

Intra-Household Activities of Women farmers and Income Generation from Cocoyam Production, in Umuahia Agricultural Zone, Abia State.

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Abstract: *The study was carried out to determine the effect of intra- household activities of women on income from cocoyam production in Umuahia Agricultural zone of Nigeria. Simple random sampling technique was employed in selecting 96 women cocoyam farmers. These farmers were interviewed with a questionnaire. The data collected were analyzed using descriptive statistics and means of Likert-type scale. The result of the analysis revealed that among the tuber/ root crops cultivated, cocoyam ranked second (73%) after cassava; its role in the household are: Family consumption ($\bar{x} = 3.08$) and Income generation ($\bar{x} = 2.31$) while cooking ($\bar{x} = 3.71$) and sweeping/ cleaning ($\bar{x} = 2.94$); childrearing / care ($\bar{x} = 2.30$) and laundry ($\bar{x} = 2.30$) were the intra-household activities the women engaged in. Further, the result revealed major constraints in cocoyam production to include intra- household activities ($\bar{x} = 3.65$) and gender specific ($\bar{x} = 3.5$) they were significant at 1% level of probability. The study recommends that the nutritional value of cocoyam should be emphasized to encourage more women into production rather than spend much of the time in intra-household activities.*

Keyword: *Effect, Intra- household, activities, women, cocoyam, production, income.*

I. Introduction

The household is a production and consumption unit, providing itself with many services such as food preparation, childcare and house chore. In developing countries households produce/fetch much of their own food and water, housing and fuel (llahi, 2000). In principles, household members ought to have equal right of doing things or tasks across activities. Unfortunately women (wives) and girls are cheated in household activities as they are confined to household chores. Fontana and Paciello (2010) affirmed that caring for children, elderly and ill, collecting water and fuel for cooking, maintaining household and preparing food are the responsibilities which mostly are taken up by women and girls. Nwachukwu and Onukwusi (2005) confirmed that women spend between 1 and 9 hours daily, carrying water, gathering and preparing meals for family consumption as well allocate their time and resources to ensure that the children and elderly are adequately taken care of. That notwithstanding, women contribute to well- being of their household through their income generating activities and at wider socio-economic system (Okunade, et al, 2005; Shuaibu *et al.*, 2015). They work as unpaid or self employed by engaging in wearing, knitting, on farm and non-farm labourers, traders, provider of services and researchers (FAO, 2011).

However, most of the activities which women engaged in are not defined as economically active employments in National Accounts systems, yet they are crucial in well- being of household members (FAO, 2011). In Abia state, women are involved in intra-household (domestic) activities such as cooking, sweeping, fetching of water, fuel wood, cleaning, washing and taking care of the husband, children, elderly as well as farming. These activities are time consuming and constitute challenge to the assignment of income generation.

In spite of the women's intra-domestic activities, they still play important role in domestic food crop production including cocoyam, a crop that help ensure family and national food security. Cocoyam ranks third in importance after cassava and yam among the root and tuber crops cultivated and consumed in Nigeria (FAO, 2004, Anaeto *et al.*, 2015). Its nutritional high content of minerals, protein and carbohydrate help so much in healthy living (Chukwu, 2008). Cocoyam can be better utilized as an indispensable food security and source of livelihood among many households in Nigeria (Ekwe *et al.*, 2009). It is regarded as a lowly important crop, cultivated by mostly less privileged farmers and mainly women (Anaeto *et al.*, 2015; Okabaram, 2010). The average production figure of cocoyam from Nigeria is 50,680,000 mt (37%) of the world output (FAO, 2006). Despite this, there is still ignorance about the nutritive value and diversities of food forms of cocoyam by the populace which leads to non-acceptability and non-extensive production of the crop. Cocoyam needs to be widely grown, accepted, to attract/improve food security and generate income.

Realizing the importance of women in family support as contributors and household managers, it was thought appropriate to investigate the effect of intra-household activities in the production of cocoyam as income generating venture. Thus, the specific objectives were to: determine major cultivated tuber/root crops by women

in Umuahia agricultural area; ascertain the role cocoyam plays in the household; ascertain the intra-household activities of women in cocoyamgrowing homes and ascertain the constraintsto cocoyam with production in the study area.

II. Methodology

The study was carried out in Umuahia agricultural zone. Umuahiaagricultural zone is oneof the three (3) agricultural zones in Abia state. It comprises fivelocal government areas namely; Isiala Ngwa South, Isiala Ngwa North, Ikwuano, UmuahiaNorth and Umuahia South. The zone was purposively selected because most of the communities in the LGA's are noted for cocoyam production. These communities include namely Ikwuano - Ariam and Ibere, Umuahia South - Ubakala and Olokoro. The women in these communities are known for tuber and root crops productionincluding cassava, cocoyam, ginger and sweet potato. The population of the study comprises all women involved in tuber/root crops production. Simple random sampling technique was used to select 96 farmers (24 cocoyam farmers from each community). Data for the study was mainly primary data collected with the use of questionnaire containing some Likert-type questions. To realize the tuber/root crops major cultivated by the women descriptive statistics such as frequency distribution and percentage were used for the analysis.

To ascertain the intra-household activities engaged by the respondents (objective 3), a 3 point likert-type rating scale of very often (VO = 3); often (OT=2), seldom (SD=1) was used. The weighted values were added and divided by 3 to derive a mean value of 2 which was used for making decision. Any score with a mean score of 2 and greater than 2 was regarded as very often, otherwise seldom done.

To ascertain the role of cocoyam in the household and constraints encountered in cocoyam production, the respondents were asked the extent to which they agreed or disagreed with the possible options given on a four point likert-type rating scale of: strongly agree (4); Agree (3); Disagree (2) and strongly disagree (1).The weighted Values were added and divided by four to derive a means value of 2.5. Any meanscore less than 2.5 was strongly agreed on.

III. Results And Discussion

Table 1shows the various tuber/ root crops cultivated in the study area. These included sweet potatoes,yam, cassava, cocoyam, ginger, and Irish potatoes. The Table reveals that among the crops cultivated by women cocoyam ranked second (70%) after cassava (100%). It implies that cocoyam production was predominantly in the hands of rural women and probably easy for cultivation hence it was tagged a women's crop.This result confirms the work of Anaeto *et al.*, (2015) that cocoyam is a major crop cultivated especially in female headed households. On the other hand, it could be said that cocoyam produce a cheaper substitutes for yam especially during the food scarcity while yam cultivation is culturally men's crop.

Table 1: Tuber/ Root Crops Cultivated By Women in the Study Area

Tuber / Root crops	Frequency	Percentage (%)
Sweet potatoes	48	50
Yam	10	10.42
Cassava	96	100
Cocoyam	70	73
Ginger	-	-
Irish potatoes	5	5.21

Source: Field survey 2015; multiple response recorded

IV. Role of Cocoyam in Household

Table 2; shows the means rating responses on the role of cocoyam in household. The table reveals that the respondents strongly agreed that cocoyam plays a major role in family consumption (\bar{x} =3.08) and generate income (\bar{x} =2.31) especially as a substitutes for yam. By implication cocoyam is an indispensable food security among many households. This is because it can be eaten as well as sold toput cash into the hands of women .The findings agrees with Ajani and Igbokwe (2012)and Anaeto *et al.*, (2015)stating that cocoyam has some inherent characteristics which make it very attractive and generates income for rural women.

Having a grandmean score of 2.19 shows that cocoyam competes with other food substitutes in the household which makes it not to be generally acceptable.Similarly, Okoye (2006) reported that the low preference of cocoyam is as a result of abundance of food substitutes while Onwueme(2011) observed the overall picture of its casual production and consumption.

Table 2: Mean Rating Responses on the Role of Cocoyam in Household

Variable	S A(4)	A(3)	Disagree (2)	SD(1)	Total Fre	\bar{x}
Family consumption	40(160)	25(75)	15(30)	10(10)	296	3.08
Income generation	20(50)	35(105)	30(60)	15(15)	222	2.31
Confectionaries	5(20)	25(75)	36(72)	30(30)	197	2.05
For livestock feed	9(36)	10(30)	47(94)	30(30)	190	1.98
Ornamental purpose	2(8)	5(15)	33(66)	56(56)	145	1.51
Total Mean						10.93
Grand Mean						2.19

Intra- Household Activities Engaged by Women Cocoyam Farmers.

Table 3 reveals the various mean rating responses of intra-household activities engaged in by Cocoyam women farmers. It was found that the women were involved in all the domestic or household chores enumerated. The most involving intra- household activities were cooking (\bar{x} =3.71) and sweeping/cleaning (\bar{x} =2.94) respectively while the least was waste disposal (\bar{x} =1.42). Cooking seemed to be paramount in women’s activities because the role of taking care of the household lies solely on them especially with feeding. The result is in agreement with the findings of Ekong (2010) stating that one of the outstanding social inequities of women is engaging in the area of food preparation and home management. More so, an Igbo adage says that “a woman can win” the heart of her husband through good food preparation. However, waste disposal (\bar{x} =1.42) could be done by the children which corroborates the assertion of Ishiani (2009) that children help in waste disposal.

Table 3: Mean Rating Responses On The Intra- Household Activities Engaged By Women Cocoyam Farmers.

Variable	Very often(3)	Often(2)	Seldom(1)	Total	\bar{x}
Fetching of water	26(78)	35(70)	35(35)	183	1.91
Sweeping cleaning	40(180)	46(92)	10(10)	282	2.94
Fuel wood gathering	50(150)	30(60)	16(16)	226	2.35
Cooking	85(225)	10(100)	01(1)	371	3.71
Childrearing/care	38(114)	48(96)	10(10)	220	2.29
Waste disposal	10(30)	20(40)	66(66)	136	1.42
Laundry	36(108)	50(100)	10(10)	218	2.27

Source: Field survey data 2015.

Values in parenthesis are the likert type values.

Constraints Encountered By the Respondents in Cocoyam Production.

Using a bench mark of 2.5, the result in Table 4, reveals that the respondents encountered major constraints such as gender – specific (\bar{x} = 3.32); financial problem (\bar{X} = 3.01), low price of crop (\bar{x} = 3.29), intra-household activities (\bar{x} = 3.71), low market demand (\bar{x} = 3.29), poor yield (\bar{x} = 2.67) and land availability (\bar{x} = 2.56). Intra-household activities was the most pressing constraint faced by the respondents (\bar{x} = 3.71) with mean difference of 1.15 and significant at 1% level, followed by gender specific (3.32). It could be inferred that intra household activities is synonymous with women because it is an attribute of a specific gender. The involvement could be cumbersome, time/energy consuming and daily involving; leaving the women with little or no time for the cultivation/production activities associated with cocoyam.

Thus, the quantity of production will automatically not be much which in turn affects their income generating from cocoyam. This finding is in line with Nwachukwu and Onuekwusi (2005) and Fontana and Paciello (2010) confirming that woman spend between 1 and 9 hours daily doing household chores. On the other hand the higher involvement of women in intra household activities, the lower their productivity due to the high energy involvement/dissipation.

Table 4: Mean Rating Responses On The Constraints In Cocoyam Production By Women Cocoyam Farmers.

Constraints to Cocoyam production	SA(4)	A(3)	Disagree(2)	SD(1)	\bar{X}	Mean diff	t-value
Gender specific	68(256)	18(54)	3(6)	3(3)	3.2	1.00	3.700***
Financial problem	40(160)	30(90)	20(40)	13(13)	3.01	0.5	1.685
Low price of crops	50(200)	30(90)	10(20)	6(6)	3.29	0.95	2.650**
Intra household	70(280)	25(75)	1(2)	-	3.71	1.15	4.850***
Low Marketdemand	50(200)	30(90)	10(20)	6 (6)	3.29	0.73	2.25**
Poor yield	20(80)	40(120)	20(40)	16(16)	2.67	0.1	1.20
Land Availability	20(80)	30(90)	30(60)	16(16)	2.5	0.00	-

Source: Field survey 2015

Figure in parenthesis are the likert type values

Note ***= Significant at 1%

** = Significant at 5%

V. Conclusion

Cocoyam production ranked second (2nd) among the tuber/root crops cultivated after cassava by women in Umuahia agricultural zone, Abia State. The crop serves as family supplement for yam and generate income in the hands of the women. However, these women are cumbered with intra household activities, spending most of their time in house chores while having little time for production. Hence the quantity of production will not be much which attracts little income. Cocoyam production remains important for rural women household and the nation at large. Its importance in terms of high nutritional content should be emphasized. This will motivate more people into its production and ginger women to spend more time in the production more than intra- house activities. Thus, it bridges the gap in terms of food security and source of livelihood.

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