

# Assessing IFAD Value Chain Development Programme on Productivity and Income of Smallholder Farmers in Obafemi-Owode and Yewa North Local Government Areas of Ogun State Nigeria

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## **Abstract**

Smallholder farmers are faced with the challenges of low productivity, poor access to market, poor processing technology, and a vicious cycle of poverty. The International Fund for Agricultural Development (IFAD) intervention focused on agriculture using a value chain approach to enhance market access and increase productivity growth and income of smallholder farmers.

This study, therefore, assessed the effect of the IFAD Value Chain Development Programme (VCDP) on the productivity growth and income of smallholder cassava and rice farmers in Obafemi-Owode and Yewa North local government areas of Ogun State, Nigeria. Ogun State is one of the benefitting states of the IFAD Value Chain Development Programme in Nigeria. The study area comprises a traditionally agrarian population of cassava and rice staple farmers. The VCDP provided input support, agrochemicals, land development and preparation, agricultural processing and equipment and market interventions which are requisite value addition techniques. The beneficiaries of these supports are farmers in the

different enterprise units (producers, processors and marketers).

Data were collected using structured questionnaires and focused group discussions. The sample size comprised 329 respondents made up of 227 farming households in Obafemi-Owode and 102 farming households in Yewa North local governments areas of Ogun State. Data analysis involved the use of descriptive and inferential statistics.

The results revealed that the VCDP has contributed significantly to the productivity growth and income of smallholder farmers in Obafemi-Owode and Yewa North LGAs of Ogun State, Nigeria. It also led to enterprise development, value addition and marketable surpluses. The study also identified the challenges confronting the VCDP, and opportunities for scaling up the programme in Nigeria.

**Keywords:** Smallholder farmers, Value chain, Cassava, Rice, Income

## **Introduction**

The International Fund for Agricultural Development (IFAD) is a specialized agency of the United Nations (UN) established in 1977 as one of the major outcomes of the 1974 World Food Conference. It was resolved at the conference that an international institution be established immediately to finance agricultural development projects, primarily for food production in developing countries. The institution would focus on alleviating poverty of rural dwellers through investment in agricultural activities, as agriculture is seen in developing countries as a sector with viable potential to move the rural poor out of poverty and with the capacity to feed the world. In sub-Saharan Africa for instance, maximizing the potential of agriculture would yield faster growth in reducing poverty than investment in other sectors. Sub-Saharan Africa has enormous natural, physical and human potentials compared to developed countries where the cost of producing food is becoming high and land is scarce. With the magnitude of untapped resources in sub-Saharan Africa, the focus of the international community (agricultural finance donors) has shifted from food aid to developing the capacity of the numerous smallholder farmers

to increase their productivity (Mgbenka & Mbah, 2016). Africa has a large expanse of land and with enough resources, agriculture would set a new pace for Africa's growth and development. The IFAD intervention maximizes the potential of smallholder farmers by exposing them to opportunities through inputs support, market access and services that would increase their farming yield, build their human capacity and consequently increase their income. Through low interest loans and grants, IFAD works with governments to develop and finance programmes and projects that enable rural poor people to overcome poverty. Since starting operations in 1978, IFAD has invested US\$14.8 billion in over 900 projects and programmes that have reached some 400 million poor rural people. Governments and other financing sources in donor countries, including project participants, contributed US\$12.2 billion, and multilateral, bilateral and other donors provided approximately another US\$9.6 billion in co-financing. This represents a total investment of about US\$21.8 billion. About US\$317 million households have benefitted from IFAD interventions in Nigeria.

The IFAD intervention in Nigeria is focused on value chain development because of the challenges faced by smallholder farmers, such as low productivity, poor access to markets, poor processing technology, lack of adequate information, high cost of farm inputs, inadequate credit system, the vicious cycle of poverty and the recent challenge which seem formidable, climate change. The partnership between IFAD and the Federal Government of Nigeria is focused on cassava and rice smallholder farmers, knowing the potential economic value of these staple crops if every challenge is removed from planting through harvesting to consumption. Also, to achieve Nigeria's Agricultural Transformation Agenda, which aims to increase production, reduce food imports and provide millions of new jobs for young people, the potential of agriculture needs to be adequately harnessed since the sector is seen as an alternative to the oil dependent economy that has not been able to deliver the country from the economic, social and other challenges bedeviling the nation. Over 80% of the total farming population in Nigeria are smallholder farmers cultivating less than 5 hectares in the rural areas and who produce about 95% of the total national output. Poverty still remains a rural phenomenon with two-thirds of the total population considered poor.

The Value Chain Development Programme is a development initiative that was contrived for Nigeria and aimed to tackle the challenges faced by smallholder farmers. The six-year programme is aimed at improving cassava and rice value chains in six states in Nigeria by proffering solutions to low productivity, limited access to productive assets and inputs, paucity of opportunities for value addition, inadequate support services such as extension services and research, inability to access rural financial services, inadequate markets and rural infrastructure. The IFAD/FGN adopted the value chain approach to enhance productivity, promote agroprocessing, access to markets and opportunities to facilitate improved engagement of the private sector and farmers' organisations. The programme, through commodity-specific value chain action plans (VCAP) at different local governments in the participating states engages with actors along the chain - producers, processors, marketers - and their farmer organisations as well as public and private institutions, service providers, policy and regulatory environment to deliver relevant and sustainable activities that would lead to gradual transformation of the sector and contribute to achieving food security, and expanding income-generating activities and employment opportunities.

The field research indicates that, the IFAD-VCDP has contributed to the increased standard of living of smallholder farmers in the area as they all could attest to provision of farm inputs, improved market access and linkage to extension services, participation in trainings, increase in income etc. For effective coordination and monitoring of the intervention, the implementing state (Ogun State) ensured that every farmer belonged to a farmer organization and existing ones were recognised and adjusted to suit the *modus operandi* of the intervention.

## **Methods**

The research was conducted in 2 out of the 5 implementing LGAs of Obafemi-Owode and Yewa North. The coordinates of the project sites and research locations were recorded and the pictures of respondents taken. Data were collected through quantitative survey methods (online structured questionnaire - open data kit - ODK) was used. The structured questionnaire was pre-tested before the research commenced. The qualitative survey method was also used through focused group

discussions (FGDs) and key informant interviews (KII). Data collected includes: socioeconomic data, productivity and income level, physical and financial assets, market access and improved services. In addition to the primary data that was gathered for the research, secondary data was used, such as the programme implementation manual of the IFAD Value Chain Development Programme, baseline study and mid-term review conducted by the state. The data collected were coded and analysed using the Statistical Package for Social Sciences (SPSS-Statistics IBM 20). Both qualitative and quantitative data were generated for the study and presented in charts and tables. Descriptive statistics, frequencies and cross tabulations will be used to describe the socioeconomic characteristics, the productivity level, income level and assets and beneficiaries' access to market and improved services. Table 1 presents a breakdown of the 329 respondents purposively selected from the total population of 2,243.

**Table 1: Breakdown of study population**

Enterprise Unit	OBAFEMI- OWODE LGA		YEWA NORTH LGA	
	Population Size	Sample size	Population Size	Sample Size
<b>Cassava</b>				
Producers	1162	170	487	71
Processors	139	20	109	16
Marketers	9	1	15	2
<b>Rice</b>				
Producers	226	33	65	10
Processors	10	2	11	2
Marketers	5	1	5	1
<b>Total</b>	<b>1,551</b>	<b>227</b>	<b>692</b>	<b>102</b>
<b>Population size total - n2,243.</b>		<b>Sample size total - n329.</b>		

## Results and Discussion

### Socio-economic characteristics

#### *Gender distribution of beneficiaries by enterprise units*

This section examines the participation of men and women in agriculture generally and specifically, according to the enterprise units studied. The results ( table 2) show that overall, more men (12%) were

involved in agriculture than women (1.52%), but there were more women (1.3%) in the processing and marketing chain than men (0%). However, more men (61%) participate in production compared to women (23%), though the participation of women has increased over time. It can be inferred that the men go to the farm while the majority of the women stay at home and process the crops while handling the home front.

**Table 2: Display of gender distribution of beneficiaries by enterprise unit (%)**

Variables	Male	Female
Production	61.4	24.9
Processing	0.3	11.9
Marketing	0	1.52
Total	61.7	38.3

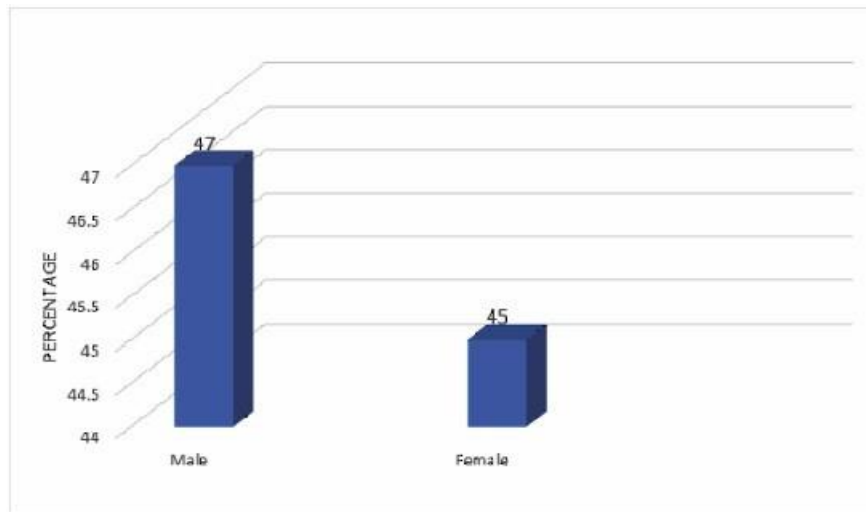
*Source: Field survey, 2018.*

#### ***Mean age of beneficiaries by gender***

The ages of the male beneficiaries ranged between 26 and 68 years and the mean age was 47 years, while the female beneficiaries' ages ranged between 20 and 70 years and their mean age was 45 years (see figure 1). The beneficiaries were in their middle ages and this signifies that they were in the active and working stage of their lives when they should be most productive and striving to move out of poverty and ensure a better livelihood. This result indicates that the youth do not participate much in agriculture as they see it as a tedious task – drudgery. This decline in youth participation has made the middle aged (both male and female) the driving force of agriculture in the study area. It can also be deduced that the active generation of farmers followed the footsteps of their parents into the farming occupation and knowing that they are in rural communities, agriculture appears to be the most viable occupation or option to move out of poverty.

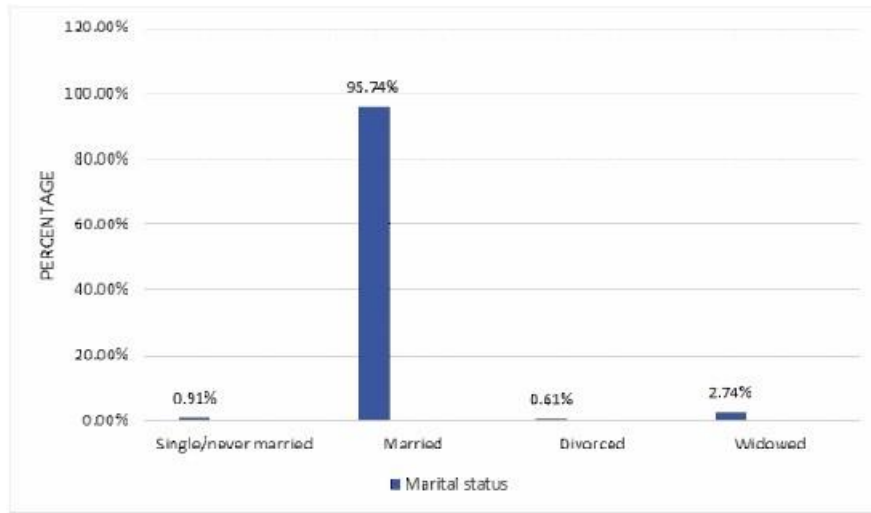
#### ***Marital status of the beneficiaries***

The results show that 95.74% of the respondents were married. Farmers in rural areas depend to a large extent on their family members for labour for farm activities. It can therefore be assumed that this factor influences marital status of the farmers and childbearing in rural areas. Also, due to the low level of education, there may be cases of early marriage as a result of unwanted pregnancies and the ladies would end up getting married as abortion is not allowed or for fear of death. Early marriages may also occur because the communities are close knit and some community dwellers with large households marry off their daughters early to neighbours with whom they are familiar to relieve the burden on the family. It should be noted that the African culture places a high value on marriage as it depicts some level of responsibility and maturity.



**Figure 1: Mean age of beneficiaries by gender.**

Source: Field survey, 2018.



**Figure 2. Marital status of respondents (percentage distribution)**

Source: Field survey, 2018.

***Level of Education by Gender***

More males completed primary (22.5%) and secondary education (16.4%) than females (15.2% and 6.1% respectively). These figures point to the need for increased girl child education, as a higher level of women who are educated education would help to control overpopulation, ensure better trained children and good moral values in the society, and poverty reduction. With more girls in school, the rate of child mortality, unwanted pregnancy, abortion will be reduced as well as under-5 deaths due to malnutrition. Maternal mortality and early marriage are also reduced when more female children/teenagers are in school.

**Table 2: Level of education of beneficiaries**

Variables	Male	Female
No formal education	7.6	7.0
Primary education not completed	2.4	2.4
Primary education completed	22.5	15.2



Secondary education not completed	8.8	6.1
Secondary education completed	16.4	6.1
Post-secondary education (years)	4.0	1.52

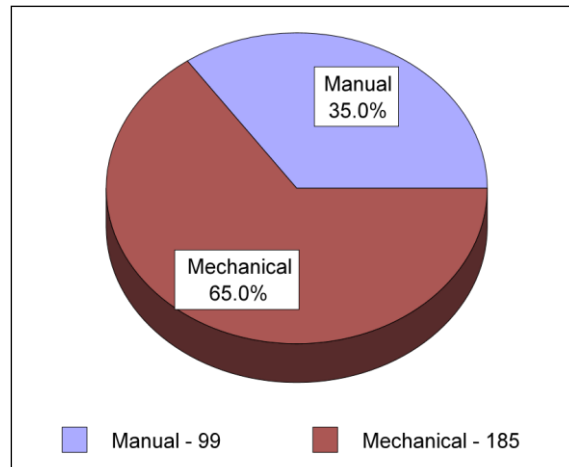
Source: Field survey, 2018.

Post-secondary education (polytechnics, colleges, universities) recorded the lowest percentages with 4% and 1.52% for males and females respectively. These figures indicate that there is a need for sensitization in the rural communities on the advantages of education so children are not just confined to being helping hands on the farm. The involvement of educated youths in agriculture will introduce innovative techniques and novel ideas for improved farming practices, thereby making it an attractive profession and less tedious, as currently perceived. It also brings to the fore, the need for more strategies to improve the standard of living of these farmers so they can afford to educate their children.

### Assessment of productivity level of beneficiaries

#### *Method of Land Preparation*

From figure 3 below, a total of 284 farmers adopted manual and mechanical production methods, but we could see that 185 (65% farmers made use of mechanical farming tools which typifies the effect of the IFAD VCDP among farmers. This indicates improvement in their farming practices. It also shows that the producers saw the benefits of mechanized land preparation, as opposed to the manual land preparation they engaged in previously.

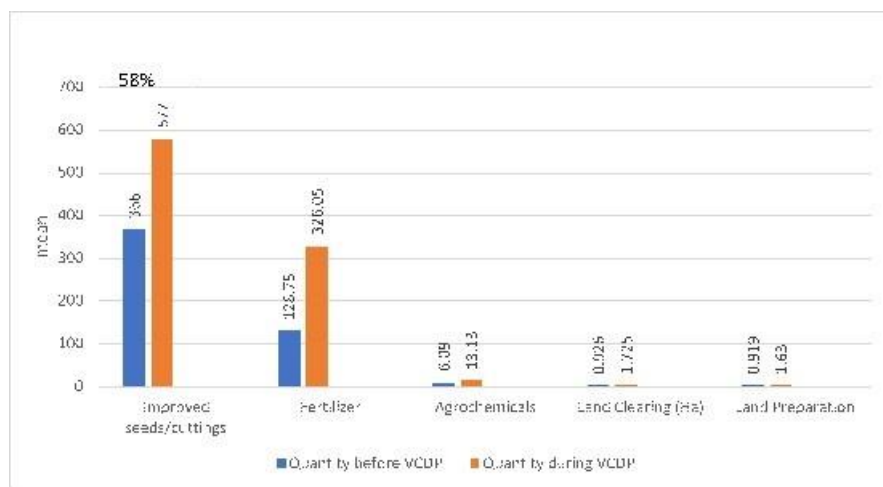


**Figure 3: Method of land preparation adopted by smallholder farmers.**

*Source:* Field survey 2018.

This section presents the inputs accessed by the beneficiaries before and during the International Fund for Agricultural Development-Value Chain Development Programme (IFAD-VCDP) intervention. The range of improved seeds/cuttings used by the beneficiaries before the VCDP was between 20kg and 1500kg and the mean was 366kg, while during the VCDP, the mean was 577kg and ranged between 0.6kg and 2500kg. An increase of 58 percent was recorded. Fertilizer uptake also increased by 153 percent, as the mean before the VCDP was 128.75kg, from a range of 4kg to 450kg while during the VCDP, there was increased use resulting in a mean of 326.05 kg. The use of agrochemicals also increased by 116 percent during the VCDP with a mean of 13.12kg from a range of 2kg to 40kg compared to the mean of 6.09kg before the VCDP. Clearing of land also recorded 86 percent

difference as the mean increased from 0.926ha before the VCDP to 1.725ha during the VCDP and this positive change can be attributed to the use of machines. Similarly, the mean of size of land prepared recorded 77 percent increase from 0.919ha to 1.630ha during the VCDP as a result of the training on agrochemicals application received by the beneficiaries, which the majority admitted they had been applying wrongly and which used to cause some of their plants to dry up before maturation. This is a confirmation that all the beneficiaries did not just acquire more land and acquire other assets because of increased income, but they also acquire more knowledge and increased their capacity to participate in the Training of Trainers (ToT).



**Figure 4. Chart of the mean distribution of production inputs.**

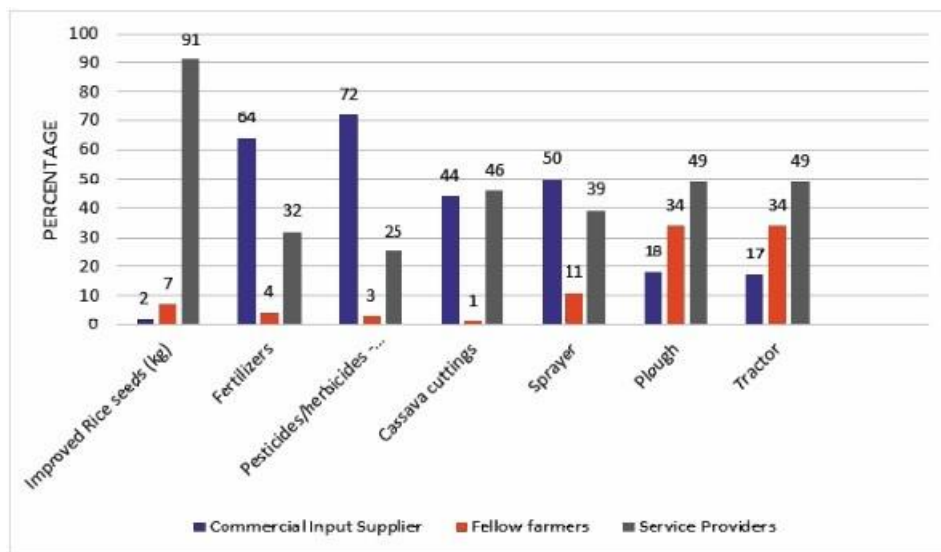
*Source:* Field survey, 2018.

### ***Input Sources***

The inputs studied are for crop producers alone and figure 3 shows how the beneficiaries sourced their inputs which enabled them increase their sales and eventual income earned. The commercial input suppliers are private sellers who have a partnership with the IFAD-VCDP to subsidize the sale of these products to the farmers. The beneficiaries are not given the inputs for free; there is an agreed amount they must pay per input and IFAD-VCDP makes up the difference to the commercial input

suppliers. Fellow farmers, just as the name implies, means farmers buy these inputs from each other or share. The service providers are the IFAD-VCDP initiators. So, it is safe to say that the commercial input suppliers and service providers are closely related since they have a partnership agreement.

Improved rice seeds and cassava cuttings were accessed by the majority of the beneficiaries from the service providers, since they are confident of their expertise in seeds and stem modifications. The beneficiaries know that the seeds and stems were obtained after a series of experiments to increase yield, resist pest infestation and withstand environmental hazards. Agrochemicals, fertilizers and sprayers were accessed directly from the suppliers. Heavy machines such as ploughs and tractors were accessed more from the service providers as they have to go through some process to ensure documentation and effective monitoring. The intervention was well planned, with the inclusion and consultation of private sellers (stakeholders). This showed how much interest they had in ensuring impartation of improved techniques and processes on these smallholder farmers who before now had little or no access to these inputs even though they were available.

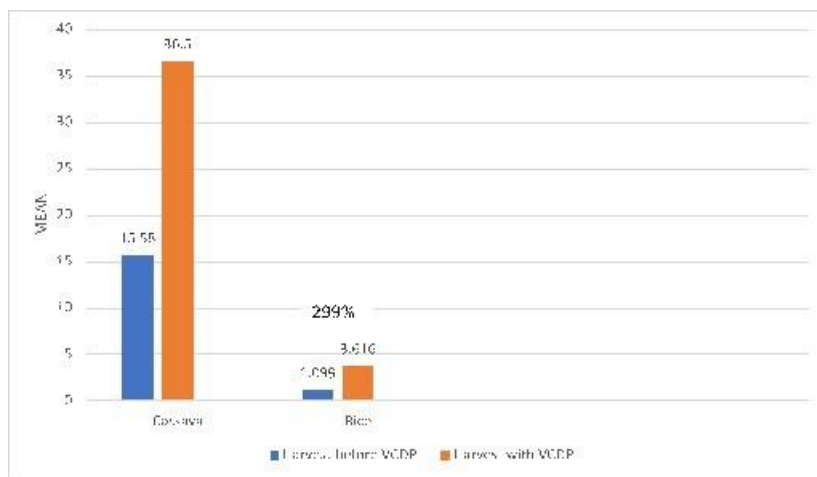


**Figure 5: Sources of each input.**

Source: Field survey, 2018.

**Mean Harvest of Production Outputs**

It was observed that there was an increase of 134 percent in the range of cassava harvest with VCDP as it recorded between 5tons and 25 ,000tons with a mean average of 36.5 tons, while before VCDP, it recorded a mean of 15.58tons with a range between 1ton and 25tons. A similar increase was recorded for rice farmers as the range of harvest before VCDP was between 0.25tons and 3.5tons with a mean of 1.099tons while with VCDP, the mean was 3.616 tons with a range between 0.8tons and 7 tons; an increase of 299 percent. The increased use and accessibility of production inputs resulted in the increased harvest by the crop producers and it confirms the impact of the intervention. This increase definitely had a ripple effect on the quantity of crops processed for final consumption, generating more income across board for all enterprise units. As a result of the value addition right from planting, the consumers got to consume better food, fortified with increased nutrients.



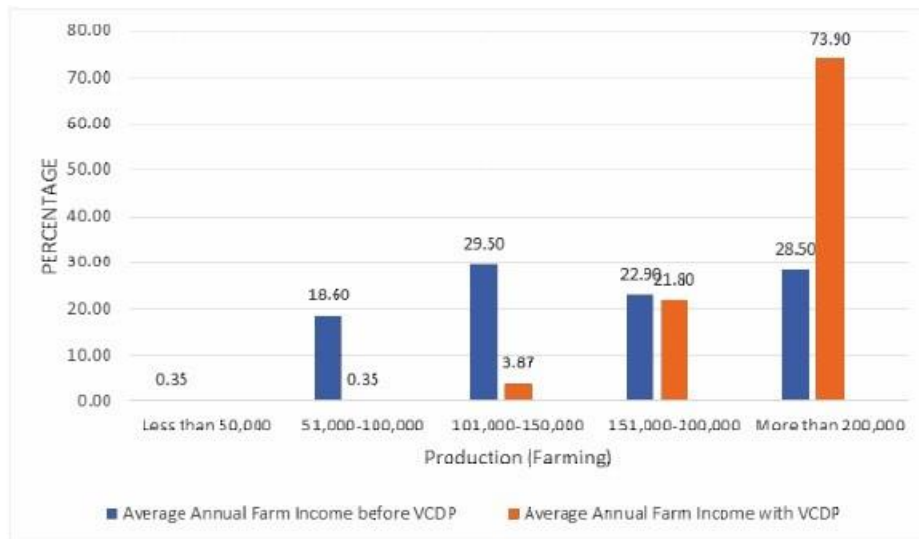
**Figure 6: Mean hectares and harvest of the production output.**

Source: Field survey, 2018.

**Evaluation of the level of farmer’s income and possession of physical assets**

*Income of Beneficiaries – Crop Producers*

The IFAD Value Chain Development Programme took effect in 2016. From the data gathered a year later in 2017 to assess the impact of the intervention, a huge difference in the average annual income was observed. Out of 284 crop producers, 73.90 percent earned more than N=200,000 with the VCDP intervention as against 28.50 percent before the intervention. The beneficiaries were spread across all the income groups before the intervention with 18.60%, 29.50%, 22.90% and 28.50% in the different groups, however, after the intervention, the numbers were less spread, and over 70% earned over N=200,000. This remarkable increase stemmed from the inputs accessed by the beneficiaries, such as: improved cassava cuttings/rice seeds, fertilizer, other agrochemicals as well as access to land. The beneficiaries also had access to machinery which enable practice mechanized farming as opposed to manual labour they previously employed. With this, they could focus their energy on maximizing the potential impact of the inputs.



**Figure 7: Average annual farm income of crop producers.**

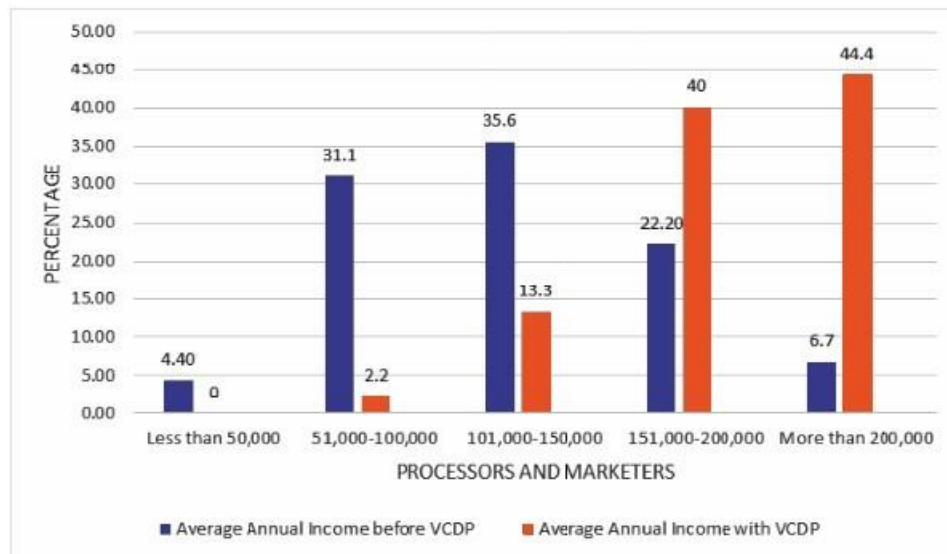
Source: Field survey, 2018.

The economic value of cassava is quiet high considering the fact that it can be processed into about 12 different foods, which explains why the majority of the farmers in the state plant cassava and are able to make ends meet through its yield. Cassava exemplifies value addition on a large scale.

The VCDP beneficiaries, in addition to the improved financial income, benefitted from their exposure to the use of improved inputs, their human capacity and knowledge were thus increased. They were able to apply these favourable techniques which they had did not apply before, either because of their traditional beliefs or due to financial constraints. The population of the state is predominantly agrarian, and the programme extensively leveraged on this to achieve its aim and also contribute to improving the livelihood of these smallholder farmers.

#### *Income of Beneficiaries - Processors and Marketers*

Although more than 90% of the farmers were crop producers, due to the focus of the intervention on value chain addition, all the farmers were catered for in their different enterprise units. The results (see figure 8) show the positive impact of the intervention on the average annual income of the processors and marketers.



**Figure 8: Average annual income of processors and marketers.**

*Source:* Field survey, 2018.

The percentage of processors and marketers with income higher than N=200,000 increased to 44.4 percent from 6.7 percent with the VCDP. Before the intervention, the highest percentage of beneficiaries (36.6%) were in the N=101,000 - N=150,000 group. With access to improved processing techniques such as 'False bottom technique' for rice processors, rice and cassava processing mill with modern equipment, a positive change has occurred. Access to market and availability of reliable off-takers also increased the sales of marketers and consequently their income. Access to market information through the Agricultural Market Information System (AMIS) is also a significant factor in the increase in income, as the beneficiaries are aware of prevailing market issues or opportunities at the right time. With continued intervention, maintenance, practice and improvement in garnered knowledge; the standard of living of these smallholder farmers would continue to improve.

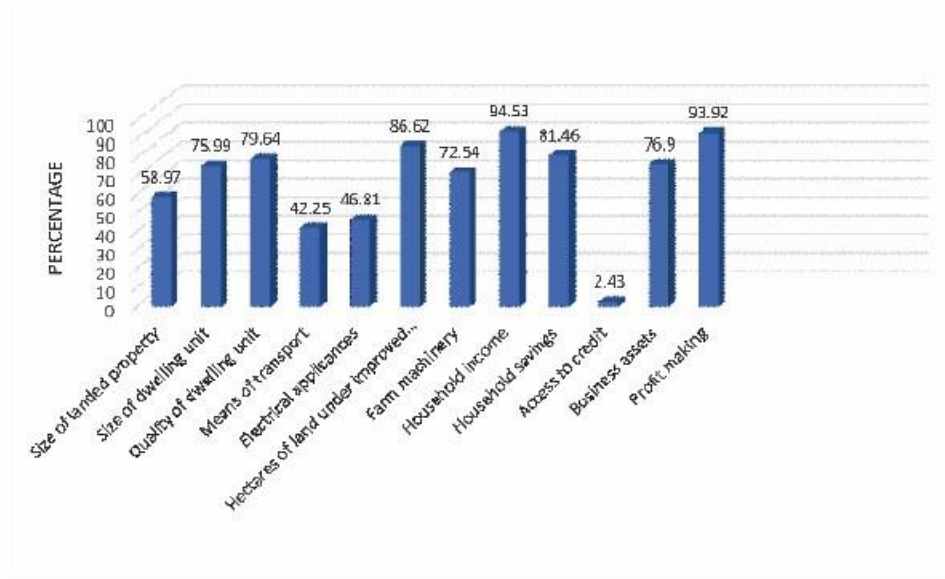
#### ***Impact of the Programme on the Physical and Financial Assets of Beneficiaries***

Figure 9 illustrates how much the value chain development programme has impacted on the beneficiaries based on the variables outlining their assets and physical improvements. It is seen that the total sample of beneficiaries (329) had over 70 percent improvement in their physical and financial assets as a result of the intervention, except for means of transport, electrical appliances and access to credit, which had 42.25%, 46.81% and 2.43% respectively. Acquiring assets is not as easy as inputs to improve farming activities since inputs are facilitated and subsidized by the VCDP. Assets acquisition is quite a luxury for some, as needs are considered on a scale of preference. Also, access to credit is not an asset to be acquired and the programme did not directly give loans, but linked the farmers with microfinance institutions to apply for loans and have agreements with the financial lenders. However, the issue of collateral was a constraint as many of the farmers could not meet the requirements of the finance institutions, hence the low level of access to loans.

It is also worthy of note that beneficiaries of hectares of land under improved management and farm machinery were only producers as the



variables are not applicable to processors and marketers. Out of a total 284 sample size for the producers, one could also observe that over 70 percent benefitted from mechanized farming techniques, even though they were not directly funded to access these inputs. These results show overall that these farmers derived immense benefits in their respective value chains.



**Figure 9: Level of improvement in the physical and financial assets of beneficiaries.**

Source: Field survey, 2018.

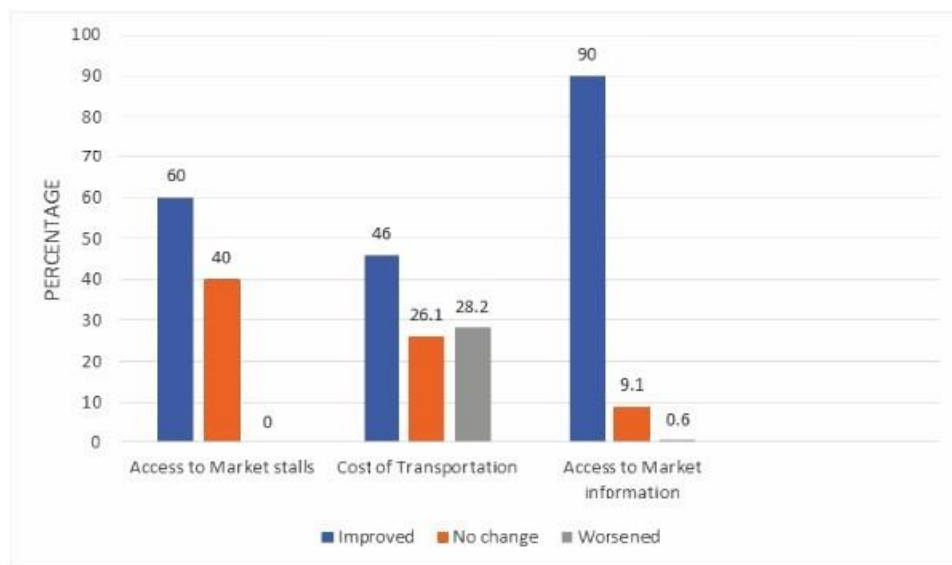
## **Beneficiaries' access to market and improved services**

### ***Beneficiaries' Access to Market***

The results in Figure 10 reveal that the beneficiaries had significant improvement in their access to market. Access to market stalls applies only to marketers and 60 percent of the marketers confirmed they had access to market stalls because new markets were constructed close to their communities where they could still meet the demand without necessarily having to travel several kilometres to the main community market. This has made their operations easier. Improved market access would have a

ripple effect on cost of transportation as it makes it easier to reach the target market without much cost to bear, and it also helps to save. On the other hand, since their income has also increased, they can afford the cost of transportation.

Also, 90 percent of the beneficiaries have improved access to market information, being part of farmer organizations where information flows and ideas are shared during meetings. The heads of the farmer organizations have more access to information, being the contact persons in their communities for the IFAD-VCDP extension agents in the local government areas. They reach out to their members frequently. In addition, the Agricultural Market Information System (AMIS) initiated by the programme also increased the beneficiaries' access to information about current issues in the market such as prices, weather reports on planting period, availability of off-takers, etc. Through AMIS, beneficiaries get instant messages applicable to their value chain activities and this has increased their awareness of prevailing information on the market.



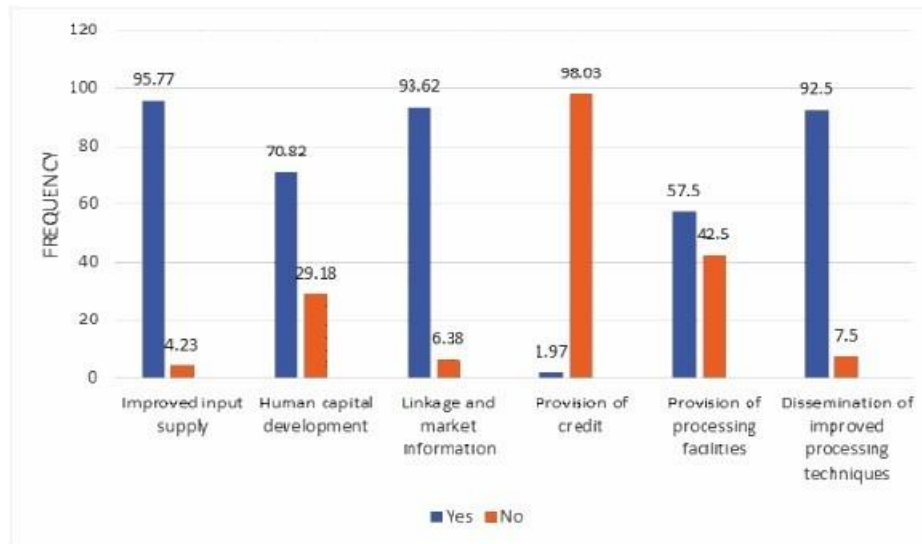
**Figure 10: Market access for beneficiaries.**

Source: Field survey, 2018.

*Beneficiaries' Access to Improved Services*

Beneficiaries in the enterprise units got access to services that invariably increased their earnings and also added value to them in terms of human capacity (figure 11). The intervention recorded a huge success, not only in providing goods but also services to increase human capital development. The beneficiaries were not only given high yielding crop species but also trained on cassava stem modification and application of chemicals. A well-equipped cassava and rice processing mill also availed them the opportunity of capacity building as they operate these machines themselves. The “false bottom technique” is a rice processing technique on which the majority of rice processors were trained and which enabled them achieve improved rice quality and increased orders.

Furthermore, provision of credit had a significantly negative response and as earlier stated, it is as a result of the beneficiaries not being able to meet the requirements of financial institutions. The provision of processing facilities and improved processing techniques applies only to processors and it is obvious that from a sample size of 40 deduced from the total processors population of 269 in all the study areas, more than half of the beneficiaries are inclusive of these services, as 57.5% of the beneficiaries said yes which further emphasizes the impact of the intervention on all enterprise units.



**Figure 11: Responses of beneficiaries to services accessed through the VCDP intervention.**

*Source:* Field survey, 2018.

## Conclusion

The IFAD Value Chain Development Programme has improved the productivity, income level, and market access, increased infrastructures accessible for farmers and also empowered the women in farming in the study area.

It should be noted that the productivity and income level of the farmers has increased and indicators were seen in the increased adoption of mechanized farming recorded in the average usage of production input. The increased input usage also manifested in the output harvested. The increase in production by crop producers, increase in crop quantity processed and increase in sales by marketers, earned these beneficiaries more income and the impact was revealed in their ability to own more assets and improvement in the standard of living such as household income, savings, business assets and quality of standard of living.

The previous sections have given an overview of the impact of the contrived IFAD-VCDP intervention on the smallholder farmers with a special focus on cassava and rice value chains. No doubt, the programme

has empowered these farmers and made an unprecedented impact on Nigeria's agricultural productivity. A report was released by the Punch Newspaper of Nigeria on June 27; 2018, that the International Fertilizer Development Centre (IFDC) in collaboration with the Food and Agricultural Organisation (FAO) and other international donors, that the fertilizer uptake by Nigerian farmers increased by 63% in 2017, rising from 959,364 metric tonnes in 2016 to 1,564,816 metric tonnes. In other words, the over 12,000 farmers IFAD has impacted over the years are indeed inclusive of the Nigerian farmers who made use of fertilizer in the said period. This news is an indicator that Nigeria is on the path of Agricultural transformation - which was one of the aims the FGN set out with IFAD at the formation of the partnership.

Through improved market access, as regards physical market, it increased the sales of the farmers and a lot of opportunities need to be created to fit the dynamism of the market. These opportunities should be created having youth participation in mind, as there are not many of them in the enterprise units. If more opportunities created are youth-oriented, there is a high likelihood of incursion of youths in agriculture which is an added resource in achieving sustainable agriculture.

The IFAD programme adopted the bottom-top approach of development in the execution of its project with its partnership agreement with the commercial input suppliers who are local seller of inputs. They understood the workings of the community and so, IFAD took advantage of their local knowledge in executing the project and can place sustainability role in continuing some of the instituted practices. Even in the event that IFAD value chain development programme ends and another international organizational is committed to helping farmers, they can still act as a support system in ensuring the implementation.

### **Recommendations**

- The management, accessibility and coordination of input sources should be reviewed. Some farmers access these inputs late, especially the capital intensive equipment due to time of availability and limited number of the equipment which is to cater to the lands of large number of farmers at almost the same time

because of the similar crop been planted and the essence of the season. More partnerships should be signed with agricultural equipment companies.

- There should be timeliness in funds disbursement to ensure quick execution of projects in the areas of inputs access such as; rice seeds, fertilizers, agrochemicals. It should be readily available just before the farming season.
- Income earned by producers, processors and marketers definitely increased the level of their income, but not to a very high extent did it increase their capacity to make financial choices. If the farmers in the value chain could easily access credit or loans without the strict financial conditions, it would allow them make more financial decisions with their income.
- More use of farming technology should be encouraged to attract youth participation, as they perceive farming as a tedious occupation.
- There should be upgrade to the false bottom technique used to process rice. Most of the processors use the traditional method, the use of the modern technique will save time, improve the rice quality, taste and give finesse to the finished product and give consumers a different experience, better than the traditional method.
- The evidence of market access seen was the increased access to information flow and construction of feeder roads which enabled easy transportation of produce to the market and consequently

reduce the cost of transportation. More farmers in other communities having access to this feat, means an overall increase in saving's ability, increase in income and improvement in livelihood.

- There are still gaps to be filled as regards women empowerment in our societies. More should be done to increase sensitization on girl child education, so women can be more recognized and voices heard.

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