Original Research Article

Contribution of Women to Food Production in Urban and Peri-Urban Areas of Kapsabet Town, Kenya.

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ABSTRACT

Women make a significant contribution to household food and nutrition security worldwide. They are reported to produce 60-80% of food in developing countries and half of the food produced globally. They have also been reported to have a higher workload in ensuring food and nutrition security than men do in developing countries. In Kenya, women play a pivotal role in food production. This study aimed to explore their contribution to food production in an urban Kenyan metropolis, in a high potential agricultural area of Kenya's Rift Valley Region. A cross-sectional descriptive study design using a quantitative method of data collection was used to collect data from 124 women (representing households) in Kapsabet town metropolis, through a questionnaire that was administered to the women in the 124 households and 14 key informants by way of one-on-one interviews. The households were selected randomly. The data obtained was analyzed using descriptive statistics to establish the nature and level of food production activities by the respondents including the level of economic empowerment. It was established that most of the farming population was aged 40-59 (54%), while those aged 20-39 made up 26% of respondents; farming in the metropolis is not therefore a major attraction for the youth (18-35 years of age). Women-farmers spent approximately 36 hours/week during the planting, weeding and harvest season on farm-related activities compared to 25 hours/week by males. Higher food production and food and nutrition security can be achieved if County and National-level Governments invested in women empowerment for higher agricultural productivity and minimized the challenges they face in food production.

Keywords: Food production, women, rural-urban area, Kapsabet, Kenya

INTRODUCTION

“Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life” (FAO, 2017). This definition reflects 4 key dimensions: availability, access, stability and utilization, through which food and nutrition security status can be assessed. However, the fifth dimension of “affordability is key to the achievement of food and nutrition security as it affects availability and access by a consumer to food that meets their dietary needs. The concept of affordability is premised on the consumer having a reliable source of disposable income and therefore the economic ability to meet individual or family food needs at all times (Lokuruka, 2021). Economic empowerment is giving women equal opportunities as men to participate in, contribute to, and, benefit from economic resources. Women play a key role in food and nutrition security and therefore empowering them economically leads to improved food and nutrition security (Kassie *et al.*, 2012). Kenya, like other Sub-Saharan countries, faces food insecurity with approximately 3.4 million people being acutely food insecure annually (FAO, 2017). The current study was based in Kapsabet town metropolis, in Nandi County, Kenya. Kapsabet town has a population of 86,803 according to the Kenya Household Census of 2009 (KNBS, 2009), with 21,874 women, 21,529 men and 43,400 children. The study was conducted in the urban and peri-urban precincts of the town. The targeted population was the women in the area of study, as it was evident from casual observations that they actively supported agriculture in the region. Kapsabet town is the administrative capital of Nandi County and a major business Centre. An earlier study by the African women Studies Center (AWSC) and the Kenya National Bureau of Statistics (KNBS, 2014) on women experience in securing food and nutrition security showed that women contribute greatly to agricultural production. The study established that they spent up to 5-6 hours per day on small-scale agricultural production. In the battle against hunger, women most certainly hold the heavier half (Chinese proverb-<https://www.wow4u.com/chinese/>). They are actively involved in the process of fighting against hunger. This study aimed to document their contribution to food production for household food and nutrition security in the town and its environs.

Research Area

The study site was Kapsabet town in Nandi County, Rift Valley Region of Kenya. The town is located 40 kilometers Southwest of Eldoret town and has a population of 86,803 persons (KNBS, 2009). It also hosts a municipal council and is the divisional headquarters of Kapsabet administrative division. It is an agricultural town as the farming area starts about 5 Km from the town Centre.

METHODS AND PROCEDURES

The study was a cross-sectional descriptive survey, using a questionnaire to collect data from women-farmers and 14 male key informants.

Research design

The design was a descriptive and cross-sectional study. The total population of women in Kapsabet town was estimated to be 21,874 women according to KNBS (2009). The study targeted women respondents whose sample of 124 was picked from the whole population using stratified sampling. There were 14 male Key informants picked from the population-composed of Chiefs, Assistant Chiefs, the Clergy and Village Elders.

Sample size and sampling procedure

The study population targeted 124 respondents who took part in the study as calculated by the formula (Yamane, 1967), where

$$n = N / 1 + N (e^2), \text{ (what is } e^2 \text{)}$$

n = Sample size, N = Population size, e = Level of precision or sampling error which is ± 10 the population size is 21,874, $e = 9\%$

$$n = 21,874 / 1 + 21,874 (0.09^2)$$

$$n = 123.45$$

The sample was rounded off to 124 households, which were picked randomly from the area population. There were 14 male Key informants picked from the population; it was made up of Chiefs, Assistant Chiefs, the Clergy and Village Elders.

RESULTS AND DISCUSSION

Table 1: Ages of respondents

Age in years	Frequency	Percentage
Below 20	2	2
20-39	26	26
40-59	54	54
60 and above	18	18

Economic activities undertaken by women respondents

As indicated in Figure 1, the majority of the respondents, 75%, were involved in mixed farming. They kept animals and cultivated crops mostly for home use. However, they indicated that they sold surplus produce in the public market, in the words of one of the respondents who said, “*We produce food for home use. We can only sell what is left after our families are well fed*” (respondent number 011). Ten percent of the respondents were involved in livestock rearing only, while 15% of the respondents were involved only in crop production. The study therefore established that most women-farmers in Kapsabet town are involved in mixed farming where they kept animals and cultivated crops.

Figure 1: Level of Major Farm Enterprises

Contribution of women to food production

Although both men and women as shown in Figure 2 worked on farms, the data shows that women worked longer hours in most activities than their male counterparts. Secondly, the data from the survey points to some degree of gender differentiation in activities. Both men and women were engaged in land clearing and ploughing although it was regarded more of a man's work, so males would normally spend more time in these activities. However, in planting, weeding and harvesting, women were reported to spend more time in these activities than the males. It was also reported in the survey (though not shown anywhere in this report) that men were less involved in vegetable crops production as it is considered in the area to be a woman's crop. Cumulatively, women spent 36 hours per week compared to men who spent a maximum of 25 hours per 6 working-day week on the various farm activities during the rainy season until harvest (Figure 2).

Figure 2: Time spent on farm activities by men and women

The working time on farms by the two genders was summarized by one of the participants in a focus group discussion, who said, “Most of the work is done by women an average of 9 hours, while men 5 hours in a day, almost all the work. For most of us, our day starts at 4 am-we milk the cows, deliver milk to the dairy processing facility, feed the animals, do the care work and go to farms around 9 am. We take a break around 1 pm and after we have had our lunch, we go back to the farms until dark. It is our role to ensure food security in our households. Men can assist but they cannot be held responsible if there is insufficient food in the household” (respondent number 067).

The respondents were also asked to indicate on a scale of 1-4 the extent to which they have received support from their husbands in farm work (where the value of 1 meant not at all, 2 little extent, 3 moderate extent and 4 to a great extent). As presented in Figure 3.0, the majority of the respondents, 77%, indicated that they received little support to no support from their husbands. However, their grown up children supported those who did not receive support from their husbands. Fifteen percent indicated that they received moderate support from their husbands, while only 7% indicated having received great support. This is an indication that women-farmers living in and around Kapsabet town provide most of the labour input required for food production, without much help from the husbands.

Figure 3.0 Extent of male support to food production

The summary of the finding was given by a participant who said:

"In this area farms are for women, we do almost all the work. We must work to provide food for our families. It is our role as women to do so. Our children will not demand food from their fathers, but us. We must ensure the family is well fed" [female respondent 56 yrs of age, number 012]. Also, another woman-farmer respondent had this to add: "Women in Kapsabet town are the most important actors in food production, but their productivity is constrained by traditional and cultural norms. Our traditions dictate that women must perform all domestic responsibilities and play a subordinate role in decision making and in the ownership of production resources (woman respondent number 078)."

The respondents were also asked to explain how each of the various factors they identified affected their household food production. On the issue of division of roles and responsibilities, women were observed to be primarily responsible for farming and domestic work such as caring for the children, cooking, and cleaning. This was tightly controlled by social norms. Most respondents indicated that such work took a lot of time and energy. Due to these domestic requirements, they would run late in planting or weeding or skipped the work on the farm in some of the seasons. Most of the respondents reported having backaches, headaches and stress resulting from the domestic workload, which made them less productive on their farms.

Almost half of the respondents (54%), indicated that men made decisions solely especially in activities concerning cultivation, preparation of land, when to plant and when to harvest. They also decided on the amount of food to be used in the household and what to be sold and how to spend the income obtained from the sales of farm produce. Only a small number of respondents reported having made decisions jointly or being consulted. However (33%) of the women in female-headed households and those whose husband worked far from home indicated having made the decisions themselves. The respondents indicated that lack of decision-making power affected their household food production, especially when they lacked autonomy over the income obtained from sales of surplus farm produce.

A participant in a focus group discussion summarized this as follows:

“Men culturally are accepted as being the decision makers in the households; we have to wait for them to give us money to buy farm inputs such as fertilizers. If they don’t we will have to plant without and this result in poor yields” (respondent number 056).

The findings of the survey showed that gender inequality in the ownership of land was a challenge to household food production and influenced women economic empowerment. A majority of the respondents stated that culture does not allow them to own land. The title deed is registered in their husbands or their father-in-laws names, and, therefore, they did not have collateral to obtain credit, which could be used to buy farm inputs. One of the respondents expressed her wish by saying *“I would like to access credit, to expand our land that is currently not in use, but without security it will be impossible”* (respondent number 023).

The study also confirmed that men own livestock such as cattle, sheep, goats, and donkeys, while culturally women owned birds. The practice-affected women’s productivity as they have no right to sell livestock to obtain income or even to use the manure obtained from livestock to enhance productivity without consultation. One woman summarized this as follows:

“Domestic animals such as cows, goats, sheep, rabbit and donkeys belong to men while women own poultry. Women solely take care of them but have no power to sell them. Most women rely on the manure from the livestock but men can decide to sell all of it forcing women to plant with no manure and this results in low yields” (Key Informant number 01).

To establish the economic challenges faced by the women, the respondents were asked to rate in the scale 1 to 4, where the value of 1 meant “not at all”, 2 meant “to little extent”, 3 meant “to moderate extent” and 4 meant “to a great extent” how various economic factors have affected their food production.

As indicated in Figure 4.0, 66% of respondents reported that the cost of farm inputs was a challenge to food production in the Kapsabet farming area to a great extent. Also, 49% of respondents agreed that limited access to finance and credit facilities affected food production to a great extent, while 20% indicated that poverty affected them to a moderate extent. This points to the considerable negative effect that lack of access to credit and finance has on achieving higher food production output by women-farmers in this rural-urban farming community.

Figure 4.0: Economic challenges faced by women in food production

The respondents were also asked to explain how each of the three economic factors they identified affected food production. They reported that price of purchasing farm inputs forced them to sometimes plant their farm-seeds without fertilizers. Their use of low quality seed would in their opinion result in low output and therefore lower food production from the farms. The questionnaire revealed that the level of poverty in the community of farmers restricted their capacity to buy adequate food for the family (when they did not produce enough) and farm inputs. Most respondents revealed that they lacked collateral, which was required by lending institutions in their quest to improve food production and therefore improved family income from the farms through the purchase of fertilizers and high quality seed. From the findings of the study, women dominated most of the activities, which were considered women's work in agriculture and trade. They also spent a considerable amount of time in land clearing and ploughing, which are normally considered men's work. These findings agree with Quisumbing and Pandolfelli (2012) who surmised that women provide more labour in food production than men in Sub-Saharan Africa. The study results also showed that despite women performing most of the work on farms to provide for food for their households, their capacity is inhibited by some gender-based inequalities rooted in socio-cultural beliefs and practices. The study confirmed that women do domestic chores and still find time in between to work on their farms with minimal assistance from their husbands. The high women workload can thus contribute to lower food production, as the women are unable to dedicate considerable time to farm work. The survey data showed that since culture dictates that women are primarily responsible for food production for their households, men do not feel obliged to help. A majority of the women in this survey indicated that culture did not allow them to own land and were not empowered to do many other activities that were considered to be for males. They reported that the title deeds of the farms were registered under their husbands, their fathers or their grandfather's names. They only had access to the land for the purpose of producing food.

The women reported that this restricted their decision making regarding what to plant and investments on the land such as planting trees for commercial sale or venturing into other businesses related to farming. The study established that in Kapsabet town and its environs, only 19% of the women-farmers who took part in the study (data available elsewhere) had the rights to make decisions regarding what to grow on the farm. A study by AWS and KNBS (2014) found that land in Kenya is mainly owned by male household heads on the assumption that they hold it in trust for all members of the household. The unequal land rights restricted women from accessing credit facilities from financial institution or even benefits that come with membership in rural organizations such as cooperatives, which are the main avenue of access to agricultural inputs and services by Kenyan farmers (Kabeer, 2012). In addition, the majority of women-farmers who participated in this survey did not have ownership to valuable livestock that could fetch them income. The respondents in this study reported that culture only allowed them to own birds. All other animals including dairy cattle and shoats were owned by the male heads of households. This presented a challenge to food production as the women could not sell them for income or use the manure by-products from those animals to improve farm yields, without consultation. These results agree with Ellis *et al.* (2006) who argues that women farmers wish to increase their agricultural activities, but lack access to income, land and other necessary inputs to enhance their farming work. Baiyegunhi *et al.* (2010) discussing factors affecting credit access for rural households, also corroborated the sentiments that ownership of land and assets play a great role in determining whether a household is credit constrained or not. Any constraints would hinder their capacity to participate fully in food production. Similarly, Mehra and Rojas (2005) assert that women have a primary responsibility to ensure food security and nutrition through their roles as food producers, but are constrained by lack of resources and are also trapped in poverty. The participants in the current study strongly believed that if the above constrained were addressed, farm food production in the study area would improve.

CONCLUSION

The study revealed that in the precincts of Kapsabet town, both men and women participate in agricultural food production. The majority of farmer-respondents (54%), were in the age group 40-59 years, while 26% were aged 20-39 years. Those aged 60 and above and those below 20 were 2 and 18%, respectively. So the middle-aged were the majority of the farmers. Farming in the metropolis is not a major attraction for the youth (18-35 years of age).

Despite womens' contribution, economic, social and cultural factors in ownership and control of resources negatively affect their efforts in household food production. It was established that women barely owned productive resources that could boost agricultural production in the study area. In matters relating to ownership of land, they usually enjoy users rights, sometimes mediated through their male relatives. This results in women undertaking minimum decisions with regard to the type of crop to grow and accessing credit. Thus gender-based inequalities seem to be a challenge to achieving food and nutrition security in the Kapsabet urban and peri-urban area. Food and nutrition security can be strengthened if the county and national-level governments built on women significant contribution in agriculture and took steps to minimize the challenges they face in food production.

Conduct and Funding of the Study

Michael N.I. Lokuruka provided the funding for the study and advised on the procedures to follow in the course of the study. Devis kimutai developed the questionnaire administered to respondents, supervised and conducted the study, with the help of research assistants.

Nature of the study

This was a B.Sc. Honours in Human Nutrition and Dietetics student project of Karatina University, Department of Food Science and Nutrition.

Conflict of Interest

The authors state that there was no conflict of interest that required declaration.

Citing this article

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