



A survey on cassava initiative program and rural poverty reduction in gokana local government area, rivers state, Nigeria

Poroma Celestine Lekia, Ngbuelo Israel Lebura, Emeodu Elijah Nwabueze

Department of Sociology, Faculty of Social Sciences, Ignatius Ajuru University of Education, Nigeria

Abstract

This study is a survey on cassava initiative program and rural poverty reduction in Gokana local government area of Rivers State, Nigeria. The study adopted four (4) research questions and four objectives as guides to the study which assumes that cassava initiative program correlate to rural poverty reduction. The human right theory was adopted as the theoretical framework. The survey research design was used, with sample size of 400. The quota sampling technique was used to assign 100 samples to the selected communities. Data instrument was questionnaire. Hence, the data was analyzed quantitatively using mean and standard deviation. The findings showed that cassava has economic gain as it can lead to employment opportunity, boost family income and can also be used to derive various foods. Other findings showed that reasons or challenges that led to the failure of cassava initiative program that would have reduced rural poverty in Gokana LGA were lack of research, poor access to agricultural information, lack of policy continuity and access to loans and lack of political will to sustain the programme. The study amongst others recommended the need for policy/program consistency and continuity as this will help to sustain the commitment and progress made thus far and also encourages investments in Gokana's cassava value chain.

Keywords: cassava initiation program, poverty reduction, rural farmers

Introduction

The existences of various programs on cassava initiative in Nigeria such as NEPAD Pan African Cassava Initiative (NPACI) established in January 2015, as well as Presidential Initiative on Cassava, launched in Nigeria in 2003, brought cassava and its potential to the national limelight. The NPACI which was promoted by NEPAD saw cassava initiative as means to unlock the enormous potential of cassava in Africa towards ensuring food security, employment generation, income generation, rural development, import substitution, transport and house hood energy production (NEPAD, 2005). Also, the presidential initiative on cassava in Nigeria had its aim towards the promotion of cassava as a viable foreign exchange earner and also the development of the production system to sustain the national demand (Sanogo and Adetunji 2008). All efforts was to reduce the rate of poverty and improve living standard and at the same time boosting food security through cassava utilization.

Cassava is grown on a wide range and can yield satisfactorily even in acidic soils where most other crops fails (Hahn, 1984). The crop has continually played very vital roles, which include income for farmers, low cost food source for both the rural and urban dwellers as well as household food security (Nweke 1996). It also plays a major role in the effort to alleviate the food crisis in Africa. The Food and Agricultural Organization of the United Nation (FAO, 2004) estimated cassava production in Nigeria as at 2002 to be 34 million tonnes. Cassava as a food crop fits well within the traditional farming systems of Nigeria. The crop can grow well with other staple crops—usually grains, cereals, and vegetable. It is well adapted to a wide range of ecological conditions and is tolerant to low soil fertility, drought, and pest infestation. The cassava production

system is dominated by small- and medium-scale farmers who cultivate less than 3 and 10 hectares respectively. The small-scale farmers produce for the traditional food market, while the medium-scale farmers cultivate for both traditional food and industrial markets (FAO, 2013a).

Traditionally, cassava is produced on small-scale family farms. The roots are produced and processed as a subsistence crop for home consumption and sometimes for sale in village and urban markets. For thirty to forty years, small scale producers in Nigeria have increased production of cassava as a cash crop primarily for urban markets. The shift from production for local consumption to production for urban consumers, livestock and industrial uses can be described as a transformation in cassava production. Under the transformation regime, high yield cassava varieties have been developed to increase yields while labour saving and improved processing technologies have been put in place thus reducing the cost of producing and processing cassava products. This has gingered serious competition with other food grains such as wheat, sorghum and rice for urban consumers, as cassava is now a notable substitute (Nweke, Dustan, Speneer & Lynam 2002; NEPAD, 2006) ^[12].

Given the various cassava initiative despite the challenges witnessed, more status has been enhanced and more values added to the produce. There are multiple industrial uses of cassava and the avalanche of demand internationally for the products have made cassava production and processing an exit-route from the vicious cycle of rural poverty. Rural poverty is a pervasive phenomenon, which eluded and evaded multifarious government policies and programmers. Thus, the government emphases have shifted from the eradication to alleviation of poverty.

Nigeria is currently the largest cassava producer in the world. It produces about three times more than production

in Brazil and almost doubles that of Indonesia and Thailand. Nigerian cassava production contributed 19% to the world cassava output, 34% to that of Africa and 46% to the output of West Africa (West Africa accounts for 75% of Africa's output) (FAO, Statistics Division [FAOSTAT], 2015). Nigeria harvested over three times more than the next largest cassava-producing African countries (the Democratic Republic of Congo and Ghana). Despite this huge boost for Nigeria as the largest producer of cassava, poverty is still on increase. Ironically, most countries that specialized in cassava production have hugely benefited through poverty reduction. Thailand, Vietnam, Indonesia and Costa Rica are the major exporter of Cassava. This therefore constitutes the problem of Nigeria as it failed to export her cassava product in like manner. This implies that poor transformation of cassava products may lead to poor exportation.

Poverty reduction or alleviation entails all the measures, methods, logics, programs, techniques and policies put in place to reduce poverty and improve the standard of living of the people. The dominance of cassava-based food on the dietary table, the adaptability of the cultivars to diverse soil and climate conditions, the wide-spread cultivation coupled with the export potentials have made the crop a dependable crop for alleviating poverty sustainably. When cassava is processed, value has been added to the produce. Some of the value-added forms in which it is utilized are garri, fufu, tapioca, ethanol, starch, cassava flour, cassava chips, glucose syrup, lafun, livestock feed, cassava-based adhesive, etc. Cassava processing could be manually done or could be mechanized. The manually prepared ones do not require sophisticated equipment. Cassava processing is important because it focuses on the reduction of the cyanogenic glycoside in the fermentation process and the fortification of the nutrition value of cassava for human consumption. The widespread uses of cassava following the processing have added more value to the produce. This has assisted in stemming the spate of poverty. Several researchers are of the view that cassava processing and the value added products have tremendously led to sustainable poverty alleviation (Nnadi & Akwiwu, 2006; Nwajiuba, 1995)^[9].

The Nigerian cassava sector has witnessed a significant improvement over the years. However, the small- and medium-scale farmers who produce the majority of the cassava output are still producing below the potential yield of 25 tonnes per hectre. The cassava farmers have achieved only 50% (12 tonnes/ha) of the potential yield (Afolami *et al.*, 2015). For instance, the average cassava yield in the country in 2013 was 14 tonnes per ha, compared to 16.7 tonnes per ha for Ghana. Nigeria's cassava yield was above the continental average, of 11.1 tonnes, but it was very low in comparison to some Asian and Caribbean countries, where the average yield exceeds 20 tonnes per hectre. In India and Thailand, for example, the average cassava yield in 2013 was 35 and 21 tonnes, respectively (FAO, 2013a). These statistics suggest that there is more potential to increase the productivity of cassava production in Nigeria.

Gokana local government area is not an exception as most farmers in the area cultivate cassava to sustain livelihood, they have been fully involved in the cassava production in Nigeria. Cassava being an important arable crop commonly cultivated by majority of farmers can be fully exploited in addressing the issue of poverty among rural farmers in the area. Literature has shown that bulk of cassava production

depends on rural farmers. Given this background, the study is targeted at investigating cassava initiative program and rural poverty reduction in Gokana LGA, Rivers State.

Statement of the Problem

Given the problem of this study, it is imperative to posit that most third world countries are still struggling to achieve a sustainable supply of food commodities such as roots and tubers, cereal, and grain crops. Consequently, rural poverty, food insecurity, and unemployment rates are high in these countries. For instance, the report by Food and Agricultural Organization, the International Fund for Agricultural Development & the World Food Programme (2015) revealed that about 759 million people in the world are undernourished; twenty percent (20%) are located in Africa, 14.2% in Oceania, 12.1% in Asia and 5.5% in Latin America/the Caribbean. Furthermore, 23.2% of the population in Sub-Saharan African is food insecure (Karfakis, Rapsomanikis, & Scambelloni, 2015). Forty-eight percent (48%) of people in SSA live on \$1.90 a day, suggesting that poverty is prevalent (World Bank, 2013).

Available statistics clearly indicate that Africa is lagging behind in achieving a sustainable food security and alleviating poverty. These economic problems have drawn the attention of policy makers and donor agencies to design and implement agricultural programmes to help transform rural economies especially in Nigeria, where most people depend on agriculture for their livelihoods. It was as a result of improving rural livelihood and alleviating poverty that the cassava initiative program was established. Some studies have been conducted on cassava production and poverty alleviation. For instance, an empirical evidence demonstrates that adoption rates of improved cassava varieties are slow but some improvements are observed in Sub-Saharan African countries (Acheampong & Owusu, 2015; Donkor, Owusu, & Owusu-Sekyere, 2014; Owusu & Donkor, 2012, Abdoulaye *et al.*, 2015; Margao, Fornah, & Barrie, 2007).

Study by Sanni, Onadipe, Ilona, Mussagy, Abass and Dixo (2009) titled *Successes and challenges of cassava enterprises in West Africa: a case study of Nigeria*, showed that in the West African region, nearly 90% of cassava produced is for human consumption; less than 10% is semi-processed for on-farm animal feed. It added that in Asia and Latin America, a significant part of the cassava grown is processed into several secondary products of industrial market value. However, the manufacturing sector in many African countries is still hesitant to take up cassava as a low-cost raw material or an ingredient for the manufacture of many food products, such as noodles, bread, and biscuits, and as a source of calories or energy for the animal feed industry.

Again, study by Abdoulaye *et al.*, (2015) titled *awareness and adoption of improved cassava varieties and processing technologies in Nigeria*, confirmed that the adoption rates are higher in Nigeria which suggested that cassava productivity and efficiency levels are improving in Nigeria but access to adequate inputs such as credit, extension services, and availability of improved cassava varieties still remain a challenge. These challenges are what ridiculed the achievement of the cassava initiative program. The challenges also constitute the reasons for low achievement to sustainable development goals specifically on poverty and hunger in Nigeria.

Also, Onwudiwe *et al.* (2014) ^[14] embarked on a related study on the *impact of cassava production and utilization on poverty alleviation among rural women in Delta Central Senatorial District of Delta State, Nigeria*. The study revealed that Cassava production and utilization was instrumental to alleviate poverty amongst rural women farmers in Delta Central Senatorial District through. This was proven given the level of cassava produced; forms and extent of cassava is utilized; and the extent to which the rural women farmers have gained economically from cassava production activities. In their study, it suggested the need for government to give out subsidies to rural farmers to enable more production.

Given this benefit and quagmire, various studies carried out by scholars that relates to cassava initiative program and poverty reduction exist, but there exist no known study to the researchers on cassava initiative program as correlate to poverty alleviation in Gokana local Government Area of Rivers State, Nigeria. This gap is what the study seeks to fill to investigate if cassava initiative programs and production have the capacity to reduce poverty in Gokana local Government Area of Rivers State. Given the above, the study was guided by the following research questions:

1. What are the forms and extent of cassava utilization that can help to reduce poverty in Gokana LGA?
2. What are the economic gains of cassava on rural poverty reduction in Gokana LGA?
3. What are the impact of cassava production and utilization on rural poverty reduction in Gokana LGA?
4. What are the challenges that led to the failure of cassava initiative program to reduce rural poverty in Gokana LGA?

Again, the study was guided by the following objectives. They are as follows:

1. To identify the form and extent of cassava utilization in Gokana LGA.
2. To find out economic gain of cassava and if it has the potential to reduce rural poverty in Gokana LGA.
3. To find out the impact of cassava production and utilization on rural poverty reduction in Gokana LGA.
4. To investigate the challenges that led to the failure of cassava initiative program to reduce rural poverty in Gokana LGA.

Theoretical Framework

The study is anchored on Human Right Theory. Thus, in 1992, the human right theory was advanced by Oshaug, Eide and Eide. It was borrowed from a text *Food, Nutrition and Human Rights*, while the approaches include; food availability approach, income-based approach, basic needs approach, and sustainable livelihood approach. This was a theoretical framework that developed based on a range of general ideas or opinions and experiences with development processes in developing and developed countries. Given its relevance in viewing food security through wider ideas particularly as a human development model and perspective to food security, it became an accepted theory to explain human right issues geared towards poverty reduction in tandem with global or Sustainable Development Goals (SDGs). In fact, the human right theory to poverty (e.g food security) connotes wide perspective that has quite a lot of legal instruments of United Nations together with its agencies and national legislation of some countries. It

compasses a broader view of economic, social and cultural rights of people.

Obviously, the human rights perspective was first used to explain the crisis of Food Security in 1941 in a paper titled “*Four Freedom Address*” by Franklin Delano Roosevelt who was a former president of United States of America. However, he declared the four freedoms to include: *freedom from want, freedom from fear, freedom of speech and freedom of faith*. In view of Bassey (2002) ^[4] these four freedoms which robustly predisposed the Universal Declaration of Human Rights by the United Nations in 1948 included the *right to food* within the freedom from want. It is freedom from want that the idea or opinion of the framework is derived. This general opinion is captured by Article 25(1) of the Universal Declaration of Human Rights (1986). It stated that “

Everyone has the right to standard of living adequate for the health and well-being of himself and his family, including *food*, clothing, housing medical care and necessary social services and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control”.

From this postulation, the right to be free from freedom of food, that is to say, to be food secure is clearly understood as a Universal human right within the economic, social and cultural rights (Bassey, 2002) ^[4]. Therefore, food security is one of the most basic needs of human rights. The essence of food security through cassava initiative for poverty alleviation constitutes part of socio-economic growth and development. In relating this to the study, the foremost policy on cassava initiative for poverty alleviation that is generally prescribed and implemented is to increase agricultural productivity that can lead to increase food production and security as well as reducing poverty level in Gokana local government area, Rivers State.

Literature Review

Cassava initiative program simply means programs geared towards utilization of cassava products for more benefits. This can as a result of various studies that identified the role cassava in reducing poverty and boosting development. Cassava, once a neglected crop in some places, is fast becoming an elite food crop in sub-Saharan Africa (Phillips *et al.* 2004). Cassava’s combined abilities to produce high yields under poor conditions and store its harvestable portion underground until needed make it a classic “food security crop” (Nweke 2003). Cassava is the most important food staple in Nigeria. Cassava is used for several productions. One of the products that have recorded success in West Africa is the Cassava starch processing. The introduction of cassava starch in the food and non-food industries in Nigeria has transformed the cassava utilization industry. In Nigeria, cassava starch is used as an ingredient in manufactured foods (infant foods, confectionary, glucose, alcohol) and in nonfood industries (glues, oil well drilling, adhesives, paper sizing and bonding, textile sizing and strengthening). It is also widely used as a thickening agent in soup and for laundry purposes. Starch is used in the other countries as well, although at varying levels.

Studies have shown that in Sierra Leone and Bénin, cassava starch is produced in minimal quantities and used by tie-dyers of cloth. The traditional starch is used for clothes or consumed at a local level in the form of tapioca, often with

special flavors (vanilla, banana). Also, some NGOs are encouraging this form of utilization as an income-generating activity as the product can be sold at weekly or seasonal village markets (Sanni, Onadipe, Ilona, Mussagy, Abass & Dixo, 2009).

Sanogo and Adetunji (2008) in their study, revealed that the Presidential Initiative on Cassava which was launched in Nigeria in 2003, brought cassava and its potential to the national limelight. According to them, the program geared towards the promotion of cassava as a workable foreign exchange earner. It also emphasized on the development of the production system which can be used to sustain the national demand. The Presidential cassava Initiative focused its intervention on the development of production, processing, and marketing of the processed products.

With the effort but in place to boost cassava production in Nigeria, Nigeria is known to be the leading producer of cassava globally; harvesting from 3.81 million ha, it produced 45.72 million t in 2006, 18% higher than its production in 2004. This increase in production between 2004 and 2006 came about as a result of the interventions of the Nigerian Government and some developmental agencies. The Nigerian Government facilitated the development of new disease-resistant cassava varieties by the joint efforts of IITA, National Root Crops Research Institute (NRCRI), Root and Tuber Expansion Program (RTEP), and the Federal Ministry of Agriculture, in conjunction with State Agricultural Development Programs and cassava farmers.

The increases in crop area and production can then be related to the following:

- Through its Integrated Cassava Project (ICP), implemented in the south-south and south-east States of Nigeria in 2002, campaigned extensively for commercializing cassava production. It distributed planting materials of high-yielding varieties of cassava resistant to cassava mosaic disease (CMD) with on-farm training on appropriate agronomic technologies and management practices. Findings showed that farmers' yields have doubled from an average of 11 t/ha to 25 t/ha.
- Under the preemptive management of CMD, 10 improved cassava varieties selected from the 43 varieties screened were officially released.
- Newly bred varieties were multiplied on more than 500 ha by IITA, NRCRI, RTEP, ADP, and other farmers using certified stocks.
- Large-scale cassava farms (> 1000 ha) e.g., Obasanjo Farms, Nigerian Starch Mill, Zimbabwe farmers, and Ekha Agro Farms, had began production.

Studies have shown that despite the impact of cassava towards poverty reduction and food security, it has been characterized with various challenges (Dixon & Tarawali, 2007; Sanni, Onadipe, Ilona, Mussagy, Abass & Dixo, 2009). Thus, the challenges of cassava enterprises in Nigeria and other West Africa includes but not limited to

- High production cost of cassava-based products from price fluctuations and limited sources of supply.
- The quality of products: There is little or no product quality control or standard to ensure consistency.
- Poor and inadequate infrastructural facilities; good roads and regular water supplies are needed. These are vital to value addition; hence, farmers still have low income.

- Most farmers and industrialists find it impossible to get loans from the Banks. The few that have the opportunity are limited because of the high interest rate.
- Inconsistent policy has adversely affected the Nigerian cassava industry so much that willing investors are discouraged while some in the business are folding up.
- Easy access to alternative products through importation, e.g., starch. The industries using starch reported that they found it easier to import cornstarch than search for cassava starch that is not readily available and so they will not use it.
- Lack of a good market information system to create a network among the stakeholders.
- Poor capacity building of the processors: especially the women who are in the forefront of cassava processing. The women are not empowered for the enterprise.
- Effective strategies are needed for stakeholders to share their experiences with those of other countries of the sub-region who are participating in the processing of cassava. Cooperation linkages are needed with other important stakeholders (agricultural research, micro finance institutions, quality standards organizations, and equipment fabricators).

Evidently, until the early 1990s, cassava cultivation in West Africa was mostly based on traditional low-yielding cultivars (with average yields of 11 t/ha) and manual processing. Since the early 2000s, Nigeria have witnessed greater attention being given by different actors to the promotion of cassava as an industrial crop with the objectives of diversifying farmers' incomes, enhancing foreign exchange earnings, and increasing employment opportunities. The development of the cassava market achieved in a few countries has enhanced a stepwise adoption of high-yielding cultivars (with a potential for an on-farm yield of up to 25 t/ha) and the mechanization of labor-intensive processing stages (grating, pressing, roasting, drying, and milling) with very basic equipment.

Table 1: List of Highest Cassava Producers in the World by Country

Rank	Country	Production Quantity (in Tonnes)	Production Value
1	Nigeria	52403455	\$5,474,222,000
2	Brazil	25349088	\$1,324,020,000
3	Indonesia	24009624	\$2,457,975,000
4	Thailand	21912416	\$2,151,145,000
5	Democratic Republic of the Congo	15569138	\$1,610,134,000
6	Angola	14333509	\$1,497,321,000
7	Ghana	14240867	\$1,487,643,000
8	Mozambique	10093619	\$1,054,409,000
9	Viet Nam	9897912	\$1,033,965,000
10	India	8076000	\$843,643,000
11	Uganda	4757800	\$497,014,000
12	United Republic of Tanzania	4646523	\$464,497,000
13	China, mainland	4500000	\$423,075,000
14	Cambodia	4368159	\$456,310,000
15	Malawi	4259301	\$444,939,000
16	Cameroon	4082903	\$383,861,000
17	Benin	3600000	\$376,066,000
18	Madagascar	3490300	\$364,607,000
19	Rwanda	2579399	\$269,451,000
20	Paraguay	2453837	\$131,141,000

Worldlist Mania (2021)

Methodology

The study was carried out in Gokana Local Government Area, Rivers State. It is one of the Local Government Area in Ogoni ethnic nationality. The survey design was used. The population of Gokana Local Government Area is estimated at about 328,500 (Census Bureau Data, 2016). The Taro Yameni Formula was used to arrive at sample size of 400. Using stratified sampling technique, all the communities were grouped. After which, the simple random sampling was used to select four communities such as Bodo

community, Bomu community, Yeghe community and Nwe-ol community were selected to represent the entire Local Government Area. In each community, 100 respondents were selected using quota sampling technique. Data were collected through primary and secondary sources, and data were analyzed using mean and standard deviation.

Data Analysis and Discussion

Research Question 1: What are the forms and extent of cassava utilization that can help to reduce poverty in Gokana LGA?

Table 1: Presents the Summary of Descriptive Statistic on the form and extent of cassava utilization in Gokana LGA

S/N	Questionnaire items	Mean	S. D	Remark
1	It is believed that cassava can be consume in the form of garri when soaked with water	3.30	0.70	Agreed
2	People consume cassava processed into chips (Tapioka)	3.51	0.76	Agreed
3	Cassava is used to produce Akpu which is eaten with soup	3.50	0.66	Agreed
4	Do you accept that sweet cultivars of cassava can be used to feed livestock	3.40	0.68	Agreed
5	Do you agree that fried cassava chips in red palm oil is used as bait to catch rodents in the farm	3.03	0.73	Agreed
6	You consume baked foods made from cassava flour	3.02	0.78	Agreed
7	You consume cassava in the form of starch when mixed with oil and heated	3.31	0.63	Agreed
8	Are of the opinion that through cassava, alcohol through fermentation process can be produced	2.81	0.71	Agreed

Source: Fieldwork (2021)

The table above shows scores of the form and extent of cassava utilization in Gokana LGA. Thus, all the items were accepted and agreed by the respondents. Therefore, this implies that they are the form of cassava utilization in Gokana local government area. Given this findings, it relates to the study of Onwudike *et al.* (2014) which indicated that cassava is used in preparing multiple foods which are consumed almost on daily basis. Apart, from consumption, it is used as medicine (peelings), adhesive and to feed livestock. The result agrees with the findings of Ebukiba (2010) who stated that cassava is a very important

staple food consumed in different forms by millions of Nigerians. Also, Okolo (1986) in consumption pattern study stated that southeastern Nigerians eat cassava in various forms in daily basis. IITA (2003) stated that raw cassava roots and leaves are not palatable, thus there is need to process its roots into various products such as garri, fufu, lafun (cassava flour) and starch.

Research Question 2: What are the economic gains of cassava on rural poverty reduction in Gokana LGA?

Table 2: Presents the Summary of Descriptive Statistic on the economic gain of cassava on rural poverty reduction in Gokana LGA

S/N	Questionnaire Items	Mean	S.D	Remark
1	There exist good market for cassava	2.71	0.73	Agreed
2	Cassava production become a source of employment	3.45	0.67	Agreed
3	Marketing arrangement for cassava and cassava based products are devoid of government intervention, therefore operates without distortion	3.56	0.74	Agreed
4	Different types of food can be derived from cassava at same time	3.01	0.78	Agreed
5	Income derived from cassava production helps to solve most financial problems in the family such as food, school fees, clothing and others	3.31	0.72	Agreed
6	Cassava production provides indirect form of employment to non-farmers	3.00	0.70	Agreed
7	Cassava can be exported to generate more income	3.12	0.83	Agreed
8	Cassava has become a very popular crop replacing other traditional staples like yam, gaining ground as a crop against hunger	3.11	0.60	Agreed
9	Cassava derived foods are consumed daily by my family	3.32	0.60	Agreed

Source: Fieldwork (2021)

The above table provided summary of descriptive statistic on the economic gain of cassava and if it has the potential to reduce rural poverty in Gokana LGA. Given the data above as all the items were accepted, it implies that cassava has economic gain as it can led to employment opportunity, boost family incomes and can be used to derive various food. Given this findings, it means that cassava investment program has the potential to reduce rural poverty in Gokana local government area. Therefore, cassava production is

seen as a source of livelihood to rural farmers. The result is in tandem with the findings of Akorede (2004) which opined that cassava production has attained its potential of increasing farmers' income and improving their standard of living.

Research Question 3: What are the impact of cassava production and utilization on rural poverty reduction in Gokana LGA?

Table 3: Presents the Summary of Descriptive Statistic on the impact of cassava production and utilization on rural poverty reduction in Gokana LGA

S/N	Questionnaire Items	Mean	S. D	Remark
1	Rural farmers who are involved in cassava production can pay children’s school fees	3.04	0.81	Agreed
2	Cassava production and utilization enhance food preference of the rural people	3.17	0.76	Agreed
3	Rural farmers who are involved in cassava production are self reliant	3.20	0.84	Agreed
4	Registered rural farmers have access to loans	1.54	0.73	Disagreed
5	Rural farmers in your area can purchase of clothing material	2.78	0.81	Agreed
6	Rural farmers can pay for health care services	2.98	0.80	Agreed
7	Increased cassava production can household food security	3.02	0.65	Agreed
8	Multiple products produced from cassava provides market to machine manufacturing companies	2.64	0.82	Agreed
9	Cassava production provides a cheaper source of raw material in producing quality good like bread, cake and others	3.45	0.57	Agreed

Source: Fieldwork (2021)

The table above showed the summary of descriptive statistic score on the impact of cassava production and utilization on rural poverty reduction in Gokana LGA. Item 4 that registered rural farmers have access to loans was rejected with mean score of 1.54. This means that such failure to access loan does not contribute to rural poverty reduction. However, all other items were accepted and it shows the impact of cassava production and utilization on rural poverty reduction in Gokana Local Government Area. The result of the finding relates to that of Onwudiwe *et al.* (2014) ^[14] which stated that cassava production and utilization assist in poverty reduction among rural farmers

through enhancing their food preference and solving daily needs of the family. Also, added that the income realized from cassava production and utilization is used to take care of rural farmers immediate needs. In addition, Fakoya, Banmeka, Ashinmolo and Fapojuwo (2010) study showed that farmers’ income can be optimized through cassava production and utilization with a resultant effect on meeting the basic needs of his family.

Research Question 4: What are the challenges that led to the failure of cassava initiative program in reducing rural poverty in Gokana LGA?

Table 4: Presents the Summary of Descriptive Statistic on the challenges that led to the failure of cassava initiative program to reduce rural poverty in Gokana LGA

S/N	Questionnaire Items	Mean	S.D	Remark
1	Registered rural farmers were unable to have access to loans	3.21	0.61	Agreed
2	The government failed to establish adult education and extension services to rural areas that could sensitize the people on the way forward	3.45	0.67	Agreed
3	Lack of rural farmers’ access to agricultural information	3.21	0.53	Agreed
4	Lack of policy continuity by successive government	3.32	0.83	Agreed
5	Low investment on cassava production	3.65	0.63	Agreed
6	Lack of research on cassava improvement	3.11	0.70	Agreed

Source: Fieldwork (2021)

Table 4 presents statistical score for the challenges that led to the failure of cassava initiative program to reduce rural poverty in Gokana LGA. Thus, item 1 on registered rural farmers were unable to have access to loans had a mean score of 3.21. Item 2 that the government failed to establish adult education and extension services to rural areas that could sensitize the people on the way forward, had a mean score of 3.45. Item 3 on lack of rural farmers’ access to agricultural information had a mean score of 3.21. Again, item 4 on lack of policy continuity by successive government had a mean score of 3.32. Item 5 on low investment on cassava production had a mean score of 3.65. Finally, item 6 on lack of research on cassava improvement had a mean score of 3.11. Given this result, it implies that all the items are accepted, and that they constitutes reasons or challenges that led to the failure of cassava initiative program that would have reduce rural poverty in Gokana LGA. They included lack of research, poor access to agricultural information, lack of policy continuity and lack of access to loans. The findings of Okojie (2018) are in relation with the current findings shows that lack of continuity by success government led to the failure of this program. It explained that since the Buhari-led government took over in 2016 nothing has been said or done concerning

the inclusion policy. Therefore, explaining the failure of the program towards reducing rural poverty despite having the potential. Thus, Ajao, (2000) observed and noted that cassava requires more processing, but requiring sophisticated tools and equipment and much capital. Hence, failure of this has led the failure of achieving rural poverty reduction in Gokana local Government Area of Rivers State.

Conclusion

Despite the potentials of agricultural development interventions on rural livelihoods, it is often noted that the social programmes do not institute any exit strategy for beneficiaries to continue to implement the initiatives introduced. After the execution of the programme, some beneficiaries found it difficult to implement the interventions and were left stranded. The study however, gave an insight on the cassava initiative program as correlate to rural poverty reduction. The program was targeted to bring about ideal improvement to lives of the rural dwellers and usher in more development as well as food security. Thus, the imperative of cassava as shown in the study showed that it has the potential to reduce poverty level in Gokana local government area. Regrettably various factors constrained the program to actualize its intending

aims in Gokana local government area and other areas in Nigeria at large. However, the paper revealed that failure to access loan, encouraging adult education that could inculcate knowledge to the farmers, lack of sensitization and information, research and problem of continuity by successive government led to the failure of the program to achieve the aim of ensuring rural poverty reduction in Gokana local government area.

Recommendations

Given the problems of this study and its findings, the following recommendations were put forth as the way forward.

1. There is need for policy/program consistency and continuity. This will help to sustain the commitment and progress made thus far and also encourages investments in Gokana's cassava value chain.
2. There is need to encourage Nigerians through sensitization and education effort. Such education and sensitization will help bring to the fore the necessary awareness on using an improved seedling that can aid more production of cassava.
3. The government and Non Governmental organizations should provide subsidies that can enhance cassava production in Gokana Local Government Area. Such subsidies can be financial support or soft loans to rural farmers. This will boost their effort and encourage them to be more productive.
4. Despite the failure of the cassava initiative program, the government should make policies that will provide land or lease more land for the rural farmers so that their cassava production will improve and thus generate income.
5. Also, good governance, rigorous monitoring and evaluation are intense factors to ensure successful executing of agricultural development, and this guarantees an effective impact assessment of the programme.
6. Therefore, agricultural programme designers are entreated to incorporate exit strategies in programmes to enable beneficiaries to operate independently without seeking for external support after the programme has ended. Such exit strategies require cooperation and involvement of the private sector particularly financial institutions, non-governmental agencies, food companies, and other corporate entities.

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