beniseed, soyabean and groundnut within the state. Other crops found within the area include, sweet potatoes, rice, (up – land and low-land). Guinea corn and some vegetables such as red pepper, okra, tomatoes, pumpkins (ogu) and garden egg, all of which produce a good yield despite the subsistent farming status.

Agriculture in the Local Government cannot boast of having direct involvement in generating employment. This is because the primary motive behind farming in the area is for feeding the family. When this is achieved, the excess is taken to the market for sale to finance other family demands. It has been observed that most of the farm family heads within the Local Government who engage in “large scale” farming result in Polygamy. The aim of this Polygamy is to have many children and eventually have more labour for their farms rather than employ wage labour. Though Agriculture is seen in the area to have contributed less or nothing to youth empowerment/employment. The fact still remains that about 80 per cent of the graduates who are indigenes of the area are products of farming families whose funding for education came from sales of agricultural produce.

## **II. METHODOLOGY**

It is conventional that, all social science researches must clearly delineate the methodology employed for data collection and analysis. The methodology in this work is broken down into the following steps:

### **2.1 Research Design**

The nature of this topic permits the use of descriptive design; the reason is that it involves step by step development of infrastructure and agriculture, as well as the segments represented in the study. This descriptive

design is the most commonly used in social science research. This is due to its inclusion of historical, developmental, survey and case studies.

## **2.2 The Study Area**

Konshisha Local Government Area was carved out of Vandeikya local government (Southern part) in 1989. The local government currently shares boundaries with Cross River State, Oju local government, Vandeikya, Gwer East, Gboko, and Ushongo local government respectively. The population of the local government constitutes about 9.8% of the state's total population. Agriculture is the major economic activity in the local government, engaging majority of the inhabitants of the local government. The study concerns itself with only Konshisha Local Government Area.

## **2.3 Population of the Study**

The study covers the entire local government which is made up of eleven (11) council wards. Each council ward therefore comprise of 1 district while a district is made up of five kindred. That is fifty five (55) kindred. The population also covers the seven departments in the local government council with their respective staff strength as follows: Agriculture 93 staff, Education 163 staff, Finance 114 staff, Health 174 staff, Personnel 125 staff, Revenue 127 staff, Works 75 staff, which makes up the total staff population of 869. Therefore the population of this study is 924 (Field Survey, 2016).

## **2.4 Sample Size and Sampling Technique**

The sample for this study was 32 respondents. This sample was drawn from the 55 kindred where two kindred (heads) were purposively selected for the interview from each district which represents 40% of the population of the kindred heads. Ten (10) staff of the local government council were also purposively selected for interview which were four (4) staff from the local government executive council and six (6) others from two departments; agriculture and works respectively. Key informant interview was therefore conducted to get desired data from the respondents. The availability of relevant materials to be included in the study determined the choice of sample. That notwithstanding, the researcher used stratified sampling. The reason for this was that the local government already exists in a stratified form, (each ward forms a stratum). The sample size was drawn from each of these strata. Stratified sampling is a form of probability sampling which as explained by Ikem, [6] gives every item in the population equal and independent opportunity of being included in the sample. From this, purposive sampling was applied to select the desired responses while key informant interviews were used based on perceived respondents' in-depth knowledge about the study area.

## **2.5 Sources of Data**

Data for this work was collected from two sources namely, primary and secondary. Primary data was collected by observation of the researcher and through personal interviews. Secondary data used in this work was collected from journals, textbooks, policy handbooks and government publications (Our Benue Our Future policy document, BENARDA,).

## **2.6 Instruments of Data Collection**

Data collection was carried out using:

**i) Personal interviews** - Infrastructural development in Konshisha Local Government Area has historical antecedents. It is therefore necessary to interview the members of such communities to unearth the underlying issues associated with the state of such infrastructure. To do this, unstructured or in-depth interviews was used as described by Mathers, Fox and Hunn, [7]. According to the authors, unstructured interviews are so called because; they have very little structure at all. The interviewer approaches the interview with the aim of discussing a limited number of topics, sometimes as few as one or two, and frames successive questions according to the interviewee's previous response. Although only one or two topics are discussed, they are covered in great detail. Unstructured interviews are exactly what they sound like – interviews where the interviewer wants to find out about a specific topic but has no structure or preconceived plan or expectation as how the interview will proceed. The relationship between the interviewer and the informant is important. Some characteristics of key informant interview are that the researcher has a general purpose and may use a topic guide but informant provides most of the structure of the interview. Generally the researcher follows up on 'cues' or leads provided by the informant.

**ii) Personal observations** – Personal observations will elicit questions on issues that are not clear and seek clarifications from members of the community through personal interviews.

**iii) Photographs** - Photographs of the infrastructures investigated were used to present the current state of such infrastructure. The photographs were used to support and compliment the other relevant data in the study.

## **2.7 Method of Data Analysis**

Data is presented in tables while photographs were used to show the state of infrastructure in the study area to support personal interviews and observations.

### **III. AGRICULTURAL SERVICE CENTRES**

In attempt to address the challenges facing agriculture in Benue State with Konshisha Local Government inclusive, the State Government embarked on the establishment of Agricultural Service Centres in Konshisha Local Government with the major centres located at Korinya village, Tse-Agberagba and Gungul respectively.

According to the personal interview with one of the natives of Korinya, Mr Simon Yua Adura, the centre was established in 1978. He added, it was meant to introduce the local people to new improved varieties of crops and their cultivating methods as well as care of the crops. According to him, the common crops which were introduced by the workers at the centre were, improved groundnut seeds, oil palm seeds, citrus of various varieties, improved varieties of cassava, maize and guinea corn respectively. All the above mentioned were known to be high yielding. According to him, the service centre was also involved in the supply of fertilizers to farmers at relatively affordable prices. The workers of the service centre were also engaged in extension services to committed farmers with the supervision of their superiors.

In order to aid close access, the sub-service centres at Tse-Agberagba and Gungul were also to serve as distributors, of both seeds and equipment such as tractor hiring services as well as fertilizers. The sole aim of this was to boost Agricultural productivity in the Local Government and create more awareness to the rural peoples over the gains gotten from engaging in farming activities and as well boost the general living standard of the people.

#### **3.1 The Korinya Agricultural Service Centre**

The Korinya Service Centre was said to have about thirty (30) staff, both senior and junior. There were three gigantic warehouses both for loading of fertilizers and crop seeds, each of the warehouses had a carrying capacity of about one hundred tons. The centre also had about six offices, and a well-constructed staff quarters to enable them discharge their duties effectively. This service centre also generated unskilled but paid labour for the energetic youths of the locality by way loading and off-loading of both fertilizer and crop seeds. This provided some income for the youth. Many farmers benefited from the support of government on agriculture through these service centres. The service centres also served as reference centres for students on their industrial training studying agriculture or related programmes.

According to the natives interviewed, the centre worked effectively for about seven years until the late part of the 1980s, started experiencing some negative changes which has eventually led to its total collapse. Today, the only signs to show that such a thing existed in that area are, the dilapidated structures (see Fig. 1 to 3) the orange orchard with about forty stands and the palm plantation which is survived by only about ten palm trees (see Fig. 4 to 5) the mass land which was acquired by the centre for extension farming has been reclaimed back by the natives due to non-compensation and long abandonment.



**Figure 1. Warehouse converted to a classroom at Korinya service centre**



**Figure 2. Dilapidated warehouse at Korinya service centre**



**Figure 3. Inside the class room at Korinya service centre**



**Figure 4. Citrus orchard at Korinya service centre**



**Figure 5. Palm tree plantation at Korinya service centre**

### **3.2 The sub - centres at Tse-Agberagba and Gungul**

The remaining sub-centres at Tse-Agberagba and Gungul (see Fig. 6) are still functioning but strictly tied to regime intervention through provision of fertilizers at subsidized rate, thereby limiting their activities to only farming (rainy) season.

The collapse of these service centres was attributed to regime changes as the subsequent government paid less attention to agriculture. This has relegated the farmers of the area back to their subsistence farming practices, at the same time limited the crops to local varieties rather than improved, high yielding. This is one of the major causes of the poor state of affairs with agriculture in the area.



**Figure 6. Warehouse at Gungul service centre**

## **IV. CONCLUSION AND RECOMMENDATIONS**

### **4.1 Conclusion**

This study assumes that, agricultural productivity is highly dependent on the infrastructure available. Therefore, to achieve agricultural productivity that is capable of tackling hunger, poverty, food insecurity challenges that characterize the Nigerian rural population, there is need to have an in-depth assessment of the infrastructural facilities on ground. Negligence to this is observed as one of the causes of failure of most government policies on agriculture. The problem has brought about poor returns on investment in agriculture. Therefore, it is imperative to note that food insecurity challenge and poverty reduction efforts by government of various regimes can only come true with conscious investment in rural infrastructure.

### **4.2 Recommendations**

Instead of concentrating on high capital intensive projects such as purchase of tractors, research for improved high yielding varieties of crops whose availability, survival under harsh climatic condition, as well as resistance to pest attack is not guaranteed. This suggests that, Government of Benue State should rather focus attention on quick and easier measures to ensure food sufficiency. This could be done by resuscitating the Agricultural Service Centres which Konshisha Local government already has three that are non-functional. When this is done with the empowerment of the BNARDA under adequate supervision of farm sites, food sufficiency will be assured. To be specific on the immediate needs of Konshisha rural farmers; has to do with soft loans to hire manual labour, purchase seedling, acquire less capital intensive mechanized implement such as herbicides, fertilizers, Knapsack sprayers. Which government is expected to provide at subsidized rates.

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