

Socio-Economic Factors Influencing Full Participation of Rural Women in Crop Farming

William Owande

Department of Health Sciences, Jaramogi Oginga Odinga University of Science and Technology, Kenya.

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ABSTRACT

In Sub-Saharan Africa, women engaged in small scale farming are believed to produce about 80% of crops used in feeding their families. This study was carried out to determine socio-economic factors influencing level of participation of rural women in crop farming in Kakelo Location, Homa Bay County, Kenya. Levels of participation in crop farming were determined with respect to farming activities in which the respondents participated such as land preparation, planting, weeding, pest and disease control, harvesting and storage. The level of participation was determined on a scale of 0 ("no participation") to 4 ("full participation."). The study was done using descriptive cross-sectional design involving stratified cluster sampling method to select participants. A sample size of 288 women among a population of 17 812 in the study area was interviewed using questionnaires. Chi-square test was used to establish association between socioeconomic factors and level of participation. A p-value of <0.05 was considered statistically significant. The study found out that only 21.2% of the respondents reported full participation in crop farming. Women with formal employment reported highest level of 41.7% full participation ($X^2=0.69$, $P=0.79$). Also, acquisition of education, at least up to high school, improved the level of participation of the women in crop farming ($X^2=32.92$, $P=0.00$). Education and formal employment increased the women's access to credit and technical information, which improved level of crop farming. Acreage of cultivated farmland did not appear to have any significant association with level of participation in crop farming. The study revealed that out of the 288 respondents, none of them had ever received any agricultural extension service within the location in the last five years. In conclusion, the fact that only 21.2% of the respondents in Kakelo Location, Homa Bay County, Kenya, reported full participation in crop farming indicated dismal contribution by majority women to improvement of household food security. Therefore, it is recommended that more effort should be put into increasing level of rural women participation in crop farming.

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1. Introduction

This study focuses on the factors influencing the level of participation of rural women in crop farming activities in Kakelo location, Homa-Bay County in Kenya. Women have been known to be feeding their entire families through subsistence farming. However, women's plight in economic development has not been satisfactorily addressed. In Sub Saharan Africa, small scale women alone grow up to 80% of subsistence crops^[10].

In Sub-Saharan Africa (SSA) malnutrition has been and still is a threat to human life due to food shortage. Most of the food crops are grown the rural areas where women are the majority. This is because men tend to look for paid jobs in the urban centres, leaving behind their wives to till the land and take care of the families. However, these women farmers receive very little support for farming activities. Subsequently, the amount of food available for consumption in the rural areas cannot meet the surging demand. This leads to constant hunger in most parts of the SSA.

In Kenya, for example, women own only 1% of the registered title deeds while 99% is held by men^[15].

This shows some kind of discrimination against women in terms of acquisition of credit facilities and use of farm resources.

2.0 Literature Review

2.1 Main Source of Income

Globally rural women are traditionally employed in their small holder farms where they mainly do subsistence farming to derive food for their families^[11].

2.2 Women and Access Credit Facilities

When it comes to access to credit facilities, women are believed to be high credit risks by the lending institutions in their societies. In most countries, including Kenya, women are viewed as high credit risk since they do not own land. This makes credit institutions reluctant to give them loans for agricultural projects^[2]. Rural women farmers are seriously disadvantaged when it comes to access to credit facilities all over the world. An analysis of credit schemes carried out in Kenya, Malawi, Sierra Leone, Zimbabwe and Zambia revealed that women received less than 10% of the total loans granted to smallholders and that only 1% of the total amount of credit was directed to agriculture. In Jamaica, women account only for 5% of loans granted by the Agricultural

Credit Bank ^[2]. Consequently, total world food production is significantly reduced. This makes developing nations food insecure every year because the main producers of subsistence crops have been neglected and therefore unable to meet the ever increasing demand. Studies carried out in Asia show that 96% of Nepalese women are involved in agricultural activities but very few of them are involved in decision making in issues aimed at improving their socio-economic status.

In Africa, a study carried out in Burkina Faso shows that even though the participation of women in agriculture is higher than that of men, they are seriously still disadvantaged in farming activities ^[6]. This confirms that the world will still experience food shortage especially in the developing countries like Kenya unless the disparities between men and women farmers are addressed. Since women farmers are seen to be high credit risks ^[2], it is difficult for them to obtain credit facilities for agricultural activities compared to male farmers. Therefore if more attention is focused on women farmers there can be remarkable improvement in food production to help bail the world out of food crisis. Global funders have of late shifted their attention to focus on women farmers and give them more support since studies have revealed that if production resources were left in the hands of women farmers to control, food production would improve six times ^[7].

2.3 Access to Land

Studies have shown that majority of the rural women own less than 3 acres of land and this influences their level of full participation in crop farming in most countries like Kenya ^[11-14]. Women produce over 50% of the world's food while men concentrate on cash crops. According to ^[10], women own a tiny percentage of the world's land (2%) and can only receive 5% of farming information services and training especially in the rural areas.

If land resources were put in the hands of women to control, women would be more productive than men ^[7]. Women produce over 50% of the world's food while men concentrate on cash crops. This is because it is believed that men are family title deed holders before he dies ^[15].

2.4 Level of Education

The rate of women's full participation in development initiative is strongly influenced by their educational level ^[9]. Low levels of education therefore hinders participation in farming activities of rural women since majority them are illiterate and as such cannot make informed decision in farm management matters ^[1, 11, 14].

2.5 Agricultural Extension Service

On many occasions extension strategies have been tailored for cash crop production which is mainly carried out by men as opposed to subsistence farming which is dominated by rural women farmers. In extension service male bias is illustrated by Farmers Training Centres (FTCs) which do not put in place support systems for baby care for women farmers attending training sessions. Due to lack of such facilities lactating women farmers find it difficult to stay away from home to be hosted at the FTCs. Furthermore, even in cases where women attendance is high, women are mainly given instruction in areas such as home economics and craft subjects as opposed to their male counterparts who receive instruction in technical agriculture ^[5]. Rural women prefer fellow women folk agricultural extension officers to male extension officers to guide and equip them with latest agricultural information and technology ^[8].

3.0 Methods

3.1 Study Design

A probability sampling design was used in which stratified cluster sampling method was used to identify and select the participants of the study. In Kakelo Location there are two sub locations namely, Kakelo Dudi and Kakelo Kamroth. Kakelo Dudi has 34 villages whereas there are 39 villages in Kakelo Kamroth. Using stratified sampling method based on proportional allocation, 9 villages in Kakelo Dudi and 11 villages in Kakelo Kamroth were considered in the study.

3.2 Sample Size Determination.

Kakelo location has a population of 17812 and is made up of 73 villages and 3890 households ^[9]. The sample size was calculated using $n = Z^2 pq/d^2$ (Fischer *et al*, 1998) cited by ^[14]. Therefore the sample size was 288 plus non-response adjustment of 5% (14 households) hence 302 households.

3.3 Study Population

Women aged 15-64 years who participate in crop farming and live in Kakelo Location answered questions on source of income, access to credit facilities, access to land, level of education and access to agricultural extension services.

3.4 Data Collection Tools

Structured questionnaires were used in quantitative study whereas Focus Group Discussion and Key Informant Interviews were used to collect data in qualitative study.

3.5 Data Processing and Analysis

After data cleaning, quantitative data was entered into an SPSS database. The data was then coded to create categories before analysis was done. Qualitative data was transcribed into MS word before analysis was done. Descriptive statistics was used to describe demographics characteristics of study participants as well as to determine the levels of participation. The farming activities were classified in two; Primary farming activities which included ploughing, planting, weeding and harvesting while secondary farming activities included land clearing, pest and disease control, produce preparation and storage of produce. Where a respondent participated in an activity, the variable was assigned value 1 and where there was no participation in an activity, the activity variable was assigned value zero. The values for the activities were added and an overall score obtained. A maximum score of four was coded as full participation in primary or secondary activities. A score less than four was coded as partial participation. Chi-square test was used to establish association between cultural, socioeconomic factors and level of participation. A p-value of <0.05 was considered statistically significant. All analysis was conducted using statistical package for social sciences (SPSS version 16.0). Qualitative data was categorized and themes generated then analyzed.

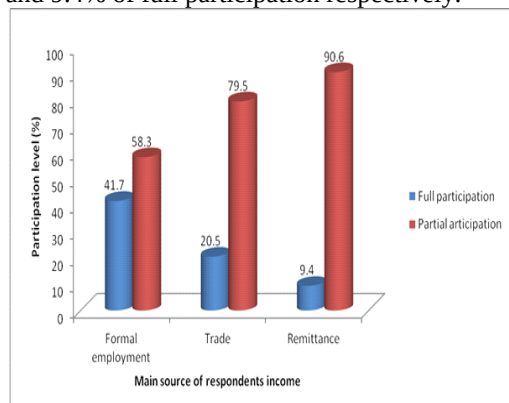
3.6 Ethical Consideration

Authority to conduct the study was obtained from Great Lakes University of Kisumu Ethical Review Board. A letter was written to the provincial administration to seek for permission to conduct the study in Kakelo location. The purpose of the study was revealed to and permission sought from each respondent before carrying out data collection. The respondents were thus assured of confidentiality and privacy of the information they would give during data collection.

4.0 Results

4.1 Main Source of Income

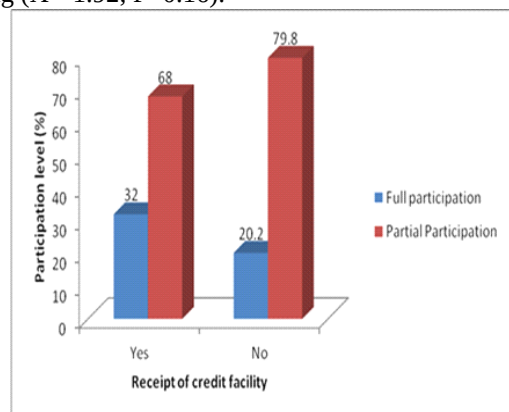
The study findings showed that respondents' main source of income had significant influence on their level of full participation in crop farming activities (Figure 4.6). The findings reveal that respondents whose main source of income was formal employment reported highest level (41.7%) of full participation compared to their counterparts whose main sources were trade and remittances, who reported 20.5% and 9.4% of full participation respectively.



4.2 Access to Credit Facilities

A total of 25 respondents reported they had received some credit facility in the past 10 years. However, only 8(32.0%) out of 25 fully participated in crop farming while 17(68.0%) partially participated in the same activities. Again, only 53(20.2%) out of 263 respondents who reported they had never received credit of any kind in the past 10 years fully participated in crop farming compared to 210(79.8%) who partially participated in crop farming. Those who had received some kind of credit (32.0%) participated fully in crop farming more than those who had not (20.2%). Report from the FGD indicated that none of the members of the groups had ever received credit facility of any kind in the past 10 years. One member commented,

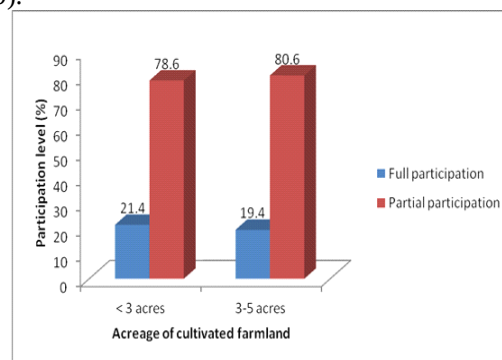
“The government has refused to give us loans for farming and the banks require security that we don't have. Now who will help us and some of us are widows...” However there was no significant association between receipt of credit and full participation of the respondents in crop farming ($X^2=1.92$, $P=0.16$).



4.3 Acreage of Cultivated Farmland

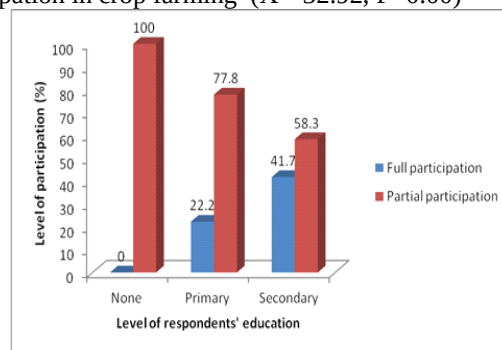
Of the 257 respondents who had put less than 3 acres of land under crop farming, only 55(21.4%) fully participated in crop farming whereas 202(78.6%) of the respondents partially participated in crop farming. For the 31 respondents who had put between 3-5 acres of farmland under crop farming, only 6(19.4%) respondents fully participated while 25(80.6%)

partially participated in crop farming. However, acreage of cultivated farmland never appeared to have any significant association with full participation in crop farming ($X^2=0.69$, $P=0.79$).



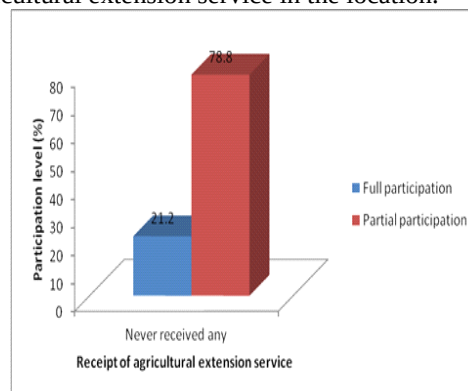
4.4 Level of Education

The findings of this study revealed that none of 66 (100%) respondents who never had any formal education fully participated in crop farming. Furthermore, 36 (22.2%) of the 162 respondents who had primary education fully participated while 126 (77.8%) of the respondents only participated partially in crop farming. Out of the 60 respondents who had secondary education, 25(41.7%) of them fully participated as compared to 35 (58.3%) who partially participated in crop farming. Respondents who had secondary education (41.7%) participated more fully than those who had primary education (22.2%) and those without any formal education at all(0.0%). Therefore level of respondents' education had significant association with full participation in crop farming ($X^2=32.92$, $P=0.00$).



4.5 Agricultural Extension Service

The findings of this study revealed that out of the 288 respondents who were asked whether they had received any agricultural extension service, none of them had ever received any agricultural extension service in the location.



Discussions

The study findings showed that respondents' main source of income had significant influence on their level of full participation in crop farming activities (Figure 4.6).

The findings reveal that respondents whose main source of income was formal employment reported highest level (41.7%) of full participation compared to their counterparts whose main sources were trade and remittances, who reported 20.5% and 9.4% of full participation respectively. A study carried out to determine participation level of rural women in rice production activities and education extension programme established that main source of income had significant influence on respondents' participation level in crop farming^[11].

It was depicted that access to credit facility did not have significant influence on respondents' participation in crop farming ($X^2=1.92$, $P=0.16$). However studies have shown that access to credit facility has significant influence on respondents' participation in crop farming. Credit facility is a source of respondents' income and has been depicted to influence their participation in crop farming^[2, 9, 11].

Acreage of cultivated farmland never appeared to have any significant association with participation of respondents in crop farming ($X^2=0.69$, $P=0.79$). However, it was established that acreage of cultivated farmland significantly influence participation of rural women in farming activities but in all the studies most of the respondents' acreage of cultivated farmlands were less than 3 acres^[11-12]. During the Focus Group Discussions held with the respondents in the study area, most of them reported that lack of land for crop production influenced participation level. They argued that small acreages of land limited their participation to specific staple food crops some of which could easily thrive even without much attention as in spraying with chemicals. Such crops mentioned were sweet potatoes, maize and sorghum.

According to the findings of this research, the level of education of the respondents had a significant influence on the respondents' participation in crop farming activities. It indicated that an increase in the level of education of the respondents led to an increase in their level of full participation. The respondents who had no education at all reported low level of full participation while those who had primary education showed higher level of participation whereas those with secondary education showed the highest level of participation in crop farming activities. A study carried out to determine the relationship between different characteristics of rural women with their participation in mixed farming activities revealed that education had a negative significance on participation of rural women in farming since highly educated rural women are less experienced in farming and belong to a high socioeconomic status^[3]. However, other studies have revealed that level of respondent's education has significant influence on participation in farming^[9, 13]. Even though Fami's view may be correct to some extent, I disagree with him since education not only empowers respondents with ability to make wise farming decisions but also enable them to access important information regarding farming such as farm planning and management which can tremendously improve women's participation level.

According to this study, all the respondents reported that they had never accessed any agricultural extension service for more than 5 years. This finding was an indication of lack of government effort to empower rural women with technical skills geared towards crop farming in the location. Just like in many Sub-Saharan countries, agricultural extension service in Rachuonyo District does not effectively reach and benefit rural women in Kakelo location who are key contributors to

food security^[4,8]. This might have led to failure of rural women to use modern farming technology that can significantly increase farm produce to enhance food security and nutrition in the location.

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