

Gender Analysis of Cocoa Farmers' Access to Production Resources in Ekiti State, Nigeria

Ayodele, O.V.^{1*}, Fasina, O.O.¹ and Awoyemi, A.O.²

¹Department of Agricultural Extension and Communication Technology, Federal University of Technology, P.M.B. 704, Akure, Ondo State, Nigeria

²Department of Agricultural Economics and Extension Services, Ekiti State University, PMB, 5363, Ado-Ekiti, Nigeria

*Corresponding author: ayodeleomowunmi2002@yahoo.com; ovayodele@futa.edu.ng

ABSTRACT

The importance of understanding gender relationships in resource allocation is crucial to agricultural development and hence cannot be overemphasized. The study evaluated farmers' access and constraints in cocoa production activities in Ekiti State, Nigeria. Purposive sampling technique was used to select three Local Government Areas with the highest cocoa production. Data was collected from 117 cocoa farmers with well-structured interview schedules. Frequencies, mean statistic, percentages and ANOVA were used to analyze the data. The findings affirmed old aged cocoa farmers with the mean age of 54 years for male and 52 years for female. It also revealed older cocoa farms for female with an average of 42 years and 35 years for male. There was low output for both gender with the mean of 8 bags for male and 7 bags for female. The mostly accessed production resource was water while extension service was the least accessed. Mean score for access to resources by men was 39.51 and 30.61 for female. The difference of 8.90 was significant at 0.05 level of significance ($f = 40.94, p \leq 0.05$). This signifies a gender difference in access to production resources. However, good market price was the most prominent constraint affecting both genders, while health, availability of agrochemicals, finance and land among others affected farmers in cocoa production with women having more health challenges. It was concluded that, there was gender disparity in access to production resources. Therefore, it was recommended that, there should be gender equity in access to production resources so as to enable women maximize their full potential in agricultural production.

Key words: gender, farmers, cocoa, access, and constraints

INTRODUCTION

Cocoa is grown in more than 50 countries world-wide, mainly occurring within ten degrees latitude of the equator. Production is limited to three main growing areas: West Africa, Latin America and South East Asia. West Africa is the major producing region, with a market share of around 69% (LMC International Ltd., 2001). It further confirms that Nigeria is the 4th cocoa producer in West Africa, while Côte d'Ivoire, Ghana and Indonesia are the top three producers. In terms of agricultural exports, cocoa remains the most important in terms of foreign exchange earnings. Annual production reached a peak of 303 thousand tonnes in 1970/71 and declined thereafter until 1985. Annual production has remained relatively constant in the last 10 years, fluctuating between 130 thousand and 160 thousand tonnes, and is produced almost exclusively on small, family-owned farms (Gocowski and Oduwole, 2000). It was further affirmed that, the overall importance of cocoa in the livelihoods of rural people in southwest Nigeria is high, accounting for more than two-thirds of

households' income with an average producer producing approximately 1700 kg.

The decline in cocoa production can be addressed if there is equity in access to production resources for male and female. It is now widely demonstrated that rural women, as well as men, throughout the world, are engaged in a range of productive activities essential to household welfare, agricultural productivity, and economic growth. FAO, (1997), opined that women make up about 43 percent of the agricultural labour force in developing countries. Yet, women's substantial contribution, continues to be systematically marginalized and undervalued in conventional agricultural and economic analyses and policies, while men's contribution remains the central, often the sole focus of attention. For instance, the official definition of a farmer in Nigeria was given as "an adult male who has the right to the produce of a farm, women are not classified as farmers" (FOS, 1966 in (FAO,

1998). Gender analysis examines the different roles, rights, and opportunities of men and women and relations between them. It also identifies disparities, examines why such disparities exist, determines whether there are potential impediments to achieving results, and looks at how they can be addressed (USAID, 2011). The importance of understanding gender relationships, in promoting agricultural development strategies, lies with the recognition that development programmes often had differential impact upon males and females (Mundi, 2011). To ensure that development programmes do not increase inequalities, they must be sensitive to gender issues within and among households. Efforts to provide the fulfilment of basic needs must take into account the intrahouse dynamics which affect the use of income and decisions over resource allocation along gender lines (Zachariar, (2009) in Mundi, 2011).

Women's long history, in cocoa production across West Africa and the historical importance of cocoa production in southwest Nigeria, warrant further study of women's access to resources for tree crop production (Gocowski and Oduwole, 2000). Gender responsibilities are undergoing rapid change, typically, with rural women becoming more responsible for household food security and children's welfare (FAO, 1997). For several years, policy formulation and programme planning in Nigeria have been done without taking into consideration the differences in the constraints and problems faced by male and female sexes, which have therefore led to the scarcity of basic gender differentiated data (Mafimisebi and Fasina, 2008). There is need for gender specific data on farmers' access and constraints in cocoa production activities, so as to sustain any intervention in promoting tree crop production especially cocoa, which is a major foreign exchange earner in Nigeria. This study, therefore, determined farmers' access and constraints in cocoa production activities in Ekiti State. Specifically, the study described the socio-economic characteristics of the respondents and determined farmers' access to cocoa production resources on gender basis and identified the constraints to cocoa production resources. The study hypothesized that there was no significant gender difference in respondents' access to production resources.

METHODOLOGY

The study was conducted in Ekiti State, Nigeria. It lies between latitude $7^{\circ} 15^1$ and $8^{\circ} 7^1$ North of the equator and longitude $4^{\circ} 47^1$ and $5^{\circ} 45^1$ East of the Greenwich Meridian. It has a mean annual rainfall of about 1400mm and a mean annual temperature of about 27°C . The State is bounded to the North by Kwara and Kogi States, to the South and East by Ondo State and to the West by Osun State. Its vegetation ranges from Rain forest in the south to Guinea savannah in the North with soil largely rich in

organic minerals thereby making the state a major producer of both tree and food crops. A Multistage sampling procedure was employed for the study. Three Local Government Areas (LGAs) with a minimum of 1,000 metric tonnes of cocoa output per annum were purposely selected. They were Ise-Orun (highest), Gbonyin and Ekiti South West. Three towns were randomly selected from the highest producing LGA while two towns were selected from the remaining two LGAs making a total of seven towns/communities. Using well-structured interview schedule, data was collected from 70 men and 50 women. However, only 117 out of the 120 respondents' copies of questionnaire were suitable for the study. Frequencies, means, percentages and ANOVA were used to analyze the data. Respondents' level of access to production resources was assessed on a 5- point Likert scale of "Always Had Access", "Most Times Had Access", "At Times Had Access", "Rarely Had Access", "Never Had Access" and were scored as 5, 4, 3, 2, and 1 respectively for positive statements and were reversed for negative statements as 1, 2, 3, 4, and 5. Level of constraints was determined on a Four-point Likert scale of "Always Affected", "Sometimes Affected", "Rarely Affected" and, "Never Affected" and scored 4, 3, 2 and 1 respectively. The mean scores was used for decision in both cases.

RESULTS AND DISCUSSION

Findings on the socio-economic characteristics of the respondents are presented on Table 1. As shown on Table 1, majority (73.5%) of the respondents were male, while 26.5% were female. This signifies that male dominated the cocoa sector in the study area and this was so because of the nature of operations involved in its production. This is in-line with the findings of Oluwatusin (2014), that men are prominent in cocoa production. The result also revealed the mean age of 54 years for male and 52 years for female. This implies that, the farmers were old aged and that there were older male than female in cocoa production. This confirms the findings of Adeogun, et.al, (2010), that average age of cocoa farmers, in selected states of Nigeria, is 53.4 years. The oldness of farmers has an implication of low productivity because of the drudgery nature of cocoa operation. For sustainability, there is a need to encourage youths to be engaged in the sector. Furthermore, the study showed that majority (30.8%) of the cocoa farms was between the ages 41 – 50 years for both genders. It showed that cocoa farms belonging to females were older farms than that of males, with 41% of the female cocoa farms in this category. Old age of cocoa trees is seen to contribute to the decline in cocoa production in the Nigerian cocoa production (Akinwumi, 1995).

In Table 1, the result of the study showed that, 42.7% of both genders had no formal education. Majority, 45.2% and 41.9 of the respondents, female and male respectively were in this category and this in line with Balogun (2011), who confirms that education level of farmers is low and has implication on their adoption of technology. Improving education and knowledge dissemination for farmers are important in order to have an increase in agricultural production. In addition, Table 1, showed that 41.9% of males and 84.0% of female, owned small farm

size of less than 2.5 hectares and that majority, 77.4 percent of female and 39.5 percent of male produced less than seven bags of cocoa in a year. Only about 8.3% of male and 3.2% of female had output above 16 standardized bags of 65 kg in a year. This signifies a low production output in cocoa. The old cocoa farms and farmers, as seen earlier in the study, could be responsible for this. The implication of this low output is low income for the farmers, and in-turn, low standard of living.

Table 1: Gender distribution of respondents by socio-economic characteristics.

| Characteristics | Male | | Female | | All Respondents | | Mean |
|----------------------------------|------|------|--------|------|-----------------|------|-------|
| | Freq | % | Freq | % | Freq | % | |
| Age of Farmers (years) | | | | | | | |
| ≤ 40 | 25 | 29.1 | 7 | 22.5 | 32 | 27.4 | |
| 41 – 50 | 8 | 9.3 | 3 | 9.6 | 11 | 9.4 | |
| 51 – 60 | 29 | 33.7 | 14 | 45.4 | 43 | 36.8 | M-54 |
| 61 – 70 | 11 | 12.8 | 7 | 22.5 | 18 | 15.4 | F-52 |
| > 70 | 13 | 15.1 | 0 | 0.0 | 13 | 11.0 | |
| Age of Cocoa Farm (years) | | | | | | | |
| ≤ 20 | 24 | 27.9 | 6 | 19.4 | 30 | 25.8 | M-35 |
| 21 – 30 | 12 | 14.0 | 0 | 0.0 | 12 | 10.3 | F- 42 |
| 31 – 40 | 13 | 15.1 | 3 | 9.7 | 16 | 13.7 | |
| 41 – 50 | 23 | 26.7 | 13 | 41.8 | 36 | 30.8 | |
| >50 | 14 | 16.3 | 9 | 29.1 | 23 | 19.7 | |
| Educational Status | | | | | | | |
| No formal Education | 36 | 41.9 | 14 | 45.2 | 50 | 42.7 | |
| Adult Education | 5 | 5.8 | 4 | 12.9 | 9 | 7.7 | |
| Primary Education | 13 | 15.1 | 6 | 19.4 | 19 | 16.2 | |
| Secondary Education | 20 | 23.3 | 5 | 16.1 | 25 | 21.4 | |
| Post-Secondary Education | 12 | 13.9 | 2 | 6.5 | 14 | 12 | |
| Farming Experience | | | | | | | |
| ≤ 20 | 48 | 55.8 | 30 | 96.8 | 79 | 66.7 | M-23 |
| 21 –40 | 22 | 25.6 | 1 | 3.2 | 22 | 18.9 | F-11 |
| > 40 | 16 | 18.6 | 0 | 0 | 17 | 14.4 | |
| Marital Status | | | | | | | |
| Single | 11 | 12.8 | 3 | 9.7 | 14 | 12.0 | |
| Married | 65 | 75.6 | 10 | 32.3 | 75 | 64.1 | |
| Widowed | 10 | 11.6 | 14 | 45.2 | 24 | 20.5 | |
| Divorced | 0 | 0.0 | 4 | 12.9 | 4 | 3.4 | |
| Farm Size (ha) | | | | | | | |
| < 2.5 | 43 | 50.0 | 30 | 96.8 | 73 | 62.4 | M-2.5 |
| 2.5 – 5 | 32 | 37.2 | 1 | 3.2 | 33 | 28.2 | F-1.5 |
| > 5 | 11 | 12.8 | 0 | 0 | 11 | 9.4 | |
| Output in Bags (65kg) | | | | | | | |
| ≤ 7 | 34 | 39.5 | 24 | 77.4 | 58 | 49.5 | M – 8 |
| >7 – 10 | 24 | 27.8 | 6 | 19.4 | 30 | 25.7 | F – 7 |
| > 10 – 13 | 15 | 17.4 | 0 | 0 | 15 | 12.9 | |
| > 13 – 16 | 6 | 7.0 | 0 | 0 | 6 | 5.1 | |
| > 16 | 7 | 8.3 | 1 | 3.2 | 8 | 6.8 | |

Moreso, the study shows that 75.6 percent of the male respondents were married while 32.3 percent of the female respondents were married. In Nigeria, the married tend to have a large family size. The high proportion of married respondents could imply a large family size, and therefore, availability of family labour for cocoa production activities. Availability of family labour is important in small size cocoa farms as identified by (Gocowski and Oduwole, 2000). Furthermore, Table 1, shows that 25.6 percent of the male and 3.2 percent of the female have between 21 – 40 years of farming experience. This shows that, the respondents in the study area had good experience in cocoa production which is good for cocoa operations. The study showed that, men have more years of experience than female.

Level of Access of Men and Women to Production Resources

Using the mean scores, Figure 1 reveals that access to water for agricultural purposes was the production resource with the highest mean score of 4.65 and 3.56 for males and females respectively. Males, most of the times had access to the following resources; knapsack sprayer (4.13), cocoa seedlings (3.84), agro-chemicals (3.86), labour (3.79), land (3.63), transportation (4.02) and other inputs (4.09) such as cutlasses. On the other hand, these resources were only “At Times Accessed” by females with mean score of 3.10, 2.36, 3.10, 3.07, 3.10, 2.55 and 3.10, respectively. The least accessed resource was extension services (2.27, 1.74) for males and females respectively.

Low extension services have negative implication for adoption of new innovations which are of crucial importance in agriculture. For improved extension services for females, FAO (1988), recommends that extension services need to be adapted to circumstance rather than designed on the basis of a single universal model. Stating Agricultural extension strategies traditionally, has a focus on increasing production of cash crops by providing men with training, information, and access to inputs and services while women are given instruction mainly, in home economics and craft subjects but not technical agriculture. Another important production resource is land. It is their belief that, once a land is given out to somebody outside the family for cultivation of tree crops, such land is lost forever by the family (Oluwatusin, 2014). In Nigeria, women are often perceived as second rated sex and are being denied of most factors of production in agriculture. This is confirmed by Ogunlela (2009), that agriculture has the largest chunk of the poor for women, the poverty is compounded by the fact that only eight percent of women hold title to the land they work on. From the study, it is revealed that gender inequality is a dominant determinant factor of access to production resources. This has negative implication for agriculture since women are known to be better managers of resources. FAO, 1997, stated that, if women had the same access to productive resources as men, they could increase yields on their farms by 20 to 30 percent, raising total agricultural output in developing countries by 2.5 to 4 percent.

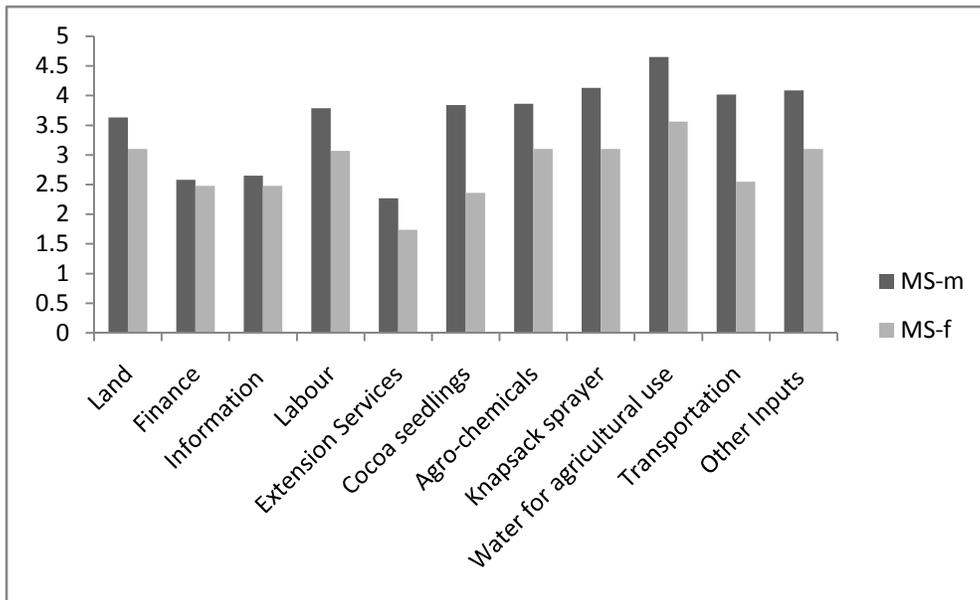


Figure 1: Gender Distribution of respondents according to access to Production Resources (values are mean)
 Source: Field Survey, 2015.

Constraints Faced by Male and Female in Cocoa Production

Results in Figure 2 revealed that male ($\bar{x} = 3.64$) and female ($\bar{x} = 3.68$) were mostly affected by good price. All the identified constraints affected males more than females expect for the cases of good price, health and family issues. The high score recorded on health constraints of females (2.84), as compared with that of males' health constraints (2.43), could be attributed to double roles females play in raising children and house chores. Family/community issues, with mean score of 2.19 for female and 2.13 for men, affected female more than it affected men in the study area. This ascertain the statement that, women's legal and cultural status affects the degree of control women have over productive

resources, inputs such as credit, and the benefits which flow from them (FAO, 1987).

However, "finance" with mean score of 3.4 for males and 2.8 for females affected males more than females. This could be attributed to males' higher involvement in cocoa production. The constraint that never affected the respondents was "water for agricultural purpose" with mean score less than 1.48 for both genders. Other constraints such as labour, extension services, literacy, transfer of inheritance, cocoa seedlings, knapsack sprayer and government policies have their mean scores of less than 2.5 and so rarely affected both genders. Another constraint that was seen to sometimes affects males and rarely affect females is agro-chemicals with the mean score of 2.7 and 2.4, respectively. This could be as a result of the willingness on the part of produce buyers to make agro-chemicals available for farmers in order to secure purchases from indebted farmers.

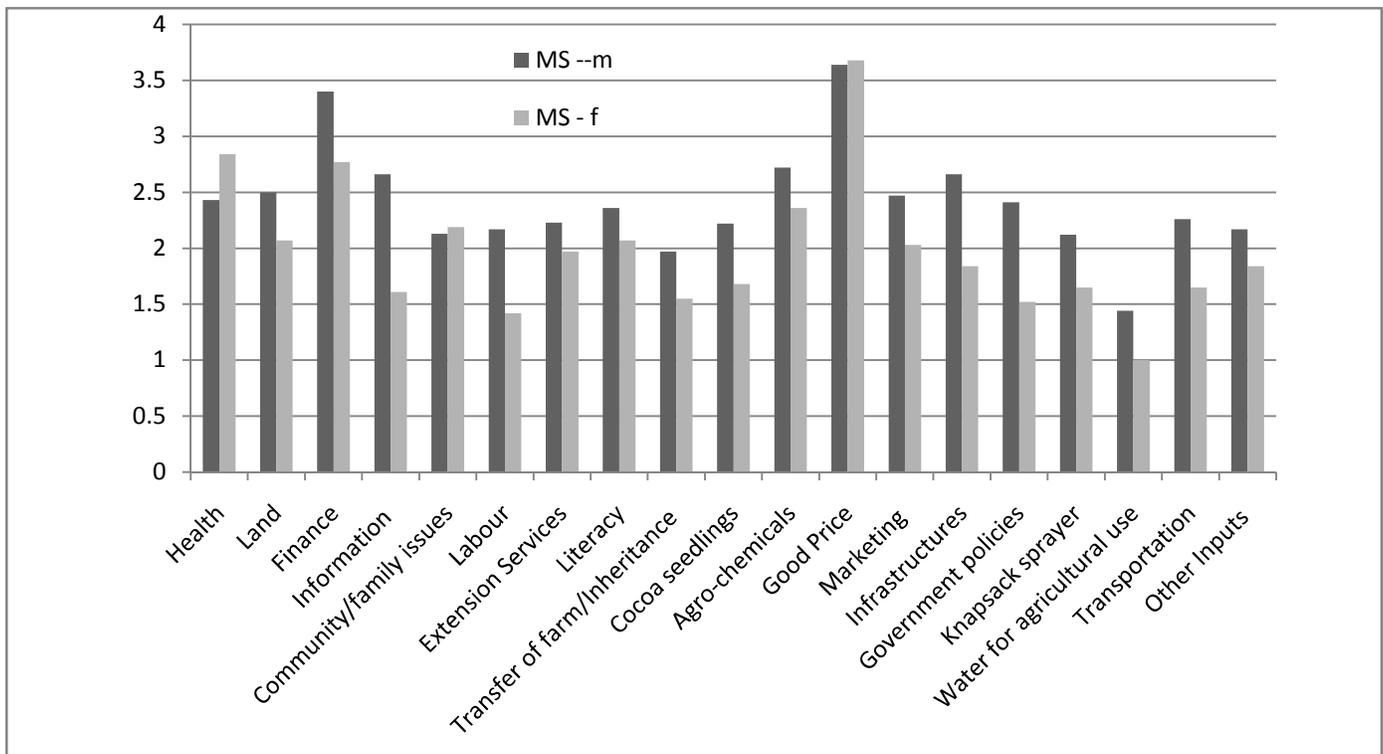


Figure 2: Constraints faced by men and women in cocoa production activities (values are mean)
 Source: Field Survey, 2015

Table 2: Difference in access to production resources by male and female

| Gender | Mean Values | Mean diff. | Sum of Squares | Df | Mean squares | F | Sig. | Rmk |
|--------|-------------|------------|------------------------|-----|--------------|-------|------|------|
| Male | 39.51 | 8.90 | Btw Groups – 1804.39 | 1 | 1804.39 | 40.94 | 0.00 | Sig. |
| Female | 30.61 | | Within groups– 5068.84 | 115 | 44.08 | | | |
| | | | Total - 6873.23 | 116 | | | | |

Source: Field survey, 2015

Difference in Access to production Resources by Male and Female

Table 2 shows the result of ANOVA on Difference in Access to production Resources by Male and Female. Mean score for access to resources by males was 39.51 which was more than that of female, 30.61. The difference of 8.90 was significant at 0.05 level of significance. ($f = 40.94, p \leq 0.05$). This means that, the way the respondents had access to production resources, is being influenced by their gender. This agrees with Ayandiji and Owoade (2013), that there is disparity even in children access to production resources and that majority of the male children owned separate farm plots while a few of the female did. Also, that more than half of the male produce was sold for personal income while that of their female counterparts were consumed at household level.

CONCLUSION AND RECOMMENDATION

The study revealed that both cocoa farmers and farms were old aged and therefore resulting in low cocoa output. The mostly accessed production resource was water while extension services was the least accessed. However, good market price was the most prominent constraint affecting both genders while health, availability of agrochemicals, finance and land, among others, affected farmers in cocoa production with women having more health challenges. It was concluded from the study that there was gender disparity in access to production resources. Therefore, it was recommended that there should be gender equity in access to production resources so as to enable women maximize their full potential in agricultural production. Also, gender segregated data should be encouraged in research work so as to make project interventions achieve its purpose and extension services should be developed in a gender friendly model. In addition, farmers should embark on cocoa rehabilitation in older to rejuvenate the old cocoa trees and governments should encourage youths into cocoa farming.

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