

FARMERS' CHILDREN INVOLVEMENT IN CASSAVA PRODUCTION IN AKURE SOUTH LOCAL GOVERNMENT AREA OF ONDO STATE, NIGERIA.

*** Ogunleye, K. Y., Yekinni, O. T. and Adebo, A. A.**

Department of Agricultural Economics and Extension,
Ladoke Akintola University of Technology,
Ogbomoso, Nigeria
kennygd2001@yahoo.com

Abstract

Child's labour has attracted the global attention in recent times and the ILO has come up with several conventions to address the issue. For a developing nation like Nigeria that are reported to have alarming child's labour cases, it is then expedient to examine the children's involvement in cassava production since this is currently in the heart of the government agricultural reforms to improve the lots of the rural dwellers.

This study investigates the involvement of farmers' children in cassava production in Akure South local government area of Ondo State, Nigeria. A field survey was carried out in which data was obtained from 120 farmers' children in Akure south L.G.A. using multi-stage sampling technique. The data collected were analyzed using frequency counts and percentages while the hypotheses were tested with Pearson's correlation coefficient.

*Majority of the respondents are within the age group of 13 and 15 years (46.7%). More than half of the respondents are males (58.3%). About 60.8% of the respondents are in post primary school. Respondents are predominantly Christians (71.7%). Majority (55.8%) of the respondents' parents have less than 3000 heaps of cassava. About 32.5% of the respondents have their own farms. The study also shows that more than half (50.83%) of the respondents have low involvement in pre harvest activities while 65.00% of the respondents had medium involvement in post harvest activities. Pearson's *r*-coefficient shows that age is positively and significantly related to level of involvement ($r = 0.466$) at 0.01 level of significance. Religion of the respondents significantly affect their levels of involvement in cassava production ($r = 0.221$) at 0.05 level of significance while gender, level of education and the respondents' parents' farm size had no significant relationship with their level of involvement in cassava production.*

The study concludes that the children's ages and moral teaching taught to them can affect their involvement in cassava production. And the study recommends that education should be made accessible to the poor farmers' children in rural communities by government. And that government should encourage moral teachings (through religions teachings) and agriculture as a subject being taught to these children in their schools.

Keywords: Child labour, production, farmers' children, level of involvement

Introduction

Nigeria being an agrarian country, once had her main economic stake in agriculture prior to the discovery of petroleum in the late sixties. Agriculture accounted for more than 85% of the country's foreign earnings (Bidmus, 1996 and Nwachuckwu, 1989). Agriculture also provided job for more than 70% of the country's population. Ever since then, because of the

ability of government to finance and provide social amenities in the urban centres as well as the neglect of agriculture and rural areas, there were unprecedented migration of able bodied youths from the rural to urban centres consequently resulting in labour shortage for farming activities (Ogude *et al.*, 1991). These factors along with others are responsible for the declining nature of food crop production in Nigeria and the attendant consequence of increasing food import bills annually.

As part of the general reforms of the Nigerian government to revamp her economy especially by diversifying it from over dependence on oil, Presidential cassava initiative was launched to boost cassava production, usage and marketing in order to improve the lots of the cassava farmers. Cassava is a crop that outstrips all others in its potential areas of cultivation and survival on marginal lands (Tonukari, 2004; Adeniji *et al.*, 1997). Cassava is propagated by stem cuttings and thrives in fairly bad weather and poor soils with little or no fertilizer application. It can be harvested from 6 months to 3 years after planting and the roots can remain in the soil after maturity for more than six months before harvesting (Oyewole and Philip, 2006). It can be intercropped with arable and permanent crops in heterogeneous farming systems. It is therefore a crop that lends itself to cultivation by the vast majority of Nigerians with high potentials for wealth creation.

In response to this development, many Nigerians now embrace cassava farming and it is reported that cassava producers in Nigeria are small-scale farmers that number in their millions (FMANR, 2006). Cassava is available all year round although the labour requirement for uprooting in the dry season is more than during the wet season (Oyewole and Philip, 2006). There has been a steady growth in cassava production in Nigeria from 12 million tons in 1986 to 31 million tons in 1996 with current production estimated at 34 million tons. This increase is fully due to an increase in number of hectares under cultivation with an average production per ha of about 11 tons and more than 60% of child labour is involved (FMANR 1997 and FMNAR, 2006).

Over the years, most of the government policies that are meant to boost food production in the country have always been paying more attention to able-bodied men and women that are seen to be providing the needed labour force that the country needs in her labour market with little or no recognition accruing to the children who are in their own minor ways complementing the effort of their parents as source of labour on the farms (Adedoyin, 1999; Affah, 2001 and Farinde, 1999). Child labour is a pervasive problem throughout the world, especially in developing countries Africa and Asia together account for over 90 % of total child employment (ILO-IPEC WACAP, 2005). Child labour is especially prevalent in rural areas where the capacity to enforce minimum age requirements for schooling and work is lacking. Children work for a variety of reasons, the most important being poverty and the induced pressure upon them to escape from this plight (Siddiqi and Patrinos, 2006). The International Labour Office reports that children work the longest hours and are the worst paid of all labourers (Bequele and Boyden, 1988). In Nigeria, majority of the children involved in farm work are not usually compensated as such employment is regarded as part of their responsibilities or contributions to their parents' and the families' well-being (Torimiro and Lawal, 1999). Children are conceptualized as young people either male or female from the time of birth to eighteen years. UNICEF (1997) estimated this category of the population in Nigeria as 45%. It has now become imperative not to under estimate the children involvement in the cassava production especially now that Nigeria is taking the leading role in the world's cassava production (FAO,

2004). This study is therefore to find out farmers' children involvement in cassava production, identify the activities in cassava production that the children are involved in and determine the level of the children's involvement in cassava production. This study will provide answers to the following questions:

- What are the personal characteristics of the farmers' children?
- What is the size of the farms of the children's parents?
- What are the cassava production activities in which the farmers' children are involved?
- What is the level of the children's involvement in these cassava production activities?

The main objective of the study was to investigate the level of farmers' children involvement in cassava production activities in Akure South Local Government Area of Ondo State

Hypotheses of the Study

There is no significant relationship between the personal characteristics of the farmers' children and their involvement in cassava production.

There is no significant relationship between parents' farm size and their children's involvement in cassava production.

Methodology

The study was conducted in Akure South L.G.A. located within Akure Kingdom of Ondo State. The kingdom comprises of three local governments councils: Akure south, Akure north and Ifedore. Akure south is located within the tropical rainforest zone with an estimated land mass of about 1,514 sq. kilometres in area. And it is bounded by Ijesa on the western side, Ondo on the southern side, Benin on the eastern side and Ado on the northern side (Adejuyigbe, 1992). The local government comprise of more than 20 villages. The major occupation of the villagers is farming. Some of the villagers are also involved in hunting, bricklaying, bicycle repairing as their secondary occupation. The major language spoken by the people is local Yoruba dialect which is also interspersed with the dialects of some ethnic groups (Ibira, Igede) dwelling in the villages. The major religions of the people in these villages are Christianity, Islam and traditional religion.

Five villages (Ologede, Omi eye, Aponmu, Okuta Ekan and Ijoka) were randomly selected from the list of communities in the study area. 4 children from 6 households were purposely selected for interview from each village to make a total of twenty-four (24) respondents. 120 respondents were selected in total. This comprises of 120 farmers' children who are involved in cassava production and whose ages range from 6-18 years. Interview schedule was employed for collecting data for this study. Data collected were centred on:

- The personal characteristics of the farmers' children
- The farm size of the children's parents.
- The cassava production activities that the farmers' children are involved in.
- The level of the children's involvement in cassava production.

A 4-point Likert scale with legends ranging from all the time = 3, most of the time = 2, some of the time = 1 and not at all = 0 were used to measure the level of their involvement in pre-harvest and post harvest activities of cassava production. The total of eight pre-harvest activities participated in was assigned with maximum score of 24 points while minimum score is 0 point. The total score obtained for each child in the pre-harvest farming activities were

obtained raw and then transformed to standard z-scores with $\bar{x}=8.38$ and $\delta=4.631$.

This was used to categorize the level of involvements as follows.

Low level: - 1.81 to - 0.09

Medium level: - 0.08 to 1.64

High level: 1.65 to 3.37

And for the nine post-harvest activities where the maximum point is 27 and 0 the minimum point

.For the raw score, $\bar{x}=15.23$ and $\delta=3.71$. Following categories hold:

- Low level: - 4.11 to - 1.69
- Medium level: - 1.68 to 0.74
- High level: 0.75 to 3.17

Data analysis involved the use of descriptive statistics such as frequencies, percentages and means. Also Pearson's Correlation was used to test the significant relationship between the personal characteristics of the farmers' children and their involvement in cassava production and the significant relationship between parents' farm size and their children's involvement in cassava production.

Results and Discussion

Personal characteristics of respondents

Table 1 shows the results of the personal characteristics of the respondents. These include the age, gender, level of education, numbers of fathers' children and religion. Majority of the respondents were within the age group of 13 and 15 years (46.7%) and those above 15 years (33.4%). This shows that children from 13 years and above are more involved in cassava production. This implies that post primary pupils are more in cassava production which confirms the ILO (2002) findings that of the 353 million children engaged in economic activity worldwide, 246 million children between age 12 and 17 are involved in child labour, which the ILO says should be abolished. 58.3% of the respondents are males, 37.5% are females. Thus the result shows that male children are more into cassava production than their female counterparts possibly because of the physical nature of the job. About 60.8% of the respondents were in post primary school, 29.2% in primary school while 10% indicated that they do not have formal education. This result shows that post primary school pupils are more into cassava production than primary school pupils and other children who do not have formal education. Majority of the family size of the respondent are in the range of 6-10 children (51.7%) while 42.5% is for family size that is above 10. This result possibly explains the fact that most of the rural dwellers are polygamous in nature with the view of having many wives and children to serve as labours on their farms. Respondents are predominantly Christians (71.7%), 21.7% are Muslims while 6.7% failed to specify their religions. Thus, the result shows that there are more Christians in the study area than people of other religions.

Farm Characteristics of Respondents.

The result in Table 2 shows that majority (55.8%) of the respondents' parents have less than 3000 heaps of cassava, while 43.4% respondents' parents have heaps of cassava that range from 3001 to 6000 on their farms. And only a respondent (0.8%) failed to indicate the size of his parent cassava farm. About 32.5% of the respondents have their own farms. Out of this

population, 8.3% indicated that the farm owned is part of their parents' farm; while 24.2% indicated that they have their own separate farms. Children owning their separate farm might be an indication of poverty where children will always seek ways of livelihood for themselves. This is very common to the developing nations like Nigeria. 90.8% of the respondents are involved in cassava production only on holidays and during weekends. While only 44.2% is involved after school hours. None of them is ever involved throughout the day. These results are better explained with the fact that most of the respondents are either schooling or apprentice learning a trade or craft.

Involvement in Cassava Production activities

Table 3 shows the respondents involvement in both pre harvest activities comprising of ten activities and post harvest activities comprising of seven activities. In pre harvest activities, 44.2% of the respondents are involved in land clearing and 36.7% of the respondents are involved in heap making at all level. This low involvement may be largely due to the tedious nature of those activities in relation to the age of the respondents and their schooling. Large proportions (80%) of the respondents are involved in planting. This result is best explained with the fact that planting is not a tedious pre harvest activity. Hence, the respondents can invariably cope with it. High percentage (76.7%) of the respondents is involved in weeding; in which 37.5% are involved in the activity all the time. This high involvement is shown because weeding is a less tedious activity in which all the farming families are mostly involved. Only 10.8% of the respondents are involved in fertilizer application. This result can be best explained in that the children's parents do not use fertilizer on their farms because of its non-affordability and non-availability. Also the children may be considered too young to handle fertilizer. Low percentage (29.2%) of the respondents is involved in disease control while 33.3% are involved in pest control. These results are likely due to the fact that these activities involve handling of chemicals which are poisonous and may be hazardous to their health; if carelessly handled. Majority (79.2%) of the respondents take part in harvesting of cassava.

Most of the respondents are involved in one post harvest activity or the other; and at one level or the other. About 88.3% are involved in storage of cassava at one level or the other. Few (21.7%) of the respondents are involved in marketing of cassava products. About 90% of the respondents are involved in peeling, 90.8% is involved in soaking, 80.8% is involved in grinding, 78.3% is involved in drying, 88.3% is involved in sieving, 79.2% is involved in draining (sacking) and 80.8% is involved in frying. The reason for this high involvement may be due to the fact that most of the activities are less tedious. Thus their ages and strength can easily cope with them. Another reason may be because most of the respondents (about 90%) are into schooling. Hence, they often times assist their parents with less difficult tasks like processing after school hours.

Level of farmers' children involvement in cassava production

The result in Table 4 shows that more than half (50.83%) of the respondents have low involvement in pre harvest activities of cassava production while 41.67% have medium involvement and 7.50% have high involvement in the pre harvest activities. It is obvious from the study that high proportion of the children has low and medium level involvement in the pre harvest cassava production activities. But for post harvest activities, majority of the children

have medium and high level involvement in the activities. 8.33% have low involvement, 65.00% have medium involvement while 26.67 % have high involvement. Comparing these two categories of activities, it suggests that children are more committed to post harvest activities possibly because of their involvement in schooling and most post harvest activities can easily be done after the school hours. It may also be due to the fact that those activities require. It could also be due to the economic reason since most of the processed products command more value than the raw one.

Pearson's coefficient of result and interpretation

Pearson's r-coefficient shows the relationship between the dependent variable (Farmers' children involvement in cassava production) and the independent variables (parents' farms size and personal characteristics of the respondents). This is to test the significant relationship between the personal characteristics of the farmers' children and their involvement in cassava production. Table 5 shows that age is positively and significantly related to level of involvement ($r = 0.466$) at 0.01 level of significance. This implies that the age of the respondents affect their level of involvement. Thus, the older the farmers' children age, the more their levels of involvement in cassava production. The finding also shows that the gender of the respondents does not correlate with level of involvement ($r = -0.170$). This means that all the respondents are involved in cassava production on their parents' farms; irrespective of whether they are males or females. The level of education of the respondents does not significantly affect their levels of involvement in cassava production ($r = -0.142$). Thus, all the respondents in primary and post primary schools and, those who are not in school are involved in cassava production. Number of children in the family does not significantly affect their levels of involvement in cassava production ($r = -0.098$). Religion of the respondents significantly affect their levels of involvement in cassava production ($r = 0.221$) at 0.05 level of significance. As also shown on Table 6, it was also found that there is no significant relationship between the respondents' parents' farm size and their level of involvement in cassava production. This result shows that whether the parents of the respondents have large or small farms, it has nothing to do with their involvement in cassava production activities.

Conclusion and Recommendation

The study shows that majority of the respondents are within the age group of 13 and 15 years (46.7%) while those above 15 years are 33.4%. More than half of the respondents are males (58.3%). About 60.8% of the respondents are in post primary school. Respondents are predominantly Christians (71.7%). Majority (55.8%) of the respondents' parents have less than 3000 heaps of cassava. About 32.5% of the respondents have their own farms. The study also shows that more than half (50.83%) of the respondents have low involvement in pre harvest activities while 65.00% of the respondents had medium involvement in post harvest activities. Pearson's r-coefficient shows that age is positively and significantly related to level of

involvement ($r = 0.466$) at 0.01 level of significance. Religion of the respondents significantly affect their levels of involvement in cassava production ($r = 0.221$) at 0.05 level of significance while gender, level of education and the respondents' parents' farm size had no significant relationship with their level of involvement in cassava production. It is however recommended from this work that government should make elementary and post primary education accessible to the poor farmers' children in rural communities; for this may assist in the generation of literate farmers that can easily understand and adopt new improved farm technologies to enhance their output of cassava production.

References

- Adedoyin, S.F. (1999). Farm children: education and agricultural productivity in the 21st century. *Proceeding of the second national conference of the children in-Agriculture Program*. CIAP, Heptagon Venture Limited, Lagos, Nigeria, May, 1999, pp. 2 - 5.
- Adejuyigbe. O. (1992). Territorial Limits of Akureland; *Oyemekun Festival Lecture 1992*, Ofamco Press Limited, Akure.
- Adeniji, A.L.; Ega, M.; Akoroda, A.; Adeniyi, B.U. and Balogun, O.(1997) A. Cassava development in Nigeria. A country case study towards a global strategy for cassava development. Department of Agriculture, Federal Ministry of Agriculture and Natural Resources, Lagos, Nigeria.
- Affah, J. A. (2001): Ethical contradiction and policy in Nigeria through children participation in Agriculture; *Research and policy issue for children in Agriculture*, Proceeding of the fourth annual research network meeting and conference for Children- in-Agriculture Program (CIAP), 2001, Markurdi.
- Bequele, A. and Boyden, J. (1988). Working Children: Current Trends and Policy Responses. *International Labor Review* 127(2), pp 153-171.
- Bidmus, K. (1996): "Agriculture and the Nigerian Youths", The Guardian Newspaper, Thursday May 23, pp 3.
- FAO (2004): *Production year book*, 2002, Rome :Food and Agriculture Organization.
- Farinde J.A (1999): Issues Crucial to Farm Children Development and Sustainable Agriculture in Nigeria. *Proceeding of the second National Conference of the children in-Agriculture Program*, CIAP, Heptagon Ventures, Lagos, Nigeria, May 1999, pp 92-101.
- FMANR, (1997). *Yearly statistics of agricultural production in Nigeria*. Federal Ministry of Agriculture and Natural Resources, Abuja.
- FMANR, (2006). *Yearly statistics of agricultural production in Nigeria*. Federal Ministry of Agriculture and Natural Resources, Abuja.
- Henry, G., Westby, A., and Collinson, C.(1998): Global Cassava End Uses and Markets: Current Situation and Recommendations for Further Study, A report of a FAO consultancy by European Group on Root, Tuber & Plantain, CIRAD. Phase 1: Market Study, pp 58.
- IITA (2004). *Cassava Production in Nigeria*, Institute of International Tropical Agriculture, Ibadan, Nigeria.

- ILO (2002). *A Future without Child Labour*, ILO Report, Geneva, May 2002
- ILO-IPEC WACAP (2005) **Prevention and Elimination of Hazardous Child Labour**
(Cote d'Ivoire, Cameroon, Ghana, Guinea, and Nigeria). ILO-IPEC WACAP
2005 Report, pp 1-6.
- Nwachukwu, I. (1989) *The use of Television in dissemination of Agriculture Technology*: A case study of selected communities in Oyo state, Rural Development in Nigeria, *Journal of Federal department of Agriculture and rural Development*, Vol. 3(2), pp 80-98.
- Ogunde, S.E.; Njemanze, L. N.; Bakoyi, H.; Agbonhin, B.; Oshunbiyi, O. O.; Nwgoro, M.U.; Idimije, K. U. ; Momoh, A and Wiltshirew, G. (1991). **Toward a self-sufficiency in food**, *Know Nigeria Series No.1*. Federal Ministry of Information, Lagos. pp2.
- Oyewole, B. O. and Philip, B. (2006) Agro-food Chain and Sustainable Livelihood: A case study of cassava marketing in Nigeria. In *Agro food Chains and Networks for development*. Reuben, B. and Slingerland (eds). Springer, Netherlands. 107 -115
- Siddiqi, F. and Patrinos, H.A. (2006) .Child Labour: Issues, Causes, and Interventions. *Human capital development and Operations Policies, Working paper, HCOWP, 56*.
- Tonukari, N.J. (2004) Cassava and the future of Starch. *E- Journal of Biotechnology*. Vol.7 No 1.
- Torimiro, D.O. and Lawal. B.O. (1999). Rural children socialization into farming: an empirical exposition from Ago-Iwoye enclave in Ogun State, Nigeria. In *Gender, Sustainable Development and the Urban Poor in Nigeria*. Hisis (Publishing) Ltd., Port-Harcourt: Nigeria, pp 169-178.
- UNICEF (1997). *The Progress of Nigerian Children*, Nigeria Federal Office of Statistics (FOS) and United Nations Children Fund (UNICEF) Communications and Information Section.

Table 1: Distribution of Respondents by Personal Characteristics.

Variables	Categories	Frequency	Percentage
Age(Years)	Less than 10	7	5.8
	10-12	16	13.3
	13-15	56	46.7
	Above 15	40	33.4
	No response	1	0.8
Sex	No response	5	4.2
	Male	70	58.3
	Female	45	37.5
Level of Education	No formal education	12	10.0
	Primary school	35	29.2
	Post primary school	73	60.8
Number of Children in the family	3-5	7	5.8
	6-10	62	51.7
	Over 10	51	42.5
Religion	No response	8	6.7
	Christianity	86	71.7
	Islam		

Source: Field Survey, 2006

Table 2: Distribution of Respondents by Farming Characteristics.

Variables	Categories	Frequency	Percentage
Cassava Farm Size	Less than 3000 heaps	68	55.8
	3001-4000 heaps	20	16.7
	4001-5000 heaps	14	11.7
	5001-6000 heaps	18	15.0
	No response	1	0.8
Ownership of Farm	Parent	81	67.5
	Children: <i>Personal</i>	29	24.2
	<small>Part of parents</small>	10	8.3
Time of Involvement	Holidays	109*	90.8
	After School Hours	53*	44.2

* Multiple responses

Source: Field Survey, 2006

Table 3: Distribution of Respondents by their activities in Cassava Production

Categories	Activity	Frequency*	Percentage*	Means	Standard Deviation
Pre-Harvest	Land clearing	53	44.2	1.09	1.32
	Making heaps	44	36.7	0.90	1.25
	Planting	96	80.0	1.82	1.12
	Weeding	92	76.7	1.76	1.19
	Applying fertilizer	13	10.8	0.13	0.41
	Disease control	35	29.2	0.49	0.91
	Pest control	40	33.3	0.33	0.47
	Harvesting	94	79.2	1.86	1.15
Post Harvest	Storage	106	88.3	1.57	0.86
	Marketing	26	21.7	0.30	0.62
	Peeling	108	90.0	2.22	0.98
	Soaking	109	90.8	2.20	0.94
	Grinding	97	80.8	1.83	1.06
	Drying	94	78.3	1.65	1.11
	Sieving	106	88.3	2.21	0.99
	Draining/sacking	95	79.2	1.58	1.05
	Frying	97	80.8	1.67	1.10

* Multiple responses

Source: Field survey, 2006

Table 4: Distribution of respondents by their levels of involvement in cassava production (N = 120)

Period	Z-Scores	Categories	Frequency	Percentage
Pre Harvest	- 1.81 to - 0.09	Low level	61	50.83
	- 0.08 to 1.64	Medium level	50	41.67
	1.65 to 3.37	High level	9	7.50
Post Harvest	-4.11 to -1.69	Low level	10	8.33
	-1.68 to 0.74	Medium level	78	65.00
	0.75 to 3.17	High level	32	26.67

Source: Field survey, 2006

Table 5: Pearson's r-coefficient of relationship between level of involvement and personal characteristics of the respondents N = 120

Variable	r value	Remark
Age	0.466**	Significant
Sex	-0.170	Not significant
Education	-0.142	Not significant
No of Children in the family	- 0.098	Not significant
Religion	0.221*	Significant

Source: Field survey, 2006

** Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Table 6: Pearson's r-coefficient of relationship between level of involvement in production activities and the respondents' parents' farm size N = 120

Variable	r value	Remark
Farm size	-0.058	Not significant

Source: Field survey, 2006

** Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)