

Non-Governmental Organisations and the Attainment of Food Security in Developing Countries: A Study of the Tolon District in Ghana

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Abstract: - In spite of the strides of many countries towards achieving the Sustainable Development Goals (SDGs) to end hunger, achieve food security and promote sustainable agriculture; the problem of food security still persists in sub-Saharan Africa. Food security is compounded by high food prices, natural disasters, and may even be further exacerbated by global increase in demand for food, fodder and bioenergy crops, climatic variability as well as the depletion of natural resources. Using a mixed-method approach this paper assesses the role of Non-Governmental Organisations towards attaining food security in the Tolon District of the Northern Region of Ghana. The findings suggest that while there have been conscious efforts by NGOs in relation to food security they do not align to the perceived problems of food security of the farmers. As a result, there is a problem with regards to community ownership of projects, leading to the unsustainability of these projects. It is recommended that NGOs and the local government should work together to streamline projects and interventions to the specific needs of the people.

Keywords: Non-Governmental Organization, Food Security, Tolon District

I. INTRODUCTION

Instead of displaying signs of growth, Africa continues mainly mired in underdevelopment [1]. The continent is confronted with numerous challenges that hinder its development process and prominent among them is food insecurity. Globally, one in nine people representing a population of 795 million is estimated to be undernourished with the vast majority of the world's hungry people living in developing countries, with an estimated 12.9 percent of the population undernourished [14]. The Food and Agricultural Organisation (FAO) in *The State of Food Security and Nutrition in the World 2017 report* indicated that that 27.4 percent representing 333.2 million people in Africa are affected by severe food insecurity.

Since 1970, food security on the continent has deteriorated and the percentage of the undernourished population in sub-Saharan Africa has stayed within the range of 33 to 35 percent [21]. While significant progress has been made in reducing poverty throughout the world; Africa and Sub-Saharan Africa, in particular, remain lagging behind. Projections indicate that this trend will rise unless preventive action is taken [47]. Consistent with the condition on the continent; about 5

percent (1.2 million people) of Ghana's population is estimated to be food insecure [38] Approximately 2 million individuals are susceptible to becoming nationwide food insecure, connoting that any unexpected natural or man-made shock will significantly influence their food consumption pattern. In Ghana, the Northern region has been found to be severely affected region [42] with half a million individuals considered food insecure [11]

Reference [15], defines food security as a situation in which individuals do not have access to physical, social as well as financial means to appropriate, secure and nutritious food at all times that meets their nutritional requirements and food preferences for an active and healthy life. Food insecurity, on the other hand, occurs when individuals lack viable access to secure, nutritious and socially acceptable food for a healthy and productive life [21]. Reference [3] also described food insecurity as not just perceived hunger and under-nutrition, but the associated experiences of hunger and under-nutrition by those impacted or susceptible to it, and the accompanying sadness of being uncertain when one can provide one's family with food next.

The factors that affect food security include Politics, Economic, Innovation, and social-cultural factors [48]. At the household level, the factors include household's assets [26], job losses and low-income levels [34], family structure [5] and infrastructure access [24]. Feeding the increasingly growing global population in the years to come will require producing more food and distributing it in a manner that reaches more people [8]. Food availability is an issue for everyone and particularly for the developing world. The second Sustainable Development Goal also reinforces the commitment to end hunger, achieve food security and improved nutrition and promote sustainable agriculture by 2030.

Across the developing world, states with limited finances and riddled by poor governance and corruption have failed to lead to development for all of their citizens. Within this context, alternative forms of development have been pursued, and since the 1980s, Non-Governmental Organisations (NGOs) have been increasingly advocated as a means through which the gulf between citizens' needs and existing services can be bridged. Where states cannot provide sufficient goods,

services or enabling environment that help citizens in securing livelihoods, or where disadvantaged groups are excluded from existing state institutions, alternative channel of service provision and/or holding governments to account must be found. It is into this gap that NGOs have neatly fitted [4].

The rise of NGOs was quite naturally prompted by progressive globalization among continents and countries, and the increasingly multiplier-effect nature of urgent social and economic problems faced by people, especially the poor and vulnerable in the society [53]. According to [46], NGOs can be categorised into two, as internal and external. While internally NGOs address issues occurring as a result of public service absence, externally they desire to create a channel of assistance through supporting existing NGOs [28]. In a developing country like Ghana, their role and participation are crucial to extensively cover and deliver quality services and most aspect of development in the various communities [50].

NGOs are highly diverse groups of organizations engaged in a wide range of activities, and take different forms in different parts of the world. Basically, they are non-profit organisations created by an individual or a group of people that have similar perspective to improve the living standards for the less privileged: making poor situations better, and helping those regarded as less important, non-privileged, deprived of fundamental human and social rights and limited in financial means [30]. Usually set up by ordinary citizens, NGOs may be funded by governments, foundations, businesses, or private persons, and some may have charitable status, while others may be registered for tax exemption based on recognition of social purposes [50]. The World Bank also explained NGOs to be: "private organizations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development".

In as much as NGOs have an immense contribution and impact on the socio-economic lives of beneficiaries, they also face various challenges. These challenges vary from one country to another in terms of their severity and sizes. A major challenge faced by most NGOs is the non-autonomy of power they have in terms of their operations. According to [7], it is not surprising that there are many quasi-governmental NGOs in most developing countries, based on the governing regime of the country. Also, one of the most important challenges faced by most NGOs and also most organisations is 'the decision-making process' internally. Tensions which occur between staff and senior managers and even among staff because of the staff expectations that, they will also be given equal opportunity to effectively participate in the decision-making process [7]. Other challenges highlighted ([31], [40]) include fundraising, limited institutional capacity, low levels of self-sustainability, isolation/lack of inter-organizational communication and/or coordination, lack of understanding of the broader social or economic context difficulties of managing NGOs with operations in several countries.

II. LITERATURE REVIEW

A. *Food Security and Non-Governmental Organisations in Developing Countries*

Agriculture remains the bane of the economy for many developing countries, particularly in Africa. However, the problem of food insecurity still persists. Several studies have indicated that the factors affecting food security include household assets [26], financial constraints [9], low level of income [34], non-farm work [44], gender of the household head [29], and subsistent production, which in turn tends to be characterized by low and decreasing output and productivity, and the use of rudimentary technology [42].

There has been a piqued interest in food security and the activities of NGOs globally, however, most of the existing body of literature approaches the subject in one of these ways (a) takes a detailed look at food security and agriculture (b) reviews the approaches measuring food security (c) assesses the determinants of food security (d) assesses impact of a specific interventions (e) activities of NGO in general (f) activities of NGO agricultural interventions.

Little is known about the actions of NGOs towards the promotion of food security, particularly in Ghana. Studies have touched on issues of food security as a subset of empowerment, agriculture promotion, and human development, without fully comprehending the role of NGOs towards attaining food security. Such studies include Mustapha et al., (2016) study of food insecurity by examining the relative occurrence of each of these wide categories using ordered probit model and analysing data from 4,288 households in northern Ghana, Daffour & Rosenterar (2016) assessment of general agricultural trends and challenges in Ghana as well as Bayern et al., 2016 study which was conducted to find out how NGOs help empower women in Ghana through enhanced agricultural activities, and how this affects food production in the country.

The study attempts to answer the following questions about food security interventions in the Tolon District:

- What responses have NGOs in the Tolon District used to promote food security?
- How do these interventions compare with the constraints to food security that can be or have been identified?
- Are there any constraints which NGOs have not addressed?
- Are there any institutional or structural factors which affect how NGOs have responded to food insecurity, and
- What impact have these had on the quality of response?

B. *Theoretical framework*

There are varied definitions of the concept of food security. The dimensions, as well as factors stressed, are often so

diverse thus reflect the varied views on the meaning of the “food security”. Reference [41] review various approaches to food security including the Food availability; Income-based; Basic needs; Entitlement; and Sustainable livelihoods approaches. The authors analyze food security based on the capability approach. The Food Security Learning Network (2013) also identifies 8 dimensions critical to the achievement of Food Security; Improved livelihoods, with a focus on agricultural productivity; Increased resilience of vulnerable populations; Improved research, innovation and commercialization for agriculture and nutrition; Expanded markets and value chains; Improved policies and institutions for food security; Enhanced nutrition and dietary quality; enhanced management of natural resources and adaptation to climate change and; improved gender equality and women’s empowerment.

As the study is focused on understanding the role of NGOs in the attainment of food security from their own perspective, the mixed methods approach was used in gathering the data. Lessons from the above mentioned theoretical frameworks among others were used in understanding the objectives of this study.

III. DESCRIPTION OF THE STUDY AREA

The study was conducted in the Tolon District in the Northern Region of Ghana. The Tolon District Assembly came into existence in 2011 by LI. 2142 with Tolon as the district capital. The District was carved out from the then Tolon/Kumbungu District which was one of the 45 districts created by the then Provisional National Defense Council (PNDC) Law 207 in 1988. In order to enhance participation and development especially at the grass-root, the District was among the 42 inaugurated districts in 2012. The District lies between latitudes 9° 15’ and 10° 0 02’ North and Longitudes 0° 53’ and 1° 25’ West. It shares boundaries to the North with Kumbungu, North Gonja to the West, Central Gonja to the South, and Sagnarigu Districts to the East.

The district is characterised by a single rainy season, which starts in late April with little rainfall, rising to its peak in July-August and declining sharply and coming to a complete halt in October-November. The dry season starts from November to March with day temperatures ranging from 33°C to 39°C, while mean night temperature range from 20°C to 26°C. The Mean annual rainfall ranges between 950mm - 1,200mm. The area experiences occasional storms, which have implications for base soil erosion depending on its frequency and intensity especially when they occur at the end of the dry season. The situation also has an implication as staple crop farming, for instance, is highly restricted by the short rainfall duration. [22]. Fig 2 presents the location of the district in the regional context and the farming communities studied respectively.

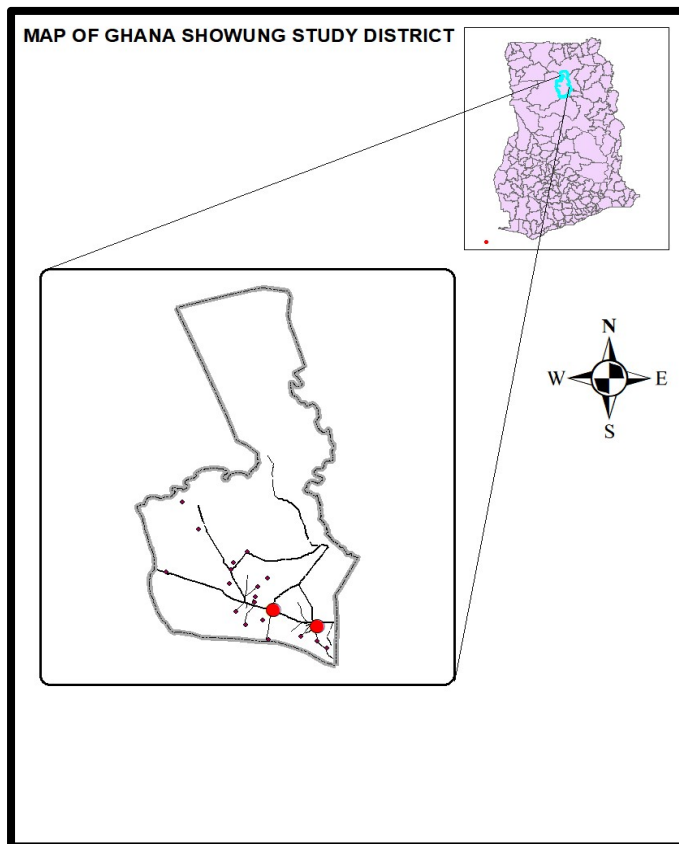


Fig 1: Tolon in national, metropolitan and District context.

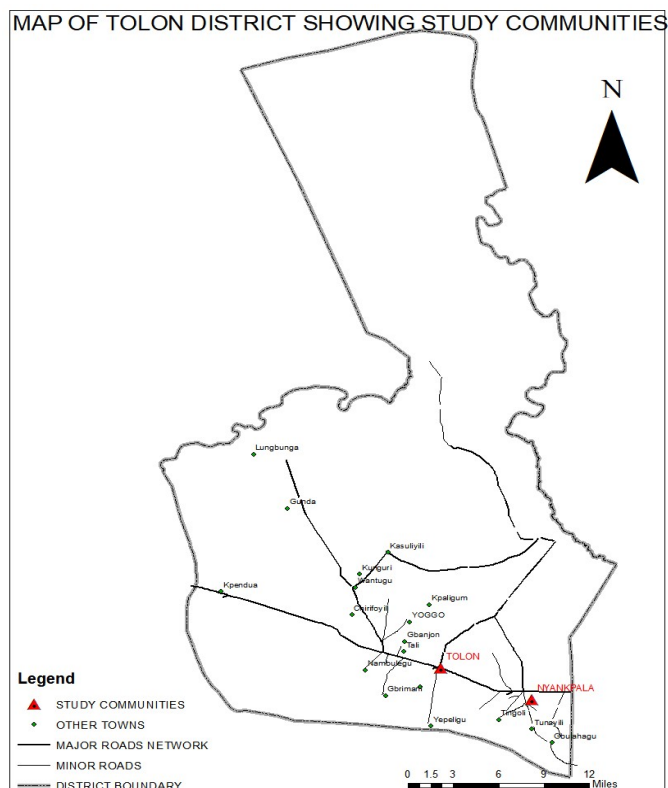


Fig 2: Tolon District using the study communities

The Tolon District was selected out of the 20 districts within the Northern region at the time of the study because Tolon is the only district that has the International Fertilizer Development Centre (IFDC) which is the offshoot of Millennium Challenge Compact. The Millennium Challenge Corporation (MCC) is a bilateral United States foreign aid agency established by Congress in 2004, applying a new philosophy toward foreign aid.

IV. METHODOLOGY

In order to assess the role of Non-Governmental Organizations in attaining food security, a mixed-method approach was employed. Surveys were conducted with 97 farmer households, 2 Focus Group Discussions (FGDs) with male and female farmer groups and Key Informant Interviews (KIIs) were conducted with five NGOs.

A preliminary survey carried out revealed that there were eighteen Organizations operating in the Tolon-Kumbungu District. Since the study involved an assessment of activities of NGOs in food security, only NGOs (both local and international) working in food security in the Tolon District were purposely sampled for the study. They were; World Vision, Presbyterian Farmers Organization, International Fertilizer Development Cooperation (IFDC), Opportunity Industrialization Cooperation (OIC) and Simli-pong. A total of 3,820 farmers benefited from the activities of the above Organizations and this constituted the sampling frame. Employing a statistical method provided by Yamane (1967), cited in Kasiulevičius et al. (2006:227), a sample size of 97 farmer households were randomly selected from 119 households at a confidence level of 95 percent. The statistical sampling method adopted to select the sample is illustrated as follows:

$$n = N \div [1 + N (\alpha)^2],$$

Where N= sample frame, n= sample size, α = error margin.

The sample was proportionally distributed among the Tolon and Nyankpala communities based on the beneficiary farmer populations of the respective communities.

V. RESULTS AND DISCUSSION

A. Socio-Economic Characteristics of Respondents

Socio-economic information collected included Gender, Marital Status, Level of Education attained, and Number of children of school-going age in the household of respondents. The socio-economic characteristics of the respondents are presented in Table 1.

Table 1 : Socio-Economic Characteristics of Respondents

| Socio-economic Characteristics | | Frequency | Percentage |
|--------------------------------|--------|-----------|------------|
| Sex | Male | 72 | 74 |
| | Female | 25 | 26 |

| | | | |
|--|----------------------|----|------|
| Marital Status | Married | 84 | 87 |
| | Single | 6 | 6 |
| | Widowed | 5 | 5 |
| | Divorced | 2 | 2 |
| Education level | Non-formal | 59 | 61 |
| | Basic | 12 | 12.3 |
| | Secondary | 12 | 12.3 |
| | Technical/Vocational | 14 | 14.4 |
| Number of children of school going age in school | In school | 74 | 76 |
| | Not in School | 23 | 24 |

Source: Field Survey, 2017

The analysis provided in Table 1 shows that males constituted the highest percentage of respondents (74%). This is not surprising considering the fact that men have access to land than women due to the nature of land tenure system of the area. The land tenure system in the study district is mainly based on inheritance such that women in the district have no title to land and therefore rely on the goodwill of their husbands to release lands to them to make a living. Findings from FGD with women:

"We work on family land with our husbands...at the end of the day, the proceeds go to them"

"Occasionally when we are able to convince our husbands to give us a parcel of land for vegetables they assign sections that are not fertile"

This confirms the findings of [54] that cultural traditions and arrangements often exclude women from owning land and other resources. This often limits their potentials and overall household capacity to provide for their needs consequently, affecting food security.

In relation to the marital status of the respondents, more than two thirds (87%) of those interviewed were married. Agricultural activities in the study area are labour intensive and in most instances, the labour comprises mainly of family members. Women usually support their husbands on the farms in several forms including providing meals, sowing, and weeding. With respect to the level of education obtained, 61 percent of respondents had informal, Junior and Senior High School Education each recorded 12.3 percent of respondents whilst 14.4 percent of them had vocational or technical education. Reference [43] assert that the educational status could influence farming activities and acceptance of modern farming technology by farmers.

The study also sought information from respondents on the number of children of school-going age that was in school. Out of 97 respondents, 76 percent of households' revealed that not all their children were in school. While 24 percent

indicated that all their children were in school. A litany of reasons was given to explain the cause for which children of school-going age were not in school. Seventy-six percent of the households expressed that they are unable to afford to keep their children in school. While 24 percent, pointed out that they need more labor resource to support them on the farms. One respondent said:

“Farming was handed to us by our ancestors and our generation must protect it, and equally hand it down to unborn generations. If all the children go to school who will inherit the valuable traditional profession?”

The above statement suggests that respondents feel that when their children go to school they will let them lose their support in farming.

B. Household Food Security Situation

To measure the level of food security or insecurity in the household, the researchers obtained information from farmers on food access and utilization. In terms of access to food, an enquiry was made regarding income, household food source and production trends including livestock rearing. Issues relating to food handling, preparation and storage were explored.

1) *Production Trends:* The survey found that all the households had cultivated food crops in the previous planting season with maize been the predominant among the staple food crops. An analysis of production levels indicated that average yield in the previous year was 0.8 metric tonnes per hectare whereas the current recorded an average yield of 0.5 metric tonnes per hectare. While these findings suggest a fall in average yield, it also indicates the inability of farmers to meet production thresholds of 1.7 and 1.9 metric tons stipulated by [37] against an estimated achievable yield of around 2.5 to 4 metric tonnes. Furthermore, since all the cultivation was on a subsistence level, there was no surplus for sale for additional income.

Other food crops cultivated were Rice, Yam, Sorghum, Millet, and Groundnut. Akin to maize, average yields for all other crops except groundnut fell. According to the farmers:

“Our main source of irrigation is rain which has been inconsistent last year; we waited for the rains to no avail. Since groundnut does not require too much water it recorded a good harvest”.

“...when it started raining we experienced flooding and lost everything”.

In terms of livestock rearing the results showed that farmers were engaged in rearing various animals including cattle, goat, sheep, and poultry. Poultry rearing recorded the highest among all households with an average of 13 birds per household, goats recorded an average of 9 per household, cattle 2, sheep 6 and other animals including pigs recorded 4 as average per a household. Reference [18] state that,

livestock contributes to household livelihood, food security, and nutrition.

“We rely on our animals directly for food and the sale for income and we sometimes trade our livestock for food”.

“Farmers, as we are one, would expect that our own produce should last till the next planting season, unfortunately, most of us have to purchase food before the next season. In times like that, some of us rely on the animals we rear by selling them and making money to purchase food”.

“Usually we are all affected when there are food crises, so you cannot seek assistance from anyone because you are aware they are facing similar crisis. So we fall on these livestock for food, pay debts and also help solve emergencies”.

2) *Sources of food:* Survey results indicate that 55 percent of households obtained foodstuff by purchasing from the market, 35 percent from their farms and 10 percent from the sale of livestock as shown in Fig 3. Participants from the FGDs had this to say:

“Foodstuffs we just harvested cannot last the next 3 months let alone the next farming season”.

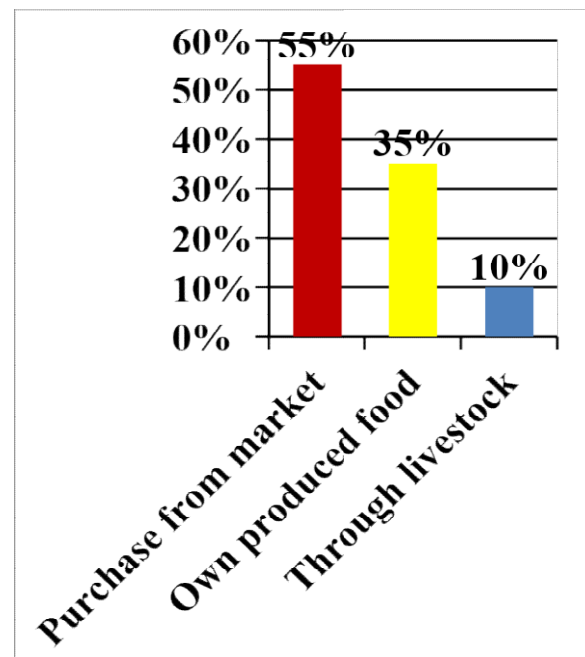


Fig 3: Major Source of Food to Household

Source: Field survey, November 2017

Ninety percent of households attributed low crop production rates to erratic rainfall pattern 70 percent of the farmers mentioned lack of capital, 50 percent lack of inputs like fertilizer whilst 45 percent identified pest and disease as factors contributing to low yields. In addition, 25 percent of the farmers complained of poor quality seeds, whilst 30 percent complained of poor soil as factors that account for low and decreasing crop yield.

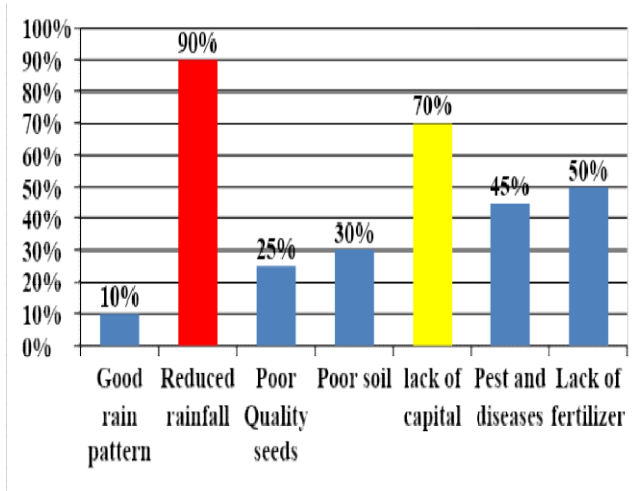


Fig 4: Factors Accounting for Low and Decreasing Crop Yield

Source: Field survey, November 2017

The major problem of food affordability was also the lack of money to purchase foodstuff accompanied by the fluctuating prices of food. This was as a result of lower incomes as an analysis of income levels revealed an annual average income of GH¢2,314.56 which falls below the national average annual income of GH¢14, 059.92 [22]. Thus the practice of frequently buying food puts the poor farmers in a more precarious situation. This finding is in line with the outcome of [19], who identified critical inhibiting factors of food security to include low production levels, low-income levels and the fluctuating prices of food which impedes economic access among the poor.

During the focus group discussion, one of the farmers said,

“Because we are poor, some of us easily become angry with any least provocation without any reason and this often create unnecessary quarrels’ at home”.

Hence, the implications of food insecurity go beyond economic and health problems as they include issues of social cohesion which is required for sustainable development.

3) *Food Utilisation:* Findings from the study reveal that crops such as maize, millet, and groundnut are processed by drying, roasting or milling. However, this was done to facilitate the preparation of meals and not necessarily for storage for future use. Since crop production fell below expectation processed food has a short lifespan.

C. Types of Intervention/ Support to Farmers by NGOs

For the purpose of this study, the researchers purposively sampled only 5 institutions whose activities were related to food security. Among them were Simli-pong, Presbyterian Farmers Organization, World Vision International, Opportunity Industrialization Centre and International Fertilizer Development Centre (IFDC) which collaborate with the district MOFA officers to deliver their services.

Simli Pong (SP) formerly of the Women and Loans Sector of the Ghanaian Danish Community Programme (GDPC) started operation in 1995. Simli Pong is a micro-credit scheme that provides micro-credit to mostly women in the Tolon, Kumbungu, Savelugu-Nanton and Tamale Districts. Simli Pong has a client base of 15,000 and a portfolio of more than GH¢ 1 Million. Simli Pong gives support in the form of loans, information, and animation to women groups. Loans are only disbursed to members of an organised group of a maximum of 30 women. Loan Officers disburse the loans in the communities to the women groups and collect repayment. The major groups of loan-takers are women groups engaged in Sheabutter production, Groundnut processing, and Rice processing. The organisation provides training for women in areas of group management, marketing strategies, providing quality products and other micro-credit services.

The Presbyterian Farmer Organization is an international NGO which operates in West Africa and in some districts in Northern Ghana specifically in Garu and East Mamprusi districts. The Presbyterian Farmers organization include provide capacity-building, farm inputs and livestock rearing to farmers in the study area. Farmers are taken through land use management and efficient methods of fertilizer application. Farmers are also given some livestock such as goat which they rear and after 3 to 4 years the organization comes for some and leaves the rest with the farmer. The objective of the organization is to empower the poor farmers to sell and buy foodstuffs to supplement family food needs. The beneficiary farmers complained that some of the livestock are often attacked by pest and diseases. One weakness of this intervention is that there is limited monitoring after livestock have been given to the farmers.

World Vision International World Vision is an international NGO which operates globally and across the West Africa sub-region. World Vision started working in Ghana in 1979. It currently implements 34 Area Development Programmes (ADPs) in all the 10 administrative regions in Ghana, three institutional and six special projects which directly benefit about two million people through health and nutrition, education, food security, water and sanitation, gender and development, micro-enterprise development and Christian Commitments programs (<http://www.wvi.org/ghana/about-us>).

In the Tolon District, World Vision’s major operation areas are micro finance, provision of farm inputs and livestock breeding stock to farmers. The organization provides loans to farmers ranging between GH¢ 200.00 and GH¢400.0 depending on the family size of a farmer and his ability to pay back. The farmers are then required to pay back GH¢200.00 within a period of 4 months and the rest within a span of 6 months. Farm inputs such as fertilizer and storage facilities are also given to farmers. World Vision has introduced the Purdue Improved Cowpea Storage (PICS) bags for storage of beans.

World Vision has also organised training for farmers on ways to access credit from financial institutions. In the area of livestock rearing, World Vision provides farmers with livestock which they rear for three years after which the organization comes for some of the younger ones and leaves the farmer with the parent stock together with some of the younger ones.

The International Fertilizer Development Centre, on the other hand, was established by the Millennium Development Challenge account. It works closely with MOFA district desk officers in the supply of farm inputs such as fertilizer and weedicides at subsidized prices. Apart from that this organization also organizes capacity-building training workshops on land use management and fertilizer application processes. These are often done at their demonstration farms where farmers have practical experience of how to deal with some of the situations on their farms.

Opportunity Industrialization Centre (O I C) is also an international NGO operating in the West African sub-region and many communities in the northern region of Ghana. One of the major objectives of the organization is to improve production levels of farmers and more importantly their dietary status. The organization contributes to capacity building and supply of inputs/tools to farmers. Farmers are given technical training in farm management using their demonstration farms. The NGO again organizes workshops to train farmers on how to improve on their dietary status. The inputs include fertilizer, agrochemicals and garden tools for dry season farming. Livestock rearing is another area OIC considers that if well done could serve as a supplement to farmers during hunger periods. They provide livestock such as goat to farmers, after two years they come for some while allowing the farmer the remaining ones so that they continue to multiply for the farmer to sell some during the food in secured periods to buy foodstuffs for the family.

D. Challenges Confronting NGOs in Achieving Food Security

One of the challenges NGOs encountered in their quest to ensure food security is that, farmers are not ready to adopt technology. All the 5 NGOs complained that farmers in the study communities were reluctant to use the improved seedlings, chemicals, and machinery introduced by the extension offices under the auspices of the NGO. This has led to low crop production rates. The NGOs attributed this to the low educational levels of farmers as over 50 percent of farmers had no formal education and could not read and understand instructions on fertilizer containers and other manuals. Reference [10] and [43] identify that not only is that access to credit a deterrent to the adoption of most agricultural innovation but educational attainment as well. This invariably influences production and farmers' ability to store food and to make higher incomes.

The NGOs complained that the farmers were not committed to project therefore creating the challenge of sustainability.

"They always want to see interventions in the form of cash...when you invite them for training they refuse to attend".

As a result, many planned interventions are not implemented and the few that are implemented are unsuccessful. Another problem is limited funds for NGOs to fully implement their programmes.

"Since Ghana achieved Middle Income Status, NGOs are faced with the problem of securing funding for projects. In addition, most donors tie a lot of stringent conditions to their funds. So when organizations are unable to meet these conditions they are denied the funds".

VI. CONCLUSION

Fighting the problem of food insecurity requires a concerted approach from all stakeholders. Using household surveys, FGDs and Key Informant Interviews this paper reports on a study that sought to understand the efforts of NGOs in the Tolon District towards promoting food security. The study revealed that farmers encountered problems of low rainfall, lack of fertilizers and pest and diseases. This has invariably led to a situation whereby there are low yields and low-income levels. The problem of food insecurity is further heightened by the absence of social support systems and poor weather conditions

The activities of NGOs include the provision of capital in the form of cash as well as livestock and training in fund management, land use management, and fertilizer use. The findings suggest that not only are the interventions of the NGOs duplicated they do not align with the problems of the farmers. This could be the reason for the lack of ownership of projects on the part of farmers.

With the Northern Region having the highest number of NGOs, there is definitely high competition for funding for projects in the region. Which may also lead to duplication of projects. The Department of Social Welfare under its core program of community care is responsible for the registration of NGOs and provision of oversight at the district level. Ghana has been practicing devolution of governance since 1988, now empowered by Act 462 (1993). As a policy guide, it is important for the NGOs to work with the Department to enable them align their activities with the specific needs of the district.

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