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Factors Which Influence Women's Access to Agricultural Resources in Talensi and Nabdam Districts of the Upper East Region

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Abstract
The aim of this paper was to assess factors which influence women's level of access to agricultural resources in the Talensi and Nabdam Districts of the Upper East Region of Ghana. The study which adopted a survey design also used both quantitative and qualitative methods in data collection and analysis. A total of one hundred and seventy-one (171) women farmers were sampled for the study. Structured interview schedules were administered followed by Focus Group Discussions (FGDs). The study found out that found older women have higher level access to their farmlands than younger respondents. Marital status was revealed to increase women's level of access to agricultural resources in general, however, senior wives had greater access than junior wives. Contrary to existing literature, widows were found to have more access especially to land, when they have male adult children as the children inherit their father's lands. In sum, the study generally revealed that socio-demographic factors have a strong influence on women's level of access to agricultural resources.
Keywords: 'Tindaannam', 'Naara','Talensi', 'Nabdam'

1.0 Introduction

Despite all the efforts being made by the UN on improvement of women's economic position and the creation of awareness of the critical part women play in development, global statistics show that women's problems and concerns have not been factored into many national and international agenda. It is still apparent that there is a wide latitude of chance for the promotion of the general wellbeing of women, particularly those in the rural areas or developing world. Ghana is an agrarian society, with about 54% of the population engaged in agriculture. Of this, a greater proportion of the people engaged in agriculture (as much as 80%) are rural dwellers. The agricultural sector is therefore key if Ghana is to achieve her rural development goals, since it contributes to over half of the nation's Gross Domestic Product (GDP).

Women form 50.5% of the nation's population (2000 PHC), and are engaged in many activities that contribute to local economies. These include trading, processing, animal production, crop cultivation, etc. However, the contribution by women to the national and local economy has not been factored into national statistics. Besides, women are unable to contribute their maximum to national and local development due to numerous constraints they face. For instance, women have very limited or no access to agricultural land, credit, extension services, mechanized machinery, just to mention a few.

For Ghana to make any meaningful strides in development, the agricultural sector has to be well developed. This, however, cannot be achieved if over half of the nation's population, who are women, are not given adequate access to agricultural resources. In Ghana, women constitute 52% of the agricultural labour force, contribute 46% to the total agricultural GDP and produce 70% of the subsistence crop (MOFA 2006). In spite of their huge contribution, they do not have access to agricultural resources which are critical to high productivity.

1.1 Statement of the problem

The economies of sub-Saharan Africa countries are dominated by agriculture, as majority of the population is engaged in it. In Ghana, agriculture contributes to more than half of the nation's GDP, and is the mainstay of the economy. Most of the farmers are engaged in subsistence farming.

Both men and women are engaged in agriculture, with men dominating the cash crop sector and women mostly engaged in food crop cultivation. In Ghana, women constitute 52% of the agricultural labour force; contribute 46% to the total agricultural GDP and produce 70% of the subsistence crop (MOFA 2006). In the Talensi and Nabdam districts, agriculture is the major activity which powers the local economy of the district, where about 90% of its population are peasant farmers who grow mostly food crops (Talensi and Nabdam Districts Profile, 2006).

Women actively participate in major livelihood activities in the district. Their engagement in economic activities in the Talensi and Nabdam districts is widespread, especially in the informal sector; where they perform a lot of "invisible" activities that may not be considered as economic activities. Women in the districts are engaged in agricultural activities such as crop cultivation, processing, storage and marketing. In terms of crop production, they are engaged in the cultivation of maize, groundnut, soybeans, tomato, okro and leafy vegetables,

among others.

Despite the enormous participation of women in agriculture, they lack key resources to maximize their potential. They do not have access to agricultural resources which are critical to high productivity. Studies have established that a country's economic productivity and development is reduced when access to productive resources are slanted towards men.

In the Upper East Region, the situation of women's access to agricultural resources is worsened by some traditional policies and practices such as land tenure system, marriage, inheritance systems, etc. It is therefore important to note that, as Ghana searches for programmes and policies that will aid its development process, it is pertinent to make gender policies that enhance gender equality and full integration of women into the economy central to the growth process. In line with this, a clearer understanding of factors influencing women's level of access to agricultural resources in the Talensi and Nabdam districts of the Upper East Region of Ghana is imperative in the formulation and implementation of policies and programmes aimed at ensuring sustainable development in the area.

Although some studies have been carried out regarding women's role in agriculture and their access to agricultural resources, few studies have actually focused on the Talensi and Nabdam districts. Traditional policies and practices in the Talensi and Nabdam districts such as land tenure, marriage and inheritance systems, etc do not provide women the opportunities to access resources to enable them engage in their livelihood activities, which is mostly agriculture, (Talensi and Nabdam Districts Profile, 2006). It is in the light of this that the researcher sought to assess factors which influence the level of women's access to agricultural resources in the Talensi and Nabdam Districts of the Upper East region. The study was guided by the following research question: What factors influence women's level of access to agricultural resources?

1.2 Significance of the study

The increasing appreciation of women's role in agricultural production the world over has been informed by the availability of gender disaggregation of data, as researchers now focus on assessing the contribution of both women and men in all aspects of economic development.

Researching into the factors which influence women's access to agricultural resources is therefore essential.

This study sought to assess the factors that influence women's level of access to agricultural resources in the Talensi and Nabdam Districts. Findings from this study will help provide useful insights into issues relating to gender based constraints on women's access to agricultural resources and its influence on their contribution to the developmental drive of the districts. This will be useful to policy makers and development practitioners, as they plan and execute development programmes in the district. Also the findings of the study will inform government policy, gender advocacy and other stakeholders on the optimal distribution and placement of agricultural resources for sustainable rural development in Ghana. Finally, it will also add to existing knowledge and literature.

2.0 Methodology

This study was conducted using the survey research design, using both analytical and descriptive techniques. In line with this, the study employed both quantitative and qualitative approaches, through the use of structured interview schedules, focus group discussions (FGDs) and in-depth interviews to collect primary data. The study population was the Talensi and Nabdam districts. Two communities each were randomly selected from the two. Respondents for the study comprised women farmers, traditional leaders and some selected men in the districts.
The data was collected from four communities in the districts; they included Pwalugu and Baare and Nangodi and Zanlerigu in the Talensi and Nabdam districts respectively. A total of two hundred and forty-seven (247) people constituted respondents for the study. They comprised of one hundred and seventy-one (171) women who answered the structured interview schedules, thirty six (36) women for four FGDs, eight (8) men for in-depth interviews, twelve (12) traditional authorities and eight (8) other women for in-depth interviews.

Four villages were randomly selected from a total of eight villages where women are actively engaged in farming in the Talensi and Nabdam Districts. The names of these villages were written on pieces of paper and put in a box and four were drawn at random.

The study respondents were selected using a stratified and purposive sampling. The population was stratified into women farmers, traditional rulers and men in the study areas and purposively sampled.

From each of the four communities, women farmers were sampled and the interview schedules administered, until the required number was realised. This was done through snowballing, where one female farmer led the researcher to another.

The interview schedule generated both quantitative and qualitative data, which were analysed independently. The quantitative data was edited, coded, inputted and analysed using Statistical Package for Social Scientists, version 16.0 (SPSS) software. The data generated was analysed by means of frequency counts, percentages, cross-tabulation and Chi-square analysis with the results presented in frequency tables, pie charts and bar graphs.

3.0 Results and discussions

3.1 Research question: What factors influence women's level of access to agricultural resources?

The study examined the factors which affect women's level of access to agricultural resources. The first part of the analysis is on how socio-demographic factors affects women's level of access to agricultural resources. A statistical analysis was also carried out to test the hypotheses of the study. The hypotheses were tested to ascertain if there existed any significant relationships between selected socio-demographic characteristics and women's level of access to agricultural resources. Socio-demographic factors such as age, educational attainment and marital status were tested against access to selected agricultural resources.

3.1.1 Socio-demographic factors and access to land

There are various factors which account for inequalities in access to resources and development opportunities, some of which include class, culture, ethnicity, etc., the gender factor tends to make them more severe. However, this study focused on socio-demographic factors such as age, marital status, educational level and number of children and their influence on access to agricultural resources.

3.1.2Age and access to land

Land is a very important factor in rural livelihoods, since majority of rural dwellers engage in crop production as a means of living. Therefore rural women's access to land is very crucial in ensuring food security and reducing rural poverty as well as empowering women.

Table 1a: Influence of age on access to land

Level of Access to Land	**Age of Respondents**			
	16- 30 yrs (young)	31-55yrs(middle age)	Above 56yr(old)	**Total**
High Access	4(13.3) = -14	30 (34.9) = 12	20 (36.4) = 2	**54**
Medium Access	4(13.3) = - 9.33	22 (25.6) = 8.67	14(25.5) = 0.67	**40**
Low Access	22 (73.3) = -3.67	34 (39.5) = 8.33	21 (38.2) = -4.67	**77**
Total	**30(100) = -27**	**86(100)= 29**	**55(100) – 2**	**171**

Source: *(Field Survey, 2016)*

As shown in Table 1a, a cross tabulation of women's level of access to land and their age, educational level, marital status and number of children shows the extent to which socio-demographic factors influence their level of access to land.

With regards to age influencing women's level of access to land, middle aged and older women were found to have high access to land than younger women. Table1a shows that 34.9% and 36.4% of respondents 31-35 years and above 56 years, respectively, said they had high access to land compared with only 13.3% of the younger women who indicated that they had high access to land. From Table1a, one can also deduce that majority of the younger women respondents, (73.3%) indicated that their level of access to land was low, compared with 39.5% and 38.2% of the middle aged and older women, respectively, who stated that their level of access to land was low.

A statistical test was conducted at 5% level of significance to determine if there existed any significant difference between women's age and their level of access to land. Results of the test ($\chi^2 = 11.919$; df = 4 at 5% level of significance) indicated that age of respondents significantly influenced their level of access to land.

Using the chi-square formula

$$\mathbf{X^2} = \sum \frac{\mathbf{(O-E)^2}}{\mathbf{E}}$$

Where O is the observed frequency and E is the expected frequency:

H_O: Age of respondents does not significantly influence their level of access to land

Equation 1: Age of respondents and access to land

The χ^2 Value from the contingency table is 11.92. This is the sum of all derived values of $\frac{(O-E)^2}{E}$

The degree of freedom (*df*) (3-1) x (3-1) = 4

Reading from the $\mathbf{X^2}$ table with *df* =4 at 0.05% significant level, the critical value =**9.488**

Since $\mathbf{X^2}$ calculated from the contingency table (11.92) > **9.488**, the conclusion is that there is a significant relationship between respondents' age and their level of access to land. This means that age of respondents determines their level of access to land; hence the null hypothesis (H_0) is rejected.

The results of the chi square test agrees with the earlier analysis in Table 1a, which indicated that the age of women influenced their level access to land, where middle aged and older women stated that they had high access to land compared with younger women as can also be seen on Table 1a, the chi square table.

The above findings also validates literature which suggests that a woman's level of access to land is determined by her status as a wife; whether a senior or junior wife (Guyer, 1991).

3.1.3 Education and access to land

Education has been noted for opening up opportunities and building the capacity of people to acquire resources

required for their livelihoods, (Kabeer, 2003). The study examined the educational level respondents attained against their access to land to determine the extent to which women's educational attainment influenced their level of access to land. The analysis indicated that respondents who attained secondary or tertiary education had higher access to land than those with middle/JHS, Primary, and those with no formal education.

Table 1b: Socio-demographic factors and access to land

Demographic factors	**Level of access to land**							
	High		**Medium**		**Low**		**Total**	
Age of respondents	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
16-30	4	13.3	4	13.3	22	73.3	**30**	**100**
31-55	30	34.9	22	25.6	34	39.5	**86**	**100**
56 and above	20	36.4	14	25.5	21	38.2	**55**	**100**
Sub-totals	**54**	**31.6**	**40**	**23.4**	**77**	**45**	**171**	**100**
Educational level of respondents								
No formal education	33	27.3	30	24.8	58	47.9	**121**	**100**
Primary education	7	25	7	25	14	50	**28**	**100**
Middle/JSS education	5	50	0	0	5	50	**10**	**100**
Secondary/tertiary education	9	57.9	3	42.9	0	0	**12**	**100**
Sub-totals	**54**	**31.6**	**40**	**23.4**	**77**	**45**	**171**	**100**
Marital status of respondents								
Single	3	25	3	25	6	50	**12**	**100**
Married	28	28	25	25	47	47	**100**	**100**
Widowed	23	65.7	12	34.3	0	0	**35**	**100**
Divorced	0	0	0	0	24	100	**24**	**100**
Sub-totals	**54**	**31.6**	**40**	**23.4**	**77**	**45**	**171**	**100**
Number of children per respondent								
1-3 Children	7	77.8	1	11.1	1	11.1	9	100
4-6 Children	23	37.1	5	8.1	34	54.8	62	100
7-9 Children	19	34.5	26	47.3	10	18.2	55	100
10-12 Children	5	12.8	8	20.5	26	66.7	39	100
Sub-totals	**54**	**32.7**	**40**	**24.2**	**71**	**43**	**165**	**100**

Source: *(Field Survey, 2016)*

As Table 1b indicates, 57.1% of respondents with secondary or tertiary education had high access to land against only 50%, 25% and 27.3% of those with middle/JHS, Primary and those with no formal education respectively who reported that they had high access to land. This finding is in consonance with the claim of Kabeer (2003) who observed that education open up opportunities for women and helps improve upon their access to productive resources, including land. According to the 2000 Population and Housing Census, 45.9% of the adult population in Ghana is illiterate and the level of illiteracy among females is higher (54.3%) compared to males (37.1%). The GLSS (2003) further indicates that there are twice as many female crop farmers (41%) who have never attended school as compared to men (21%). These factors contribute to limit the ability of women to effectively access their land rights so as to enhance their productivity and their livelihoods.

3.1.4 Marital status and access to land

Women participants in the focus group discussions held in the survey communities mentioned husbands and other family relatives as their main source of land for crop production, and the fact was further confirmed by the analysis of the data. Further analysis sought to examine whether women's marital status influenced their level of access to land. A cross tabulation revealed discrepancies in the level of access to land between single, married, widowed and divorced women.

The study, contrary to expectations, found widows to have higher access to land than single, married and divorced women. This situation was due to the fact that most of the widows lived with their grown up male children who had inherited their fathers' land, hence, their mothers could have access to such lands for crop production. However, other widows who did not have grown up male children ranked their access to land as low.

As shown in Table 1b, 65.7% of the 35 widows interviewed, had high access to land, and compared with 25% of the 12 single women interviewed, 28% of the 100 married women and none of the 24 divorced women. Also all the 24 divorced women interviewed ranked their level of access to land as low, while half of the 12 single women also said they had low access to land with none of the widows ranking their access to land as low. The fact that all of the divorced women ranked their level of access to land as low is worth noting, as the finding

confirms literature which states that divorced women lose access to land in both their lineage homes as well as their marital homes.

During a key informant interview, a traditional ruler intimated that a woman who is divorced loses all rights, including any right to use land, be it in her ex-husband's house or in her biological home. This conforms to literature which says that marriage enhances women's land rights; thus, stability of marriage and good relations with male relatives are critical factors in the maintenance of women's land rights and access to agricultural resources, (Benneh *et al,* 1995).

Further, studies by Kotey and Tsikata (1998) have found that particularly in the patrilineal areas of inheritance in northern Ghana, the Greater Accra and Volta Regions, many women farm on land given to them by their husbands or work together with their husbands on the same piece of land. This has implications for the land security of women and while some studies have stressed the limits of security generated by marriage, others found that it enhanced the security of women's rights in land.

From the analysis above, it is clear that older women, by inference senior wives, tend to have more access to land than younger wives. This is because in the study communities, polygyny is a common practice, where men marry more than one wife, hence the woman who marries the man first is under normal circumstance older than the subsequent wives, as such is considered as a senior. Senior wives due to their long stay in their marital homes gain the respect of members of the family, and therefore exert some level of influence within the household. In a typical traditional home in the study area, junior wives are given favours by their husbands and other family members upon recommendation from the senior wife.

3.1.5 Number of children and access to land

Number of children, and household size is thought to have some level of influence over women's access to land since family land in the study area is usually shared among family members, and women with grown up male children can keep their farmlands even after they have lost their husbands. With the help of grown up children, women can also access farmlands on the outskirts of the community.

Analysis of the data presented on Table 1b indicates that more than three quarters (77.8%) of respondents with one to three children said they had high access to land, as against only 37.1%, 34.5% and 12.8% of those with four to six children, seven to nine and ten to twelve children, respectively, who ranked their level of access to land as high.

This finding contrasts existing literature which asserts that the number of children a woman has, influences her access to land. This trend could be due to the fact that respondents with more children have more competition over the household farmlands, which might have accounted for fewer women with high number of children having high access to land, in the study area where population density is high farmlands are limited in the study area, with an average land holding of 1.2ha per household which falls below the national average of 4ha (Talensi and Nabdam Districts Profile, 2006).

The study also found that access to land was related to the ages of children of respondents and their ability to till the land, as presented in Box 1 below.

Box 1: The case of a widow with young children in Zanlerigu

Lariba is a widow aged 41. She has four children, two boys and two girls, all aged below fourteen (14) years of age. She has not received any formal education, and does not engage in any income earning activity. "Until the death of my husband, I was an active subsistence farmer, although I did not have a farm of my own, I cultivated crops with my husband on his farmland. As a widow, I no longer have access to the land on which my husband and I farmed on since the said land reverted to the family for reallocation. This would have been different if my children were adults, since widows in the community who had adult children were allowed to keep their deceased husband's farmlands. Widows with female adult children were also allowed to keep their deceased husband's farmlands as long as their daughters remained unmarried. Currently, I seek permission from the head of my husband's family or my brothers in law to inter-crop on their farms, with early millet and vegetables for the sustenance of me and my children. I can easily have access to the farmlands in the outskirts of the community, on which I could cultivate choice crops, but my current poverty stricken state makes it impossible to acquire those plots of land since I cannot hire labour".

Source: Field survey, 2016

Drawing inference from Box 1 above, number of children a woman has per se does not influence her level of access to land, but the ages of the children matter. This is because Lariba's narration reveals that although she has male children, she was not allowed to maintain her deceased husband's farmland because her children were not adults. Lariba's story was corroborated by a *"Mangazia"*, (a traditional woman leader) during an interview where she intimated that widows are allowed to keep their deceased husband's farmlands only when they have adult children, irrespective of their sex.

3.1.6 Socio-demographic factors and level of access to credit

The study also examined the influence of respondents' age, educational background, marital status and number of children per respondents over their level of access to credit for their livelihood ventures. This is illustrated on Table 2, which is a cross tabulation of the socio-demographic variables and access to credit.

Table 2 Socio-demographic factors and access to credit

Socio-demographic factors	**Level of access to credit**			
	High	**Medium**	**Low**	**Total**
Age of respondents				
16-30	3(10%)	3(10%)	24(80%)	**30(100%)**
31-55	11(12.8%)	24(27.9%)	51(59.3%)	**86(100%)**
56 and above	11(20%)	15(27.3%)	29(52.7%)	**55(100%)**
Sub-totals	**25(14.6%)**	**42(24.6%)**	**104(60.8%)**	**171(100%)**
Educational level of respondents				
No formal education	18(14.9%)	25(20.7%)	78(64.5%)	**121(100%)**
Primary education	4(14.3%)	5(17.9%)	19(67.9%)	**28(100%)**
Middle/JSS education	1(%10)	4(40%)	5(50%)	**10(100%)**
Secondary/tertiary educ.	2(16.7%)	8(66.6%)	2(16.7%)	**12(100%)**
Sub-totals	**25(14.6%)**	**42(24.6%)**	**109(63.7%)**	**171(100%)**
Marital status of respondents				
Single	2(16.7%)	2(16.7%)	8(66.7%)	**12(100%)**
Married	11(11%)	23(23%)	66(66%)	**100(100%)**
Widowed	12(34.3%)	17(48.6%)	6(17.1%)	**35(100%)**
Divorced	0(0%)	0(0%)	24(100%)	**24(100%)**
Sub-totals	**25(14.6%)**	**42(24.6%)**	**104(60.8%)**	**171(100%)**
Number of children per respondent				
1-3 Children	4(44.4%)	3(33.3%)	2(22.2%)	**9(100%)**
4-6 Children	10(16.1%)	15(24.2%)	37(59.7%)	**62(100%)**
7-9 Children	9(16.4%)	18(32.7%)	28(50.9%)	**55(100%)**
10-12 Children	2(5.1%)	6(15.4%)	31(79.5%)	**39(100%)**
Sub-totals	**25(15.2%)**	**42(25.5%)**	**98(59.4%)**	**165(100%)**

Source: *(Field Survey, 2016)*

Age and access to credit

Notable differences were observed between young, middle aged and older women respondents over their level of access to credit. Younger women reported that they had low access to credit, compared with middle aged and older women. As Table 2 indicates, 80% of young women ranked their level of access to credit as low, compared with 59.3% and 52.7% of middle aged and old women respectively.

It is worth noting that across the age divide, no age group of respondents ranked their level of access to credit above 20%. This is woefully unacceptable if women are to contribute their quota to the development of their communities

3.1.7 Education and access to credit

The study found respondents with different educational attainment to differ in terms of their level of access to credit. The Chi-square test conducted in this case ($\chi^2 = 15.61$; df = 6, p = 0.05) depicted a statistically significant difference between respondents who had no formal education on the one hand and those with primary, secondary or tertiary education on the other hand.

As indicated in the analysis shown in Table 2, respondents without any formal educational background ranked their level of access to credit as low, compared with those who have had some form of formal education. As much as 64.5% (78) of the 121 respondents with no formal education said their level of access to credit is low, compared with 50 % (5) of the 10 respondents with Middle/JSS education and 16.7% (2) of 12 respondents with secondary/tertiary education, who ranked their level of access to credit as low.

Table 3: Education and level of access to credit

Level of Access to Credit	Educational Level of Respondents				Total
	No formal education	Primary education	Middle/JSS education	Secondary/Tertiary education	
High Access	18 (6.2) = 11.75	4(6.25) = -2.25	1(6.25) = -5.25	2(6.25) = - 4.25	25
Medium Access	25(10.5) = 14.5	5(10.5) = -5.5	4(10.5) = -6.5	8(10.5) = -2.5	42
Low Access	78(27.25)=50.75	19(27.25)=8.25	5(27.25)=22.25	2(27.25) = -25.25	109
Total	121(42.75)=78.25	28(42.75)=14.75	10(42.75)=32.75	12(42.75)= -30.75	171

Source: *(Field Survey, 2016)*

H_O: There is no significant relationship between educational background of respondents and their level of access to credit.

Equation 2: Educational background and access to credit

The χ^2 Value from the contingency table is 15.61. This is the sum of all derived values of $\frac{(O-E)^2}{E}$

The degree of freedom (*df*) (3-1) x (4-1) = 6

Reading from the $\mathbf{X^2}$ table with *df* =6 at 0.05% significant level, the critical value =12.592

Since $\mathbf{X^2}$ calculated from the contingency table (15.61) > 12.592, the conclusion is that there is a significant relationship between respondents' educational attainment and their level of access to credit. This means that respondents' educational attainment determines their access to credit; hence the null hypothesis (H_0) failed to be accepted.

3.1.8 Marital status and access to credit

Widows were found to have more access to credit than single, married and divorced women, this could partly be due to the fact that most of them were experienced and have had some contacts with NGOs. Analysis of data obtained from the 171 women interviewed indicated that 34.3% (12) of the 35 widows interviewed ranked their level of access to credit as high compared with only 16.7%(2) of the 12 single women respondents and 11%(11) of the 100 married women also ranked their level of access to credit high.

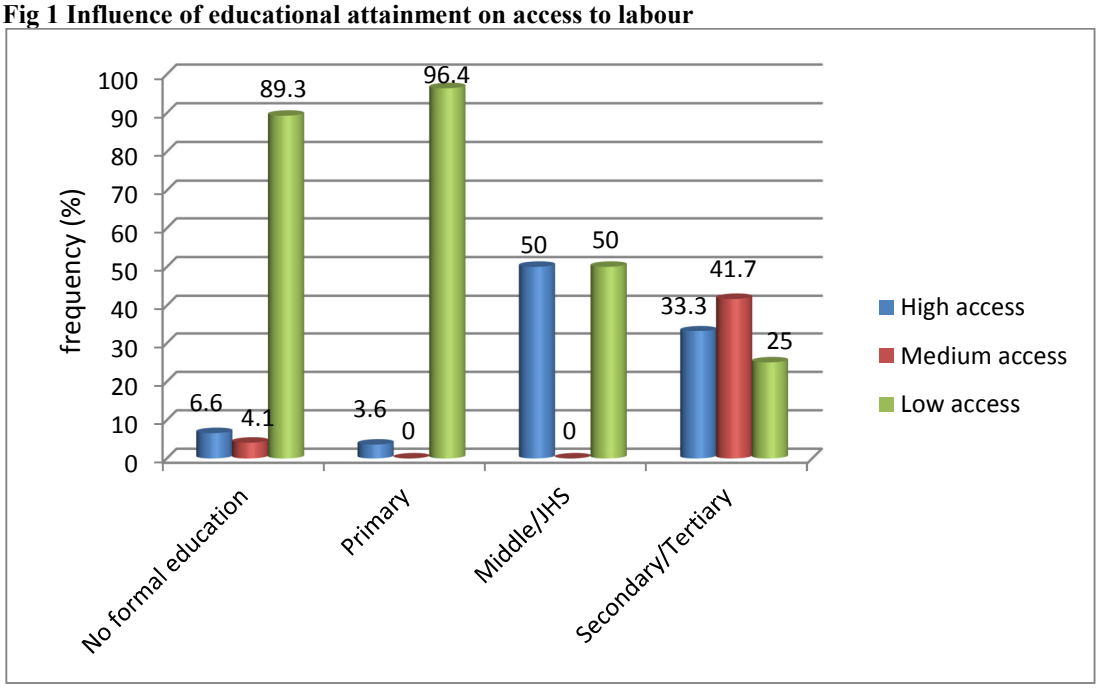
The fact that only 11% of married women ranked their level of access to credit as high is quite alarming. This is because more than half of the respondents of this study are married women, and if only a minute fraction of them have access to credit to undertake farming, their main livelihood activity, then the entire district will be the loser. Their inability to access credit could also be because women are often considered as farmers' wives and not as farmers, as existing literature suggests. Therefore, any interventions to provide credit to farmers may not even target women.

3.1.9 Educational attainment and access to labour

Education is expected to enhance women's capacity and ability to access resources and open up opportunities to enable them improve on their living conditions. It is against this realization that this study sought to examine extent to which women's educational background influenced their level of access to labour.

With regard educational background of respondents influencing their level of access to labour, the study found that more of the respondents with secondary/tertiary educational attainment ranked their level of access to labour as high compared with those without any formal educational background.

Fig 1 Influence of educational attainment on access to labour



Source: Field Survey (2016)

3.1.10 Marital status and access to labour

Marriage defines the social relations and positions of individual in many societies. Farming operations in most Ghanaian societies depends heavily on family labour. Women's access to labour is therefore expected to be influenced by their social position which is effected by their marital status. This study therefore hypothesised that 'women's marital status does not influence their level of access to labour'.

Table 4: Marital status and access to labour

Level of Access to Labour	Marital Status of Respondents				
	Single	Married	Widowed	Divorced	**Total**
High Access	2(16.7%)	7(7%)	4(11.4%)	0(0%)	**13(7.6%)**
Medium Access	2(16.7%)	13(13%)	0(0%)	0(0%)	**15(8.8%)**
Low Access	8(66.7%)	80(80%)	31(88.6%)	24(100%)	**143(83.6%)**
Total	**12(100%)**	**100(100%)**	**35(100%)**	**24(100%)**	**171(100%)**

Source: *(Field survey, 2016)*

A cross tabulation as shown in Table 4 on level of access to labour and women's marital status was constructed to examine the relationship between marital status and level of access to labour.

The results as displayed in Table 4 indicate some level of relationship between women's marital status and their level of access to labour. Results of the study found that two-thirds of the 12 single women respondents and 80% of the 100 married women interviewed ranked their level of access to labour as low. Only 16.7% of the 12 single respondents, 7% of the 100 married women interviewed, and none of the divorced women respondents interviewed described their level of access to labour as high.

It is apparent from the analysis above, that access to labour if a major problem in the study area. Traditionally, women in the study area cannot use labour within the household, unless the family/clan head or men have no use for such labour. During an interview session with selected men, one man remarked thus: *"how can my children leave my farm to go work for their mother, who owns their mother herself? Even she has to work on my farm, from which she feeds before she can attend to her own piece of land"*. This is a clear indication that women farmers in the study area, like their counterparts elsewhere in sub-Saharan Africa, have to work full time on the family farm before they can attend to their own farms. It further lends credence to Offei-Aboagye (1998), who states that "women's time is hardly their own because of the multiple roles they have to perform as wives, mothers and in most cases as major or complementary income earners. Husbands, and in some cases the father in-law, can command total control over their wives and children's labour, but the reverse situation is not true".

In addition, their low level of access to credit makes it almost impossible for them to hire labour.

3.1.11 Number of children and access to labour

Since most small holder farmers in Africa use family labour for their farming activities, it is expected that number of children that women respondents have will influence their level of access to labour. A cross tabulation

of number of children per respondent and level of access to labour was constructed to ascertain the relationship between number of children per respondent and their level of access to labour.

Table 5: Number of children and access to labour

Level of Access to Labour	Number of Children per Respondent				
	1 -3	4 – 6	7 – 9	10 – 12	Total
High Access	7(77.8%)	23 (37.1%)	19 (34.5%)	5(12.8%)	54 (32.7%)
Medium Access	1 (11.1%)	5 (8.1%)	26 (47.3%)	8 (20.5%)	40 (24.2%)
Low Access	1 (11.1%)	34 (54.8%)	10 (18.2%)	26 (66.7%)	71 (43%)
Total	9 (100%)	62 (100%)	55 (100%)	39 (100%)	165 (100%)

Source: *(Field Survey, 2016)*

Contrary to expectation as can be seen in Table 5, analysis of the influence of number of children respondents had and their level of access to labour revealed that 77.8% of respondents who had one to three children had high access to labour compared with only 37.1% of those with four to six children and 34.5% of respondents with seven to nine, and 12.8% of those who had ten to twelve children.

3.1.12 Socio-demographic factors and access to farm inputs

Respondents' level of access to farm inputs/implements such as hoes, cutlasses, donkey carts, seeds, manure, seedlings, fertilizer among others was also analysed against their socio-demographic characteristics to ascertain if there existed any relationship among them.

Farm tools such as hoes and cutlasses are widely used in the study area for farming activities. Men usually own and control these implements, and even when women buy them, they are usually kept by their husbands or sons.

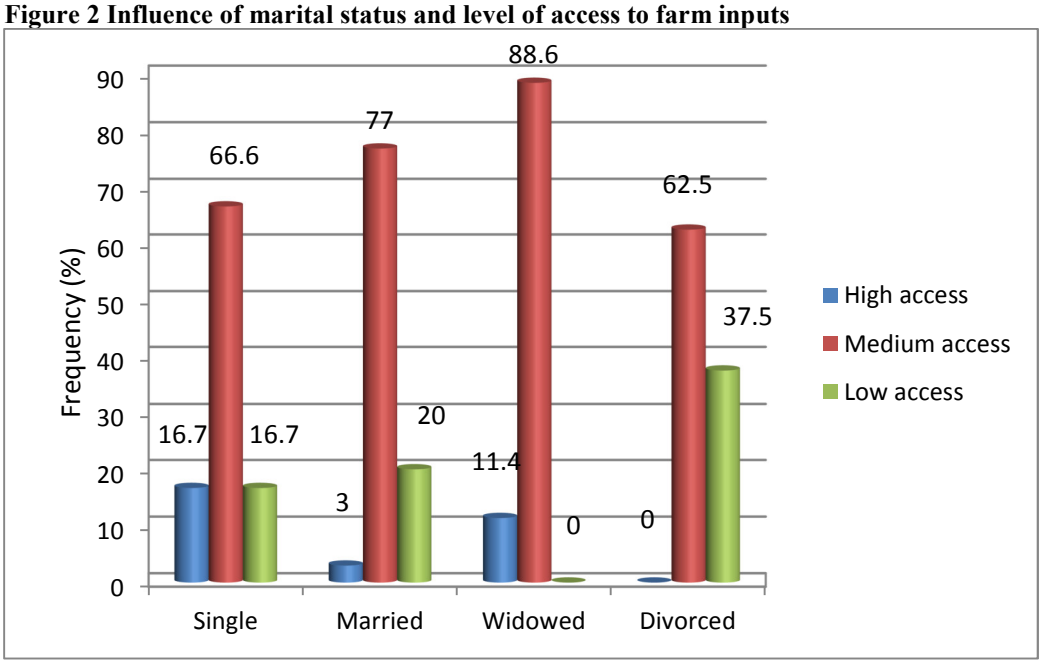
3.1.13 Marital status and access to farm inputs

This study examined the relationship between women's marital status and their level of access to farm tools. Women's access to farm tools like hoes and cutlasses is expected to influence their farming operations such as weeding and land preparation.

Analysis of data on the influence of women's marital status on their level of access to farm inputs is presented on Figure 2. As indicated in Figure 2, 16.7% of the 12 single respondents, 3% of 100 married women and 11.4% of the 35 widowed described their level of access to farm tools as high.

Women's access to these implements is very critical in their farming activities, since most farming activities in the area are done manually using these implements. The revelation by this study that women's level of access to farm tools and implements can be generally described as medium is quite worrying considering the fact that rain fed agriculture, which is the predominant farming system in the area is seasonal in nature, hence, operations relating to farming such as land preparation, planting, weeding and harvesting which are done with these simple farm tools are time bound. Therefore improving women farmers' level of access to these implements by empowering them to own them will help them improve upon their farming operations, hence enhance their general wellbeing.

Figure 2 Influence of marital status and level of access to farm inputs



Source: Field work (2016)

3.1.13 Socio-demographic characteristics and access to extension services

Age and access to extension services

Differences in level of access to extension services was observed across different age groups, thus, between younger women farmers, middle aged women farmers and older women farmers.

Table 6: Age and access to extension services

Level of Access to Extension	Age of Respondents			
	14-30yrs (young)	31-55yrs (middle age)	Above 56yr(old)	Total
High Access	3(10%)	9(10.5%)	8(14.5%)	**20(11.7%)**
Medium Access	3(10%)	28(32.6%)	21(38.2%)	**52(30.4%)**
Low Access	24(80%)	49(57%)	26(47.3%)	**99(57.9%)**
Total	**30(100%)**	**86(100%)**	**55(100%)**	**171(100%)**

Source: Field work (2016)

Table 6 indicates differences between respondents' level of access to extension services across different age groups. As shown in Table 6, younger women farmers were found to have ranked their level of access to extension services as low as against middle aged and older women farmers. The study found that, 80% of the 30 women between the ages of 16 – 30years (young women) ranked their level of access to extension services as low compared with 57% of the 86 middle aged women and 47.3% of the older women respectively who also ranked their level of access to extension services as low.

From the analysis above, one can conclude that middle aged and older women respondents have relatively higher access to agricultural extension services than younger women respondents, because they have been involved in farming activities for a longer period than the younger women, and would have overcome most of the obstacles, particularly the cultural barriers, where male extension officer are prevented from meeting with women farmers.

However on the whole, the general picture is that the respondents lacked adequate access to extension. This could be attributed to the fact that extension services are usually designed and targeted at large scale farmers, who are usually men, therefore, women are usually not covered, (Weiddeman, 1987).

3.1.14 Educational attainment and access to extension services

A noticeable difference was observed in respondents with different educational attainment in terms of their level of access to extension services. Respondents with secondary or tertiary education have ranked their level of access to extension services as high compared to those with middle/JHS, primary or those with no formal educational background.

Table 7: Educational level and access to extension services

Level of Access to Extension	Educational Level of Respondents				
	No formal education	Primary education	Middle/JSS education	Secondary/Tertiary education	**Total**
High Access	14(11.6%)	3(10.7%)	1(10.0%)	2(16.7%)	20(11.7%)
Medium Access	33(27.3%)	6(21.4%)	4(40.0%)	9(75.0%)	52(30.4%)
Low Access	74(61.2%)	19(67.9%)	5(50.0%)	1(8.3%)	99(57.9%)
Total	121(100%)	28(100%)	10(100%)	12(100%)	171(100%)

Source: Field Survey, (2016)

As shown in Table 7, only 8.3% of the 12 respondents with secondary or tertiary education described their level of access to extension services as low as against 67.9% of the 28 respondents with primary education and 61.2% of 121 respondents with no formal educational background who ranked their access to extension services as low.

3.1.15 Marital status and access to extension services

Single, married, widowed and divorced women interviewed were found to differ in terms of their level of access to extension services.

Table 8: Marital status and access to extension services

Level of Access to Extension	Marital Status of Respondents				
	Single	Married	Widowed	Divorced	Total
High Access	2(16.7%)	9(9%)	9(25.7%)	0(0%)	20(11.7%)
Medium Access	2(16.7%)	28(28%)	22 (62.9%)	0(0%)	52(30.4%)
Low Access	8(66.7%)	63(63%)	4(11.4%)	24(100%)	99(57.9%)
Total	12(100%)	100(100%)	35(100%)	24(100%)	171(100%)

Source: *(Field Survey, 2016)*

As indicated in Table 8, about two-thirds of the 12 single respondents ranked their level of access to extension services as low, whiles 63% of 100 married women respondents and only 11.4% of the 35 widows also described their level of access to extension services as low.

4.0 Conclusion

The findings of this paper revealed some socio-demographic factors that influenced women's level of access to agricultural resources within the Talensi and Nabdam Districts of the Upper East Region of Ghana. The most prominent socio-demographic factors which adversely affect women's access to agricultural resources include marital status and education, while number of children and age of respondents did not matter as far as women's access to land is concerned. Contrary to existing literature, ages of a widow's children had a strong influence on her level of access to agricultural resources, particularly land. The older the children, the greater access the widow had to these resources.

It is imperative to note that considerations other than socio-demographic factors, such as inheritance, divorce systems and land tenure, among others could also influence women's level of access to agricultural resources, hence the need for further research.

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