



ANALYSIS OF CHILD-LABOUR DIMENSIONS IN AGRICULTURAL PRODUCTION IN ABIA STATE: A CASE STUDY OF SMALL-SCALE COCOA FARMING HOUSEHOLDS

Obinna, Leo. O.ⁱ, Okafor, E. C.

Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria

Abstract:

The study that was carried out in Abia State, Nigeria made use of 120 respondents realized through multi-stage sampling methods. Data generated via structured questionnaire were analyzed using descriptive statistics and Z-test analysis respectively. Results revealed that 66.7 % of the Heads of Households (H/H) were married and 75 % were males and 25 % females. A mean age of 46.8 years and a mean monthly income of ₦38,750.00 were recorded by the H/Hs. A mean household size of 5.7 persons and a mean farm size of 2.2 hectares were also recorded. About 75 % of the H/Hs were literates with mean years of farming experience of 22.9 years. Results equally, revealed that the H/Hs had a low level ($X = 1.5$) of awareness on what constituted child-labour. A very high proportion (72.9 %) of the H/Hs indicated that 83.3 % of the activities in cocoa production involved child-labour. Factors such as poverty, hunger, traditions, death of parents, lack of mechanization and high cost of labour among others were identified as factors influencing the involvement of child-labour in the study area. Results revealed that there is no significant difference between what constituted child-labour in cocoa production and factors influencing the involvement of child-labour in the study area. The study recommended that the National Orientation Agency (NOA) of Nigeria should intensify campaign as to educate the masses mostly in the study area, on the negative effects of child-labour both to the child and the larger society.

Keywords: child-labour, small-scale cocoa farmers, Abia State

ⁱ Correspondence: obinna.leo@mouau.edu.ng, obinna.leo@2gmail.com

Introduction

Child-labour in agricultural production, household chores, and industrial works and in other areas of human endeavor has been a very topical issue because of its effects both on the child and the society in recent times. The United Nations (UN) (1999) set eighteen years as the upper limit of childhood. The Nigerian Labour Decree (1974) in Okafor, (2014) defined a child as any person below the age of fifteen years. On the other hand, International Labour Organizations (ILO) (2006) defined child-labour as employment of children in any work that deprives them of their childhood, interferes with their ability to attend school regularly, or is mentally, physically, socially or morally dangerous and harmful to the child. Okpukpara, Benjamin and Ngozi (2003) equally, defined child-labour as paid and unpaid work by young children under long hours with low wages, hazardous working conditions (physical or mental) which deprives attendance to school with abusive treatment by the employer. However, ILO (2007) asserted that children have always participated in the household chores, but that recent reports have shown that children were forced into labour as a conventional child work. In like manner, studies Achidike (2006); Ezike et al (2011) and Okafor (2014) have shown that what constitutes child-labour varies from one location to the other in line with norms, traditions, beliefs, values, and religions among others respectively. It was in an attempt to clear this ambiguity behind what constitutes child-labour that the UN (1999) classified the following works when undertaken by children as child-labour:

- a) Work which exposes children to physical, psychological or sexual abuse;
- b) Work with dangerous machinery, equipment and tools or which involves the manual handling or transport of heavy loads;
- c) Work in an unhealthy environment which may expose children to hazardous substance agents or processes or to temperature, noise level or vibration that brings damages to their health;
- d) Work under particular difficult conditions such as work for long hours or during the night or work where there is unreasonably confined to the premises of the employment;
- e) Work that tampers with education or school of the child;
- f) Work that does not have commensurate positive remuneration and
- g) Work that has potential of jeopardizing the child future among others.

Additionally, ILO (2007) noted that agriculture is one of the major sectors that employs children both in developed and developing countries of the world. It further, stated that children contributed about $\frac{1}{3}$ of agricultural workforce.

The improved cocoa bean popularly cultivated through agro-forestry plantation system in Abia State is the Amazon variety (Merging, 2000). Cocoa (*Theobroma Cacao*) is a perennial plant and is essentially a humid forest crop planted in the higher forest area

where it benefits from the natural forest shade, fertilizer surface, mulch, organic matter and humidity provided by the forest cover (Meregini, 2000). Cocoa bean is cultivated through nursery in poly-bags before being transplanted to the field. Meregini (2000) equally, noted that the major cocoa farms in Abia State were concentrated in Bende, Umuahia and Ikwuano Local Government Areas of the State respectively. He also, stated that these areas produced between 790.50 and 1,887.3 metric tons of cocoa in the state between 1993 and 1995. On the other hand, Central Bank of Nigeria (2010) reported that Nigeria produced about 380,000 metric tons/year of cocoa in 2008 and expected to increase her production to 700,000 metric tons/year in 2011. Cocoa production was one of Nigeria's major foreign exchange earners in the '60s before the oil boom of '70s. It was a primary farming enterprise in Nigeria, providing employment for a great deal of manpower in the field operation, primary processing and marketing (Abia State Statistical Year Book, 1997).

Ezike, Nwaibo, Mbam and Okafor (2011) noted that children are important entity in every household. Their role ranges from domestic chores to other duties outside the home. Ifenkwe (2012) stated that children are the future leaders, that any society without children has no future. It is in realization of this that the United Nations (UN) (1999) set the Millennium Development Goals (MDGs) which one of the goals is Universal Primary Education for all by 2015. The Federal Government of Nigeria on her own part introduced the Universal Basic Education Scheme (UBE) and very recently in Abia State, the Governor Dr. Okezie Ikpeazu introduced the free feeding scheme in all the primary schools in Abia State. It is in consideration of all these proactive measures against child-labour that the study sought to analysis child-labour dimensions in agricultural production in Abia State among small-scale cocoa farming households.

The following specific objectives guided the study to:

- a) examine the socio-economic characteristic of the household heads;
- b) determine the level of awareness among the farming households on works that constitute child-labour in the study area;
- c) Identify the various cocoa production activities that children engage into; and
- d) Identify factors influencing child-labour practices among the cocoa producing farming households in the study area.

HO₁

There is no significant difference between the activities that involved child-labour in cocoa production and factors that influence child-labour in the study area.

Methodology

The study was carried out in Abia State, Nigeria. The state is situated in the South-East of Nigeria. The state is located on latitudes 4° - 7° N and 7° - 8° E (NRCRI, 2006). Abia State is divided into three major Agricultural Zones namely: Ohafia, Umuahia and Aba Agricultural Zones respectively (Abia ADP, 2006). The major crops grown in the state are oil-palm, cocoa, coconut, cassava, rice, yam, plantain, banana, oranges, and vegetables (NRCRI, 2006). A sample size of 120 respondents purposively selected through multi-stage randomized methods was used for the study. Of the three Local Government Areas (LGAs) namely: Bende, Ikwuano and Umuahia, where cocoa production is prominent (Meregini, 2000), Bende and Ikwuano LGAs were purposively selected. This is because Bende LGA is in Ohafia Agricultural Zone while Ikwuano LGA is in Umuahia Agricultural Zone respectively. Two communities (Bende and Abam in Bende LGA and Oboro and Ibere in Ikwuano LGA) were each randomly selected from the two LGAs to give a total of four communities in all. Through another random method 30 household heads were selected from each of the four communities to give a total of 120 household heads that were used for the study. Structured questionnaire were used to generate the primary data. Data were analyzed through the use of descriptive statistics such as frequency counts, percentages, means, pooled means, ranks and Spearman's Correlation index.

Results and Discussion

Socio-Economic Characteristics of Respondents

Table 1 shows that 66.7% of the Heads of Households (H/H) were married and only 16.7% were single and 75% were males and 25% were females. The implications are that more men than women owned cocoa plantations in the study area. This corroborates Aniedu (2006) who postulated that men utilized more improved technologies than their women counterparts.

Therefore, since cocoa production is cash crop not a domestic crop more men than women are involved. Table 1 equally, shows that the mean age of the respondents as 46.8 years. This implies that the respondents were at the peak of their productive age (Ekong, 2010). A monthly income mean of ₦38,750.00, indicates that the respondents earned 2.2 times more than the minimum wage of ₦18,000.00 per month of Nigerian Federal Government salary scale. Table 1 further, shows the mean household size of 5.7 persons, and a mean farm-size of 2.2 hectares. This is a typical characteristic of most of small-scale farmsteads in the South East Nigeria, (large household size) for family labour and small farm size due to land tenure system (Obinna, 2014). About 75% of the respondents were literates with a mean years of farming experience of 22.9 years. This

implies that cocoa production as perennial crop that is planted in an agro-forestry system of plantation requires experience and knowledge (Meregini, 2000).

Level of Awareness of the Respondents on Activities that Constitute Child-Labour

Table 2 shows that out of 12 activities investigated upon among the heads of households, in-order as to determine their level of awareness on the activities that constitute child-labour. Only one (application of agro-chemicals with mean score = 2.8) had a high level of awareness among them. The other 11 activities recorded low level of awareness amongst them. They include: head portage of twice the body weight, processing for > 8 hours, harvesting for > 8 hours, packaging for > 8 hours, weeding for > 8 hours, applying fertilizer for > 8 hours, planting for > 8 hours, clearing farm land for > 8 hours, working during school hours, working at night, and working without protective clothing respectively. This implies that the level of awareness ($X = 1.5$) of the respondents on the activities that constitute child-labour in the study area is low.

Identification of the Various Cocoa Production Activities that Engage Child-Labour in the Study Area

Table 3 shows that out 12 activities investigated, 10 involved the use of child-labour in cocoa production activities. Only two activities did not involve the use of child-labour, they include: application of agro-chemicals, with a score of 4.17% and planting of cocoa seedlings with a score of 33.33% and ranked 12th and 11th respectively.

The other 10 activities that made use of child-labour include: clearing cocoa farm land for > 8 hours, head portage that is twice the body weight of the child, slashing/weeding for > 8 hours, application of fertilizers, harvesting of cocoa pods for > 8 hours, breaking of cocoa pods for > 8 hours, removing of cocoa bean seeds for > 8 hours, washing of cocoa bean seeds for > 8 hours, sun drying of cocoa bean for > 8 hours and bagging/ packaging for > 8 hours respectively.

Factors that Influence Child-Labour in the Study Area

Table 4 shows that 11 out of 12 factors investigated as factors influencing child-labour in the study area were significant. They include: poverty, hunger, and tradition which scored 100% and ranked 1st positions respectively. Others include, death of parents which scored 91.67 % and ranked 4th.

Lack of mechanization and lack of labour scored 83.33% and ranked 5th positions respectively. Illness of the head of house hold scored 79.17% and was ranked 7th, while high cost of labour scored 75% and ranked 8th position. Polygamous home scored 58.33% and ranked 10th positions. Household size scored 50% and ranked 11th while religion scored 33.33% and ranked 12th respectively. The implication of the finding is

that since the pooled mean is 72.92%, one can then conclude that a very high proportion of factors influence the involvement of children into labour.

Test of H_{O1}

Table 5 shows that:

$$Z_{CAL} = -0.045^{***} \text{ and since } Z_{TAB} = 0.628^{***} > Z_{CAL} = -0.45^{***},$$

H_{O1} is upheld and the alternative hypothesis is rejected.

Conclusion

The study was conducted in Abia State, Nigeria. A sample size of 120 respondents realized via multi-stage sampling methods was used for the study. Data were generated using structured questionnaire and were analyzed using descriptive statistics and Z – Test analysis. Results revealed that 66.7% of the H/Hs were married and 75% were males and 25% females respectively. Results further revealed the mean age of 46.8 years, mean monthly income of ₦38,750.00, mean household size of 5.7 persons and mean farm size of 2.2 hectares respectively were recorded by the respondents. Results further, revealed that about 75% of the H/Hs were literates and had a mean farming years of experience of 22.92 years. Results equally, revealed that the respondents had a low level ($X=1.5$) of awareness on the activities that constitute child-labour. Also, results revealed that a very high proportion (72.9%) of the respondents indicated that about 83.33% of the activities in cocoa production involved child-labour. Results equally, revealed a very high proportion (72.92%) of the respondents indicated that 11 in every 12 factors in the study area influenced child-labour. The Z-Test analysis revealed that there is no significant difference between the activities that involve child labour in cocoa production and factors that influenced the engagement of children into child-labour in the study area.

The study recommends that research institutes and governments at the tier levels should endeavor to introduce mechanization into cocoa production in order to reduce the high labour cost involved in cocoa production. Also, awareness campaign should be intensified by the National Orientation Agency (NOA) on the negative effects of child-labour both to the child and the society.

References

- 1) Abia – ADP (2006) “Root and Tuber Expansion Programme (RTEP), Annual Report 2001 p – 52
- 2) Abia State Statistical Year Book (1997) Umuahia Abia State, Nigeria.
- 3) Achidike, B. A. (2006): Child Abuse and Emotional Development of the child, Ebonyi State University Journal of Education, 4 (1): 36
- 4) Central Bank of Nigeria (2010) Annual Report 2010
- 5) Ekong, E. E (2010)“ Rural Sociology (3rd) Edition Dove Educational Publishers, Uyo, Nigeria Pp 1 – 425
- 6) Ezike, S. U; Nwaibo, U; Mbam, B. N. and Okafor (2011) “Child Labour and Agricultural Productivity: Farm Management Association of Nigeria (FAMAN) Journal of 25th Conference, Akure, 2011 P252
- 7) Ifenkwe, G. E. (2012) “Mobilizing and Empowering Youths for sustainable Community and Rural Development in Nigeria. International Journal of Academic Research Education and Development Vol. 1 No. 2 ISSN 2226 – 6348
- 8) International Labour Organization (ILO) (2006) Conference report on child labour Johannesburg South Africa P 8 – 14
- 9) ILO (2007), Global report IPEC 2007 Pat iii Pp 49
- 10) Meregini, A. O.A (2000) Sustainability in Cocoa Production through the adoption of Agroforestry Practices in Abia State, Nigeria In food & Fiber Production in Nigeria in the 21st Century. Proceedings of the 1st Annual Conference of the College of Agriculture and Veterinary Medicine Abia State University 10 – 13th September 2000.
- 11) National Root Crop Research Institute (NRCRI) (2006) Annual Report.
- 12) Obinna, Leo. O (2014) Effect of “August Meeting in Women Networking and Mobilization towards rural development: Experience of Ibeku Women in

Umuahia North L.G.A. of Abia State, Nigeria. Discourse Journal of Agriculture and Food Science Vol. 2 (5) 85 – 90 ISSN: 2346 – 7002

- 13) Okafor, C. E. (2014) "Rural Households' Perception of Child-Labour Involvement in Agricultural Production in Ebonyi State, Nigeria. A PGD Thesis presented to the Department of Rural Sociology and Extension, Michael Okpara University of Agriculture, Umudike.
- 14) Okpukpara, B and Ngozi, U. (2003) Children and Social Life, Cambridge University Press Pp 92 – 228
- 15) United Nations (UN) (1999); World Survey on the Role of Women in Development, Published by Department of International Social Affairs, PP12.

Table 1: Socio-Economic Characteristics of Respondents

n = 120

S/No	Variables	Frequency	Percentage	Mean
01	Marital status			
	Married	80	66.7	
	Single	20	16.7	
	Divorced / Separated	15	12.5	
	Widowed	5	4.2	
02	Sex of households heads			
	Male	90	75.0	
	Female	30	25.0	
03	Age of H/Hs in Years			
	20 - 30	10	8.33	
	31 - 40	10	8.33	
	41 - 50	60	50.00	46.8yrs.
	51 - 60	30	25.00	
	61 and above	10	8.33	
04	Monthly income of H/Hs in ₦			
	≤ 20,000.00	20	16.7	
	21,000.00 - 40,000.00	20	16.7	38,750.00
	41,000.00 - 60,000.00	60	50.00	
	61,000.00 and above	20	16.7	
05	Household size (no. of persons)			
	≤ 4	40	33.33	
	5 - 7	60	50.00	5.7
	8 & Above	20	16.7	
06	Farm size in hectares			
	≤ 1.5	40	33.33	
	1.6 - 3.1	60	50.00	2.2
	3.2 & Above	20	16.7	
07	Education of H/Hs			
	No formal education	30	25.00	
	Primary education	50	41.66	
	Secondary education	35	29.16	
	Tertiary education	5	4.2	
08	Farming experience of H/Hs in yrs.			
	≤ 10	10	8.33	
	11 - 21	40	33.33	22.92
	22 - 32	50	41.66	
	33 & Above	20	16.7	

Source: Field Survey 2014

Table 2: Distribution of Respondents According to Their Level of Awareness on Activities that
Constitute Child-Labour

n = 120

S/No	Activities when undertaken by Children	V/M/A	A	N/V/M/A	N/A	MEAN	LEVEL
01	Clearing of farmland for ≥ 8 hours	10	20	30	60	1.8	Low
02	Planting seedlings for ≥ 8 hours	8	12	20	80	1.6	Low
03	Weeding / Slashing for ≥ 8 hours	5	10	15	90	1.4	Low
04	Applying fertilizer for ≥ 8 hours	-	8	12	100	1.2	Low
05	Harvesting for ≥ 8 hours	-	5	10	105	1.16	Low
06	Processing for ≥ 8 hours	-	-	10	110	1.08	Low
07	Packaging for ≥ 8 hours	-	-	5	115	1.04	Low
08	Applying agro-chemicals	40	40	20	20	2.8	High
09	Head portage twice the body weight	-	-	8	112	1.07	Low
10	Working without protective wear	5	20	35	60	1.75	Low
11	Working at night	-	20	30	70	1.58	Low
12	Working during school hours	-	15	30	75	1.5	Low

Source: Field Survey 2014

N/B:

V/M/A = Very Much Aware, weighted and scored 4 points.

A = Aware, weighted and scored 3 points

N/V/M/A = Not Very Much Aware, weighted and scored 2 points

N/A = Not Aware, weighted and scored 1 point.

Decision Rule: Any mean responses ≥ 2.5 was adjudged significant, while any mean response < 2.5 was adjudged not significant.

Awareness Level

From 0 to 2.49 = Low level of awareness. From 2.5 to 4.00 = High level.

Table 3: Distribution of Respondents According to Cocoa Production Activities that Involved Child-Labour

n = 120

S/No	Activities in Cocoa Production Involving Child-Labour	Frequency	Percentage	Ranks
01	Clearing of cocoa farm for ≥ 8 hours			
	Yes	80	66.7	9 th
	No	40	33.33	
02	Head portage twice the child's weight			
	Yes	100	83.33	4 th
	No	20	16.7	
03	Planting of cocoa seedlings for ≥ 8 hours			
	Yes	40	33.33	11 th
	No	80	66.67	
04	Slashing/ Weeding of cocoa farm for ≥ 8 hours			
	Yes	80	66.67	9 th
	No	40	33.33	
05	Application of fertilizer for ≥ 8 hours			
	Yes	100	83.33	4 th
	No	20	16.67	
06	Application of agro-chemicals			
	Yes	5	4.17	12 th
	No	115	93.33	
07	Harvesting of cocoa pods for ≥ 8 hours			
	Yes	90	75.00	8 th
	No	30	25.00	
08	Breaking of cocoa pods for ≥ 8 n hours			
	Yes	120	100.00	1 st
	No	-	-	
09	Removing of cocoa bean seeds for ≥ 8 hours			
	Yes	120	100.00	1 st
	No	-	-	
10	Washing off cocoa mash from the seeds ≥ 8 hours			
	Yes	120	100.00	1 st
	No	-	-	
11	Sun drying of cocoa bean seeds for ≥ 8 hours			
	Yes	100	83.33	4 th
	No	20	16.7	
12	Bagging / Packing of cocoa bean for ≥ 8 hours			
	Yes	95	79.17	7 th
	No	25	20.83	

Source: Field Survey 2014

Decision Rule: Any response $\geq 50\%$ was adjudged significant, while any response $< 50\%$ was adjudged not significant.

Table 4: Distribution of the Respondents According to Factors Influencing Child-Labour in the Study Area

n= 120

S/No	Factors Influencing Child-Labour	Frequency	Percentage	Ranks
01	Poverty			
	Yes	120	100.00	1 st
	No	-	-	
02	Hunger			
	Yes	120	100.00	1 st
	No	-	-	
03	Traditions			
	Yes	120	100.00	1 st
	No	-	-	
04	Illiteracy			
	Yes	90	75.00	8 th
	No	30	25.00	
05	Religion			
	Yes	40	33.33	12 th
	No	80	66.67	
06	Large household size			
	Yes	80	66.67	10 th
	No	40	33.33	
07	Lack of labour			
	Yes	100	83.33	5 th
	No	20	16.67	
08	High cost of labour			
	Yes	90	75.00	8 th
	No	30	25.00	
09	Polygamous home			
	Yes	70	58.33	11 th
	No	50	41.67	
10	Death of parents			
	Yes	110	91.67	4 th
	No	10	8.33	
11	Lack of mechanization			
	Yes	100	83.33	5 th
	No	20	16.67	
12	Illness of head of households			

Yes	95	79.17	7 th
No	25	20.83	

Source: Field Survey 2014

Decision Rule: Any response $\geq 50\%$ was adjudged significant, while any response $< 50\%$ was adjudged not significant.

Table 5: Calculation of Z-Test

$$Z \text{ calculated} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

Where:

- X_1 = mean of activities that involved child-labour in cocoa production = 72.9
- X_2 = Mean of factors that influence the involvement of child-labour in the study area = 77.6
- S_1^2 = Variance of activities that involved child-labour in cocoa production = 809.1
- S_2^2 = Variance of factors that influence the involvement of child-labour in the study area = 444.8
- N_1 = Number of observations for the activities that involved child-labour in cocoa production = 12
- N_2 = Number of observations for the factors that influenced the involvement of child-labour in the study area = 12

Therefore,

$$Z_{\text{Calculated}} = -0.0449^{***} \text{ therefore } Z_{\text{Tab}} = 0.628^{***} > Z_{\text{Cal.}} = -0.0449^{***}.$$

Therefore, the H_0 is accepted and the alternative rejected.

Creative Commons licensing terms

Authors will retain copyright to their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Economic and Financial Research shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).