THE ROLE OF WOMEN IN ENSURING FOOD SECURITY IN KASENA NANKANI EAST MUNICIPALITY

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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, 57.3% reacted positively towards contribution in household food security in the Kasena-Nankana East Municipality. On the issue of women involvement in agricultural production, 84.4% of the respondents stated they were into food production. 83.8% of the 84.4% 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. The main constraint facing women in Kasena-Nankani 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.

Key words: Food security, household, women farmers, attitudes of women

INTRODUCTION
All over the world women contributions to household food security cannot be underestimated. In Asia, women account for more than two thirds of food production and some 45 percent in Latin America and the Caribbean (FAO, 2003). Women farmers in Sub-Sahara Africa produce more than three-quarters of the region’s basic food (Gittering, 1990; Saito, 1994). 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 (FAO, 2003).

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 (World Bank, 1986). Throughout the globe food security has a long history as an “organizing principle” for social and economic development (Maxwell and Franken Berger 1992). A great deal of empirical research has convincingly demonstrated that gender is important in defining the economic role of rural people in Africa (McSweeney,
1979). 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 (Whitehead 1985; Bryceson 1995). Furthermore, it has been recognized that both gender and household-based approaches are useful frameworks for targeting policy and interventions in rural areas (Warner et al., 1997).

The rural sector in many developing countries is increasingly characterized by the prevalence of poverty and food insecurity (FAO, 1990b: 2). The 31st 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 (UNDP, 1995). This study seeks among other things, to establish the underlying relationship between household food security and the gender head of household in the Kasena- Nankan East Municipality.

The main objective of the study was to investigate into the attitudes of women in six communities in the Kasena-Nankan East Municipality towards their contribution to household food security.

The specific objectives are:
1. To assess women attitudes towards contribution in household food security in the Kasena-Nankana East Municipality
2. To analyze the general overview of food security over the past decade in Kasena-Nankana East Municipality

RESEARCH METHODOLOGY

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

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. 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 the rural area.

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

Data collection
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 on 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, agricultural extension officers, the 31st December Women’s Movement (DWM) chiefs from the study areas etc.

Data Analysis
The data obtained was analysed using Statistical Package for Social Scientist (SPSS) and Microsoft Excel.
RESULTS AND DISCUSSION

Level of Education
Table 1: Distribution of respondents by level of education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary</td>
<td>0</td>
</tr>
<tr>
<td>Secondary</td>
<td>5.0</td>
</tr>
<tr>
<td>Basic</td>
<td>34.4</td>
</tr>
<tr>
<td>None</td>
<td>60.6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 indicates that as many as 60.6% of the respondents had no any level of education. This is consistent with findings by Adeniji (2013) that about 64% of farmers are illiterates. 34.4% indicated that they attained basic school education. Only 5.0% indicated that they had secondary education. None of the respondents indicated that they attained Tertiary education.

Marital status of the respondents
The respondents were asked to indicate their marital status. Figure 1 showed 77.5 percent were married. Only 0.6% was divorced while about 12.5% indicated they were widows. Fifteen percent were singles but have to go into farming to help them earn a living. During the interview, some indicated that cost of living was hard and they have to support the family by going into farming.

![Figure 1: Marital status of respondents](image)

Household size of respondents
The analysis showed that 60% had a small household size less than 4. The findings in this study reflected a similar result from Adeniji (2013) which indicates that 74% of the respondents had small household size. Only 10% had a single household. Fifty percent have their household ranging from 5 to 7 peoples. About 35% indicated that even though they had about 8-10 people
living with them, their biological children were only 2 to 3. The result showed that 5% of the respondents were alone and had a household size of 10 or more.

**Women attitudes towards contribution in household food security**

Table 2 shows that over half of the participants constituting 57.3% of the women in this study reacted positively towards contribution in household food security in the Kasena-Nankana East Municipality. The three highest expression of positive attitude to the variables was in Interest in contributing to household food security (73.6%) and Anxiety (63.5%). Table 2 shows that the settlement with the three most positive attitude women towards household food security were in Bonia, Biu and Naaga with percentages 59.9, 59.8 and 58.7 respectively. The least percentage positive response was in Kwarania with 51.2% responding to the statements.

<table>
<thead>
<tr>
<th>Attitude Variables</th>
<th>Percentage Positive Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bonia</td>
</tr>
<tr>
<td>Value</td>
<td>72.2</td>
</tr>
<tr>
<td>Expectations</td>
<td>39.0</td>
</tr>
<tr>
<td>Interest</td>
<td>70.2</td>
</tr>
<tr>
<td>Confidence</td>
<td>52.3</td>
</tr>
<tr>
<td>Motivation</td>
<td>57.3</td>
</tr>
<tr>
<td>Anxiety</td>
<td>68.4</td>
</tr>
<tr>
<td>All items</td>
<td>59.9</td>
</tr>
</tbody>
</table>

**Overview of food security over the past decade in Kasena-Nankana East Municipality**

The introduction of the Tono irrigation project in the area over the past thirty years has come to supplement the rain fed agriculture 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, fishing farming, rearing of livestock among others were some of the reasons for improved food security situation in the study area. Also improvement of education of the people in terms of agriculture production, the introduction of improved technology and the availability of farm inputs was keen 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.

Government has come up with many policy intervention 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 agriculture production were among the reasons given for the improved food situation in the district. However, 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.

On the issue of women involvement in agricultural production, 84.4 percent of the respondents stated they are into agricultural production. While 15.6% indicated no. Also 83.8% of the respondents indicated that they undertake crop farming with 16.2 percent indicating otherwise. This is consistent with findings by Akpabio (2005) that Women 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 East Municipality**

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. 81 percent (130 out of 160) cultivated groundnut, 76% 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. Production of animals was one of the ventures women engage in.

**Other economic activities in support of household food security**

The study shows other economic activities undertaken by women to support household food security. 43 percent were into food processing, 37 percent farm labour and 20 percent trading. On the part of food processing, the main methods of processing of their food crops included threshing, winnowing, milling and drying. The findings support Kabeen (1994) findings that women are the backbone of agricultural sector accounting for 70% of agricultural labour and responsible for 60% agricultural production and 80% of food production. Boiling and frying were used for extracting oil from groundnuts and Shea butter. 93% of respondents were aware that government has policies in place to enhance food security.

**The socio-cultural factors that affect women contribution to food security**

Many issues affect women contribution to food security. There is no involvement of women in the decision-making process, for example, the distribution of farm lands and the sale of family lands. A similar finding was observed by Obasi (2005) that until recently, the general trend across the globe had been to relegate women in the scheme of things.

**Access to agricultural supportive resources**

81 percent of the respondents have access to agricultural supportive resources. This was consistent with Adeniji (2013) findings that majority (63%) of the respondents owned personal farms and point to the fact that majority of them contribute in one way or the other in ensuring household food security.

Table 3 shows various kinds of agricultural supportive resources that thes benefited from. Fifty seven (57) percent had new technological training and 33 percent had land.

<table>
<thead>
<tr>
<th>Agricultural supportive resource</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>not applicable</td>
<td>0.8</td>
</tr>
<tr>
<td>extension services</td>
<td>7.8</td>
</tr>
<tr>
<td>new technology</td>
<td>57.0</td>
</tr>
<tr>
<td>credit facility</td>
<td>0.8</td>
</tr>
<tr>
<td>acquisition of land</td>
<td>32.8</td>
</tr>
<tr>
<td>farm inputs</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>
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 used 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 East 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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Unit, Poverty and Social Policy Division, Technical Department, Africa Region. Washington DC.