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## **Agriculture and Youth Empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience.**

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### **ABSTRACT**

The Available evidence suggests an ageing farming population in Nigeria, with an average age of 47 years. In 2009, the national unemployment rate was 19.7%. Increased involvement of youth in agricultural activities in recent time will help reduce the problems of the ageing farm population. This study explores issues related to youth involvement in agriculture as the best that help them in life. Also the study specially looked at the model of youth employment using Akwa-Ibom State integrated farmers' scheme experience approach. Based on the findings from this study, it was recommended among others that government at federal, states and local levels should initiate a buy-back policy to encourage more youths to accept agriculture as business. This is because agriculture is the most important activity of the Nigerian economy and one of the sectors that promote employment especially for the youth.

Keywords: Agriculture, youth employment, integrated farmers' scheme.

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NJAS15012

## BACKGROUND INFORMATION

Nigeria is basically an agro-based economy with abundant land and water resources to enhance agricultural development. Agriculture contributes immensely to the Nigerian economy in the provision of food for the increasing population, supply of raw materials to industries, major source of employment and generation of foreign exchange earnings (Okumadewa, 1997; World Bank, 1998 and FAO, 2006).

Economic history reveals that the development of agriculture is a fundamental precondition for economic growth, especially in developing countries (Eicler and Witt, 1964; Woolf and Jones, 1969). The agricultural sector in the 1960s contributed up to 64% of the total GDP of Nigeria, but gradually declined to 48% in 1970s during the oil boom (Ukeje, 2003). Nigeria has diverse agro-ecological conditions that can support a variety of farming models. However, successive administrations over the years neglected agriculture and failed to diversify the economy away from overdependence on the capital-intensive oil sector. Not only was there neglect to the agricultural sector, there was also little or no motivation to the youth across the country to enable them engage effectively in agrarian activities.

Nigeria, which was the largest net exporter of agricultural produce in West Africa in the 1960s, now spends over N1.2 trillion annually importing palm oil, canned beans and other food products (Akintola, 2011). The country has, however, the potentials to return to its previous position if adequate attention is given to agricultural policy through finance, provision of rural infrastructure and adequate motivation to youth to engage in the sector.

In the recent time, the call for youth involvement in agriculture across the nation has lingered and is becoming stronger now based on the current socio-economic hardship, ageing farming population and food insecurity in the country. Apart from this, in some states in Nigeria there have been concerted efforts through the establishment of various youth-agro-entrepreneurship friendly programmes to improve youth participation in agriculture and reduce unemployment and the social vulnerability index (Akpabio, 2005). This is because, not only in sub-Saharan Africa, but also in Nigeria and Akwa-Ibom State, agricultural activities have been and still are – until now – one of the major sectors that promote youth employment. Due to this, there are numerous programmes and research reports from the private, public and the international donor supports, which showcase that youth constitute a formidable force for sustainable agricultural development of any nation particularly the agrarian ones including – Nigeria.

This is because youth possess lot of energies and other assets for productivity and general sustainable socio-economic development (Iwala, 2007). A major concern of the federal government in Nigeria is how to tackle the problem of unemployment among the youths in the country. Various states in Nigeria have designed and executed several self-empowerment programmes to enhance the economic empowerment of youths especially in the agricultural sector (Umeh and Odo, 2012).

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# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience

NJAS15012

Some of the programmes executed which were critically agriculturally based and that created and still creating major employment in the area for the youth include but not limited to; National Directorate of Employment (NDE) since 1986; National FADAMA Programmed since 1992 which aim to enhance food self-sufficiency, reduce poverty and create employment for youths; Community and Social Development Project which started in 2009 and even recently Subsidy Reinvestment and Empowerment Programmed (SURE- P, 2011). Meanwhile, some of these programmes were aimed at agrarian skill acquisition and entrepreneurship development of youths particularly in different batches. At the Akwa Ibom State level, successive governments have made enormous strides in sustaining agricultural youth friendly programmes for years with particular reference to Integrated Farmers' Scheme for the youth of the area.

## **NIGERIA AGRICULTURE: VISION 2020 AND THE 7-POINT AGENDA**

Agriculture has been identified as a major driver of growth in the Nigerian economy and must play a crucial role in achieving vision 2020 in Nigeria. According to the vision, the agriculture sector shall be a technologically driven sector that is profitable, sustainable and meets the socio-economic aspirations of Nigerians. Towards this end, the sector is set to achieve a 3-fold increase in domestic agricultural productivity by 2015 and 6-fold increase by 2020. This is to be achieved through the promotion of greater use of highly productive and disease-resistant crops; livestock, poultry and fish species. Nigerian agriculture will be professionalized through promotion of educational and professional training incentives to encourage young people to embrace agricultural production, processing, extension and marketing. There is going to be a shift from dependence on rain-fed crop production through significant utilization of irrigation. The sector is expected to achieve a high degree of public-private partnership in agricultural research and development by 2020.

The current agricultural and rural development policies and strategies in Nigeria are being pursued within the framework of the 7-point agenda and the successes and lessons of the National Economic Empowerment and Development Strategy (NEEDS), which was Nigeria's Poverty Reduction Strategy Paper (PRSP) launched in June 2004. In March 2007 a second phase of NEEDS, NEEDS II, was launched. The agenda, which was adopted by government in May 2007, states the broad policy priorities for implementing economic reforms and development programmes in Nigeria. It describes the key policy imperatives, directive principles and instruments in promoting sustainable economic growth for the achievement of different agrarian policies of the country especially that Vision 2020. The main agricultural goals enunciated under the agenda are diversified economy, food security, employment generation, economic linkages, exports and poverty reduction. It acknowledges that low productivity, low quality of private sector investment, lack of domestic and international competitiveness, weak domestic policies and institutions, inadequate funding and lack of organized land titling and tenure are the main challenges of agricultural development in Nigeria.

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# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience

The key agricultural elements of the agenda are land reform, commercial agriculture, irrigation development, institutional support and market stabilization. Under the commercial agriculture programme, arable land will be developed in the states for use by well-trained and motivated commercial farmers, especially the youth across the various states of the country who will cultivate carefully selected ecologically suitable and commercial market-responsive crops. It will involve the federal, state and local governments, each playing complementary and reinforcing roles. It is on record that for this policy to work, the youth of the country will be empowered to not only see agriculture as a business but also benefit from it as it is the biggest sector that can employ them.

Currently, Nigeria has 75% of its land suitable for agriculture, but only 40% is cultivated. That indicates there is much room for the county to focus on. This addresses the food security and agriculture component of their plan along with the focus on employment for all. However, to move forward, the country must increase the low productivity of current agricultural companies, engage competition within the agricultural sector, develop domestic policies and increase funding to the sector. Meanwhile, one component in determining how to use agriculture to improve economics in Nigeria is to evaluate the historical efforts in terms of agriculture that Nigeria has engaged in since its independence and youth's empowerment in the sector. This will ensure that the country does not repeat past mistakes. In addition, this evidence will demonstrate whether or not it is feasible for agriculture to be a primary factor in Nigerian economic development.

## **THE SCHEME APPROACH: AKWA-IBOM STATE INTEGRATED FARMERS' SCHEME (IFS)**

The Akwa Ibom State Integrated Farmers' Scheme (IFS) is one of the micro-credit schemes of the state government. The scheme is designed to function as a parasternal/company under the Ministry of Agriculture and Natural Resources. The Integrated Farmers' Scheme was established by an edict in 1998 and was subsequently signed into law by the state government in 2003. It is a strategic attempt by the government to reduce dependence on government for employment, especially in the creation and sustainability of new jobs, and to reduce frustration among young people in Nigeria. These are to be achieved through a programme of financial assistance to willing youths of Akwa-Ibom State origin committed to take up agriculture as a business.

Due to the key interest of the government, the implementation process of the project is divided into four (4) stages. These are recruitment and training; loan disbursement; monitoring and supervision of participants' progress in the field and finally, loan recovery.

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# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience

NJAS15012

## RECRUITMENT AND TRAINING

Recruitment and training is done in batches. Upon receiving approval from government for the recruitment of a fresh batch of participants, unemployed youths of Akwa-Ibom State origin with any of a list of qualifications are invited to apply for recruitment to participate in the Scheme using the different mass media approaches like – TV, radio, local newspaper and at least one national daily. The qualifications are but not limited to senior secondary school certificate (SSCE); national certificate of education (NCE); ordinary/higher national diploma (OND/HND); and university graduates (B.Sc/M.Sc).

The use of at least two national daily newspapers is employed to reach out to our youths outside the state. The local newspapers and television stations are put to use intensively, to mobilize youths for effective participation. All qualified applicants are invited for interview by the Ministry of Agriculture and Natural Resources. Applicants can be recruited into the Scheme, if the person shows evidence of land possession for project execution and also the person should have two senior civil servants as guarantors. Successful applicants are trained both theoretically and practically in a residential training programme in IFS demonstration farm facility for a period of two months on issues regarding the establishment and management of selected agro-enterprises such as pineapple/plantain/vegetable cultivation, poultry production, swine farming, fish farming etc.

Batch	Number of participants	Year
First	153	2000
Second	184	2002
Third	310	2006
Fourth	620	2009
Fifth	940	2010
Sixth	1200	2011
<b>Total</b>	<b>3407</b>	

**Table 1:** Number of participants for different year at the state level

**Table 1** above shows that the Scheme has at the year 2011 total of three thousand, four hundred and seven (3,407) participants recruited, trained and assisted to establish various agro-enterprises across the State.

## LOAN DISBURSEMENT

When it comes to loan disbursement, immediately after the training, the participants were supported with the sum of three hundred thousand naira (₦300, 000) each in the 1<sup>st</sup> to 3<sup>rd</sup> batches, which they invested in different agrarian venture. Furthermore, five hundred thousand

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NJAS15012

naira (₦500, 000) was disbursed to each one of the participants in the 4<sup>th</sup> to 6<sup>th</sup> batches to undertake agro-enterprises of their choice. Since the initiation of the programme, ₦1, 611,900,000 have been released by the state government to the six batches of participants. The first batch were assisted to start the project with 10,000 pineapple stands and six piglets (a boar and five sows) or 2,000 plantain stands and 400 poultry birds. Apart from the first batch, all other batches were assisted to execute one project due to the increasing high cost of building materials and farm inputs. Consequently, each participant was assisted to start with a poultry farm of 400 birds or a swine farm with two in-pigs and one boar.

However, with the increase of the loan sum from three hundred thousand (₦300, 000.00) to five hundred thousand Naira (₦500, 000.00) to the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> batches, some of the participants especially those that are into fishery have been able to combine either with pineapple, plantain or vegetables.

## MONITORING AND EVALUATION OF PARTICIPANTS' PROJECTS

Verification of guarantors and site inspection is always carried out before money is released to the participants. At this point, all participants are regularly checked regarding the smooth implementation of their projects and this monitoring is necessary to protect the correct use of the loans and the prestige of guarantors. During the course of monitoring the project, it was discovered that some of the participants were able to expand their agricultural businesses over the years enough to recruit other youths to work for them. These farms have contributed immensely towards the economic growth and development of the State. This phenomenon shows how agricultural activities in Nigeria especially in the study area have been - and still - promoting youth employment.

## LOAN RECOVERY

The participants are given a moratorium period of eighteen (18) months from the date of disbursement to allow for maturity of any agricultural project(s) they go into before repayment starts. Repayment period is divided into four equal installments of 25% of the principal sum and 10% of total interest for the duration of the four and half years (4<sup>1/2</sup> years) loan period. The participants have guarantors who in cases of default by the participants at maturity. Meanwhile, the state government usually deducts the unpaid sum from the guarantor's salary as last resort.

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# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience

NJAS15012

## METHODOLOGY OF THE STUDY

The study area is Akwa-Ibom State which was created in 1987. The state is with a land mass of 8,412 km<sup>2</sup> and a population of 3,920,298 (NPC, 2006). The state comprises of six

Agricultural zones namely: Uyo, Etinan, Eket, Oron, Abak and Ikot Ekpene and 31 local government areas. The states enjoy two seasons in a year, rainy and dry seasons, with the mean annual rainfall ranges between 20,000mm and 25,000mm while the mean annual temperature is estimated at between 20°C and 28°C with a relative humidity of about 90% during the rainy season, and between 60% and 80% during the dry season.

This paper is a case study of Akwa-Ibom Integrated Farmers' scheme. The data requirements of this paper were met through secondary sources from reports, records and publications of the Akwa-Ibom Integrated Farmers' scheme. The collected data include: types of agro-enterprises funded, acreage of land cultivated, output, loan disbursement, loan recovery, employment generation and challenges faced by the scheme. Data for this study were analyzed by the use descriptive statistics.

## RESULTS AND DISCUSSION

### TYPES OF AGRO-ENTERPRISES FUNDED BY THE SCHEME AND ACTIVE PARTICIPANTS

The type of agro-enterprise funded by the scheme and active participants are presented in table 2. The table shows that the agro-enterprises funded by the scheme are poultry, piggery, fisheries, cassava, pineapple, plantain and fluted pumpkin production. Table 2 also indicates that poultry enterprise had more (50.9%) active participants, followed by piggery enterprise with 30.9% active participants. From the above below, one can see that fluted pumpkin vegetables had the least (0.3%) active participants. This finding demonstrates that the participants preferred agro-enterprises that ensured higher returns on investment, which would be realizable within a very short period, to enable them repay the loan. Further information from the scheme reveals that because of the increased number of participants engaging with poultry production (50.9%), the state now supply eggs to the neighboring states and sometimes have egg and table bird clots

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# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers’ Scheme Experience

Agro-enterprises	Percentage of active participants involved
Poultry	50.9
Piggery	30.9
Fishery	6.8
Cassava	7.1
Pineapple	2.1
Plantain	1.9
Fluted pumpkin vegetables	0.3

**Table 2:** Type of agro-enterprise funded and active participants  
Source: Akwa-Ibom Integrated Farmers’ Scheme, 2013

## YOUTH EMPOWERMENT THROUGH JOB CREATION

Job creation is a means to empower the youth especially through agrarian scheme like Akwa-Ibom Integrated Farmers’ Scheme. The level of job creation according to batch/year by the scheme is presented in table 3 below. The table shows that 5882 jobs were created in the scheme between 2000 and 2011. Greater proportions (40.6%) of jobs were created in the 5<sup>th</sup> batch of 2010, while 35.5% of the jobs were created by the scheme in the 6<sup>th</sup> batch of 2011. However, only 3.2% of job creation was recorded by the scheme in the first batch of 2000. This finding implies that youth empowerment in the scheme through job creation progressed substantially between the first batches of 2000 to the 5<sup>th</sup> batch of 2010, and declined in the 6<sup>th</sup> batch of 2011. This reduction was expected as within the years 2010 and 2011 the state government employed over 3000 youths in her civil service. Within the same period the government posted some of these recruited 3000 youths to teach in primary/secondary schools.

Batch/Year	Employment Generated (number of workers)	Percentage
1 <sup>st</sup> batch – 2000	188	3.2
2 <sup>nd</sup> batch – 2002	326	5.5
3 <sup>rd</sup> batch – 2006	247	4.2
4 <sup>th</sup> batch – 2009	648	11.0
5 <sup>th</sup> batch – 2010	2385	40.6
6 <sup>th</sup> batch – 2011	2088	35.5
<b>Total</b>	<b>5882</b>	<b>100</b>

**Table 3:** Youth Empowerment through Job Creation  
Source: Akwa- Ibom Integrated Farmers’ Scheme, 2013

# Agriculture and youth empowerment in Nigeria: lessons and insight from Akwa-Ibom State Integrated Farmers' Scheme Experience

**NJAS15012**

## YOUTH EMPOWERMENT THROUGH LOAN DISBURSEMENT

The amount of loans disbursed to the youth through the scheme is presented in table 4. This shows progressive commitment by the state government because of the amount of money disbursed to the youth and of the increased number of participants from 49.5million naira for 153 participants in the first batch of the year 2000 to 600million for 1200 youths in the 6<sup>th</sup> batch of year 2011.

Amount of Loan Disbursement According to Batch		Number of Beneficiaries	Mean Disbursement	Percent age
Batch	Total Disbursement (Naira)			
1 <sup>st</sup> batch 2000	45.9m	153	300,000	12.5
2 <sup>nd</sup> batch 2002	55.2m	184	300,000	12.5
3 <sup>rd</sup> batch 2006	93m	310	300,000	12.5
4 <sup>th</sup> batch 2009	310m	620	500,000	20.8
5 <sup>th</sup> batch 2010	470m	940	500,000	20.8
6 <sup>th</sup> batch 2011	600m	1200	500,000	20.9
<b>Total</b>	<b>1,574.1m</b>	<b>3407</b>	<b>2,400,000</b>	<b>100</b>

**Table 4:** Loan Disbursement to the Youth  
Source: Akwa- Ibom Integrated Framers' Scheme, 2003

## LOAN REPAYMENT PERFORMANCE OF BENEFICIARIES

The loan repayment performance of the youth beneficiaries of the loan scheme of Akwa -Ibom Integrated Farmers' Scheme is presented in table 5 below. As stated above, a period of 18 months is given to the participants before repayment starts. The repayment is divided into four equal installments. The repayment performance as indicated in table 5 shows a 15.90% repayment for the 1<sup>st</sup> batch of the year 2000. This, according to information from the IFS is because the participants were drawn from the 31 local government areas that were supposed to pay back the money at default by the participants but refused to keep to the terms of the agreement. In subsequent batches, Akwa- Ibom State civil servants were the only the accepted guarantors.

The 50.10%, 20.50% repayment record in the 2<sup>nd</sup> and 3<sup>rd</sup> batches respectively was recovered from the defaulted participant's guarantors' salaries and recovery is on-going. The 8.80%, 4.70%, 0.01% recovered from the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> batches as indicated in table 5 is repayment by the participants themselves because deduction at source from their guarantors is not yet to be enforced and recovery is equally on-going while the period of repayment for the

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**NJAS15012**

5<sup>th</sup> batch and 6<sup>th</sup> batches is not due based on the signed agreement. However, the percentage of repayment from the total disbursement for all the batches gave 22.9%.

Amount of Loan Repaid According to Batches (₦)		Number of Beneficiaries	Mean Loan Repayment	Percentage
Batch	Total Repayment			
1st batch 2000	13,375,344	153	87,420.5	15.90
2 <sup>nd</sup> batch 2002	50,818,608	184	276,188.1	50.10
3 <sup>rd</sup> batch 2006	34,965,424	310	112,791.7	20.50
4 <sup>th</sup> batch 2009	30,333,600	620	48,747.7	8.80
5 <sup>th</sup> batch 2010	24,385,418	940	25,941.9	4.70
6 <sup>th</sup> batch 2011	50,000	1200	41.7	0.01
<b>Total</b>	<b>153,928,394</b>	<b>3407</b>	<b>551,131.6</b>	<b>100.00</b>

**Table 5:** Loan Repayment Performance of Youth Beneficiaries  
Source: Akwa- Ibom Integrated Framers' Scheme, 2013

## CONCLUSION

The derivable benefits of the Integrated Farmers' Scheme in youth empowerment and job creation, food sufficiency and human development to the participants, the state and nation cannot be over-emphasized. Miri (2006) opines that agriculture must be promoted as a scientific employment with young people seeing it as being more than just feeding an animal, or digging a hole and planting a crop. Similarly, Amadi and Obodo (2007) expressed the need to not only attract, but also retain youth in the agricultural occupation through proper mobilization and empowerment. This now shows that the agricultural sector is the main economic activity in Nigeria and in the study area, and hence the sector that promotes youth empowerment. Therefore, from the study it could be seen that with proper mobilization and empowerment of youths to take agriculture as a business, the number of unemployed youths can be reduced and the production of food increased, as reflected in the number of participants engaged in the different agriculture production components. The scheme apart from the 3407 direct beneficiaries also generated additional 5882 jobs as indicated above and has archived the aim for which it was established - to generate employment for young people in the State. The scheme has been able to produce some youths who have very successful agro-enterprises of their own. It was also discovered that once there is a very successful IFS participant in a community, other youths within and beyond that community aspire to come into IFS and also be very successful. It is therefore the desire of the scheme to take advantage of this positive drive already generated among our youths in various communities across the State to further promote self-employment and dignify farming as a business among youths in Nigeria.

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## RECOMMENDATIONS

Based on the above, and other relevant issues raised in this research, the government and other interested policy makers may find the following under listed recommendations useful.

- Agricultural extension services should induce awareness and inform the public and especially young people about successful agro-entrepreneurs to convince the youths and other agricultural stakeholders to go into agricultural production, to reduce dependence on white-collar job and to stop project abandonment.
- The Government should facilitate the participation of funding agencies to support youth empowerment services in the areas of processing, storage, packaging and marketing of agricultural products.
- Political influences should be reduced by politicians during selection of young people for participation in the scheme.
- Number of participants per batch should be increased to further reduce the number of unemployed/underpowered youths roaming in the street.
- Government should initiate a buy-back policy to encourage more youths to accept and take agriculture as a business.
- Other states and the federal government should replicate the scheme.

**REFERENCE**

- Akintola, A. (2011). Nigeria: A New Perspective Being a paper presented by the Minister of Agriculture on the *Neglect of Agricultural Sector* 18<sup>th</sup> September, Kano.
- Amadi, U.P.N. and Obodo, G.E (2007). Youth Organization as a Strategy for Entrepreneurial Skills Development in Agriculture, in Esmonu N. P. M (ed) Research and Publication Unit, Federal College of Education Technical, Umunze, Anambra State, Nigeria.
- Eicher, C. and Witt, L. (Eds) (1964). Agriculture In Economic Development. Mac Graw  
FAO (2006). The State of Food Security In The world. FAO. Rome.
- Gujaratu, D.N. and Porter, D. C. (2009): Basic Econometrics. Mcgraw Hill Co New Delhi.  
Hill Publication, London.
- Miri, S. (2006). What Future for Agriculture in the Pacific Spore No.56, A publication of the Centre for Agriculture and Rural Development (CTI), Netherlands.
- Okumadewa, F. (1997). Poverty and Income in Nigeria: Measurement and Strategies for Reform. A Paper Presented at the Vision 2010 Workshop, Abuja.
- Ukeje, R.O. (2003). Macroeconomics: An Introduction. Davidson Publication. Port- Harcourt.
- Woolf, S.S. and Jones, E.L. (1969). Agrarian Change and Economic Development: The Historical Problems. Mathemuen Publication. London.
- World Bank (1998). Human Development Report. The World Bank. Washington DC.