

## Assessment of Government Policy Intervention in Ensuring Household Food Security: The Role of Women Farmers in the Kassena Nankana Municipality, Ghana

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### ABSTRACT

*The rural sector in many developing countries is increasingly characterized by the prevalence of poverty and food insecurity (FAO, 1990b: 2) In a qualitative and quantitative study of 160 women, 93% reacted positively towards awareness of Government Policies interventions to ensuring food security in the Kasena-Nankana Municipality. On the issue of women involvement in agricultural production, 84.4 percent representing 135 of the respondents stated they were into food production. 83.8% of the 160 respondents indicated that they undertake crop farming which was consistent with the findings of Akpabio (2005). Out of the 160 women participants, 81.25% mentioned that they cultivated groundnut. Also 75.63% indicated that they cultivated rice. The study further revealed that 76.25% and 65.63% of the respondents are into beans and maize production respectively. Only 20% were into other crops not stated. 82% were engaged in animal production. Respondents indicated that 43% engaged in food processing, 37% engaged in farm labour and 20% engaged in trading of farm produce. The main methods of processing of food crops were threshing, winnowing, milling and drying and this conform to the findings of Kabeen (1994). The main constraint facing women in Kasena-Nankana Municipality towards achieving food security is the non inclusion of women in decision- making process, such as distribution of farm lands and the sale of family lands.*

**Keywords:** Government, Policies, Food, Security, Women, Household, intervention.

### INTRODUCTION

All over the world women contributions to household food security cannot be under estimated. In Asia, women account for more than two thirds of food production and some 45 percent in Latin America and the Caribbean<sup>1</sup>. Women farmers in Sub-Sahara Africa produce more than three-quarters of the region's basic food<sup>2,3</sup>. In addition, they are now cultivating crops and taking on tasks traditionally undertaken by men and are increasingly making decisions on the daily management of farms and households. A study on credit use in five technical assistance found that women received less than 10 percent of the credit forwarded to male and only 15 percent of the world's agricultural extension agents are women<sup>1</sup>. Food security can be explained as an access by all people at all times to adequate food of good quality for active and healthy life<sup>4</sup>. Throughout the globe food security has a long history as an "organizing

principle” for social and economic development<sup>5</sup>.

A great deal of empirical research has convincingly demonstrated that gender is important in defining the economic role of rural people in Africa<sup>6</sup>. This recognition has resulted in a number of studies documenting the roles of women and men in various farm, non-farm, food preparation; household maintenance and child care activities<sup>7</sup>. Furthermore, it has been recognized that both gender and household-based approaches are useful frameworks for targeting policy and interventions in rural areas<sup>8</sup>.

The rural sector in many developing countries is increasingly characterized by the prevalence of poverty and food insecurity<sup>9</sup>. The 31<sup>st</sup> December Women Movement in 1999 described the Ghanaian situation as chronic. Women are known to spend a greater proportion of their income on household basic needs such as food than men do (Quisumbing, et al., 2001). In spite of social, political and economic constraints, women farmers have proved extremely resourceful and hardworking in their attempt to ensure household food security<sup>10</sup>. This study seeks among other things, to establish the underlying relationship between household food security and the gender head of household in the Kasena- Nankana Municipality.

The main objective of the study was to investigate into the awareness levels of women in six communities in the Kasena-Nankana Municipality about Government Policy Intervention in ensuring household food security.

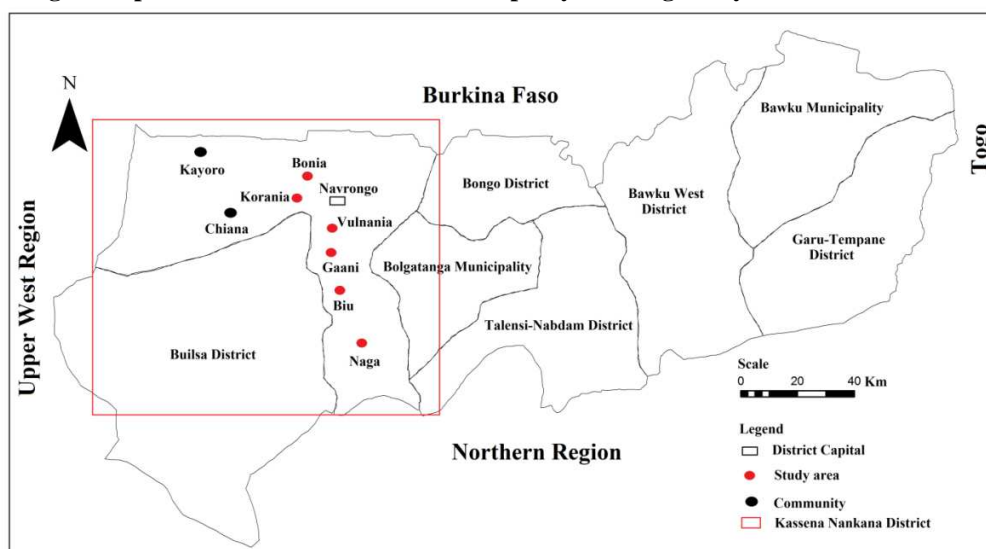
The specific objectives are:

1. To assess constraints faced by women in their quest to support Agriculture production in the Kasena-Nankana Municipality.
2. To analyze the general overview of food security over the past decade in Kasena-Nankana Municipality.

### Study Area

The District is in the Upper East Region of Ghana and shares boundaries to the North with Kassena-Nankana-West and Burkina Faso, to the East with Kassena-Nankana West and Bolgatanga Districts, West with the Builsa Districts and South with West Mamprusi District in the Northern Region (Fig. 1).

Fig 1: Map of Kasena-Nankani East Municipality Showing Study Communities in Red



The District recorded a population density of 91 persons per sq. km. This is higher than the national density of 79.7 persons per sq km but below the regional density of 104.1 persons per sq. km. The climatic conditions of the District are characterized by the dry and wet seasons, which are influenced mainly by two (2) air masses – The Harmattan air mass (North-East Trade winds) and the Tropical

Maritime (South-West). The Harmattan air mass (North-East Trade Winds) is usually dry and dusty as it originates from the Sahara Desert.

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During such periods, rainfall is virtually absent due to low relative humidity, which rarely exceeds 20 per cent and low vapour pressure less than 10mb. Day temperatures are high recording 42° Celsius (especially February and March) and night temperatures are as low as 18° Celsius. The District experiences the tropical maritime air mass between May and October. This brings rainfall averaging 950mm per annum. This makes most of the youth in the district idle during the dry seasons (November to April). Two main types of soil are present within the District namely the Savannah ochrosols and groundwater laterite. The northern and eastern parts of the district are covered by the Savannah ochrosols, while the rest of the District has groundwater laterite. The Savannah ochrosols soil type is suitable for cultivation and hence accounts for the arable land sites including most parts of the Tono Irrigation Project sites where both wet and dry season farming activities are concentrated. The District consists of 216 communities – majority of which are rural, only 13 per cent of the population live in towns. At least three out of four people in the district reside in rural areas.

### MATERIALS AND METHODS

Both primary and secondary data sources were used to gather relevant information for analysis and discussions. Purposive sampling was used to select six communities in the Kasena-Nankana East District. Considering the nature of the communities in which the study was carried out, a hybrid sampling method was used to arrive at the sample population. Close and open ended questionnaire were used to collect data from the interviewees. In addition to the questionnaire, empirical verification was done via observation of attitudes and behaviors of female farmers. Women farmers of all ages were interviewed from the dry season farmers and livestock producers. Focus group discussions were held with various groups. It involved opinion leaders, farmer-group organizations, agric extension officers, the 31<sup>st</sup> December Women’s Movement (DWM) chiefs from the study areas etc.

#### Data Analysis

The data obtained was analyzed using Statistical Package for Social Scientist (SPSS) and Microsoft Excel.

### RESULTS AND DISCUSSIONS

#### Age and Marital Status of Respondents

The ages of respondents were grouped as those ‘under 20 years’, ‘20-39 years’, ‘40-59 years’ and ‘60 years and above’. Respondents were made to indicate their marital status. This was done to identify the work force group and how marriage influences the contribution of women towards household food security in the Kassena-Nankana Municipality.

Table 4.1 shows the cross tabulation, of the age and marital status of respondents. The table shows that the number of women under 29 years and single and were into farming was 1. The table shows that majority of the respondents were in age groups of ‘less than 20’ and ‘20-39 years’. These age groups were reported to produce more food to their families. For the youngest age group, ‘less than 20’ only 3 were divorced and 1 widowed. The divorced respondents belonged to the younger age groups while the marriage group had the highest responses of 77 out of 160 respondents providing for household food security in the Kassena-Nankana Municipality.

**Table 4.1: Age and marital status**

		Age				
		Under 20	20-39	40-59	60 and above	Total
Marital status	Single	1	3	5	6	15
	Married	19	30	15	13	77
	Divorced	3	4	1	0	8
	Widowed	16	18	17	9	60

**Table 4.1: Age and marital status**

		Age				
		Under 20	20-39	40-59	60 and above	Total
Marital status	Single	1	3	5	6	15
	Married	19	30	15	13	77
	Divorced	3	4	1	0	8
	Widowed	16	18	17	9	60
Total		39	55	38	28	160

Source: Field work,(2012)N=160

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From the cross tabulation in table 4.1, it is difficult to tell whether these differences are real or due to chance variation. The chi-square test was carried out to determine the chance variation.

Table 4.2 shows the chi-square test on age and marital status of respondents. The focus was to determine whether the contribution to household food security by women in the district has differences on marital status and at all age level.

**Table 4.2: Age and marital status of respondents**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.225 <sup>a</sup>	16	.311
Likelihood Ratio	21.013	16	.178
Linear-by-Linear Association	4.617	1	.032
N of Valid Cases	160		

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is 0.56.

Source: Field work,(2012)N=160

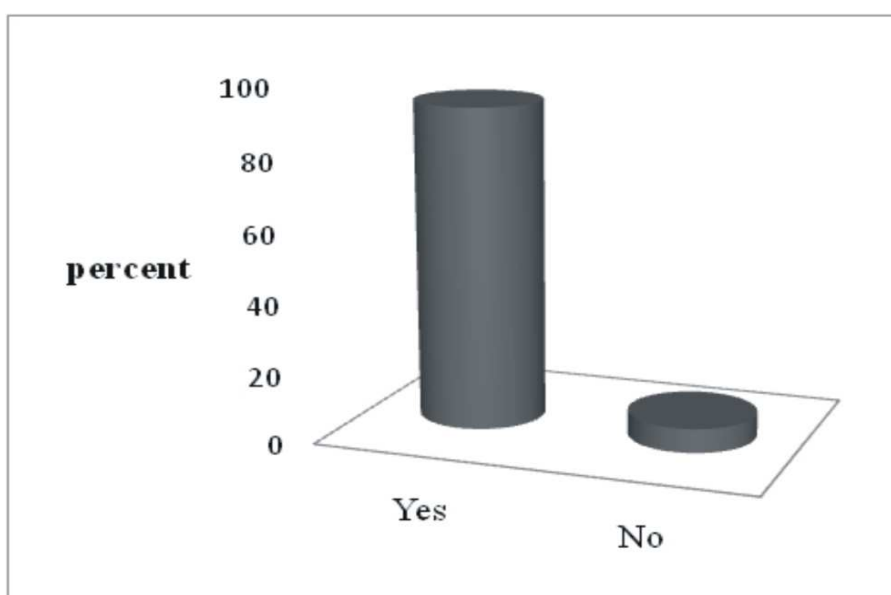
The two-sided asymptotic significance of the chi-square statistic is 0.311 which is greater than the table value of 0.10. So it's safe to say that the differences are due to chance variation, which implies that each marital status contribute to household food security at all age level in the district.

The interview discussions show that there were increasing number of women who are becoming the backbone of their families in terms of being the breadwinners and as such their economic independence is vital to the survival of their households. Madam Kaponu in an interview lamented that, even though she lives with a man in the house, she remains the backbone of the family; without her the family cannot get to eat. Indirectly, women in trying to feed their families inadvertently contribute to the productive capacity of the economy in the Kassena-Nankana Municipality in particular and Ghana in general.

#### **Government interventions and policies on food security**

A research by Boserup (1979); UN (1980); Mencher (1986) indicated that rural women in developing countries have been found to play a prominent role in agriculture. Similarly figure 2 shows women awareness of Government policies on food security. The figure revealed that most respondents (93%) are aware that government has policies in place to enhance food security.

**Fig. 2 Government Interventions and Policies on Food Security**



Source: Field work, (2012); N=160

Figure. 2 shows that only seven percent of the women confirmed not to have knowledge of government policies on food security.

#### Perception on Government interventions and policies

A list consisting of seven government interventions and policies to enhance food security were presented to respondents.

Table 4.3: Government policies and interventions

Government policies and intervention	No		Low Knowledge		Moderate		High		V. High	
	Freq n=160	%	Freq n=160	%	Freq n=160	%	Freq n=160	%	Freq n=160	%
1. Block Farming Program	40	25	16	10	44	28	30	31	10	6
2. Youth in Agriculture program	24	15	28	18	45	28	33	21	30	19
3. Fertilizer Subsidy Project	24	15	23	14	28	18	41	26	44	28
4. Mechanization Centre Support	71	44	36	23	24	15	19	12	10	6
5. Guaranteed Prices	86	54	27	17	20	13	13	8	14	9
6. Credit Facility program	17	11	10	6	38	24	55	34	40	25
7. Livelihood empowerment against poverty	113	71	28	18	9	6	6	4	4	3

Source: Field work,(2012)N=160

Table 4.4 shows how the people perceived the effectiveness of Government interventions and policies within their area. They were to assess these policies or interventions by indicating very effective, effective, moderate, not effective or not sure. A mean score between 1.6 and above indicates that the policy/intervention is effective. A mean score between 1.2 and 1.59 shows that respondents have neutral perception on effectiveness of the policy/intervention. A mean score below 1.2 shows that respondents perceive the policy/intervention not effective. The table shows that with the exception of Mechanization Center Support, Guarantee Prices and the LEAP program, all the items had their mean above average. Credit facility was perceived to be the most effective Government intervention and policy within their area.

Table 4.4: Perceived effectiveness of Government interventions and policies

Statement	Number	Mean
Block Farming Program	160	1.92
YIAP	160	2.04

Fertilizer Subsidy Project	160	2.28
Mechanization Center Support	160	1.15
Guarantee Prices	160	0.98
Credit Facility	160	2.57
LEAP	160	0.58

**Source:** Field work, (2012) N=160

Also, with the focus group discussions, participants were asked about the impact of Government policy intervention on food security. The participants said some of the interventions have impacted positively on food security, as a result of interventions such as granting of credit facility to them, the introduction of the fertilizer subsidy scheme, the guarantee price system and the formation of Farmer Based Organizations (FBO) for women with some help also coming from NGOs operating in the communities.

### **Gender Issues in Agriculture Supportive Resources**

Women play an indispensable role in ensuring household food security and in improving the quality of life of families in rural areas in which Kassena-Nankana Municipality women are not an exception. However, it was revealed during the interview that, their contributions often remain concealed due to some social barriers and gender bias.

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Women quest to ensuring a food secure household, the conception held by society and their cultural practices are potential limiting factors in ensuring food security in the Municipality. Access to land, access to credit facilities, access to labour, access to training and access to decision making are among others that need gender sensitivity programmes by Government according to them.

### **Access to credit Facility**

In addition to land, the women were faced with problems particularly with access to other inputs, including, credit, technology, extension services and agricultural training and marketing. Hence, lack of women's access to credit is a serious obstacle to improving women's agricultural productivity, as without credit women farmers are unable to buy inputs such as seeds, fertilizers and improved technologies and are unable to hire labour. It was also revealed that, Women's limited autonomy implies that they control far fewer marketable assets and thus may lack the opportunity to build independent reputations for credit worthiness in the Municipality.

Many credit associations and export-crop marketing cooperatives in the Municipality limit membership to household heads in many of the communities, thereby excluding most married and unmarried women. According to the women, Banks demand collateral in the form of landed property and male approval before making loans to women, while men often have been reluctant to support women's applications. Most resources and technical assistance have been channeled to men growing crops such as vegetables along the Tono irrigation project with improved seeds and tools going to larger commercial farmers, almost invariably men. This situation reaffirmed (Fishbein, 1980) findings, which revealed that, only 5 per cent of the resources provided through extension services in Africa are available to women, "although, in some cases, particularly in food production, African women handled 80 per cent of the work. Of total extension agents at work in Africa today, only 17 per cent are women.

### **The General Overview of Food Security over the Past Decade**

Participants said the introduction of the Tono irrigation project in the area over the past thirty years has come to supplement the rain fed agriculture. This over the past decade helps to ensure food security in the communities especially those along the project site. Over the period, dry season gardening for the production of vegetables, the cultivation of rice at the canals, fish farming, raising of livestock among

other crop production were some of the reasons for improved food security situation in the study area. Also in the discussion, they mentioned that, improvement of education of the people in terms of agriculture production, the introduction of improved technology and the availability of farm inputs was key to this development over the period. Finally, the participants said women in agriculture production have had a very significant impact on the food security development in general during this period under review.

With general overview of the food situation in the District where the study was carried out, the participants said the food situation in the District is generally good and gave their reasons for that. According to them, Government have come up with many policy interventions over the period which has helped them increased their yields and subsequently improving the food situation in the communities. For instance, the introduction and building of irrigation scheme, provision of subsidies on farm inputs such as fertilizers and other agro-chemicals and the introduction of new technologies for improved agricultural production were among the reasons given for the good food situation in the District. However, they said there were other communities in the District whose food situation was not good enough and this was due to emergence of natural disasters such as flooding and poor rainfall pattern that they faced over the period. But the participants were quick to say that generally the Municipality is food secured.

As part of the objectives, the study determined how women in their communities contribute to household food security especially in agricultural activities. Specifically, on the issue of women involvement in agricultural production, 135 of the respondents stated they are into agricultural production.

A woman called Mrs Kaba was observed in a farm with two others. When contacted and interviewed said, she was over 60 years and still farm to feed a family size of three and even care for their education. In another interview, a woman said, in this community, majority of the farmers are women.

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Almost every woman here is a farmer. Hmm! The major challenge we face is bad because it is the men who control land but we are the majority contributors to household food provisions (Amina, 40 year old farmer).

Almost all the respondents interviewed indicated that they undertake crop farming while a few indicated otherwise. This is consistent with finding by Akpabio (2005) that Women also plays very important roles in sub-Saharan Africa where they physically produce 70-80 percent of domestic food crops, hence helping in ensuring family (Household) and national food security.

#### **Main crops produced by women in the Kasena-Nankana Municipality**

Women with high education could produce more food than illiterate women. This is because the women with education could have more resources and technological knowhow. Among the agricultural activities towards household food security, women undertake farm activities and agricultural labour. They undertake crop farming to feed the family. The major crops produced in the District were mainly rice, soya bean, millet, maize, groundnuts, beans, guinea corn and various vegetables.

Table 4.5: shows the percentage of women involvement in crop production in the district. Averagely about 37.3% of the women who had no education cultivate crops to support household food security. The highest numbers of educated women who cultivate crops were at the level basic education constituting 38%. Only 1.8% of women had tertiary education and are into crop production. Out of the 160 women participants, about 81.25 percent mentioned that they cultivate groundnut. Also 75.63% indicated that they cultivate rice. The study further revealed that 76.25% and 65.63% of the respondents are into beans and maize production respectively. Only 20% were into other crops not stated.

**Table 4.5: Crop cultivated and Education of respondents**

Education		Items	none	Basic	Secondary	Tertiary	Total
Crop cultivated	Rice		10.0	5.4	6.0	0.0	<b>21.4</b>
	Beans		4	4.2	2.6	0.0	<b>10.8</b>
	Maize		5.9	4.6	1.2	0.8	<b>12.5</b>

<b>Education</b>					
Millet	9.1	11.4	7.7	0.0	<b>28.2</b>
Groundnut	7.2	9.1	3.2	1.0	<b>20.5</b>
Pepper	1.1	3.0	2.0	00	<b>6.1</b>
Others	00	0.3	0.2	00	<b>0.5</b>
<b>Total</b>	<b>37.3</b>	<b>38.0</b>	<b>22.9</b>	<b>1.8</b>	<b>100</b>

Source: Field work,(2012)N=160

The study further indicated that about 77 percent of the respondents produce between 1 and 10 bags of rice, 57 percent of the respondents produce less than 5 bags of beans and 65 percent produce between 5 and 10 bags of maize. About 66 percent of millet producers produced between 5 and 10 bags. Their response is shown in table 4.6

<b>Crop cultivated</b>	<b>Less than 5 bags</b>	<b>5- 10 bags</b>	<b>11- 20 bags</b>	<b>21 +bags</b>	<b>Total</b>
Rice	38	39	19	4	100
Beans	57	30	14	0	100
Maize	10	65	22	3	100
Millet	30	66	3	1	100
Groundnut	8	52	22	18	100
Pepper	78	22	0	0	100
Others	91	9	0	0	100

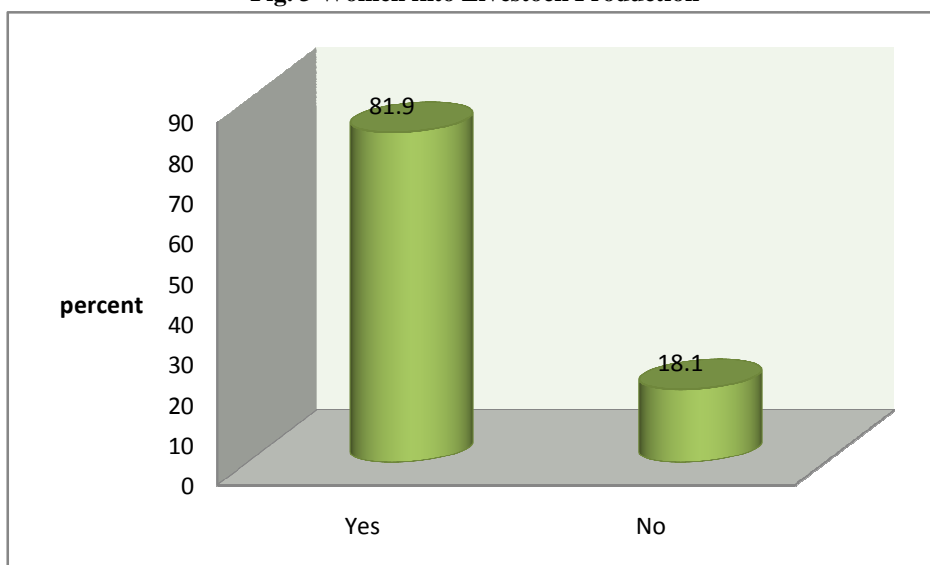
Source: Field work,(2012)N=160

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### The Major Livestock Production by Women in the Municipality

About 82 percent of the respondents mentioned that they rear livestock to support the household food security while 18 percent indicated otherwise. The livestock included; rearing of cattle, sheep, pigs, goats and poultry. The response is shown in figure 3.

**Fig. 3 Women into Livestock Production**



Source: Field work,(2012)N=160

Production of animals was one of the ventures women engage in. Table 4.7 shows the volume of domestic animals owned by women in the Kasena-Nankana Municipality.

**Table 4.7: The Volume of Animal Production in the Kasena-Nankana Municipality by women**



Animal	Less than 5 Animals	5- 10	11- 20	21 +	Total
Sheep	15	57	32	11	115
Goat	30	75	18	6	129
Poultry	11	43	53	18	125
Pig	2	6	2	1	11
Cow	12	23	4	6	45
Donkey	3	0	0	0	3
Others	2	1	3	0	6

**Source:** Field work, (2012) N=160

Table 4.7 shows that the three most common animals reared in the Municipality were goats, poultry and sheep with the total numbers of women 129, 125 and 115 respectively. Donkey was the animal least reared by women for food production with only three women owning donkeys. While 45, 11 and 6 produced cow, pig and others respectively. This may be by the nature of their cure as some women indicated during the interview. No women keep donkeys up to 5 or more. The highest number of donkey owners was only 3. 75 of the respondents' who are in goats rearing rear between 5 and 10 and 6 of the respondents who rear pigs' rear between 5 and 10 animals. About 23 of the respondents who are into cattle rearing rear between 5 and 10 cows to support their crop production in the study area.

On the part of food processing, the women said the main methods of processing their food crops included; threshing, winnowing, milling and drying. They also said boiling and frying were used for extracting oil from groundnuts and Shea nuts in the area.

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### CONCLUSION

Women usually conduct income-generating activities of one kind or another during both raining season and the off season. The large majority of these women usually are involved in traditional, low-capital input and labour-intensive activities. They cover a fairly typical range, including charcoal-selling, household-based food processing, crafts such as basket-weaving and petty trading among others. Women switch from one activity to another according to what is most likely to be profitable at a given time. Women with childcare or other heavy domestic obligations (such as the care of the sick or elderly) selected a less profitable off-farm productive activity in order to combine domestic and productive responsibilities. The study reveals that, income generated by women in the Kassena-Nankana Municipality may be small, but it plays a significant role in meeting family food needs. Women in the sample settlements shows positive attitude towards contributing to household food security particularly when a harvest is poor. In carrying out micro and small-scale activities, women are hampered by lack of time, lack of literacy skills and poor marketing opportunities.

### Recommendation

The study offers the following recommendations which are critical in enhancing women participation in food security:

1. Support lending programs with other forms of business support are essential for the effective development of women's participation in food security.
2. Provide women with labour and time saving machinery through the setting up of plant pools within reach for women in agriculture.
3. Women farmers must be educated on new variety of crops that are being introduced as well as on other new and improved methods of farming through extension services.
4. Conduct further study on the use of chemical fertilizers, pesticides and herbicides.

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