



## BUILDING ON COMMUNITY SUPPORTED AGRICULTURE (CSA) TO IMPROVE COMMERCIAL FOOD PRODUCTION IN THE UPPER WEST REGION

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### ABSTRACT

This research was carried out to establish the importance of building a Community Supported Agriculture (CSA) to improve commercial food production in the Upper West Region. During the research, five communities namely Guli, Jonga, Kperisi, Kpongu and Siiru were randomly selected for the study. The research was carried out using questionnaires, field study, interviews and focus group discussions. Results from the questionnaires administered in the five (5) communities indicated that 100% of these farmers are engaged in subsistence farming. It was observed that about 80% of farmers who depend on tractor services and share their profit with the tractor operators do not get enough money at the end of the farming season. The results obtained from the research also revealed that the farmers lack funds for farm preparations, purchase of quality seeds and technical support for their farming activities as well as lack of sufficient water, problems in land acquisition, market for their produce and lack of cooperation among the farmers. The researchers proposed recommendations such as the formation of farmers' cooperatives, technical, legal and financial support from government, NGOs, financial institutions and the communities to improve Community Supported Agricultural systems in the selected communities.

**Keywords:** Community Supported Agriculture, food production, farmers, cooperation, commercial farming.

### INTRODUCTION

Food production has become very important as never before as population keeps increasing in an exponential manner especially in Africa. According to FAO (2008), about 923 million people living in developing countries world wide in 2007 are undernourished and this figure is likely to be increased considering the world food crisis that hit the world around the same year.

Food insecurity, rural poverty and malnourishment are gradually gaining root especially in Africa in the face of environmental degradation and climate change. Agriculture therefore plays a crucial role in income generation and source of food for subsistence households whose major business is farming (WB 2007). Community Supported Agriculture (CSA) is therefore one of the best ways to eradicate poverty, ensure food security and provide quality nutritious food for good health. The research therefore seeks to identify and suggest ways of improving agriculture in the selected communities to increase food production, improve farmers' income levels, and enhance their standard of living.

### Literature review

Community Supported Agriculture is a mutually-beneficial partnership between a community and farmers where community members gain access to fresh local and seasonal farm produce from the farmers especially supermarkets, restaurants, hotels, "chop bars" and many others. The farmers supply these organizations with fresh products daily or weekly from their farms. The growers and consumers provide mutual support and share the risks

and benefits of the production and in most cases, members are shareholders of the farm and pledge in advance to cover the anticipated costs of the farm operations. Community Supported Agriculture (CSA) has gain recognition in many countries where micro-farming is practiced. In CSA, the farmers and the customers work in tandem where both have interest in the farm. In this sense, the customer becomes a shareholder and gets all the fresh products needed from the farm directly. In return, they receive shares in the farm's bounty throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production; farmers also receive better prices for their produce, gain financial security, and are relieved of the burden of marketing. This system will ensure abundant food production and results in food security as argued by Cleaver and Schreiber (1994) that food security will only be a reality if there is increased production of food and greater stability in availability.

The CSA is similar to the Micro eco-farms which refers to the small town backyards to rural small acreage with highly abundant, constantly improving, ecologically operated micro farms that produce a mix of fruits, vegetables, herbs, grains, nuts, mushrooms, flowers, fibers, craft materials, organic, pasture-fed dairy products, farm-crafted creations and farming education and experiences (Deppe, 2010).

The CSA concept originated in the 1960s in Switzerland and Japan, where consumers interested in safe food and farmers seeking stable markets for their crops joined together in economic partnerships. Today, CSA farms in the U.S. currently number more than 400. Most



are located near urban centers in New England, the Mid-Atlantic States, and the Great Lakes region, with growing numbers in other areas, including the West Coast (DeMuth, 1993).

Maxwell (1995) explained that, farming within African cities has become an increasingly important source of food for urban populations. Yet little is understood about the forces behind urban farming or its impact at the household level. Intra-household dynamics and gender relations, as well as declining wages are all important to an understanding of urban or commercial farming. Access to land is a major constraint, and only a small fraction of urban and rural farmers own their land. For those with access to land, urban or commercial farming is associated with higher levels of household food security and child nutrition (ibid).

Bryceson (2002) stated that, the structural adjustment and market liberalization policies of the past 15 years have accelerated food production in sub-Saharan Africa. Peasant producers have veered away from production of traditional export crops and commercial staple foods in rural areas remote from roads and urban markets. The performance of rural CSA in relation to the work ethic, gender and the level of participation in the process of rural development among the people of western Kenya have improved the performance of the Kenyan economy in the present global market (Philip, 2003).

In developing countries, evidence from research on CSA in large scales indicated that agricultural yields in Northern Nigeria do not fall and at least remain stable when farmers work in their common interest by converting from the systems that use relatively low amounts of synthetic inputs (UNCTAD, 2006). The economic benefits of commercial farming could result in the increased yields due to the improved capital systems thus outperforming those in the traditional systems and matching those in a more conventional input-intensive system.

Improving agriculture sustainability through the adoption of community supported agricultural systems in Africa may not be a solution to all the food problems but considerable progress has been made in recent years. Whether community commercial farming will result in the production of enough food to meet the current and future needs in response to continued population growth and development in developing economies cannot be totally certain but it is a step in the right direction (FAO, 2005). The present situation of the widespread food insecurity means that the individual small farm holdings are clearly unable to fulfil the current food needs in these areas. However, the main challenge of the community commercial agriculture is not always supported directly by the government's agricultural policies which are mainly focused on agribusiness of cash crops in most of the developing countries. Apparently the government structures put in place to improve agriculture seem not to work properly due to poor resources. Antholt (1994) argued that there are weak national institutions to support agriculture especially small scale irrigation farms due to

poor rural finance and marketing as an integrated economic system to assist smallholder irrigation systems in most countries. According to Adams (2004), we do not need corporate agribusiness to save us from starvation but to be co-creators with nature instead of being passive recipients. This simply means that government and agricultural related organizations should also focus on small scale food producers while consumers also play a role in food production by supporting CSA where organic food can easily be produced instead of relying on chemical foods with its concomitant health implications.

### **Health implication and Community Supported Agriculture**

Health has become a major issue which makes the choice of fresh quality organic products a necessity and not a reservation for the rich. Eating healthy and balanced diet has always been the recommendation of health professionals thus the willingness of community members to support farmers to grow high quality, nutritious organic food for the community is worth undertaking. Community Supported Agriculture also play a role in preserving the environment through the avoidance of pesticides, artificial fertilizers which pollutes water bodies, the soil and even the food that is produced.

Well structured CSA will greatly improve nutritional values of food items, provide optimally health food and promote health and happiness based on what we eat. Pacey and Payne (1985) strongly argued that improvement of nutrition should be a major concern in the planning of all agricultural and economic development.

Communities that know the important of health food will become healthier and resilient against chemical foods and rely on organic products through proper collaboration with farmers.

## **RESEARCH METHODOLOGY**

### **Overview of the upper west region**

The Upper West region is situated in the North-Western part of Ghana. It lies between longitude 1° 25' W and 2° 45' and latitudes 9° 30' N and 11°N and is bordered to the north and west by Burkina Faso, to the south by the Northern Region and to the east by the Upper East Region. It covers a geographical area of 18, 476km<sup>2</sup>, which constitute about 12.7% of the total land area of Ghana and has an estimated population of 702,110 in 2010.

Farming is the main occupation for the people in the Upper West Region (UWR) and these farmers are normally engaged in subsistence farming and rely on rain-fed agriculture. Most of these farmers do not have access to irrigation water during the dry season thus become idle and engage in charcoal production which affects the environment. However, these communities have vast land sufficient for commercial farming all year round.

The rainfall pattern in the North is unimodal with the maximum rainfall month normally in August/September. The rainfall reduces eastwards and



northwards to about 800mm and 1000mm, respectively. The climate is tropical with an average minimum temperature of 18.0°C and maximum of 40.0°C. The relative humidity ranges between 70- 90% but falls to 20% in the dry season.

### Data gathering

The methods used in this study are the collection of primary data through field survey, interviews, focus group discussions and the use of questionnaires. Secondary data was also gathered through books, periodicals and credible information from the internet. The research involved five randomly selected communities viz: Guli, Jonga, Kperisi, Kpongu and Siiru in the Wa municipality where small scale farming is really practiced. The team initial visited these communities to have firsthand information on agricultural activities in those communities. In each farming community, ten farmers were strategically selected and interviewed on current community farming system; their perceptions and how community supported agricultural system could be introduced. Apart from the individual interviews, some of these farmers in each community were engaged in focus group discussion in their local language to know the real challenges they face and how their challenges could be addressed.

Structured questionnaires were also designed to gather relevant data from the farmers. The questionnaires were designed in English but those farmers who could not read were assisted using the local language. The questionnaires were designed under the following headings:

- General data:** this is to get bio-data on gender, age of farmers, educational level, marital status, number of dependence, etc.
- Farmer's perception on current farming system:** this is to gather information on current farming practices, land acquisition, marketing, support, sources of water, challenges, etc.
- Introduction of CSA:** this section was to find out the reaction of farmers should the CSA be introduced, formation of cooperation and land acquisition.

The data gathered were analyzed using the Statistical Package for the Social Scientists (SPSS) software. In all 50 farmers from the five communities responded positively to the questionnaires. Every effort was made to ensure that relevant information was obtained.

## RESULTS AND DISCUSSIONS

The focus of this research is to come out with suggestions towards participatory approach to CSA in the selected communities and the results are as discussed below.

The results obtained from the gender of the farmers revealed that males dominate females in the production of food crops in the selected communities. The

results indicated that 54% of the total respondents were males and 46% were female. The low percentage of women participation could be due to cultural differences where the women are to carry out additional domestic responsibilities coupled with the limitations in accessing capital to operate on their own interest. It was also observed that 54% of the respondents were above 36 years while those of age below 25 years forms 16% as indicated in Table-1.

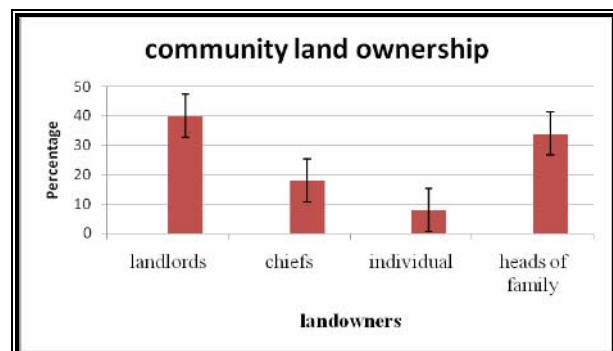
**Table-1.** Age group of respondents

Age group	Frequency	Percentages
18-25	8	16%
26-35	15	30%
36 +	27	54%
Total	50	100%

Source: Field survey

It appears in Table-1 that agriculture is still the preserve of the aged and the youth have not shown much interest in agriculture. However, it was observed that those above the age of 36 years easily get access to land as compared to those below the age of 25 years. It was also observed that land tenure system is also a major challenge which perhaps prevent many of the youth from engaging in farming.

The results obtained through the field survey on community landownership as indicated in Figure-1 reveals that the majority of the people access the farmlands from the landlords and the heads of families with 40% and 34%, respectively.



Source: Field survey

**Figure-1.** Community land ownership

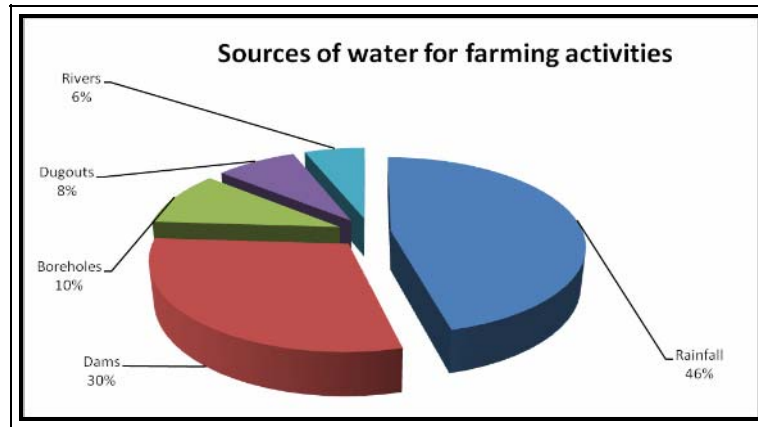
The chiefs were found to be in control of slightly above 15% of the farmlands and the least share was associated with the individual ownership with 6% in the selected communities. The need for government to intervene in land tenure systems in Ghana cannot be overemphasized if CSA agriculture is to take a centre stage in food production. CSA can guarantee economic



development as indicated by Philip (2003) and Ghana cannot afford to be left out.

It was observed in Figure-2 that farmers in all the five communities depend fully on rainwater during the rainy season. However, 46% of the farmers get out of

business after the rainy season because they do not have alternative source of water for their crops. Only 30% has access to irrigation dams, 10% depends on boreholes, 8% on dugouts while 6% depends on river bodies which easily dry out during the peak of the dry season.

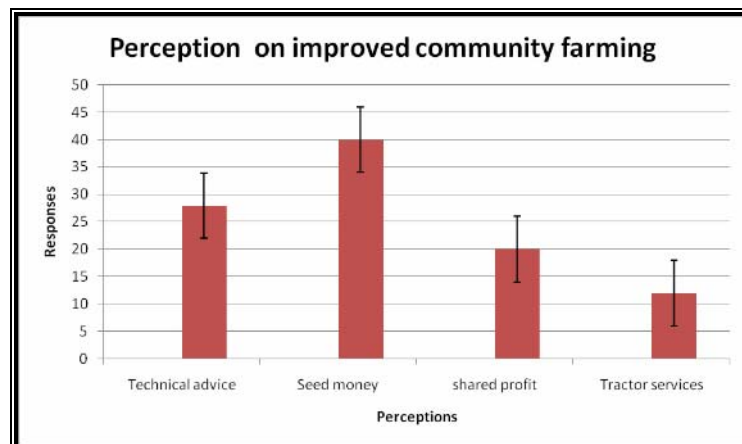


Source: field survey

**Figure-2.** Accessibility of water for farming activities.

It could also be observed that accessibility of water is very important to agriculture as those who have access to dams and other sources of water continue to work to gain income. Almost half of the farmers surveyed become unemployed during the dry season because there is no water for their crops. According to Fiscal (1995) increased crop production in irrigated agriculture accounted for half of global gains in food production in the last 3 decade. It is also stated that the area of land under irrigation has increased three-folds from 1950 to

1985 and one-sixth of the arable land of the world is now irrigated and this one-sixth of the land area produces one-third of the world food production (Wild, 2001). The statements above further confirm the importance of water for agricultural development. The provision of dams, boreholes or dugouts is very important in ensuring all year round farming which will facilitate the introduction of CSA and food security. Food production cannot be relegated to the background as population keeps soaring.



Source: field survey

**Figure-3.** Ways to improve community farming.

Figure-3 shows the various reasons farmers gave to determine the effective ways for the improvement of community farming in the selected farming areas. The results obtained from the responses revealed that, about 40% of the people in the five communities found the

access to seed money (initial capital) as the effective means of improving on Community Supported Agriculture. The technical advice on the management of these farms was also the view of 28% of the respondents in the selected communities. The sharing of profit and



tractor services were found to be important with 20% and 12%, respectively.

The higher values recorded from the responses on seed money and technical advice is an indication that agriculture has not really been given the needed support it deserves and this confirms Anthon (1994) argument that the institutional support systems of agriculture have not been working properly. The sharing of profit and tractor services is also an indication that the farmers are willing to accept the communities' support and collaboration to ensure a win-win situation in CSA. The need for government, NGOs and other stakeholders to support small scale agriculture is very important to provide employment, reduce poverty, enhance the living standard of farmers as revealed by the WB (2007). Well supported CSA will lead to large scale food production without the use of heavy equipment.

### CONCLUSIONS AND RECOMMENDATIONS

The summary of the findings of research showed that the most important issues with improved CSA were the effects of cultural values, land acquisition, availability of water, initial capital and technical advice. However, these challenges can easily be resolved if we want CSA to lead food production in the region. The fact that a successful CSA depends on a combination of factors as stated above, it can safely be stated that CSA can be established in the five selected communities.

### RECOMMENDATIONS

Based on the outcome of the research, the following recommendations are drawn for consideration:

- a) Dams, boreholes or dugout wells should be provided in the selected communities to enhance all year round commercial farming through Community Supported Agriculture.
- b) Farmers especially women should be encouraged to participate fully in Community Supported Agriculture in their communities by providing them with credit facilities and other farm inputs.
- c) Consumers such as schools, restaurants, supermarkets, hospitals, government institutions should collaborate with farmers and get their supplies directly from the farms by supporting these farmers to produce for them.
- d) Incentives should be given to land owners in order for them to release farmlands at all times for effective practice of CSA.
- e) Farmers in each community should form cooperatives which will spearhead the CSA and solicit for ready market for their produce.

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