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Analysis of constraints to poverty reduction among smallholder farmers in Northern Region, Ghana

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The northern part of Ghana is bedeviled with high incidence of poverty with threatening food insecurity. Agriculture is the mainstay of the people in northern Ghana. In spite of the introduction of variety of poverty reduction strategies, the region remains the hardest hit in terms of the numbers of poor people. This study sought to evaluate the constraints to poverty reduction among farmers in the northern region. The study made use of data from a survey of 420 farmers from five randomly selected districts in the region. Multi-stage sampling process was employed. In-depth interviews were used on the key informants. Descriptive statistics and Kendall’s coefficient of concordance were employed to analyse the data. The study reveals that poverty reduction in the northern part of the country is plagued with several constraints. Prominent of these constraints include erratic climatic conditions, inadequate financial credit, poor road network, market volatility of agricultural produce, bush fires, pest and disease outbreak, poor economic opportunities, violent conflicts, corruption and mismanagement of poverty reduction packages. It is recommended that central government, decentralized agencies and poverty alleviation oriented NGOs give priority attention to agriculture in the region.

Key words: Smallholder farmer, poverty reduction, constraints, Kendall’s coefficient.

INTRODUCTION

Between 2013 and 2017 the population growth of Ghana had surpassed the overall reduction of the incidence of poverty, contributing significantly to more people becoming poorer (GSS, 2018). There exists a large regional disparity in the incidence of poverty with the northern region experiencing the highest number of poor people compared to any other region in the country (GSS, 2018).

Poverty reduction refers to the set of actions, strategies, interventions or measures taken to address the menace of poverty. The interventions could take the form of a public policy, project or programme targeted at addressing the menace of poverty. As a result of the adverse consequences of poverty on people, its reduction has become very important not only at the local level but at the global level as well. In view of the multi-dimensionality of poverty, different societies employ different strategies to deal with that age-old problem and
its attendant consequences of economic deprivation.

Sustained poverty reduction does not only require equitable socio-economic growth, but it also requires that poor and marginalized groups get access to power for decision-making processes, Minot et al. (2006). The best way to achieve fairness and all-inclusiveness in a manner consistent with human development objectives is by building and deepening democratic governance at all levels of society (World Bank, 2010).

Poverty reduction has become a necessary requirement towards the advancement of the economic wellbeing of poor people. There are several approaches to poverty reduction in different geographical settings depending on the various causal views of the menace. The most common approaches to poverty reduction are the neo-liberal approach, the sustainable livelihood approach, the basic needs approach, the capability approach and the community-driven approach. According to Satterthwaite (2014), these poverty reduction strategies are market-based, state-directed or social movement-based. According to Bird (2019), the eradication of spatial poverty and reduction of regional inequality require a multi-faceted approach which incorporates soft and hard investment in infrastructure, notably, roads, information and communication technologies, water, sanitation, power supply, schools and clinics, human capital formation, pro-poor approach intervention programmes such as social protection, agricultural and rural development policy, market information, fiscal policy and the enabling environment (including financial services, regulation, governance and anti-corruption, property law and justice sector reform) as well as the eradication of chronic, severe and intersectional poverty.

The capability and social justice theory envisage that if policy makers and duty bearers give equal attention and opportunities to both rural and urban areas, rural population is capable of bridging the historic socio-economic gap between them and their counter-parts in urban centers. The basic tenets of the theory are fair and equitable distribution of opportunities and resources to eliminate or reduce undesirable socio-economic disparity in society. Of great significance are the liberties for poor people to be able to make their decisions freely and to stand against all obstacles to those freedoms, Sen (2007). Sen’s capability theory provides broader set of interventions to achieving poverty reduction. It offers a broad-based analysis of the well-being of individuals in various context and settings. It delves into the balance between freedoms and equality that have characterised work on social justice since eighteenth century. Thus, the advancement of human quality involves ‘the freedoms people actually enjoy choosing the lives that they have reason to value’ Sen (2007). According to Clark (2006), the major strength of Sen’s capability theory lies in its approach to dealing with the multi-dimensional nature of poverty such as vulnerability, voicelessness, powerlessness, social and political exclusion.

LITERATURE

There exist considerable amount of literature on poverty and related matters. This section explores theoretical and empirical literature on the causes of poverty in different socio-economic settings.

Theoretical literature

In terms of theory, attributional studies on constraints to poverty reduction are grouped broadly into two; thus, theories that root the causes of poverty in the deficiencies of the poor people (conservative theory of poverty) and those other theories that attribute the causes of poverty on the failure of the socio-economic and political systems (liberal/progressive theory of poverty). In one breath, several theorists have traced the menace of poverty to the deficiencies inherent in the individuals who are poor, Murray (1984); Maynard (1997); Karoly (2001); Rankin and Quane (2000), and Coleman (1988). Such individualist theories remain the earliest standpoints to support the attribution of poverty to the deficiencies of the individual poor. These deficiencies of the poor relate to the inadequacies in their livelihood assets such as physical, human, natural, financial and social capital (Rankin and Quane 2000). The proponents of the individualist theories argue that the poor people are blameworthy for their plight and that with commitment, determination and better economic choices, they are capable of either avoiding or eradicating their socio-economic problems (Schiller, 1989). The poor are accused of deviant behaviours, lower work ethics, lack of self-motivation, addiction to larger family sizes, among others (Maynard, 1997). In the opinion of these individualist theorists, poverty reduction is conditioned on the ability of the poor to address their own inherent deficiencies (Schiller, 1989).

In contrast to the individualist deficiency theory of poverty, the structuralists theory blames the inadequacies of the socio-economic and political system for aggravating the financial predicaments of the poor in society (Rank et al., 2003; Feagin, 2000; Bracking, 2003; Gore, 2003). They argue that the socio-economic and political systems in most countries are modelled in a manner that the poor and vulnerable people in society are confined to economic misery irrespective of their competencies and commitments to their livelihood portfolios, therefore, addressing the imperfections characterising the socio-economic and political systems is a necessary requirement to reduce poverty. The structuralists theory of poverty recommends that appropriate strategies and measures are necessary to
re redeem the poor people from their predicaments (Rank et al., 2003). Other theories connected to poverty reduction include the modernisation theory, cultural, geographical disparity, cumulative causation, African renaissance, portfolio, capability and social justice theories.

Empirical literature

Regarding the constraints to poverty reduction, opinions vary from scholar to scholar on the account of various socioeconomic dynamics of different societies. For instance, Aleyomi and Ise Olorunkanmi (2012), identify the unequal distribution of the economic gains resulting from growth in many sub-Saharan African countries as well as other developing regions, as major contributory factor militating against poverty reduction despite improved annual average GDP growth rates which sometimes even outstrip the rates of growth of the population. While agreeing with the findings, the study delved largely into the income disparities among rural and urban population alike. The current study focuses on constraints confronting the rural smallholder farmers in the northern region.

Similarly, World Bank (2008) concludes that poverty reduction is constrained by a high level of inequality of opportunity (with the poor facing limited access to education, health, assets and essential infrastructure) as well as high levels of youth unemployment and underemployment. The resource endowments of different localities significantly underscore the degree of economic deprivation of the people living in those geographic areas subject to certain demographic characteristics of individuals and households. Such characteristics include but not limited to age, sex distributions, size of household, ethno-linguistic group (Jalan and Ravallion, 1997, 2002; Ravallion and Wodon, 1999). Pender and Hazell (2000) and World Bank (2018) opined that due to high levels of illiteracy and unfavourable climate for agriculture, severe levels of poverty exist in detached, remote rural settlements, including slums of cities.

In a study conducted in northern savannah belt of Ghana on agricultural development, Wood (2013) found that the major challenges to poverty reduction in the northern sector of Ghana were fewer economic opportunities, inadequate provision of education and health care facilities, poor infrastructural development and economic waste due to public corruption and bad governance. The study further reveals that environmental bottlenecks, such as erratic climatic conditions, infertility of agricultural lands as well as pest and disease infestation exacerbate the challenges to poverty reduction through increasing agricultural production. The study however failed to show the varying severity levels of the identified causes of poverty in the region.

According to Bird and Shepherd (2003), there exist a strong positive linkage between levels of remoteness and chronic poverty. Thus, poverty is largely a rural phenomenon. The study also established a negative linkage between levels of public and private investment (including investment in economic infrastructure) and incidence of chronic poverty in the semi-arid zones of Zimbabwe.

Poverty profile

The Ghana Living Standard Survey (GLSS) round 7 reports that between 2013 and 2017, the incidence of poverty in five out of the ten regions had worsened. The affected regions were Western, Volta, Upper West, Upper East, and Northern Regions. Specifically, the Northern Region has the highest number of poor persons (GSS, 2018). Given a poverty incidence of 50.4%, the Northern Region accounts for more than one-fifth (20.8%) of the poor people in Ghana (GSS, 2018). The survey further suggests that farm household heads are not only the hardest hit in terms of the severity of poverty in Ghana but also contribute the most to Ghana’s poverty (GSS, 2018).

Poverty reduction strategies

Poverty reduction strategies in Ghana have been delineated into national and local programmes on the basis of the prevalence of poverty in different localities of the country.

National poverty reduction programmes

To reduce the devastating consequences of poverty in Ghana, central government, civil society organisations and other stakeholders have made and continue to make several attempts at reducing poverty and to enhance socio-economic wellbeing of the masses. Consistent with the neo-liberal theory of economic growth and poverty reduction, it has become increasingly acceptable to most governments and donors that economic growth provides the ultimate remedy for the eradication of poverty. Neoliberalism presupposes that micro economic stability and optimum resource allocation will automatically support economic growth and welfare maximization thereby reducing poverty and inequality in society (Portes, 1998). Neoliberalism advocates free interplay of the market forces devoid of government interference in poverty reduction. It emphasizes the role of government at reducing poverty by upscaling investment in human capital and infrastructure (Hulme and Shepherd, 2003). The introduction of the structural adjustment program (SAP) and the poverty reduction strategy papers (GPRS)
in Ghana was consistent with the ideals of neoliberalism in tackling chronic poverty. In Ghana, economic growth and poverty reduction policies and programmes of government range from the Economic Recovery Program (ERP), Structural Adjustment Program (SAP), Programme of Actions to Mitigate the Social Costs of Adjustments (PAMASCAD), Sector-Wide Approaches (SWAPs), to poverty reduction Strategy Papers (PRSPs). Other equally important policies and programmes introduced by the Ghanaian government towards greater economic and poverty reduction at the national level include: Making People Matter: A Human Development Strategy for Ghana (1991), followed by the National Development Policy Framework (1995), a five-year policy statement which was later developed into the First Medium Term Development Plan (MTDP) 1996-2000. In 1996, the government of Ghana launched a 25-year development framework called Ghana-Vision 2020, a long-term programme aimed at accelerated growth and sustained development to achieve middle income status. In 2000, an Interim Poverty Reduction Strategy Paper was produced. In March, 2008 the Livelihood Empowerment Against Poverty (LEAP) programme was also launched.

Localised poverty reduction programmes

Due to the severity of poverty in the northern sector of the country, specific growth oriented and poverty reducing policies were rolled out. As a first step in reducing poverty in the region, successive governments supported the improvement of infrastructural facilities to boost economic activities. In response to the deplorable nature of the road network in certain parts of the region, road infrastructure had been improved to open up production centers to marketing centers. Electricity had been extended to some parts of the region to support productive ventures. Educational infrastructure had been expanded to reduce high levels of illiteracy and vulnerability (including the free education system introduced by Ghana’s first President, Dr. Kwame Nkrumah). In the area of credit for business operations, non-governmental organisations (local and international) have stepped into provide microfinance to the economically poor to engage in one form of economic activity or the other (enhancing financial capital). Smallholder farmers receive credit either in financial form or farm inputs/implements. Special programmes to eliminate guinea-worm infestation in the region have also been rolled out. Non-formal education in the areas of health, book-keeping and women empowerment had been introduced. Free education at the pre-tertiary level has been introduced to the region. In recent times, the school feeding programme and free uniforms and books have been introduced to the region to increase enrolments at the basic level. The Savannah Accelerated Development Authority (SADA) which was renamed ‘Northern Development Authority (NDA)’ initiative is yet another measure aimed at bridging the income inequality gap between northern Ghana and its southern counterpart.

To reduce poverty incidence in the study area, each districts of the Northern Region benefitted from various forms of policies and programmes. Common among the intervention programmes aimed at poverty reduction in the study districts include, capacity building for enhance productivity, microfinance for business support, infrastructural development for the creation of enabling environment, and agricultural support programmes for enhanced food security.

It is worth pointing out that these localized poverty reduction strategies in the study area were either limited in scope due to resource constraints, inappropriate, or were wrongly targeted, for which reason the poverty incidence still remains high in the study area.

METHODOLOGY

In view of the alarming poverty incidence in the northern region, the region was selected for the study. The survey data was solicited from 420 farmers across five randomly selected districts in the region. The study applied multi-stage sampling strategy to select 420 famers from 188,275 farmers in the five selected districts of the northern region of Ghana (Ministry of Food and Agriculture, 2015). Both simple random sampling and purposive sampling techniques as part of the multi-stage sampling process were used. Five districts were selected at random in the first level. The selected districts were Bunkurugu, Savelugu, East Gonja, West Mamprusi and Nanumba North. The second stage involved a random selection of six farming communities in each of the five districts. Subsequently, purposive sampling technique was applied to identify farmers. The simple random sampling technique was subsequently employed to select the appropriate number of farmers in each farming community. Key informants were purposively selected for interviews. Officials of the respective District/Municipal Assemblies, District Agricultural Directors, Agricultural Extension Assistants, local experts and/or opinion leaders as well as civil society organizations working to reduce poverty were key informants who were purposely selected for in-depth interviews. A semi-structured questionnaire was employed to elicit relevant data from the sampled farmers.

Descriptive statistics and Kendall’s coefficient of concordance technique were employed to analyse the data. Whereas the descriptive statistics supported the analysis of the socioeconomic characteristics of the respondent farmers, the Kendall’s coefficient of concordance was adopted to analyse the various constraints militating against poverty reduction in the study area. The Kendall's coefficient of concordance (w) was used to measure the degree of agreement or disagreement among the respondents relative to the constraint factors of poverty reduction. The Kendall’s coefficient of concordance (w) assumes a value of between 0 and 1. Value of 0 signifies complete disagreement while 1 suggests perfect agreement.

The Kendall’s coefficient (w) is given as:

\[ W = 12 \left( \frac{\sum T^2 - (\sum T)^2/N}{N^2 - 1} \right) \]

where N= number of items being rankled, T= sum of ranks for each
item being ranked, and \( M \) = number of rankings

The hypotheses are:

- H0: There exists no agreement among respondent farmers on the constraints to poverty reduction
- H1: There exists agreement among respondent farmers on the constraints to poverty reduction

The decision rule is as stated as:

If the \( F \) calculated exceeds the \( F \) critical then the null hypothesis is rejected.

The \( F \) calculated is the test instrument of the coefficient of significance. It is calculated as:

\[
\frac{(m - 1) w}{1 - w}
\]

The \( F \) critical has two (2) degree of freedom each for the numerator and the denominator.

The degree of freedom for the numerator is:

\[
n - 2 - 2 / m
\]

The degree of freedom for the denominator is:

\[
m - 1[(n-2) - 2/m]
\]

RESULTS AND DISCUSSION

Demographic characteristics of respondents

Consistent with the attributional studies on constraints to poverty reduction, this section captures the socio-demographic attributes of the respondent farmers considered to be influential variables affecting poverty in the study. The major socio-demographic factors considered in this study were the age and gender distributions of respondents, as well their educational levels.

Headship of household by gender

Given that women form the chunk of the poor population in the country (GSS 12), the study considered the gender of the household head important variable for analysis. Most households in the study area were headed by males. Thus, 359 farm households (85.4%) were headed by males. Female heads of household were 61 (14.6%) which is indicative that headship by female is not common in the study area. Evidence from the field of study suggests that females (wives) do engage in farming by rendering support to their husbands. Most of the females who do independent farming are either widowed or separated from their husbands or their husbands had migrated in search of greener pastures elsewhere, hence compelling them to assume leadership roles in the family.

Age of head of household

The age of the head of household was yet another important variable determining the levels of poverty, William (2016). The dominant age of the respondents that were interviewed was between 50-59 years which constituted 40.3% of overall respondents. The study also revealed that older people still take keen interest in farming. Farmers who were 70 years or older constituted about 12% of overall respondents. Most of such older farmers played supervisory role over their farm workforce.

Table 2 represents the age distribution of respondents.

Educational status of head of farm household

The level of education of the head of household was considered so important in the study because labour productivity in agriculture and other areas of production is a function of the quality and quantity of labour. This study shows that majority (85.2%) of the respondents were unlettered. Those who pursued non-formal education constituted 11.5% of total respondents. Only 3.3% of the total respondents had some form of formal education. The high proportion (85.2%) of illiteracy among the respondents, gives credence to findings of IFAD (2011) that the agricultural sector mainly absorbs the unlettered working population who perceive farming as a last resort. Such illiterate farmers are largely conservative and rarely have better opportunities except to engage in farming to feed their households with little or no surplus output for sale. Table 3 presents the educational status of the respondents.

Challenges to poverty reduction among small holder farmers in the study area

The study revealed a number of challenges militating against poverty reduction among farmers in the study area shown in Table 4. The constraints to poverty reduction were ranked in order of severity with 1 representing the topmost challenge and 9 representing the least constraint. The data analysis using the Kendall’s coefficient of concordance revealed a coefficient of 0.075, \( F \) calculated of 33.97 and \( F \) critical of 2.64 at 1% significance level, therefore, we reject the null hypothesis that there is no agreement among farmers in the northern region on the constraints to poverty reduction. The Kendall’s coefficient of concordance reveals that there is a significant agreement among farmers in the northern region with respect to the constraints to poverty reduction. The constraints to poverty reduction among the farmers in the study area are discussed subsequently.
Table 1. Poverty profile.

| Locality          | Poverty incidence (Po) | Contribution to total poverty (Co) | Poverty gap (P1) | Contribution to total poverty gap (C1) |
|-------------------|------------------------|-----------------------------------|-----------------|---------------------------------------|
| Accra GAMA        | 0.0                    | 0.0                               | 0.0             | 0.0                                   |
| Urban Coastal     | 0.9                    | 0.8                               | 0.3             | 0.9                                   |
| Urban Forest      | 0.3                    | 0.9                               | 0.1             | 0.5                                   |
| Urban Savanna     | 5.4                    | 4.4                               | 0.1             | 2.7                                   |
| Rural Coastal     | 6.9                    | 5.4                               | 1.4             | 3.3                                   |
| Rural Forest      | 4.3                    | 13.0                              | 0.9             | 8.2                                   |
| Rural Savanna     | 36.1                   | 75.4                              | 13.6            | 84.3                                  |
| Urban             | 1.0                    | 6.2                               | 0.2             | 4.2                                   |
| Rural             | 15.6                   | 93.8                              | 5.4             | 95.8                                  |
| All Ghana         | 8.2                    | 100.0                             | 2.8             | 100.0                                 |

Erratic climatic conditions

Erratic climatic conditions appeared most prominent in the study as a major contributory factor to the high poverty levels among smallholder farmers in the study area. Unpredictable climatic condition was ranked the topmost challenge to poverty reduction among farmers in the study area. The climate of the study area is relatively dry, with a single rainy season. The drought conditions in the study area always affect sorghum, millet, maize, and groundnut production, which constitute the common crops grown in the study area. Given the country’s heavy dependence on rain-fed agriculture, drought conditions contribute significantly to the cumulative losses of agricultural output in the Northern territories. The negative impact of the erratic climate on livelihoods in the northern sector is disturbing. The findings are consistent with the position in the literature that many of the shocks that trap people into poverty are directly or indirectly connected to climate and environment, such as drought, which reduces people capabilities to save and invest, thereby keeping them in the poverty trap (Gore, 2003).

Inadequate financial capital

Inadequate credit was ranked second (2nd) most limiting constraint to poverty reduction in the study area. Financial capital is an important resource to complement natural, human and social capital for improved productivity and poverty reduction. Financial capital comprises financial resources such as cash, savings, credits, production equipment, infrastructure, etc. These financial resources are essential for the pursuit of any livelihood strategy. As a result of the vicious cycle of poverty in the study area as showcased in the poverty profile in Table 1, financial capital is typically inadequate. Poor savings and inadequate capital formation result in low agricultural output to the disadvantage of the farmer in terms of income earnings. Financial capital is an important requirement in modern farm practice, since a significant proportion of the inputs of the farmer has to be procured. Many of the respondent farmers’ complaint bitterly about the rising cost of fertiliser, insecticide, weedicides and other farm inputs. Due to the risky nature of agriculture in the study area and in the country at large, the conventional banks are ill prepared to advance credit to the poor farmers. Some of the farmers often resort to private moneylenders for assistance. Such farmers complained severely about the usurious interest rates imposed on the borrowed funds. In support of the field findings, Choudhary et al. (2015) posit that the poor access to financial capital contributes significantly to low adoption of productivity-enhancing technologies.

Poor transport network and post-harvest losses

Underdeveloped road network constrain farmers access to marketing centers. Respondents ranked poor road network as the third (3rd) most limiting constraint militating against poverty reduction in the study area. Respondents across the study districts alluded to economic losses arising from their inability to transport their farm produce from the farm gates due to poor roads. The poor transport network in the study area prevents the flow of humans, goods and services to and from other areas. The respondents indicated that their communities easily cut off from adjoining communities during the rainy season. The study also revealed that in order to reduce cost of operation, some development partners (CSOs) have tended to marginalise ‘oversea’ communities in the study area. In support of their inability to operate in certain ‘oversea’ communities within the catchment
Table 2. Age distribution of head of household.

| Age range (years) | Frequency | Percent | Cumulative % |
|-------------------|-----------|---------|--------------|
| 30-39             | 58        | 13.8    | 13.8         |
| 40-49             | 89        | 21.3    | 35.1         |
| 50-59             | 169       | 40.3    | 75.4         |
| 60-69             | 53        | 12.6    | 88.1         |
| 70 or more        | 51        | 11.9    | 100          |
| Total             | 420       | 100     | -            |

Source: Author’s Field Survey (2020).

Table 3. Level of education of household head.

| Educational status         | Frequency | Percent | Cumulative % |
|---------------------------|-----------|---------|--------------|
| Illiterates               | 357       | 85.2    | 85.2         |
| Non-formal                | 48        | 11.5    | 96.7         |
| Educated                  | 14        | 3.3     | 100          |
| Total                     | 420       | 100     | -            |

Source: Author’s field survey (2020).

Table 4. Constraints to poverty reduction among farmers.

| Constraints                                         | Sum of rank | Rank |
|-----------------------------------------------------|-------------|------|
| Erratic climatic conditions                         | 527         | 1st  |
| Inadequate financial capital                        | 787         | 2nd  |
| Poor transport network                              | 1433        | 3rd  |
| Market volatility                                   | 1591        | 4th  |
| Bush fires, pest and disease outbreak               | 2175        | 5th  |
| Inadequate economic opportunities                   | 2625        | 6th  |
| Poor extension services                             | 2904        | 7th  |
| Conflicts and negative cultural practices           | 3215        | 8th  |
| Corruption and mal-administration                   | 3677        | 9th  |

N= 420, Kendall’s Coefficient (W)= 0.075, P-value= 0.000.

area, officials of civil society organizations alluded to concentrating on communities which are accessible for delivery of efficient services rather than spending extra efforts to reach out to every needy community. The views expressed by the respondents on the inaccessibility of many rural communities during the rainy season due to bad transport network confirms the position in the literature that post-harvest losses arising from bad road network continue to keep many rural people in poverty (World Bank, 2010).

Road network in particular, plays a significant role in the socio-economic development of rural areas. Transportation and transport cost constitute significant cost element in pricing of agricultural produce (Fafchamps and Gabre-Madhin, 2006; Jayne et al., 2010).

Market volatility

Poor marketing of agricultural output was ranked fourth (4th) most limiting constraint to poverty reduction in the northern region. The study noted that for most produce of the farmers, prices fall to very unattractive levels during the peak (harvesting) seasons and pick up during the lean seasons. In all five districts of the study, farmers lamented the poor patronage of their produce, which contribute to their earnings declining drastically in the face of bumper harvest. Farmers claimed that middlemen (agents) in the chain of distribution of agricultural produce take advantage of the unsuspecting poor farmers to enrich themselves. They attributed the unfavourable dealings with the middlemen to inaccessibility of markets...
particularly during the raining season, compelling them (farmers) to succumb to the dictates of the middlemen. In order to meet pressing demands, many farmers dispose of their produce to middlemen immediately after harvest, when prices are very unattractive. In an empirical evaluation of agricultural output-price stabilization policy in Ghana, Abokyi et al. (2018) pointed out that price volatility in agriculture has devastating effects on sustainable farming and food security hence triggers widespread poverty in most rural communities.

_Bush fires, pest and disease infestation_

Pre and post-harvest losses attributable to bush fires as well as pest and disease outbreak were other complaints of most respondents. It was ranked the 5th most limiting challenge to poverty reduction in the study area. At the time of soliciting the field data for this study, the worrisome ‘fall army worm’ infestation was a major issue for farmers in all the districts involved in this study. The numerous pest and diseases that cause tremendous havoc to crops in the savanna enclave include: locusts, grasshoppers and African armyworm. The armyworm is most prevalent in the study area in recent times. The study also reveals that the activities of hunters during the dry season cause grave dangers to farmers in terms of harvest losses through bush burning. The incidence and severity of bush burning is comparatively higher in the savanna zone where drought conditions are much prevalent in view of the shorter rainy season.

_Inadequate economic opportunities_

Respondents complained about the inadequate economic opportunities in the study area. Poor economic opportunities in the study area were ranked sixth (6th) most limiting constraint to poverty reduction. Relative to the southern part of the country, the northern sector of the country is less endowed with natural resources. In spite of the heavy dependence on agriculture for main source of livelihood in the study area, agricultural activities were reportedly becoming increasingly unattractive due to high risk. The resulting trend is a drift of the youth from rural north to urban south in search of better economic engagements. Respondents expressed worry of the situation posing serious danger to the future of the agricultural sector in the north because the able-bodied (human capital) are migrating in search of wage employment. Respondents reported that male labor force from the north migrate to the south to engage in ‘daily wage employment in cocoa plantations and petty trade (scrap dealing, sale of coconut, dog chains, etc.), while their female counterparts engage in ‘kayaye’ (head porters).

Consistent with the findings in this study, Darko (2013) posits that the economic disparity between the north and the south is partly political in terms of the pre-colonial relationships between kingdoms and tribes. Darko (2013) reiterates that the colonial dispensation deliberately did not create economic opportunities in the northern territories. They colonial masters rather ensured that northern Ghana was a labour reserve for the southern mines and forest economy, an established pattern which reportedly persists till now.

_Poor agricultural extension services_

Poor extension services were ranked seventh (7th) most limiting constraint to poverty reduction. Respondents expressed dissatisfaction about inadequate extension officers. The demographic characteristics of the study area suggest that an overwhelming 85.2% of the farmers are unlettered (illiterates) but are prepared to learn from best farming experiences. However, the bane of these farmers is that agricultural extension services are unavailable (or at best inadequate) due to the absence of expert personnel. Respondents reiterated that agricultural extension officers who are supposed to serve as inspiration and sources of agricultural knowledge are themselves shifting away from farming into non-farm ventures and mainly based in towns and cities rather than in the countryside, the hub of agricultural activities. The poor extension services hinder the poor farmers’ access to state of the art technology and agronomic practices thereby exacerbating their poverty levels.

_Conflicts and unfair cultural practices_

The northern region is one of the hardest hit in terms of violent ethnic and political conflicts. Conflicts and negative cultural practices in the study area was ranked eighth (8th). Respondents recounted the ethnic conflicts in the region involving Abudus and Andanis (Dagbon intra-ethnic conflict), the Konkomba and Nanumba, the Konkomba and the Gonja, the Konkomba and the Dagomba, the Konkomba and the Birnam, the Gonja and Nawuris, and between the Konkomba on one hand and the Nanumba, Gonja and Dagomba on the other hand. The remote causes of the conflicts have been centred either on land or paramouncy and autonomy. In the last couple of decades, two out of the five sampled districts in this study, namely: Nanumba North and East Gonja districts had been reportedly the hardest hit with violent conflicts. William (2016) reiterated that with conflict, natural resources cannot be harnessed individually and collectively, and no amount of education, talent or technological know-how will allow people to work and reap the benefits of their labour. Closely connected to
conflicts in the region was yet another social challenge to poverty reduction in the study area relative to the position of women in society. Inequalities in rights and entitlements constitute a powerful source of discrimination against women which limit their access to and control over resources that are crucial to starting and consolidating a sustainable enterprise. Although discrimination against women is illegal, it is common in many rural settings including those in the study area. It was typically observed that a good proportion of women in the study area were more of subjects of their husbands rather than partners in development. Their rights are often subordinated to their husbands. Their rights to inheritance are very much limited. Reflections emerging from discussions with some respondents revealed that women could not freely engage in any economic activity without prior approval of their husbands. It was observed that microfinance opportunities existed for women than their male counterparts; therefore, some husbands took unfair advantage of the assistance extended to their wives.

**Corruption and mal-administration**

Another challenge identified as a contributory factor to poverty reduction efforts in the study area relates to corruption and misappropriation of public funds. Corruption and politicization of poverty reduction programmes was ranked ninth (9th). Some respondents were of the view that the responsibility bears in the various district assemblies and even among non-governmental organisations applied their resources to promote their personal or political agenda rather than enhancing the welfare of the populace. Respondents complained about wrong targeting of beneficiaries of poverty alleviation programmes. They reiterated that political polarization of poverty alleviation programmes has contributed to such programme failures. As a result of corruption and politicization of poverty reduction programmes, it was observed that there was poor collaboration between district assemblies and poverty alleviating NGOs, thereby hindering local developmental efforts to benefit the poor.

These constraints to poverty reduction greatly hinder productivity growth by reinforcing the adverse shocks when they occur. The efforts of stakeholders in poverty alleviation are weakened by these constraints.

**CONCLUSION AND RECOMMENDATION**

Poverty reduction in the northern part of the country is plagued with several constraints. Prominent of these constraints include erratic climatic conditions, inadequate financial credit, poor road network, market volatility of agricultural produce, bush fires, pest and disease outbreak, poor economic opportunities, violent conflicts, corruption and mismanagement of poverty reduction packages. The strength of this paper is that it does not only identify the constraints facing farmers in the northern part of Ghana but goes further to rank them based on severity. It is worth noting that in spite of the constraints confronting the farmers in the region the agricultural sector remains the major source of livelihood to majority of the people, most of whom are subsistence farmers.

It is recommended that central government and decentralized agencies, including district assemblies and poverty alleviation oriented NGOs give priority attention to farmers in the region. The flagship government agricultural policy of ‘one-village-one-dam’ should be taken more serious by government and other relevant stakeholders in the agricultural sector. Sustainable funding sources have to be secured for the construction of meaningful dams to support irrigation, thereby reducing the heavy reliance on the rain-fed agriculture which respondents described as ‘by God’s grace agriculture’. In the face of limited financial credit available to farmers in the region, it is also recommended that a sustainable source of agricultural credit be secured for farmers. The primary objective of the establishment of the Agricultural Development Bank (ADB) should be revisited by government to boost agricultural sector performance in the country through a reliable and sustainable agricultural financing.

**CONFLICT OF INTERESTS**

The author declares no conflict of interest.

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**REFERENCES**

Abokyi E, Henk F, Asiedu KF (2018). Public Buffer Stocks as Agricultural Output Price Stabilisation Policy in Ghana. Agriculture and Food Security 7(1):1-12.

Aleyomi MB, IseOloruukanni JO (2012). Africa and Millennium Development Goals: Constraints and Possibilities. Journal of Alternative Perspectives in the Social Sciences 5(1):53-73.

Bird K (2019). Addressing Spatial Poverty Traps. Overseas Development Institute, London.

Bird K, Shepherd A (2003). Livelihoods and Chronic Poverty in Semi-Arid Zimbabwe. World Development 31(3):591-610.

Bracking S (2003). The Political Economy of Chronic Poverty. Chronic Poverty Research Centre Working Paper 23. CPRC, Manchester.

Choudhary V, Christienson G, Josserand H, D’Alessandro S (2015). Agricultural Sector Risk Assessment in Ghana: Risk Prioritizations. Clark D (2006). The Capability Approach: Its Development, Critiques and Recent Advances. Global Poverty Research Group Working
Coleman JS (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology 94: S95-S120.

Darko DK (2013). Reducing Rural-Urban Migration through Local Economic Development: A Case Study of Sankpala Community in the Central Gonja District of Northern Region.

Fafchamps M, Gabre-Madhin E (2006). Agricultural markets in Benin and Malawi: Operation and performance of traders. African Journal of Agriculture and Resource Economics 1(1): 67-94.

Feagin J (2000). Racist America: Roots. Current Realities. and Future Reparations. Routledge, New York.

Ghana Statistical Services (GSS) (2018). Ghana Living Standard Survey 7. Poverty Trends in Ghana 2005-2017.

Gore C (2003). Globalization, the International Poverty Trap and Chronic Poverty in the Least Developed Countries. CPRC Working Paper 30. Available online at www.undp.org/povertycentre/publications/vulnerability/GloalisationLDGsCPRC.pdf. [Accessed online 11/6/20]

Hulme D, Shepherd A (2003). Conceptualizing Chronic Poverty. World Development 31(3): 403-423.

International Fund for Agricultural Development (IFAD) (2011). New realities, new challenges: new opportunities for tomorrow’s generation. Rural poverty report. Rome: IFAD.

Jalan J, Ravallion M (1997). Spatial Poverty Traps? Policy Research Working Paper 1798. Washington, DC: World Bank.

Jalan, J, Ravallion M (2002). Geographic Poverty Traps? A Micro Model of Consumption Growth in Rural China. Journal of Applied Econometrics 17(4): 329-346.

Jayne TS, Mather D, Mghenyi E (2010). Principal challenges confronting smallholder agriculture in sub-Saharan Africa. World Development 38(10): 1384-1398.

Karoly LA (2001). Investing in the Future: Reducing Poverty through Human Capital Investments in Understanding Poverty. [Eds] Danziger, Sand H, Haveman. Russell Sage Foundation, NY.

Maynard R (1997). Kids having Kids: Economic Costs and Social Consequences of Teen Pregnancy. The Urban Institute Press, Washington, DC.

Ministry of Food and Agriculture (2015). Agriculture in Ghana, Facts and Figures.

Minot N, Bauich B, Epprecht M (2006). Poverty and Inequality in Vietnam: Spatial Patterns and Geographic Determinants. Washington, DC and Brighton: IFPRI and IDS.

Murray C (1984). Losing Ground. New York: Basic.

Pender J, Hazell P (2000). Promoting sustainable development in less-favored areas: overview of 2020 Vision Initiative, Policy Brief Series, Focus 4. Washington, DC: International Food Policy Research Institute pp. 3-4.

Portes A (1998). Social Capital: Its Origins, and Application in Modern Society. Annual Review of Sociology 24(1): 1-24.

Rankin B, Quane J (2000). Neighbourhood poverty and social isolation of inner-city African America families. Social Forces 79(1): 139-184.

Ravallion M, Wodon Q (1999). Poor Areas, or Only Poor People? Journal of Regional Science 39(4): 689-711.

Satterthwaite D, Milkin D (2014). Reducing Urban Poverty in the Global South.

Schiller BR (1989). The Economics of Poverty and Discrimination. Englewood Cliffs, NJ: Prentice Hall.

Sen A (2007). Children and Human Rights. Indian Journal of Human Development 1(2): 235-245.

Sen W (2016). What are the Causes of Poverty? https://borgenproject.org/what-causes-global-poverty/

Wood TN (2013). Agricultural Development in the Northern Savannah of Ghana. Doctoral Documents from Doctor of PlantHealth Program. 1. http://digitalcommons.unl.edu/planthealthdoc/1.

World Bank (2008). World Development Report 2008: Attacking Poverty. Washington, D.C: The World Bank.

World Bank (2010). World Development Report 2010; Development and Climate Change. Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/4387 License: CC BY 3.0 IGO.

World Bank (2018). Poverty and Shared Prosperity 2018: Piecing together the Poverty Puzzle.